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Cadillac Dealers

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Specifications in Brief

ENGINE—Four cylinder, four cycle; cylinders cast singly, 4½ inch bore by 5¾ inch stroke. Valve mechanism enclosed: cam shaft and generator shaft driven by silent chains from crank shaft. Five-bearing crank shaft, 2 inches diameter. Bearings, babbit with bronze backing.

HORSEPOWER—40-50.

COOLING—Water. Copper jacketed cylinders, copper inlet and outlet water manifolds. Centrifugal pump. Radiator, tubular and plate type of unequaled efficiency. Fan attached to motor, running on two point ball bearings; center distances of fan pulleys adjustable.

IGNITION—Delco improved Dual system. Current supplied by dynamo and dry cells. Single jump spark on magneto ignition; single jump or shower on dry cell ignition. Automatic spark control on both ignitions. Hand spark lever also provided.

LUBRICATION—Cadillac Automatic splash system, constant level; oil uniformly distributed. Supply maintained by mechanical force feed lubricator with single sight feed on cowl board.

CRANKING DEVICE—Delco electrical, patented.

CARBURETOR—Cadillac, hot water jacketed. An electric heating device is provided which vaporizes gasoline in the carburetor before the engine is cranked, thereby greatly facilitating starting in cold weather. Single adjustment. Auxiliary air control on steering column.

CLUTCH—Cone type, large, leather faced, with special spring ring in flywheel. Clutch readily removable and exceptionally easy to operate.

TRANSMISSION—Sliding gear, selective type, three speeds forward and reverse. Chrome nickel steel gears. Chrome nickel steel transmission shaft and clutch connection shaft running on five annular ball bearings.

AXLES—Rear, Cadillac Timken, two-speed direct drive, patented, full floating type; special alloy steel live axle shafts; principal bearings, Timken. Front axle, drop forged I beam section with integral yokes; drop forged spring perches, tie rod ends and steering spindles. Spindles fitted with Timken bearings at upper ends. Gear ratio, 3.66 to 1 and 2.5 to 1. (See detailed description of rear axle).

DRIVE—Shaft, to two sets of bevel gears of special cut teeth to afford maximum strength. Gears cut by us. Two universal joints, the forward telescopic, each enclosed in housing and running in oil bath.

BRAKES—One internal and one external brake direct on wheels, 17 inch x 2½ inch drums. Exceptionally easy of operation. Both equipped with equalizers.

STEERING GEAR—Our own patented worm and worm gear sector type, adjustable, with ball thrust bearings. 18 inch steering wheel with corrugated walnut rim, aluminum spider. Steering wheel hinged to swing downward, facilitating entrance to front seat at right side of car.

FRAME—Pressed steel, channel section, width 30 inches in front, 33 inches in rear.

WHEELS—Wood, artillery type, fitted with Q. D. demountable rims, (option, standard Q. D. rims) special large hub flanges and special strength heavy spokes.

TIRES—36 inches by 4½ inches. United States.

WHEEL BASE—120 inches.

TREAD—56 inches. Option 61 inches.

SPRINGS—Front, semi-elliptical 36 inches long by 2 inches wide; Rear, three-quarter platform; sides, 54 inches long by 2 inches wide. Rear cross 39½ inches long by 2 inches wide.

CONTROL—Hand gear-change lever for transmission and hand brake lever at driver's right, inside the car. Convenient electric switch for rear axle gear control. Service brake, foot lever. Clutch, foot lever. Throttle accelerator, foot lever. Spark and throttle levers at steering wheel. Carburetor auxiliary air control for starting, hand lever on steering column.

GASOLINE SYSTEM—Air pressure. Twenty gallon tank situated at rear of chassis. Pressure pump operated from cam shaft.

OIL CAPACITY—6 quarts, sufficient for 600 to 900 miles.

UPHOLSTERING—Hand buffed black leather over genuine curled hair and deep coil steel springs.

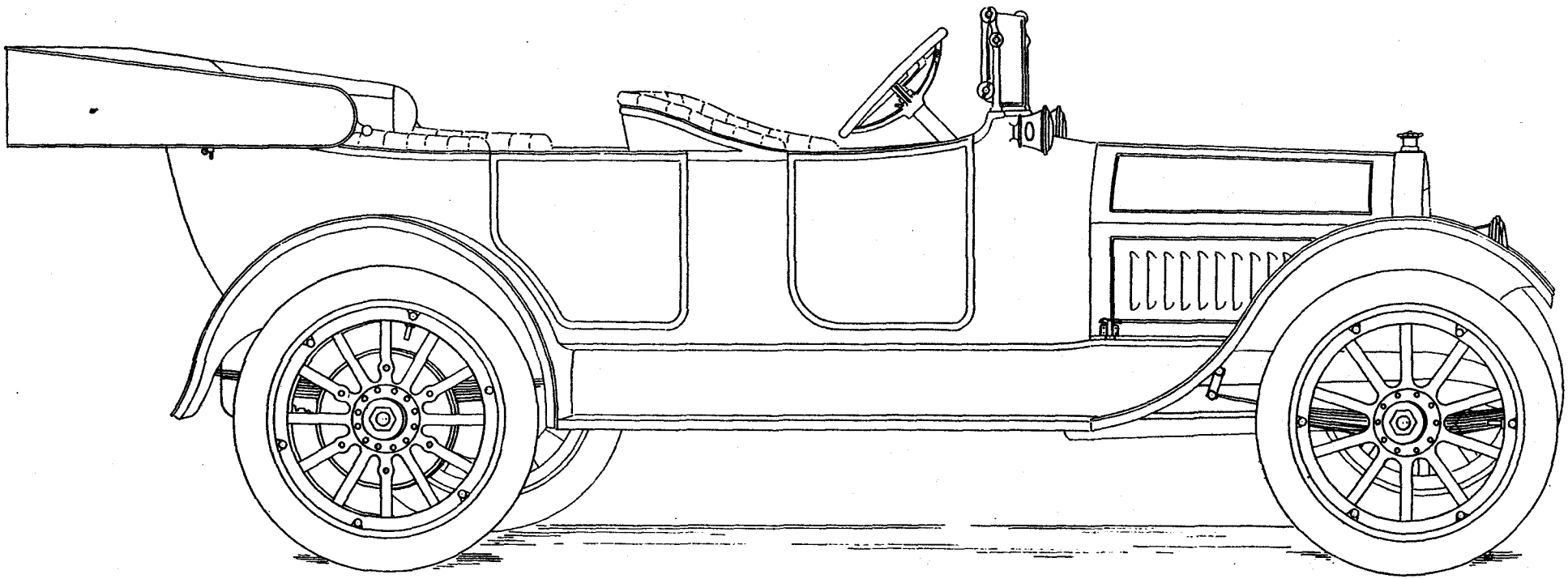
RUNNING BOARDS—Linoleum covered, with metal binding.

FINISH—Calumet Green with gold stripe.

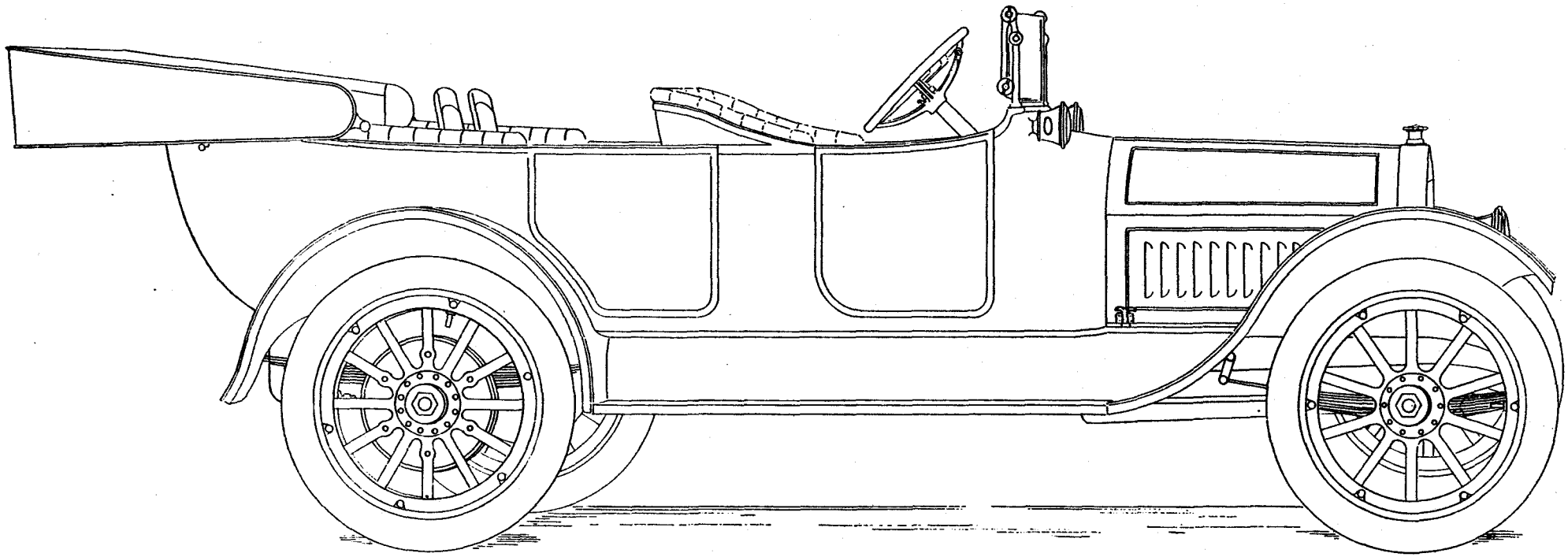
STANDARD EQUIPMENT—Cadillac top, windshield, full lamp equipment, especially designed for Cadillac cars, black enamelled. Gasoline gauge, electric horn, power tire pump, foot rail, robe rail and cocoa mat in tonneaux of open cars, tire irons, set of tools including tire repair kit. Warner Autometer.

No allowance will be made for any part of standard equipment if ordered omitted.

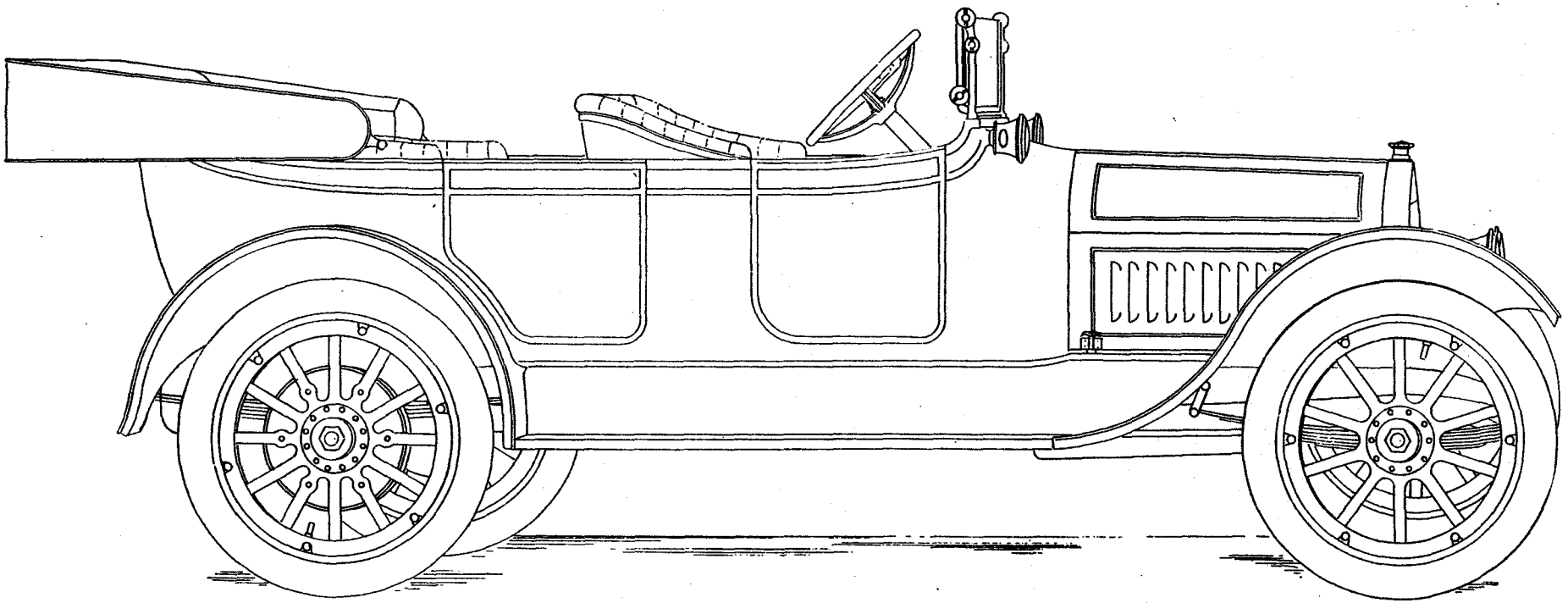
Note—The Cadillac Motor Car Company reserves the right to make changes or improvements at any time without incurring any obligations to install same on cars previously sold.



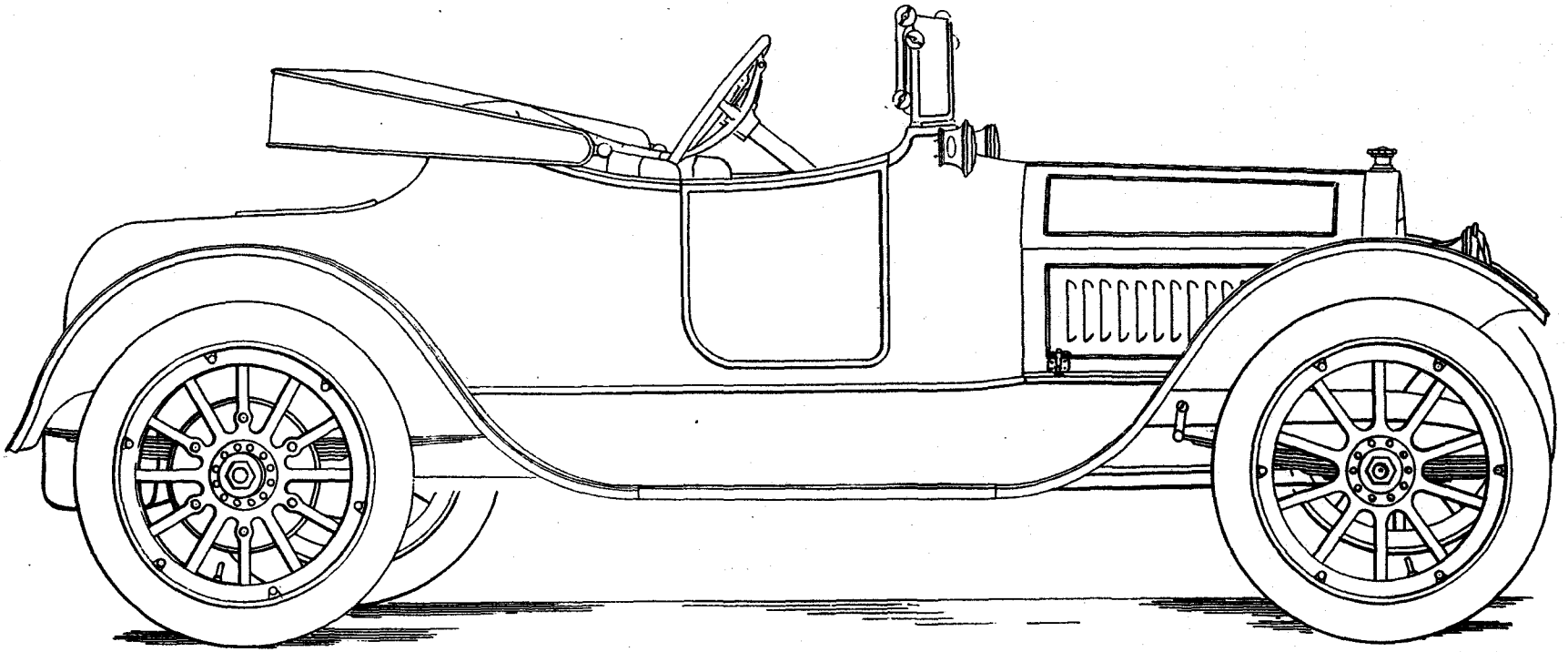
1914 Cadillac Touring Car
Five Passenger
Price $1975, F. O. B. Detroit



1914 Cadillac Seven Passenger Car
Price $2075, F. O. B. Detroit



1914 Cadillac Phaeton
Four Passenger
Price $1975, F. O. B. Detroit



1914 Cadillac Roadster
Price $1975, F. O. B. Detroit

Landaulet Coupe

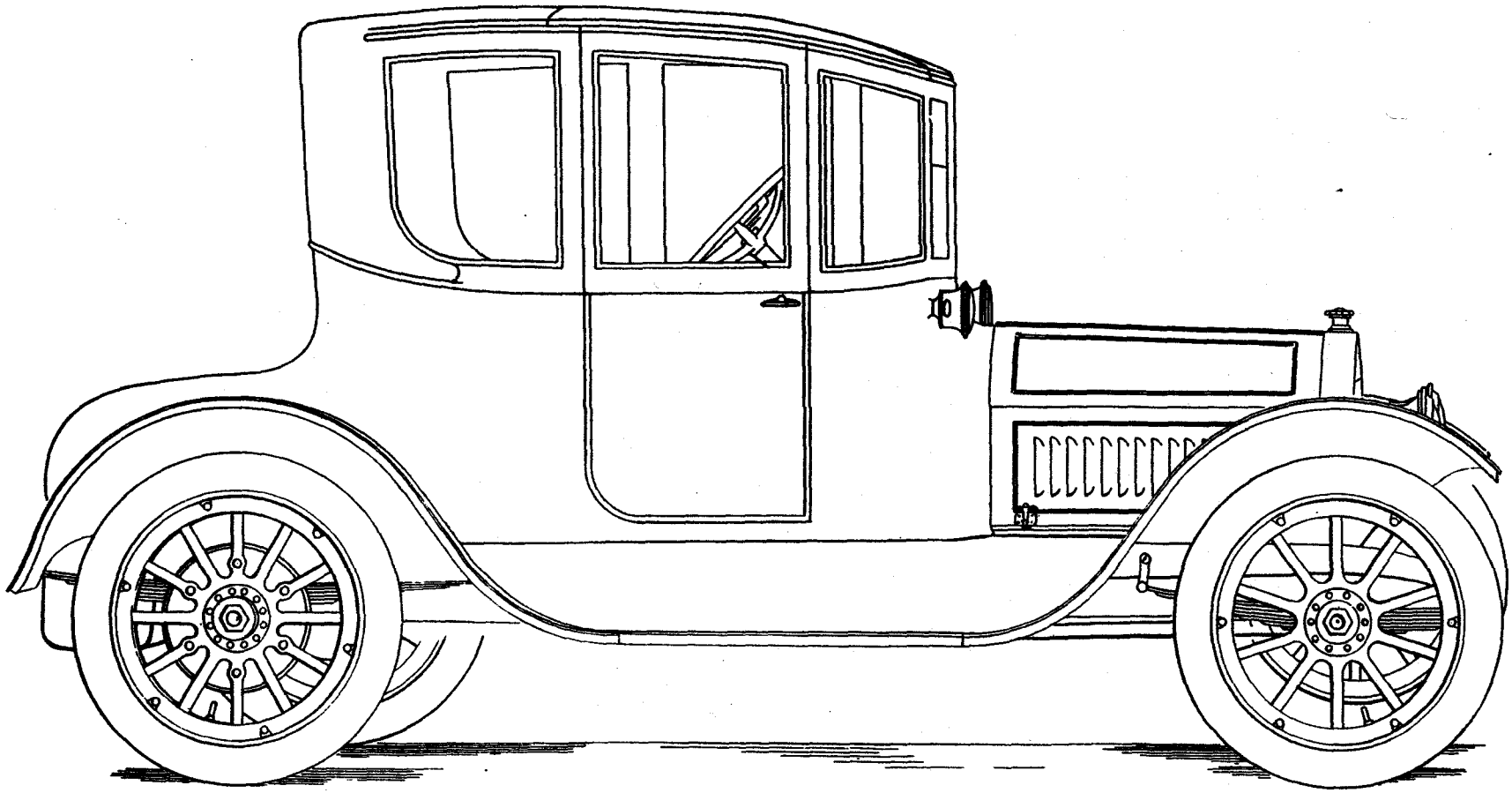
The body, with the exception of the back quarter and top, is made of aluminum. The back quarter and top are of best grade long grain bright finish landaulet leather. The top breaks directly behind the doors and folds back. The joints of the back quarter are concealed in the top.

The seat is straight and accommodates three passengers. The upholstering is in black hand buffed leather.

The lower panels and doors are finished in Calumet green with gold striping. The upper panels are finished in black.

The windows in the doors and body are of heavy crystal plate glass $\frac{7}{32}$" thick and are sashless. A knurled adjustment regulates the opening of the door windows and locks them at any opening desired. The doors are 25" wide and have concealed hinges.

The windshield is of the clear vision type. The upper half is double, providing protection and a clear vision when raining.



1914 Cadillac Landaulet Coupe
Three Passenger
Price $2500, F. O. B. Detroit

Inside Drive Limousine

Body and top are made of aluminum, and upholstered with Halo Cloth.

There is seating capacity for five persons. The rear seat accommodates three persons comfortably. The driver's seat is stationary and the left front seat is of the folding type.

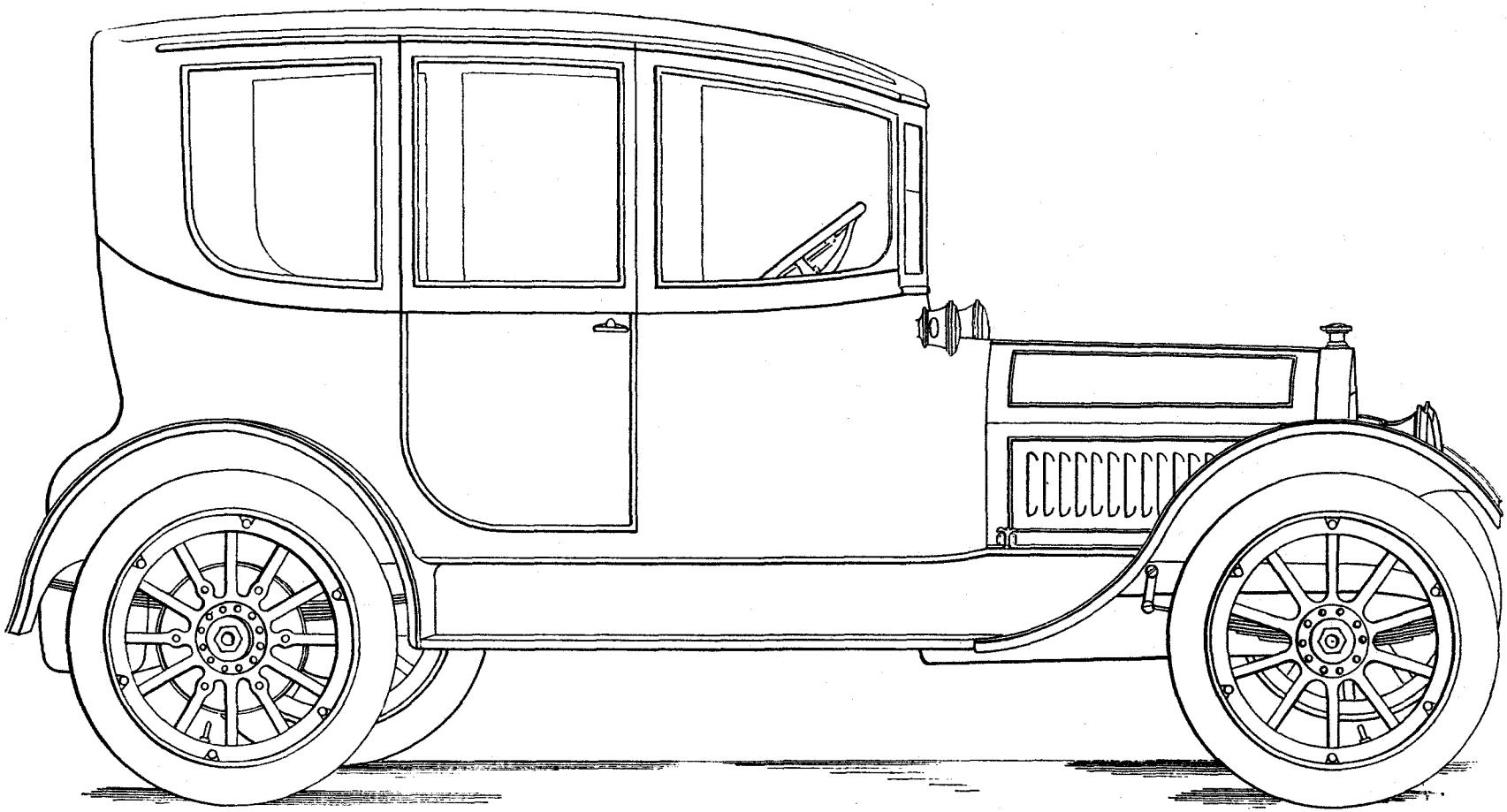
The windows in the doors and body are of heavy crystal plate glass 7/32" thick and are sashless. A knurled adjustment regulates the opening of the door windows and locks them at any opening desired. The rear window of the body is oval shaped and stationary.

The lower panels and doors are finished in Calumet green with gold striping. The upper panels are finished in black.

The rear of the body is arranged so that an extra tire can be placed under the rear seat and is accessible from the outside of the body. A tool box is under the driver's seat.

Doors are 26" wide and have concealed hinges.

Windshield is of the clear vision type. Upper half is double, providing protection and clear vision when raining.



1914 Cadillac Inside Drive Limousine
Five Passenger
Price $2800, F. O. B. Detroit

Limousine

Body and top are made of aluminum.

Rear compartment seats five passengers comfortably. It is upholstered in green broadcloth.

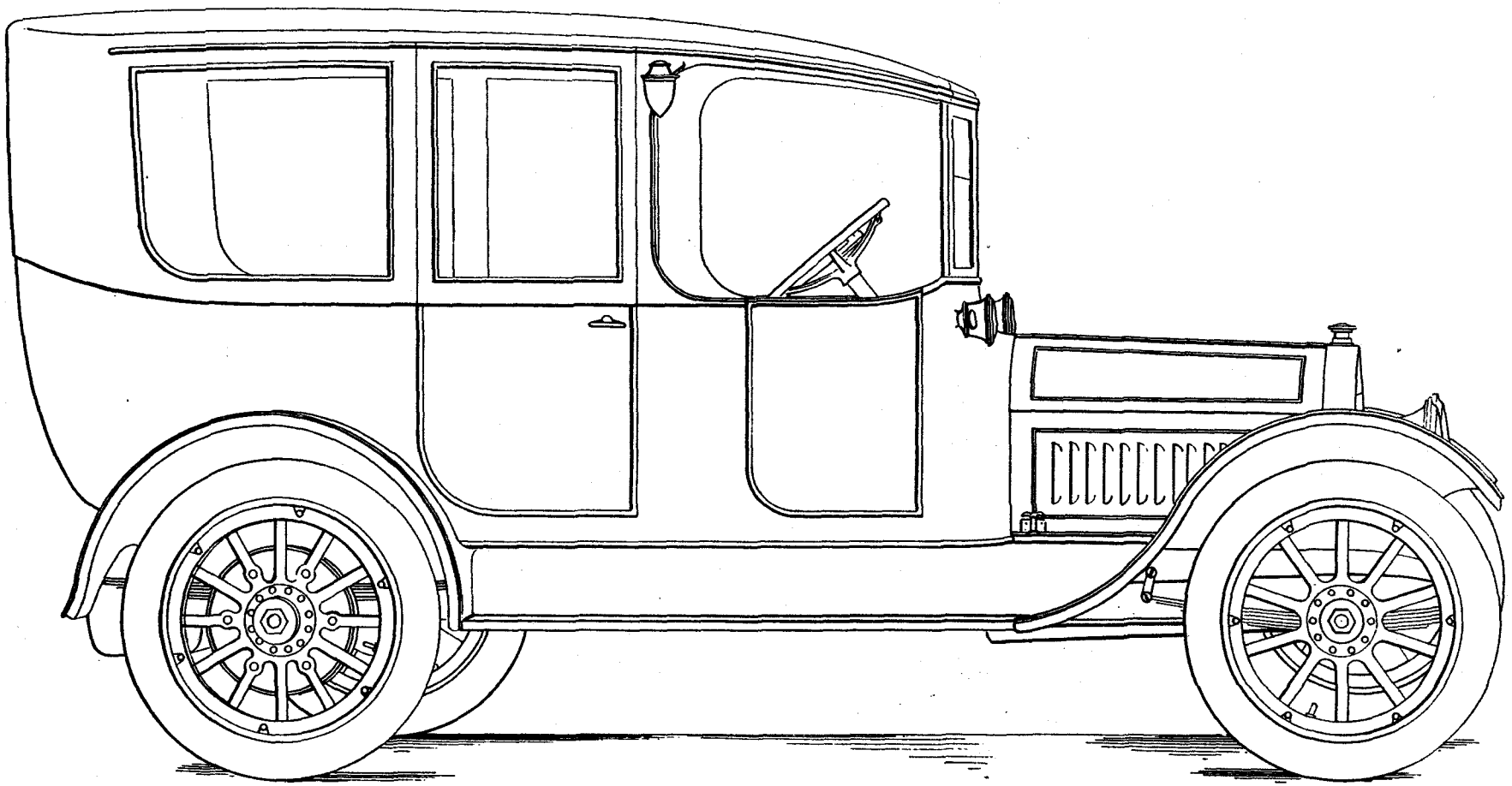
The front or driver's compartment is open and upholstered in waterproof Moto Cloth.

The windows in the body and doors are of heavy crystal plate glass 7/32" thick and are sashless. A knurled adjustment regulates the opening of the door windows and locks them at any opening desired. The rear window of the body is oval shaped and is stationary.

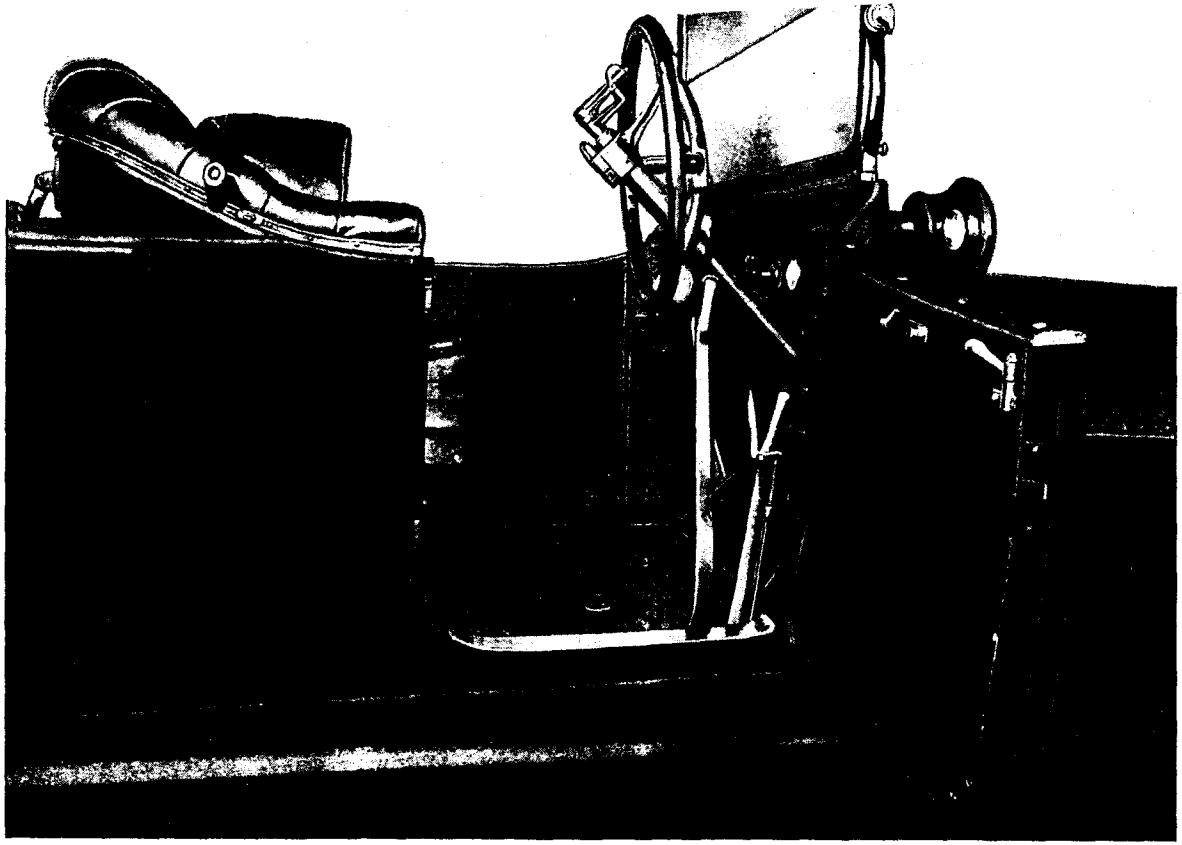
The lower panels and doors of the body are finished in Calumet green with gold striping. The upper panels are finished in black.

Doors are 25" wide and have concealed hinges.

Windshield is of the clear vision type.

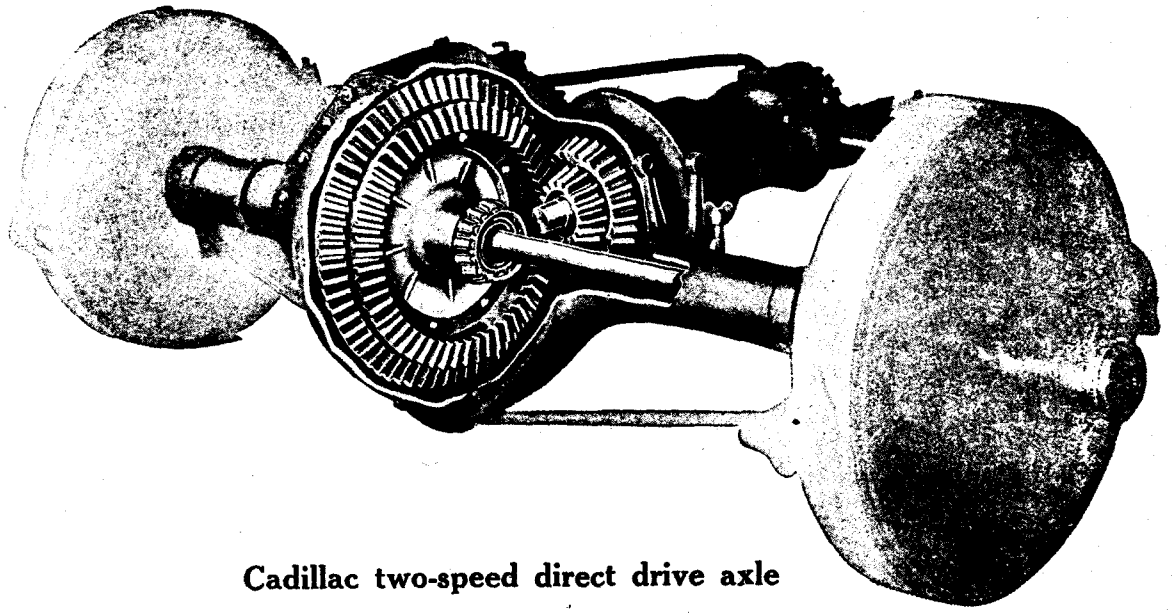


1914 Cadillac Standard Limousine
Seven Passenger
Price $3250, F. O. B. Detroit



1914 CADILLAC

Showing hinged steering wheel and front seat cushion permitting easy entrance and exit at right side for front seat passengers.



Cadillac two-speed direct drive axle

In this new axle the Cadillac Company once more gives evidence of its leadership in motor car development and motor car progress.

The advantages of this axle do not lie in its being particularly an improvement so far as its functions as an axle are concerned, but rather in the manifold advantages attained in other directions through the medium of the axle.

In place of the single bevel pinion and single bevel driving gear common to ordinary construction, there are two bevel pinions and two bevel driving gears. This affords two different gear ratios, each driving direct from the engine to the axle without intermediate gearing.

The usual single direct drive gear ratios range from about 3.5 to 1 down to 4 to 1 according to the car. Any single gear ratio is necessarily what it is, because a single gear ratio must be, or should be, the particular one which is best adapted for all around general use.

No one single gear ratio can possibly be just right for all speeds and for all conditions. But by using two direct gear ratios we have exactly doubled the means for promoting the economical and efficient application of power developed by the engine to the driving of the car.

In the new Cadillac axle we have, as before stated, two direct drive gear ratios.

The low direct drive gear, which is 3.66 to 1, is especially adapted for city driving, where starting, stopping and slowing down are frequent and where cautious operation is necessary.

The high direct drive gear ratio, which is 2.5 to 1, is of special advantage where speeds of about 16 miles or more per hour are permissible and desirable.

The change from one gear ratio to the other is made by means of a simple, convenient electric switch.

The advantages of the high direct drive gear ratio lie primarily in the fact that with it, any given speed of the engine produces an increase of about 42 per cent in the speed of the car. For example; at an engine speed of 700 revolutions per minute, with the low direct gear engaged, the car will travel approximately 21 miles per hour; while on the high direct gear it will travel approximately 30 miles per hour with no increase in engine speed.

This great increase in car speed in its relation to engine speed accomplishes a number of desirable things.

Among these is a decrease in gasoline consumption for a given mileage. This is due to the fact that with the engine turning over slowly—comparatively speaking—a given quantity of gas is utilized to greater advantage and generates more actual power than with the engine turning over more rapidly.

Friction also is materially reduced by reason of the parts operating more slowly, and this, too, is a factor in reducing gasoline consumption when driving on the high gear.

Another great advantage is that with this direct drive high gear ratio, there is obtained an extraordinarily luxurious smoothness in running, together with a marked quietness and a comparative freedom from the vibration which, to a greater or less extent, is ever present when traveling at high speed with a low gear ratio.

In attaining these much desired qualities, instead of adding complications to the power plant which make for greater fuel consumption and for greater upkeep expense, they have been attained by methods which are strikingly the reverse, viz., by methods which lessen the fuel consumption, methods which decrease friction with its resulting wear and methods which make for longer life, together with an appreciable decrease in the cost of operation and maintenance.

CADILLAC MOTOR CAR COMPAN
1914 Instruction books
5th ed.

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Instructions

For care and operation



A copy of this book is packed in the tool kit with each new 1914 Cadillac when shipped from the factory. If lost, a duplicate will be mailed on receipt of

PRICE, 25 CENTS

When ordering be sure to specify 1914 Cadillac Instruction Book.

Cadillac Motor Car Company

Detroit, Michigan, U. S. A.

FIFTH EDITION

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Part I

Operation and General Care

Important.

Read this page carefully.

The information, advice and instruction contained in this book are published because the user of a motor car needs them. But if the user fails to heed the advice given the loss is not wholly his but partly ours as well.

The Cadillac car in the hands of an operator who will give it the reasonable consideration to which it is entitled, and which every car requires, will run as smoothly and as quietly as is possible for any motor car to run. No car will give more satisfaction nor will any car stand more abuse. But no car can be expected to stand continual abuse without resenting it sooner or later.

We want Cadillac cars to render unfailing service and satisfaction. They are built for that purpose but the user must do his part after the car comes into his possession. We furnish a car that is capable of rendering the best of service and we furnish the instructions which will guide the user toward obtaining that service. But if he persists in ignoring the instructions and in substituting his own ideas there is no one but himself upon whom he can rightfully place the responsibility for any difficulties which may result.

There is a wealth of information, advice and instruction contained in this book. There is much that the owner may never have to use, but it is here to be used in the event that it is needed. There is other information which a user cannot get along without, no matter how much he may think he knows, nor how much previous automobile experience he may have had.

We will merely draw attention here briefly to the importance of a few points which are treated at greater length in the body of the book and which should be studied carefully.

See that the car is always thoroughly lubricated and supplied with gasoline and water.

See that all nuts, bolts and screws are tight.

If ever some unusual sound develops, investigate and find out what causes it and have it remedied.

See that spark points are the correct distance apart.

Do not tamper with the carburetor unless you know that it needs attention and don't touch it even then unless you know how to adjust it.

Do not tinker with your car unless you know how to do what you wish to accomplish.

Keep the tires well inflated. Four and one-half inch tires should be kept inflated to 90 pounds pressure.

Do not attempt to drive your car in crowded thoroughfares or "tight" places until you have thoroughly mastered its operation. Always keep your car under full control.

Study carefully the directions covering the starting of the motor and the car, the driving, the shifting of gears and the stopping of the car.

Study particularly the instructions concerning the correct handling of the throttle and spark levers, for upon the correct handling of these depends whether you will obtain the maximum efficiency of the motor and the smooth, noiseless operation of the car and whether you will avoid the troubles which may arise from their incorrect handling.

The Care of a Motor Car.

In the care and operation of an automobile, much must be left to the judgment of the operator, who should study the construction of his car and thoroughly acquaint himself with its mechanism, the functions of its various parts and the "why" of everything connected with it. Remember that the difference between a comprehensive understanding of your automobile and the superficial knowledge possessed by most owners and drivers is the difference between having troubles and not having them.

The old adage, "A stitch in time saves nine," applies with special significance to the motor car. Intelligent care and proper attention will often correct a needed adjustment or lubricate a bearing that is becoming dry, but which if neglected, may cause serious and possibly expensive damage.

On the other hand is frequently found the user who is constantly tinkering with his car when there is no necessity for it. Avoid both extremes. If after seeing that all bolts, nuts and screws are tight, your car is running well, leave it alone. Many users drive their Cadillacs for months without touching a wrench to them. If something goes wrong and you are not sufficiently acquainted with the construction to know what the trouble is, don't experiment but take your car to someone who does know.

The care of an automobile may be boiled down to two important instructions—"Lubricate" and "Adjust." It will be readily understood that where one part moves or works upon another, there is always more or less friction and these parts must be oiled more or less frequently, including springs, shackle joints, connecting rod bearings, etc.

But do not stop with oiling only at the points mentioned. Look the car over carefully and you will find numerous oil holes, oil cups and grease cups. Remember that these are placed there for a purpose. **THAT PURPOSE IS OIL.** Oil holes frequently become stopped up. When they do, be careful not to overlook them.

Part two of this book gives detailed instructions regarding lubricating. Be sure to read and observe them carefully.

Great care is also necessary to see that all nuts, bolts and screws about the car are kept properly tightened. Most important parts subject to wear are, wherever possible, provided with adjustments for taking up such wear and these should be inspected occasionally and receive attention whenever required.

By far the greater portion of "automobile troubles" is the result of negligence and carelessness, while the reasonable care to which any piece of machinery is entitled will insure long life and satisfactory service.

TO PLACE MOTOR AND CAR IN RUNNING CONDITION.

When a car is shipped from the factory, the gasoline and water are drained off, therefore before placing the car in use, the supply of gasoline and water should be replenished. The car should also be thoroughly lubricated in accordance with the instructions contained in this book.

TO FILL THE WATER CIRCULATING SYSTEM.

Remove the cap from the top of the radiator and fill the radiator with clean water. If the radiator has previously been drained, it is advisable after the first refilling to run the motor two or three minutes so that the pump will cause the water to force all the air out of the entire system. It may then be found that additional water will be required to fill the radiator.

Make sure that the radiator is full or nearly so at all times. Otherwise, the water circulation may stop and cause the motor to heat and pound.

In cold weather a good anti-freezing mixture should be used. A 25 to 30 per cent solution of glycerine and water is very good for this purpose.

In using anti-freezing solution, do not put in more than sufficient to cover the tubes to a depth of a half inch as any in excess of that will be wasted, due to expansion.

It is well to put in the anti-freezing mixture early in the fall or a cold snap might catch you suddenly and cause expensive damage.

Note:—In very cold weather it is a good plan to place a shield made of duck, rubber cloth or other suitable material over about half of the front of the radiator. This will prevent so much cold air striking it.

GASOLINE SYSTEM.

Clean gasoline, strained through a chamois skin, should be used, as water, lint or grit will prevent the proper working of the carburetor. The gasoline tank is provided with a settling chamber on the under side to catch any particles of dirt or foreign matter. The drain plug at the bottom of the chamber should be removed occasionally and the settlings drawn off. A valve is provided at the tank, by which the flow of gasoline to the carburetor may be shut off.

GASOLINE.

The gasoline obtainable in different parts of the country varies to a greater or less degree, hence it is manifestly impossible to adjust a carburetor at the factory with one grade and have it equally efficient with another. Some gasoline tests as low as 58 and other tests as high as 74 to 76. The adjusting at the factory is usually done with an intermediate grade. When the higher grades are used, the carburetor efficiency will be increased by slightly increasing the supply of air. When a lower grade is used the carburetor efficiency is increased by decreasing the supply of air. In other words, the higher the grade or test of the gasoline the greater is the amount of air necessary. The supply of air to the carburetor is regulated by the screw "B" shown in illustration of carburetor.

INSTRUCTIONS

FOR STARTING AND OPERATING.

TO START THE ENGINE.

CAUTION

The sector directly above the steering wheel, upon which the spark and throttle levers move, is not marked the same on all 1914 cars. On some cars it is marked "Bat. C" and "Mag. C." On others it is marked "Start" and "Driving range."

Do not fail to keep the spark lever at the extreme left on the sector when starting the engine, providing the sector is marked "Start" at the extreme left and "Driving range" at the right. In case it is marked "Bat. C" and "Mag. C" the spark lever should be at "Bat. C" when starting.

Be sure that the control lever is in neutral position and that the hand brake lever is set.

Note the pressure of air in the gasoline tank. (This is indicated by the air pressure gauge on the dash.) If the pressure is less than one pound it should be increased to a pressure of between one pound and one and one-half pounds by means of the hand air pump on the dash. (After the motor is started the air pressure is automatically maintained.)

Do not prime the carburetor with the primer on the dash (except in extremely cold weather) until after you have tried to start the engine as follows:

Pull up on the auxiliary air valve lever, which is on the steering post under the steering wheel.

Place the spark lever at the extreme left on the sector and the throttle lever about 2 inches from the extreme left. (If the sector is marked "Bat. C" and "Mag. C," place the spark lever at "Bat. C" on the sector.)

Move the ignition switch lever up, thereby switching on battery ignition.

Hold in button at top of ignition switch and push forward on clutch pedal. This will bring the starter into operation and will cause the engine to turn over.

As soon as the engine fires and commences to run on its own power, which should be in a few seconds, remove the finger from the button and allow the clutch pedal to come all the way back. Push the air valve lever about one-half way down and move the lever on the ignition switch to the lowest position, thereby switching on magneto ignition. Move the spark lever to the right into the driving range. (If the sector is marked "Bat. C" and "Mag. C" move the spark lever to the right on to that portion of the sector between "Mag. C" and fully advanced position which is at the extreme right of the sector.)

The air valve lever should be pushed all the way down as soon as the engine is warm enough to permit doing so.

NOTE THIS PARTICULARLY.

If the engine doesn't start in 30 seconds, don't continue to crank. Look for the cause. You may have forgotten to put on the switch, or maybe you have no gasoline; no matter how sure you feel—look and see. We have been fooled ourselves.

The starter will crank the engine. Ignition and gas must be present to make it run.

In cold weather, if the engine is not started in 15 or 20 seconds, allow the clutch pedal to come clear back. This will stop the cranking operation. Now prime the carburetor, but be very careful not to prime it too much.

The primer should never be held down more than from 10 to 15 seconds.

Then start the engine, following the instructions given.

When stopping the engine, it is a good plan to pull up the auxiliary air valve lever on the steering column, but push it down again as soon as the engine has actually stopped. Pulling the lever up enriches the mixture which is drawn into the cylinders and makes it easier to start the engine the next time.

TO START THE ENGINE IN COLD WEATHER.

In cold weather (also in warm weather, providing the motor has been standing for some time) starting will be facilitated if the auxiliary air valve lever is pulled up when starting the engine. The auxiliary air valve lever should be pushed down as soon as the engine is warm enough to permit doing so.

An electric heating unit is provided in the carburetor to facilitate starting either in very cold weather or when a poor grade of fuel is used.

When you desire to use the heater, first hold down on the primer on the dash from ten to fifteen seconds. Then switch on battery ignition and hold down on the switch button at the right of the brake pedal.

The time you should hold down on the button depends upon the temperature of the air and the grade of fuel used. In very cold weather or with a poor grade of fuel it may be necessary to hold the button down as long as one and one-half minutes. With a good grade of gasoline, however, about twenty seconds should be enough.

If the engine does not start readily after using the heater, do not continue to crank. Allow the clutch pedal to come all the way back, prime the carburetor and again use the heater as above directed.

CAUTION.

The action which causes the engine to "turn over" is produced by a gear of the electric motor sliding into mesh with the teeth in the face of the fly wheel, similar to the meshing of the teeth in the transmission. When pushing forward on the clutch pedal to throw these gears into mesh, if it should happen they should be in just such a position that the ends of the teeth in the starter gear come against the ends of the teeth on the fly wheel, instead of the teeth in one sliding between the teeth in the other, be careful not to try to force them or you will strain something. Simply let the clutch pedal come back and try again and by that time they will probably have changed their relative positions sufficiently to allow the teeth to mesh properly.

TO START THE CAR.

The Cadillac transmission has three forward speeds and one reverse. A lever is provided at the right of the driver's seat for shifting to the various speeds in the transmission.

The Cadillac rear axle has two direct drives: a high direct and a low direct. A switch lever is placed on the side of the right hand door. Holding back the switch lever when the car is running, and pushing forward on the clutch pedal will bring the low direct axle drive into operation.

Holding forward on the switch lever when the car is running, and disengaging the clutch will bring the high direct axle drive into operation. (When you disengage the clutch in the act of shifting from one axle gear ratio to the other, move the clutch pedal quickly and push it all the way down to the floor.)

CAUTION: Do not attempt to shift from one axle gear ratio to the other except when the car is moving.

It will be seen that the plate within which the control lever travels for changing from one transmission gear to the other resembles the letter "H" in shape.

The positions for the control lever for the several speeds are as follows: Reverse—lower left corner. Low—upper left corner. Intermediate—lower right corner. High—upper right corner.

It will also be noted that there is an opening through which the transmission control lever passes in being moved from one side of the "H" slot to the other. When the lever is in this opening it is in neutral position. In other words, the main engine clutch might be engaged and some of the transmission gears running idle, but would not be in mesh with any of the gears which connect with or drive the rear axle.

As this is the selective type of transmission, the operator may shift from any transmission gear to any other transmission gear without "going through" another. It must be borne in mind, however, that the clutch must be disengaged by the left pedal before the gears can be shifted from one to the other.

CAUTION: The driver should not allow his foot to rest against the clutch pedal while driving, because even a light pressure may slightly disengage the clutch and cause it to slip.

To start the car, place your foot against the left pedal and hold the main engine clutch out. Then disengage the hand brake by means of the hand brake lever, still keeping the clutch held out with the foot. If the car is standing on a grade it will be necessary to hold the car with the foot brake until ready to start.

Next, place the control or gear change lever in the "low" position (upper left corner). Then open the throttle slightly by means of the accelerator pedal, or by the throttle lever above the steering wheel, and permit the main engine clutch to engage gradually by allowing the foot to come slowly toward you. After the car has gotten under way on low gear, release the clutch and shift the control lever into the "intermediate" position, (lower right corner). SEE NOTE. In shifting from low to intermediate gear, if you notice a tendency of the gears to clash it will be advisable to pause a moment in neutral position before shifting into intermediate. After the car has gotten under way on intermediate, release the clutch and shift into "high" position (upper right corner).

As stated before, the Cadillac axle is fitted with two direct drives, each having a different gear ratio—a high direct axle drive and a low direct axle drive. If you desire to run the car at speeds greater than sixteen (16) miles to eighteen (18) miles an hour for long stretches on good roads in country which is not too hilly, the shift should be made so as to bring the high direct axle drive into operation.

To shift to the high direct axle drive hold forward on the switch lever, then push down on the clutch pedal (when making this change move the clutch pedal quickly and push it all the way down to the floor board). Operating the car in the high direct drive at speeds greater than 16 to 18 miles per hour will result in the reduction of the engine speed for any given traveling speed and will result in a smoother running motor and greater fuel economy.

If you desire to reduce the traveling speed to less than 16 to 18 miles an hour, or if this becomes necessary in climbing grades or negotiating muddy or sandy roads, the shift should be made so as to bring the low direct axle drive into operation.

In case it becomes necessary to further reduce the gearing between the engine and the rear axle, the transmission shift should be made from the "high" to the "intermediate," and from the "intermediate" to the "low," if the last becomes necessary.

If you desire to start the car backwards, the lever should be set in the reverse section of the "H" plate (lower left corner), the throttle opened slightly and the clutch allowed to engage slowly as before directed.

When it becomes necessary to shift down from high to intermediate gear, a little care in the operation will avoid the grinding noise caused by the teeth in their effort to mesh when one gear is travelling at greater speed than the other.

In shifting from high to intermediate gear in hill climbing, or at other times when it becomes necessary, first allow the car to slow down, and after disengaging the clutch make the shift from high to intermediate gear quickly. Unless the shift from high to intermediate is made quickly, the difference in speeds between the two gears, which mesh to make intermediate speed, will be great, and consequently considerable noise will result.

If the shift from the high to the intermediate speed is made in the following manner practically no noise should result. It is best for the beginner to shift as explained above. After he has become perfectly familiar with gear shifting the following method may be pursued.

Disengage the main clutch by the left foot pedal then bring the control lever to neutral position and allow the main clutch to re-engage for a second or two. Then disengage the main clutch again and at the same instant shift the control lever into intermediate position. Then allow the clutch pedal to re-engage. The whole operation can be performed in about five seconds,—in less time than it takes to read these instructions. A little practice will enable a driver to make the shift so quickly that other occupants of the car will not be conscious of it.

While it is mechanically possible to shift from low to high speed, it is bad practice, because this throws excessive strain on the high speed clutch connection. It is also bad practice to allow the main clutch to engage suddenly. This causes excessive strain on the entire driving mechanism. The clutch should always be allowed to engage gradually.

After the car has gotten under way, the speed may be controlled by the throttle lever or by the accelerator.

NOTE:—If the high direct axle drive is in operation, hold back on the switch lever when releasing the clutch before shifting into intermediate gear. This will bring the low direct axle drive into operation.

CAUTION: When shifting from the low direct axle drive to the high direct axle drive, if you do not push the clutch pedal forward far enough, or for other reasons do not immediately engage the high direct drive, do not again attempt it, but hold back on the switch lever, and disengage the clutch, thus re-engaging the low direct drive. When this is done, the switch lever may again be held forward, the clutch disengaged, and the high direct axle drive brought into operation.

After the car has gotten under way, the speed may be controlled by the hand throttle or by the accelerator.

TO STOP THE CAR.

First close the throttle and disengage the engine clutch by pushing forward on the left pedal. (Note:—If the high direct drive is in operation hold back on the switch lever on the door at your right when you disengage the engine clutch. This will bring the low direct drive in operation which is the correct position for starting.) Next shift the transmission control lever to neutral position. THIS MUST BE DONE. Then apply the hand brake by means of the hand brake lever and open the throttle about one inch or more on the sector. Move the ignition switch lever to the horizontal position, and at the same time pull up on the auxiliary air valve lever under the steering wheel.

HOW TO DRIVE A 1914 CADILLAC.

Driving an automobile does not mean simply starting, steering, applying the brakes and stopping. Pushing a wheelbarrow is one thing. Driving a more or less intricate piece of mechanism, like an automobile, necessarily is to some extent, and doing it right is quite another. To properly drive an automobile requires an understanding of the principles involved and the exercise of some intelligence and judgment.

We believe that we are safe in saying, that with well designed and correctly built automobiles, 95 per cent. of so-called troubles are directly traceable to abuse, carelessness, a lack of understanding of the principles involved and improper handling generally.

Some drivers seem to think that so long as the car "goes" that that is all there is to it. It is not.

Our object here is to endeavor to make clear a few points which some owners and drivers do not appear to fully comprehend, or which, if they do, they often ignore.

Taking it for granted that you have properly started the car, we will here deal more particularly with the handling of the throttle and spark.

To begin with, the driver should thoroughly understand what is going on inside the motor, and how, and why. If he understands these he is better able to realize why certain things must be done and why certain other things must not be done if he is to obtain the most satisfactory results, the greatest efficiency and the greatest economy, together with durability and long life of the motor and of the car. Not only these, but if proper care in operating is not exercised, serious damage is almost sure to occur, for which the car itself is in no way to blame.

A few words of explanation here will prove of advantage to those who may not be familiar with the principles of a gasoline engine and what makes it "go."

The Cadillac motor is of the four-cycle type, that is, there are four movements or strokes of the pistons and two revolutions of the fly-wheel to complete each power-producing cycle.

The gasoline is forced by air pressure from the tank to the carburetor. The carburetor is the instrument, by the action of which the gasoline is mixed with air and transformed into a vapor or gas. This gas is then drawn through the intake pipe and through the inlet valves into the cylinders of the motor, where it is ignited by the electric spark.

The quantity of gas supplied to the motor is regulated by the throttle lever at the steering wheel (the throttle lever is the longer of the two).

Moving the throttle lever to the right increases the supply of gas supplied to the motor and consequently increases the power and speed of the car. Moving this lever to the left decreases the supply and consequently reduces the power and speed of the car.

The action of the motor is as follows:

Starting, we will say, with a piston up, that is, at its highest point in the cylinder, it first goes down. As it does so, the inlet valve opens and through this valve a charge of gas is drawn into the cylinder. This movement of the piston is called the suction stroke. Then the inlet valve closes and the piston goes up and compresses the charge. This is called the compression stroke. At the completion of this compression stroke, the electric spark takes place at the spark plug. This spark ignites the compressed charge of gas and explodes it, driving the piston downward. This is what produces the force or power and is called the working stroke. Just before the piston

goes to its lowest point the exhaust valve opens, then when the piston goes up again it forces the burned gas out through the exhaust valve. By the time the piston has reached its highest point it has forced out practically all of the burned gas and having completed the four operations, it is now ready to commence all over again by going downward and drawing in a new charge.

All four of the cylinders work in the same way, but they do not all do the same thing at the same time. Counting from the front of the motor, while the first cylinder is on the working stroke, the second is compressing a charge, the third is exhausting and the fourth is drawing in a charge. The order in which the cylinders fire is 1, 2, 4, 3, etc.

The Cadillac motor is fitted with a dual ignition system, the current of electricity which produces the spark being generated by the dry cells or by the dynamo, according to the system on which the car is running. The source of current for ignition may be changed from one to the other by operating the ignition switch. When the ignition switch lever (which is the one at the right of the switch) is moved up, current is drawn from the dry cells for ignition. When the lever is moved down, current is drawn from the dynamo. When the switch lever is half way between these positions the current of electricity is switched off from both the dynamo and the dry cells and the motor will cease running.

When the pistons are at their highest position in the cylinders is, of course, the time when the charge is at its greatest compression, or in other words, when the gas is "jammed in the tightest." The spark occurring exactly at this instant produces a much more forceful explosion than if it occurred at a time when the charge was not so tightly compressed. It is just the same as a gun. If the powder is rammed in tightly, the explosive force will be greater than if it is loaded loosely.

But now there is another consideration.

If the electric spark were produced the very instant the contact in the timer is made, so that the charge of gas in the cylinder always exploded exactly at the moment the piston was at its highest point, regardless of the speed of the motor, then the spark could be set permanently in the one position and would not require changing. But such is not the case.

The current of electricity which produces the spark is generated by the batteries for the Delco system or by the Dynamo, according to the system on which the car is running.

This electric current does not flow continuously. There is a separate and distinct "spark" for each explosion, the current being "off" and "on" for each igniting process. This current circuit is closed and opened alternately by the timer in whichever system the motor is running on.

A certain space of time is consumed from the instant the circuit is closed until the spark takes place at the spark plug in the cylinder. While this space of time is but the merest fraction of a second, in fact almost infinitesimal, yet it is time just the same and must be taken into account when dealing with such a rapidly acting mechanism as an automobile motor.

The lapse of time required to produce the ignition is always the same no matter whether the motor is running ten revolutions or a thousand revolutions per minute. The rate at which the piston travels varies from the speed it travels when cranking the car, which is at the rate of about 80 feet per minute, up to as high as a rate of 1000 feet per minute.

You realize that when the motor is running at say 1000 revolutions per minute, the piston is naturally traveling many times as fast as it does when it is running at only 50 or 100 revolutions per minute. Therefore this must be compensated for by arranging to start the igniting process long enough ahead of time so that the climax will be reached just at the instant when the charge of gas in the cylinder is most tightly compressed, and that is when the piston is at its highest point.

Directly under the timer is a ring governor. The governor is so constructed that the spark is automatically advanced as the speed of the motor increases, and automatically retarded as the speed of the motor decreases. In this way, the "lag" in the ignition systems is automatically compensated for

The spark may, however, be advanced or retarded by the spark lever. (The spark lever is the shorter one.)

It will seldom be necessary to move the spark lever after the correct position has been found for it.

Ordinarily, the spark lever should be carried on that portion of the sector marked "Driving range." (If the sector is marked "Bat. C" and "Mag. C" the spark lever should ordinarily be carried on that portion of the sector between "Mag. C" and the fully advanced position which is at the extreme right of the sector.) It will seldom, if ever, be necessary to move the spark lever outside of the above limits, except for starting.

Just how much the spark should be advanced, or rather how much spark advance the motor will stand, depends largely on how fast it is running. The faster the motor is running the more the spark should be advanced. Bear in mind constantly, however, that there is such a thing as overdoing it and advancing the spark too far. When this is done, the ignition takes place before the charge has been fully compressed and consequently the piston is obliged to overcome the expanded gases of the exploded charge before it can commence on its power delivering stroke.

Furthermore, when the spark is advanced too far, a slight pounding noise in the motor is the result. This pounding is sometimes not noticed by the beginner, as it is usually but slight, owing to the substantial construction of the crank shaft and its five bearings, and by the uninitiated it is often accepted as permissible.

Advancing the spark too far is very injurious because by it the bearings, crank shaft and connecting rods are required to withstand strains which are greatly in excess of those produced when the ignition occurs at the proper moment. It also causes overheating of the motor. This latter point will be taken up in detail further on.

We have now covered the subject of advancing the spark and the results of advancing too far. Next comes the subject of not advancing it far enough and the results.

When the spark is not advanced as far as it should be, it is called a "retarded spark." With a retarded spark the charge is not exploded until after the piston has reached its highest point and compressed the charge and has started again on its downward movement. Therefore, the gas will, to some extent, have expanded again; consequently, when ignited in this condition, the force of the explosion is materially reduced and therefore a great deal more fuel is required to produce a given amount of power than when the charge is exploded just at the right instant.

IMPORTANT—When starting the engine always be careful to see that the spark lever is at the extreme left of the sector. (If the sector is marked "Bat. C" and "Mag. C" place the spark lever at "Bat. C" when starting.) If this caution is not observed and the spark lever should be advanced—that is, further up on the sector—it will cause the charge in the cylinder to be ignited too early, causing undue strain on the starter.

With a retarded spark and a late explosion, the combustion or burning of the charge of gas is not complete. This causes a great amount of carbon to be deposited on the wall of the cylinders, combustion chambers, piston heads, spark plugs, etc. It also causes the motor to heat to a much higher temperature, which causes a very severe action on the valves and valve seats. When the charge is ignited at just the right instant the combustion is practically complete, so that when the valves open a thoroughly burned charge passes out. On the other hand, when the charge is ignited late, the charge is still burning when it passes through the valve opening and tends to heat, burn, scale and cause pits on the valves and valve seats. In time, this creates a condition which prevents the valves from seating properly or fitting tightly, and therefore a loss of compression and a corresponding loss of power is the result.

There is still another most undesirable and detrimental condition which arises from the lack of proper spark regulation. For example:—

We have received two or three complaints in times past to the effect that the radiators boiled the water away and that it therefore becomes necessary to replenish the water supply every twenty or thirty miles.

In the three cases, the following was observed:

One was caused on account of the operator driving with his spark lever advanced altogether too far, consequently igniting the charge too early. This caused a slight knock in the motor, resulting in its heating much more than if the charge had been ignited at the proper time.

The second and more common cause of overheating is driving with a late spark, that is, not igniting the charge until after it had gone over the compression and started to expand again.

The third complaint was made because, as the complainant expressed it, "soon after the car was started the water ran out of the over-flow pipe and some water and vapor came out around the filler cap." This caused the user to conclude that the radiator was not adequate, because when he removed the filler cap, and "looked into the top of the radiator the water was down quite a ways."

The facts are these: when the radiator is filled to the limit, usually from city water pipes or a well, the temperature of the water is much lower than that of the atmosphere and perhaps from 125° to 150° lower than it afterwards becomes when the motor is running normally. It is one of nature's laws that if the receptacle be filled to the limit of its capacity with liquid at a low temperature, and the temperature of the liquid be then raised up to or nearly the boiling point, some of the liquid is bound to overflow and that when the liquid is allowed to cool again to the same low temperature that it was at first, the receptacle will not be full. In other words, when the temperature of liquid is changed, its volume or bulk also changes. When heated it expands, and when cooled it contracts.

The length of time that one filling of water or other cooling medium will serve will vary according to the conditions of the road and weather. When using only water for cooling, the radiator is usually completely filled and when the expansion, owing to the heat, takes place, about a pint or a little more is thrown out. However, when using a more expensive cooling medium, such as some anti-freeze compound, in cold weather, it is desirable to fill the radiator only to within a pint or a pint and a half from the limit of its capacity.

While it is not necessary that the radiator be always full, there should be at least one inch of water or other cooling medium above the tubes.

Now the question which no doubt presents itself to you is:

In what positions should the spark and throttle levers be carried to obtain the best results? No set rules can be laid down because there are so many different conditions which must be taken into account. The correct relative positions of the spark and throttle levers depend, first, upon the condition of the car itself in general and whether or not it is in good running order. They depend also upon whether the carburetor is correctly adjusted, and they depend on whether or not the timer itself is timed correctly. The condition of the road, whether smooth, rough, muddy or sandy; whether up hill, down hill or on a level; the weight of the load; whether going with or against the wind, especially if the top is up, all have more or less influence.

Where the roads are rough or heavy, or when climbing a hill or with a greater load, or against the wind it would be found necessary, in order to obtain the same speed, to increase the charge of gas by opening the throttle somewhat more, the exact amount depending on the increased labor the motor is obliged to perform.

To sum it all up, in order to obtain the greatest efficiency and at the same time the greatest economy of fuel, the car should be driven with no more throttle opening than is necessary, but with the greatest spark advance which the speed of the motor will permit, always being careful, however, to avoid advancing the spark too far.

TO COAST.

To coast on the level, close the throttle and disengage the main engine clutch by means of the left foot pedal.

When descending grades, a good method is to close the throttle, switch off ignition, and allow the engine to do the holding back as much as possible. This saves much wear on the brake band linings.

When descending grades up to four or five per cent, the resistance offered by allowing the car to drive the engine when "high speed" or "direct drive" is engaged is usually sufficient to control the speed. When the engine does not offer sufficient resistance the speed may be further checked by applying the foot brake.

When it is necessary to descend a very steep grade it is best to engage the intermediary or possibly the low speed gears before commencing the descent, and if the resistance of the motor thus obtained is not sufficient, supplement it by the foot brake. Bear in mind that the more the resistance of the motor is used in coasting the longer the brake band linings will wear and the brakes retain their adjustment.

The principle of this method will be understood when you realize that the same combination of gearing which changes the ratio between the engine shaft and the rear axle, which makes it easier for the engine to drive the car, will, when the car is compelled to drive the engine, have exactly the opposite effect, which is the case when the above method is used in descending a hill.

Don'ts
For Operating

Don't attempt to shift from one axle gear ratio to the other, except when the car is moving.

Don't allow the clutch to engage suddenly.

Don't prime the carburetor too much in warm weather.

Don't run the car at speeds less than 16 to 18 miles an hour in the high direct axle drive.

Don't attempt to shift into reverse gear when the car is moving ahead.

Don't attempt to shift from high into intermediate gear when the car is running at a high rate of speed.

Don't attempt to shift from second to low gear unless the car is running very slowly.

Don't fail to investigate any unusual sound which may develop in the car. The car should be inspected by a Cadillac dealer.

Don't neglect to inspect the level of the acid in the storage battery every two weeks.

Don't turn the corners at high speed.

Don't neglect to keep the radiator filled with water or with a good anti-freezing solution in cold weather.

Don't drive fast or attempt to stop suddenly on wet pavements.

Don't attempt to start the engine with the switch turned off, without air pressure or without gasoline in the tank.

Don't fill the lubricator on the motor only and neglect to lubricate all other parts of the car.

Don't neglect the lubrication of any part of the car.

Don't neglect to keep the tires properly inflated.

Part II

Lubrication

LUBRICATION AND ITS IMPORTANCE.

There is no one thing which is the primary cause of more trouble and the cause of more expense in maintenance to the mechanism of an automobile than insufficient lubrication.

All moving parts of the Cadillac car are manufactured with an unusual degree of accuracy and the parts are carefully assembled. In order to maintain the splendid running qualities of the car it becomes necessary to systematically introduce suitable lubricants between all surfaces which move in contact with one another.

The special object of this chapter is to point out the places in the Cadillac which require oiling. While it is manifestly impossible to give exact instructions in every instance as to just how frequently each individual point should be oiled or exactly how much lubricant should be applied we give this approximately, based on average use.

It should be borne in mind constantly that where one part moves upon or in contact with another that friction is created. Friction means wear, and the wear will be of the metal itself unless there is oil, and oil is much cheaper than metal. The use of too much oil is better than too little, but just enough is best.

Proper lubrication not only largely prevents the wearing of the parts, but it makes the car run more easily, consequently with less expense for fuel and makes its operation easier in every way.

The oiling diagrams shown in this chapter indicate the more important points which require attention. But do not stop at these. Notice the numerous little places where there are moving parts, such as the yokes on the ends of various connecting rods, and pull rods, etc. A few drops of oil on these occasionally will make them work more smoothly.

Oil holes sometimes become stopped up with dirt or grease. When they do, clean them out and be careful not to overlook them. Also be careful not to allow dirt or grit to get into any bearings.

Judicious lubrication is one of the greatest essentials to the satisfactory running and the long life of the motor car. Therefore lubricate, and lubricate judiciously.

Lubricating Oils.

There are many grades of oils. There are none too good. Naturally, we have experimented a great deal with numerous lubricants to determine which is best adapted for the various parts of the Cadillac car. It is not always an easy matter for users to obtain good lubricants and the constant demand made upon us by Cadillac dealers and Cadillac users has induced us to provide suitable lubricants which may be obtained from Cadillac dealers.

CADILLAC MOTOR OIL.

(For engine and other light oiling.)

CADILLAC REAR AXLE AND TRANSMISSION LUBRICANT (1914 Model)

(For rear axle and transmission.)

CADILLAC CUP GREASE.

(For grease cups and other parts designated.)

OIL FOR THE ENGINE.

In the absence of Cadillac motor oil, we recommend lubricant of the following specifications as suitable for use in the crank case and for other light oiling about the car. It is understood that the properties mentioned are of about equal importance.

For use in winter oil should have a specific gravity of 30° Baume or higher at 60° F., that is between 30° and 32°; flash test should be 440° F, or higher; fire test should be 490° F. or higher; viscosity should be 90 or higher at 212° F. (Tagliabue viscosimeter); cold test 20° F.

For summer, the oil should have a specific gravity of 29° Baume or higher; flash test should be 435° or higher; fire test should be 480° or higher; viscosity should be 100 or higher at 212° F.; cold test should be 30° or higher.

Light, well filtered oil is preferable. Dark oils usually contain more carbon than light oils.

Oil should be strained through cheese cloth or fine mesh wire cloth before using.

FOR GREASE CUPS.

In the absence of Cadillac cup grease, we recommend the best other grade obtainable.

FOR THE TRANSMISSION.

In the absence of "Cadillac rear axle and transmission lubricant" (1914 model) we recommend a compound of cup grease and motor oil mixed to such a consistency that it will flow very easily.

FOR THE REAR AXLE.

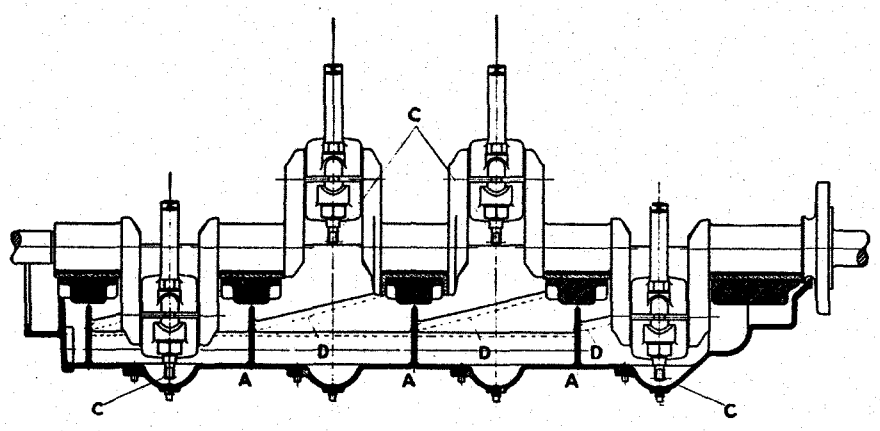
In the absence of "Cadillac rear axle and transmission lubricant" (1914 model), we recommend the use of vegetable castor oil. (Do not use mineral castor oil.)

ENGINE LUBRICATION.

We recommend Cadillac motor oil for this purpose.

The lubricating of the Cadillac motor is by our automatic splash system. This system takes care of the five crank shaft bearings, the connecting rod and cam shaft bearings, cylinders, pistons, etc.

The crank case is divided by walls "A" into four compartments. In the bottom of each compartment there is a depression or well. The crank case should always contain sufficient oil so that each of these four wells will be from three-fourths to entirely full and so that the splashers "C," which are attached to the connecting rods, will dip into the supply and throw the oil over the parts to be lubricated.



Sectional View of Crank Case Showing Oil Wells and Distributing Troughs.

On the right side of the motor, there is a lubricator tank or reservoir. See that this is filled as often as required. Attached to the lubricator cover are two pumps, one attached to the under side of the cover, and extending into the lubricator body, and the other fastened to the top face of the lubricator cover. When the motor is running, the pump inside the lubricator body draws oil from the lubricator, and forces it to the sight feed on the dash. The oil drops to the bottom of the sight feed, and is drawn out and forced into the crank case by the pump, which is fastened to the top face of the lubricator cover. The two pumps are connected by a common plunger. The quantity of oil which is supplied to the crank case is governed by the length of the stroke of this plunger. The longer the stroke of the plunger, the greater is the amount of oil forced through the feed pipe.

It will be seen that there is a hole drilled through the plunger and below the hole there is a nut which locks the adjustment. To adjust the stroke of the plunger, first loosen the lock nut, then with a piece of wire inserted in the hole, the stroke of the plunger may be lengthened or shortened as desired.

To increase the supply of oil, turn the plunger to the right (screw it down). To decrease the supply, turn the plunger to the left (screw it upward). After reaching the correct adjustment, be sure to lock it with the lock nut.

The quantity of oil which should be supplied to the crank case through the sight feed depends, of course, upon the amount the motor is consuming. It will therefore be realized that it is impossible for us to give any set rules as to just how much should be fed. As a fair basis for calculation we suggest that the pump plunger be adjusted so that it will deliver about five drops of oil into the sight feed for each two downward movements. This is for ordinary driving. For specially fast work or for long, hard pulling it will be well to increase it to about three drops or more for each movement of the pump plunger.

There is still another consideration. The Cadillac lubricating system is the most economical we know of and we sometimes find persons who have driven other cars inclined to lubricate too freely. This also must be avoided as too much oil will cause carbon deposits in the cylinders and combustion chambers, on the piston heads and on the spark plugs.

See special information under head of "Carbon Deposits."

When examining the crank case to see the amount of oil contained in the bottom, it should be remembered that if the wells contained the correct amount when the car had been standing still, that a few hundred revolutions of the crank shaft would splash a considerable part of it over the inside walls of the motor. Therefore the time to examine it is after the car has stood a while and the oil had time to run down and settle in the wells.

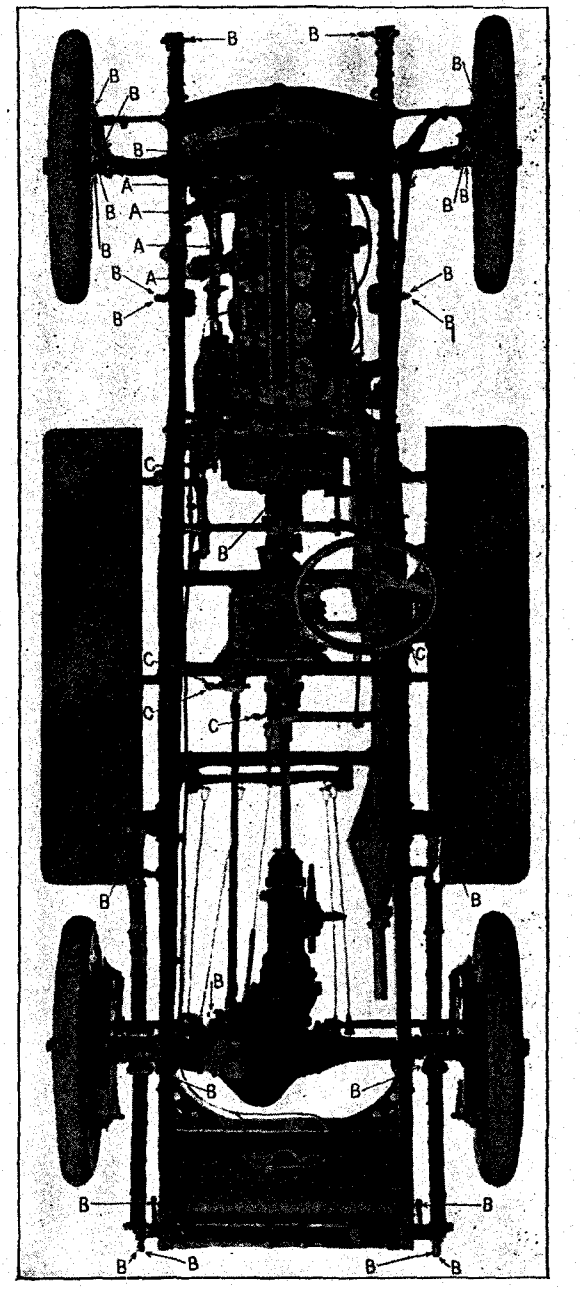
The sight feed glass may be cleaned by unscrewing it from its seat.

CARBON DEPOSIT.

This is one of the greatest enemies to the motor and electrical apparatus. Too much oil is one cause of carbon deposits. The high temperature will evaporate this oil, which will be partially condensed on the walls of the combustion chamber, piston heads and spark plugs and form a sticky film. This film is ready to adhere to any lamp black or carbon which might be in the explosion should the mixture be set too rich. This film will cake up and also form carbon. In time the carbon will start to scale and a thin flake will adhere to the combustion chamber and piston heads. The intense heat of the explosions of the motor will cause this carbon to become red hot, which will ignite the charge instead of allowing the spark to do so. This produces a pound in the engine and decreases its power. Ofttimes these scales become lodged in the exhaust valve seat and the compression is lost.

Carbon which is formed on the spark plugs forms a circuit for a high tension current to travel over, it meeting with less resistance than jumping between the points. Sometimes part of the current will travel over the carbon and the rest of it jump between the spark plug points. A spark that will jump in the neighborhood of ⅜ inch in the open air will not jump more than 1/16 inch under seventy pounds pressure. Therefore a spark plug that is sending part of its current through the carbon deposit and the other part between the spark plug points will send all of the current over the carbon deposit when the compression is on. Great care must be taken to make sure that the combustion chamber and spark plugs are free from carbon.

Spark plugs should be kept clean. A good method of keeping plugs clean is to wash them in gasoline.

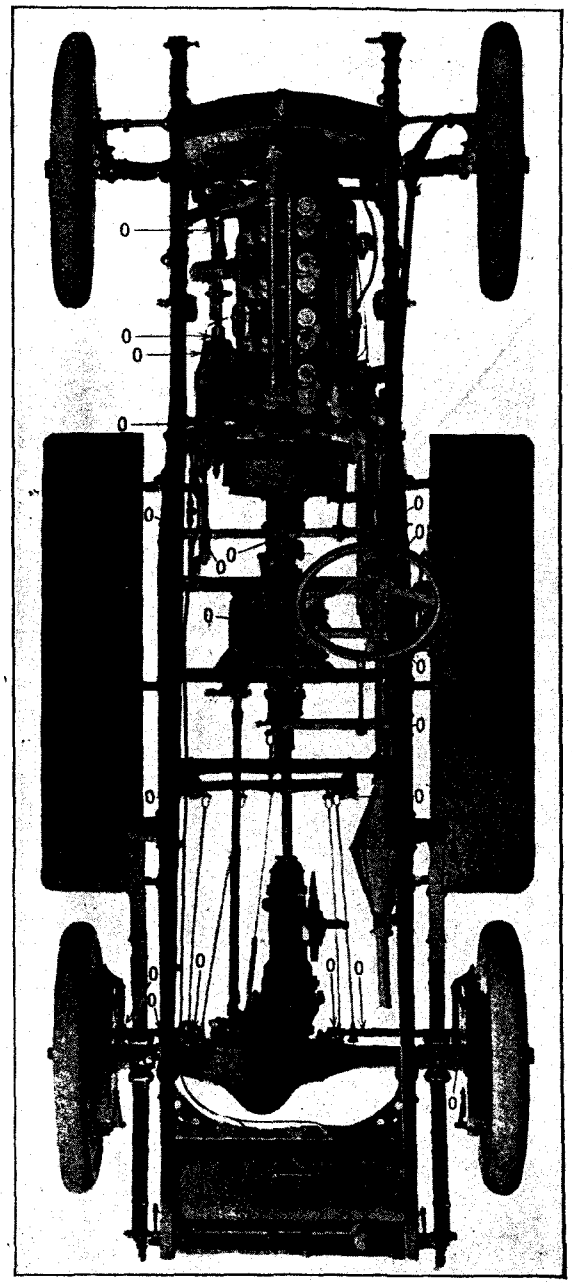


Each letter on the above view of the chassis indicates a grease cup.

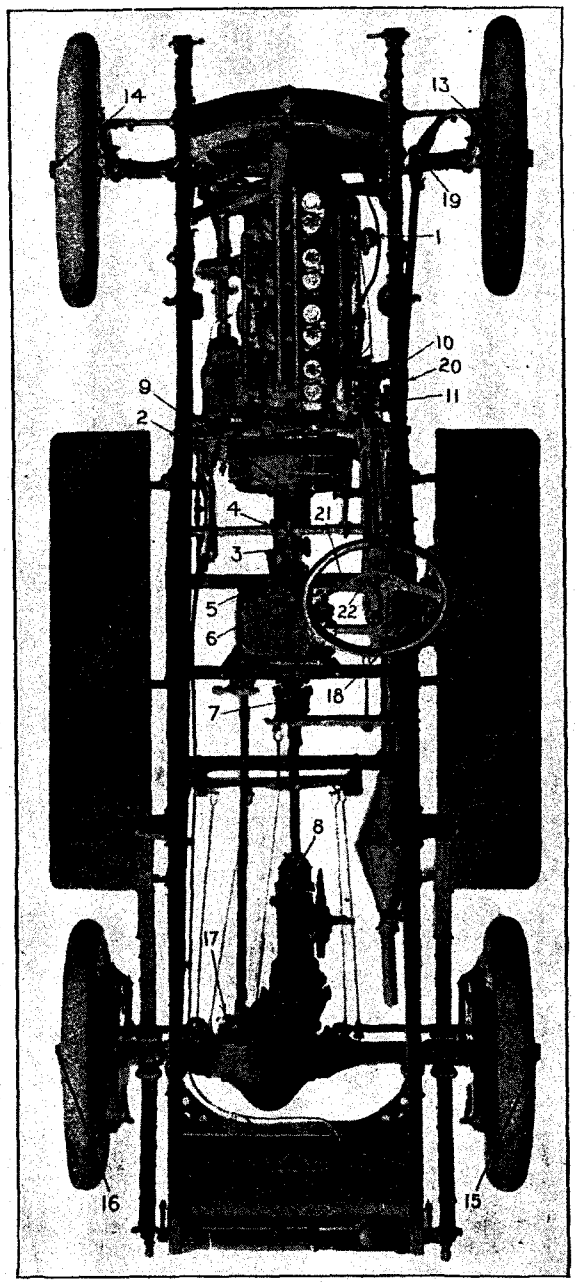
"A" indicates that the cup should be turned down two full turns every 150 miles of travel.

"B" indicates that the cup should be turned down about every 300 miles of travel and about half the contents of the cup injected each time.

"C" indicates that the cup should be turned down about every 500 miles of travel and the full contents of the cup injected.



The places marked on the above view of chassis indicate oil holes, where machine oil or gas engine oil should be applied every 300 miles of travel.



The places marked on the above view of chassis should be lubricated in accordance with the following directions.

GENERAL LUBRICATION.

LUBRICATOR.

1.

The lubricator which supplies the crank case should be supplied with motor oil as required. To fill it remove the cap which covers the filler hole.

CLUTCH UNIVERSAL JOINTS.

2 and 3.

These are the front and rear clutch universal joints respectively. To lubricate these, remove the plug screws and with an oil gun, fill the housings with cup grease about every 500 miles.

CLUTCH THRUST BALL RACE.

4.

Remove the plug screw and inject rear axle oil about every 300 miles.

TRANSMISSION CLUTCH SHAFT BEARINGS.

5.

Remove the plug and inject rear axle oil every two or three months.

TRANSMISSION.

6.

The transmission gear case should always contain sufficient lubricant so that the under teeth of the largest gear will enter into it their full depth. Cadillac Transmission lubricant is best for this. In its absence we recommend a compound of cup grease and motor oil mixed to such consistency that it flows very easily.

DRIVE SHAFT.

7 and 8.

These are the rear and forward universal joints on the drive shaft. Remove the plug screws and fill the housings with rear axle oil about every five hundred miles.

SPARK AND THROTTLE LEVERS.

21-22

The plungers in the spark and throttle levers should be lubricated occasionally. If the spark and throttle levers seem to stick, rub a little oil on the sector where the friction shoes come in contact with it.

Also place a few drops of oil occasionally in the hole in the top face of the steering wheel spider near the hub.

CLUTCH.

9.

If after a car has been in use for some time it is found that the leather facing of the clutch has become dry and hard so that it does not "take hold" properly, it may be made more pliable by applying a little Neatsfoot oil. This, however, must be applied very sparingly as too much will cause it to slip and possibly burn out. Under no circumstances should any but Neatsfoot oil be used. An application only once or twice a season is usually sufficient to keep clutch leather in good condition. To apply the oil, disengage the clutch and revolve the cone with the hand, at the same time applying the oil through the slots in the clutch ring.

Do not use ordinary oil on this part.

STEERING GEAR.

10-11.

The internal mechanism of the steering gear should be lubricated about every three months. This can be done by removing the screw plugs, one in the side and the other in the rear of the steering gear housing. Rear axle oil with some flake graphite mixed in it is a good lubricant for this part.

STEERING ROD ENDS.

19 and 20.

The steering rod ends which are encased in leather should be packed with cup grease once a year.

DELCO ELECTRICAL APPARATUS.

A little oil should occasionally be put on the top ball bearings of the timer. Do not put oil or grease on the cam.

About once a month take out the screws near the forward end of the case, remove the cover plate and wipe the commutators of the armature with a soft rag.

About once a month, or oftener, if necessary, lift the catch which retains the dust cover on the extreme forward end of the generator and slip the dust cover forward. Then remove the plate covering the forward end of the driving clutch and pack the clutch either with vaseline or heavy non-fluid oil. Heavy cup grease should not be used for this purpose as it will hold the armature from revolving in cold weather when the starting button is pressed.

Be careful in replacing the plate to see that the screws are properly tightened.

WHEELS.

13-14-15-16.

About every three or four thousand miles, or at least once a year, all of the wheels should be removed and the bearings thoroughly washed and cleaned in either gasoline or kerosene oil, and should be examined to determine whether any foreign substance has gotten into the roller bearings that might damage them. The roller bearings should be thoroughly lubricated with a thin cup grease. (Do not use heavy dope because it will be rolled away from the path of the rollers and will not return). Then the wheels should be replaced and adjusted as per instructions on that subject.

There is an oil cup in the hub of each wheel. Inject some motor oil here whenever you are oiling the car. Wipe the dirt from the cups first so that it will not get into the bearings.

REAR AXLE.

17.

The axle housing should contain a gallon of oil at all times.

In placing oil in the rear axle housing, remove the filling plug in the cover plate and fill the housing up to the level of the filling hole.

The best lubricant for this purpose is CADILLAC REAR AXLE AND TRANSMISSION LUBRICANT, 1914 MODEL. The ordinary rear axle lubricant is not suitable for use in this axle.

In the absence of CADILLAC REAR AXLE AND TRANSMISSION LUBRICANT, 1914 MODEL, we recommend the use of vegetable Castor oil. **Do not use mineral Castor oil.**

CONTROL LEVER H PLATE.

18.

Place a little oil occasionally wherever one part moves in contact with another; along the inside surfaces of the plate. Also between the bottom ends of the levers.

POWER TIRE PUMP

Instructions for the lubrication of the power tire pump will be found under CADILLAC POWER TIRE PUMP, in this book.

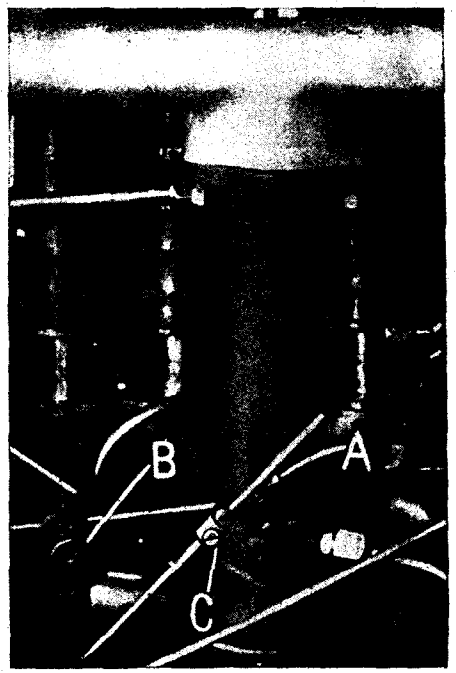
ADDITIONAL.

In addition to the places specially mentioned, note carefully and oil all of the small connections and joints throughout the car, such as the various connecting rod ends, the joints in the brake mechanism and the magneto

Remember that wherever one part moves in contact with another, the ease of movement will be assisted by lubricant and that wear will be reduced to the minimum.

Part III

Adjustments



ADJUSTMENT OF CARBURETOR.

Carburetors are adjusted on cars before leaving our factory, and ordinarily should not require re-adjusting very soon, unless perhaps to meet different atmospheric conditions. This may be accomplished by slightly changing the tension of the air valve spring by the adjusting screw "B".

The carburetor should not be tampered with unless it needs attention. Before changing any carburetor adjustments, be sure that the ignition system is in perfect order. See that the points on the spark plugs are 1/32 in. apart. See that the spark plug cores are clean, that the timers are properly set, that the points are clean and in proper adjustment. Be sure that the dry batteries are not run down. See that all electrical connections are tight. In fact, see that the entire ignition system is in good working order.

When it is certain that the carburetor requires adjusting, proceed as follows:

1—Open the throttle about two inches on the sector (at steering wheel), place the spark lever at the extreme left on the sector and start engine. (If the sector is marked "Bat. C" and "Mag. C," place the spark lever at "Bat. C" when starting.)

2—Run engine until the water jacket of carburetor is hot.

3—Move throttle lever to a position which leaves the throttle in the carburetor slightly open, and adjust the air valve screw "B" to a point which produces the highest engine speed.

4—Close the throttle and adjust the throttle stop screw "A" to a point which allows the engine to run at a speed of 320 to 340 revolutions per minute. The spark lever should be at the extreme left on the sector when this adjustment is made, regardless of the markings on the sector.

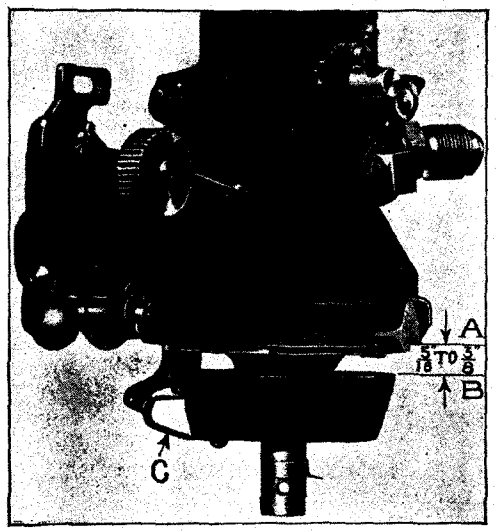
5—With the spark lever fully retarded and the throttle lever at the extreme left on the sector, adjust the air valve screw "B" to a point which produces the highest speed.

6—Adjust the collar "C" on throttle rod so that throttle will start to open when throttle lever at steering wheel is open about ½".

TO SET CARBURETOR FLOAT.

After the car has been used for some time, there may be a slight amount of wear at the point of the needle valve at its seat. If this should occur the height of the gasoline in the carburetor bowl will raise.

To determine if the carburetor float is properly set, remove the bowl, hold the float up until the inlet valve is just closed tightly, and take a measurement from "A" to "B." This measurement should be from 5/16 to 3/8 of an inch. The setting may be corrected by bending slightly the arm "C."



Cadillac Carburetor.

DRAIN THE WATER.

Where water is used as a cooling medium it should be drawn out about once a month, and clean water put in. It is also a good plan to have the water flow rapidly around through the cooling system to wash out as much sediment and dirty water as possible. In brief, it is best to keep the cooling water as clean as possible and prevent the sediment from settling and obstructing the pipes.

To drain the water, open the drain cock at the bottom of the radiator, and also remove the pipe plug in the inlet water pipe at No. 4 cylinder.

Remove the drain plug from the lower end of carburetor water jacket.

Also open the drain cock on the under side of the water pump.

CLEAN THE WATER STRAINER.

At the bottom of the radiator at the point where the rubber hose connection is attached, there is a conical gauze strainer to stop the passage of sand, dirt, etc. When the strainer becomes clogged, it naturally retards the passage of water, and may cause over-heating of the motor. When this occurs, remove the hose connection at the bottom of the radiator, take out the strainer, clean and replace.

FAN DRIVING BELT.

The belt which drives the fan should be observed frequently to see that it is performing its duty. If the belt should become loose, it should be tightened by raising the fan by means of the adjustment provided. It may possibly be necessary to tighten it once or twice while the car is new. After it has reached the limits of its stretching, it will not require tightening so often.

The belt should be adjusted so that it will not slip; at the same time it must not be so tight that there will be any undue strain on the bearings.

SPARK PLUGS.

Spark plugs should be kept clean. When carbon or soot is permitted to collect on them, it causes a short circuiting of the current and prevents the proper ignition of the charge in the cylinder. A good method of cleaning plugs is to wash them in gasoline.

In order to get the best results the points on the spark plugs should be 1/32" apart.

Cadillac-Delco Electrical System

The Cadillac-Delco Electric System is of the single wire or grounded system, which means that one side of the storage battery is directly attached to the frame of the car, one wire only being carried to the different lamps and generating unit.

MOTOR GENERATOR.

The motor generator (Figs. 1 and 2) is of the single unit type, and located on the left-hand side of the engine.

The functions, construction and operation of this unit will be more clearly grasped by viewing it first merely as an ELECTRIC MOTOR with a suitable means for transmitting power to the engine; and then as an electric generator, so arranged as to obtain power from the engine for revolving its armature.

An analysis of the first condition shows simply a series wound motor, with a spur gear pinion upon the end of the armature shaft nearest the flywheel. Interposed between this pinion and the gear teeth cut in the periphery of the flywheel is a pair of gears, or a starting clutch, adapted to slide along and revolve upon an intermediate shaft. The sliding action causes the larger of these gears to engage with the motor pinion, while the smaller one meshes with the gear teeth upon the flywheel.

The one-way clutch, which is incorporated in this set of gears, is for the purpose of permitting the engine to run ahead of the motor during the short time that the gears may be meshed while the engine is running under its own power. The total gear ratio between the armature shaft and the engine shaft is approximately 25 to 1, with the gear train above described in operation.

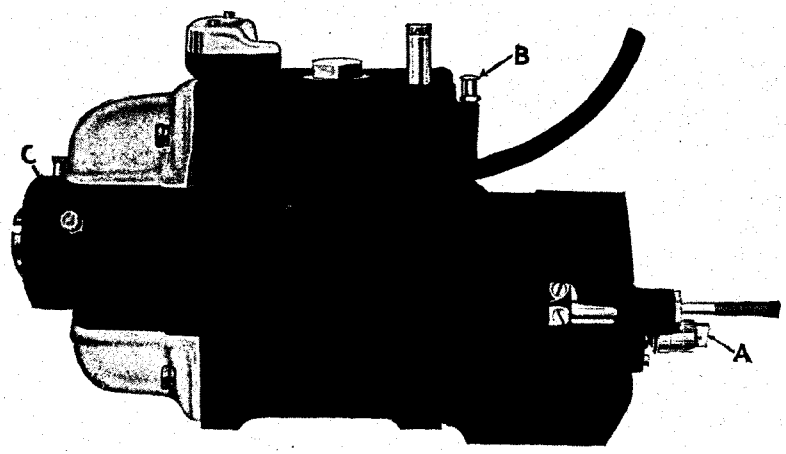


Fig. 1

When the unit is generating current for charging the battery for lights and ignition, it is a simple shunt wound generator. It is driven from the engine by means of a shaft extended from the water pump. In order to compensate for the higher ratio when the unit is in starting relation to the engine, a second one-way clutch is provided adjacent to the forward housing. This clutch permits the armature to run ahead of the driving shaft during the cranking operation.

Figure 2 shows the construction and operation of the motor brush switch and the train of gears between the armature pinion and the flywheel. When the "Start" button on the combination switch is depressed, current flows

from the storage battery through the magnetic latch coil and generator circuit, causing the armature to rotate slowly, so that the starting gear will mesh into the motor pinion and with the teeth on the flywheel.

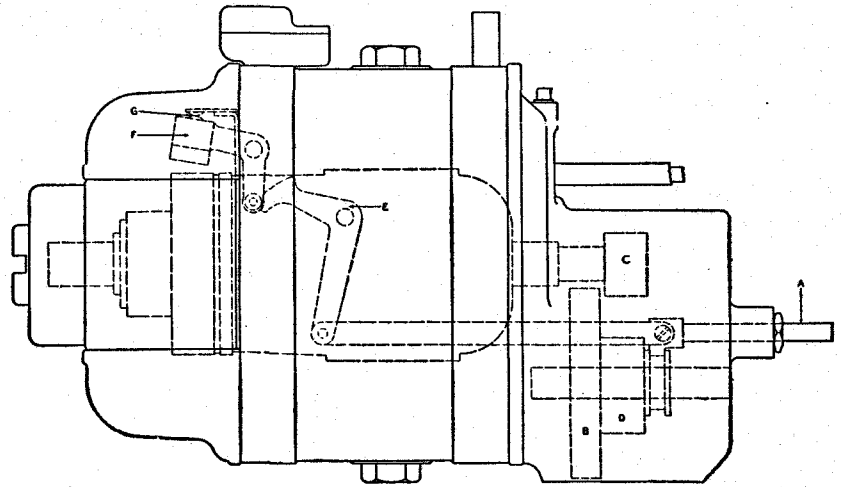


Fig. 2

The energizing of the magnetic latch coil causes the starting clutch shifting rod "A" to be linked to the clutch pedal. When the clutch pedal is depressed, the rod "A" is pulled back, causing the gear "B" of the starting clutch to mesh with the motor pinion "C." Immediately after the gears "B" and "C" are meshed, the gear "D," which is integral with "B," meshes with the gear teeth on the flywheel, and at the same time the extension of the rod "A" to the bell crank "E" allows the motor brush "F" to travel towards the commutator, breaking the generator circuit at "C" and closing the motor cranking circuit. When the clutch pedal is released, the clutch spring throws the gears out of mesh, and at the same time raises the brush from the commutator and closes the generator circuit.

Oil is conveyed to the ball bearings through oil cups "C" and "B." They should be given four or five drops of light oil about once a month. At the same time, the grease cup "A" which lubricates the driving clutch should be given one or two turns, or replenished if empty.

STORAGE BATTERY.

The 3-PH-13 storage battery used with the Delco Electric Cranking, Lighting and Ignition System is designed especially for it, and is made by The Electric Storage Battery Co., of Philadelphia, Pa., whose products for the trade are known as "Exide" batteries.

The Electric Storage Battery Co. has distributors who do battery repair work in towns of any considerable size, and "Exide" Battery Depots in the following list of cities, where complete assembled batteries and repair parts are carried in stock. These depots are fully equipped to do any kind of battery repair work.

New York City, 527 West 23rd Street.
Philadelphia, Allegheny Ave. and 19th St.
Boston, 789 Tremont St.
Chicago, 333 W. 35th St.
Cleveland, 5121 Perkins Ave.
Atlanta, 20 S. Piedmont Ave.
San Francisco, 590 Howard St.

Denver, 1424 Wazee St.
St. Louis, 1415 Chestnut St.
Kansas City, 1329 Walnut St.

LIST OF SALES OFFICES

General offices and works, Allegheny Ave. and 19th St., Philadelphia, Pa.
New York City, 100 Broadway.
Boston, 60 State St.
Chicago, Marquette Bldg.
St. Louis, Fullerton Bldg.
Cleveland, Citizens Bldg.
Atlanta, Candler Bldg.
Denver, 1424 Wazee St.
Detroit, Ford Bldg.
Portland, Oregon, Spalding Bldg.
Seattle, Coleman Bldg.
Los Angeles, Pacific Electric Bldg.
San Francisco, 118 New Montgomery St.
Toronto, Canadian General Electric Co., Ltd.

The storage battery (Fig. 3) consists of three cells, each cell containing thirteen (13) plates—six positive and seven negative. The battery when fully charged will burn the head, side, tail and speedometer lights approximately fourteen hours.

The voltage regulator insures the proper charging, and also prevents the harmful overcharging which is so common with generator systems on automobiles.

When the battery is fully charged, the electrolyte or solution in the cells should have a specific gravity of from 1.270 to 1.290, as indicated by the hydrometer syringe (Fig. 5). The gravity will lower, due to discharge, and when completely discharged will register from 1.150 to 1.170—about 120 points less than when fully charged. If one cell regularly requires more water than the others, thus lowering the gravity, a leaky jar is indicated. Even a very slow leak will in time relieve the cell of all its electrolyte. A leaky jar should immediately be replaced with a new one.

The gravity is an indication of the state of charge of the battery. A battery discharged below a specific gravity of 1.150 will not crank over the engine, nor will it burn the lights to full candlepower when the engine is not in operation.

ADDING WATER.

The electrolyte must always cover the plates. Replace evaporation by adding pure, fresh water. NEVER ADD ACID.

Once every two weeks unscrew the "filling plugs" (Fig. 3), and observe the height of the electrolyte. If below the bottom of the filling tubes (see Fig. 3 "keep liquid up to this line"), add pure, fresh water, bring the liquid up to the proper height—level with the bottom of the filling tube. Ordinarily it will require only a tablespoon or so of water. In hot weather it may require more, but keep it up to this point. **The filling plugs must be replaced and screwed up tightly after filling.**

If a plug is left out, or loose, the solution may flood out of the cell, especially when the battery is being charged. If a plug is lost or broken, obtain a new one at once.

The water for filling the batteries must be pure
Distilled Water,
Melted Artificial Ice, or
Fresh Rain Water.

Never keep the water in metal containers, such as a bucket or can. It is best to get a bottle of distilled water from your druggist, or an ice plant. A quart will last a long time. The whole point is to keep metal particles out of the batteries. Spring water, well or hydrant water from iron pipes generally contains iron and other materials in solution, which will ultimately cause trouble if used.

If electrolyte has been spilled from the cell, replace the loss with new electrolyte and follow with an overcharge by running the engine for several hours, or charge the battery from an outside source (Fig. 4).

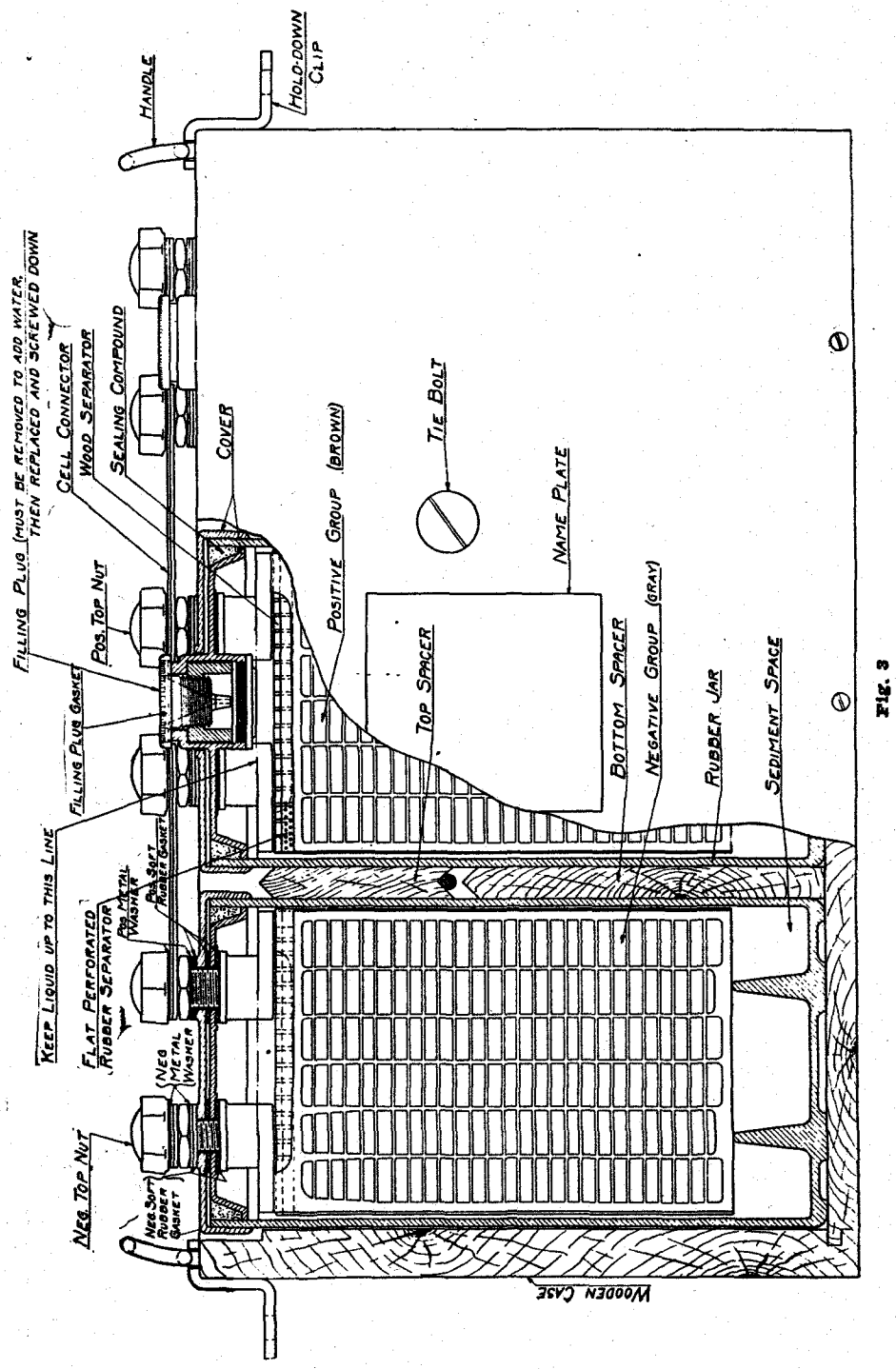


Fig. 3

The specific gravity of the electrolyte to be used for replacing the loss when spilled from the cells, or due to broken jars, should be the same specific gravity as that of one of the adjacent cells. This can be determined by the use of the hydrometer syringe (Fig. 5).

The proper specific gravity of the electrolyte, when the battery is fully charged is 1.280, as indicated by the hydrometer syringe, but a variation of from 1.270 to 1.290 is allowable. **Never add acid or electrolyte to the cells except to replace loss by spilling, a broken jar or when removing sediment.**

When new electrolyte is required, either to replace loss from spilling or when removing sediment or replacing a broken jar, it can be made by mixing chemically pure sulphuric acid of 1.840 specific gravity, and distilled water, in proportion of one part of acid to three of water, by volume.

The acid must always be poured into the water, and not the water into the acid. A glass, earthenware or other acid-proof vessel, thoroughly clean, should be used for mixing, and the electrolyte allowed to cool before using. If a lower specific gravity than 1.280 is desired, more water should be added to the acid.

REMOVAL OF COMPLETE CELL.

To remove a cell from the battery for inspection, or repair, disconnect the cell by removing the top nuts and connectors (Fig. 3). Slack off several turns on the tie bolt nuts in the sides of the case, and the cell may then be lifted out.

On replacing cell, be sure that the polarity (POS and NEG) are as before. Tighten up nuts in sides of case and replace cell connectors, first coating studs and nuts with vaseline or grease. Make sure that lead-covered nuts are drawn up tight.

The nuts in the sides of the case, in connection with bolts extending through the case, draw the case sides together and hold the cells firmly.

SEDIMENT.

The sediment which gradually accumulates in the bottom of the jars, should be removed before it reaches the bottom of the plates, as it is very harmful to the battery. The need of cleaning may be determined by inspection. Its necessity is indicated by lack of capacity, excessive evaporation of the electrolyte, and excessive heating when charging. When a battery requires removal of sediment, better results follow if the work is done at a place where they are thoroughly familiar with storage battery practice. If a battery is in need of cleaning or repairs, it is best to communicate with the Cadillac Motor Car Co., or The Electric Storage Battery Co., who will advise you where to ship the battery. Do not ship batteries without receiving instructions.

LAYING UP THE CAR FOR THE WINTER.

If the car is not to be used for some time, say the winter months or longer, care should be taken that just before the last time the car is used, water is added to the cells, if necessary, so that it will be thoroughly mixed with the electrolyte when the car is driven. When the car is laid up, the specific gravity of the electrolyte should register from 1.270 to 1.290. With this condition there will be no danger of freezing in any climate. The specific gravity of water is 1.000, and water freezes at 32 degrees F. above zero.

The battery should be charged every two months during the "out of service" period, either by running the engine or charging from an outside source (Fig. 4). If either of the above is impossible, and there is no garage equipment for charging batteries to which it may be conveniently sent, the battery may be allowed to stand without charging during the winter, provided the specific gravity of the electrolyte registers from 1.270 to 1.290 at the time the car is laid up. Much better results and longer life from the battery will be obtained by giving the periodic charges.

The wires of the battery should be disconnected during the "out of service" period, as a slight leak in the wiring will discharge the battery.

CHARGING FROM AN OUTSIDE SOURCE.

Battery Removed from the Car.

It is necessary that the charging be done with **direct current.** The simplest method when there is 110 or 120 volt direct current available, is to connect eight 110-volt, 32-candlepower, 110-watt carbon lamps in parallel with each other and in series with the battery to be charged; this combination giving approximately the proper charging rate—8 amperes. The positive terminal of the battery must be connected to the positive side of the charging circuit, and the negative terminal to the negative side. **Very serious injury to the battery will result if connected in the reverse direction.** The terminals of the battery are stamped "Pos" and "Neg."

To determine the polarity of the charging circuit, if a suitable voltmeter is not at hand, dip the ends of the two wires A and B into a glass of water in which a teaspoonful of salt has been dissolved, care being taken to keep the wires at least an inch apart. When the current is turned on, fine bubbles of gas will be given off from the **negative** wire.

The diagram (Fig. 4) illustrates just how the connections should be made. The charge should be continued until all the cells have been gassing or bubbling freely for five hours, and there is no further rise in the voltage of the battery or specific gravity of the electrolyte over the same period. A battery in good condition in a discharged state will require about ten hours of recharging. If it has stood in a discharged condition for several weeks, it will require from twenty-five to fifty hours charging—all depending upon the condition of the battery and the length of time it has stood discharged.

If only alternating current is available, a current rectifier must be used. Consult your city elecrtician regarding this matter.

PUTTING THE BATTERY INTO SERVICE AGAIN.

Before putting the battery into service again, inspect and add water, if necessary. If the battery has not been kept charged during the winter, it will be advisable to give it a fifty-hour charge at a four-ampere rate from an outside source before putting it into service again. Make sure that the terminals are free from corrosion and that good connections of the wires are made.

The corrosion, which is a greenish deposit, can be removed from the nuts by placing them in a solution of bicarbonate of soda (cooking soda).

The corrosion can be removed from the posts by saturating a piece of cloth with the solution and wiping them off. Do not allow any of the solution to get into the cells of the battery.

After the parts are free from corrosion they should be washed in warm water, and a light coat of heavy grease or vaseline applied.

If the battery has been left on the car during the winter months, and received its periodic charges, it will not be necessary to give it any special attention other than to fill it to the proper height with distilled water. After the car has been driven for a number of hours, read the specific gravity of the electrolyte with the hydrometer syringe. It should register from 1.270 to 1.290 if the battery is fully charged.

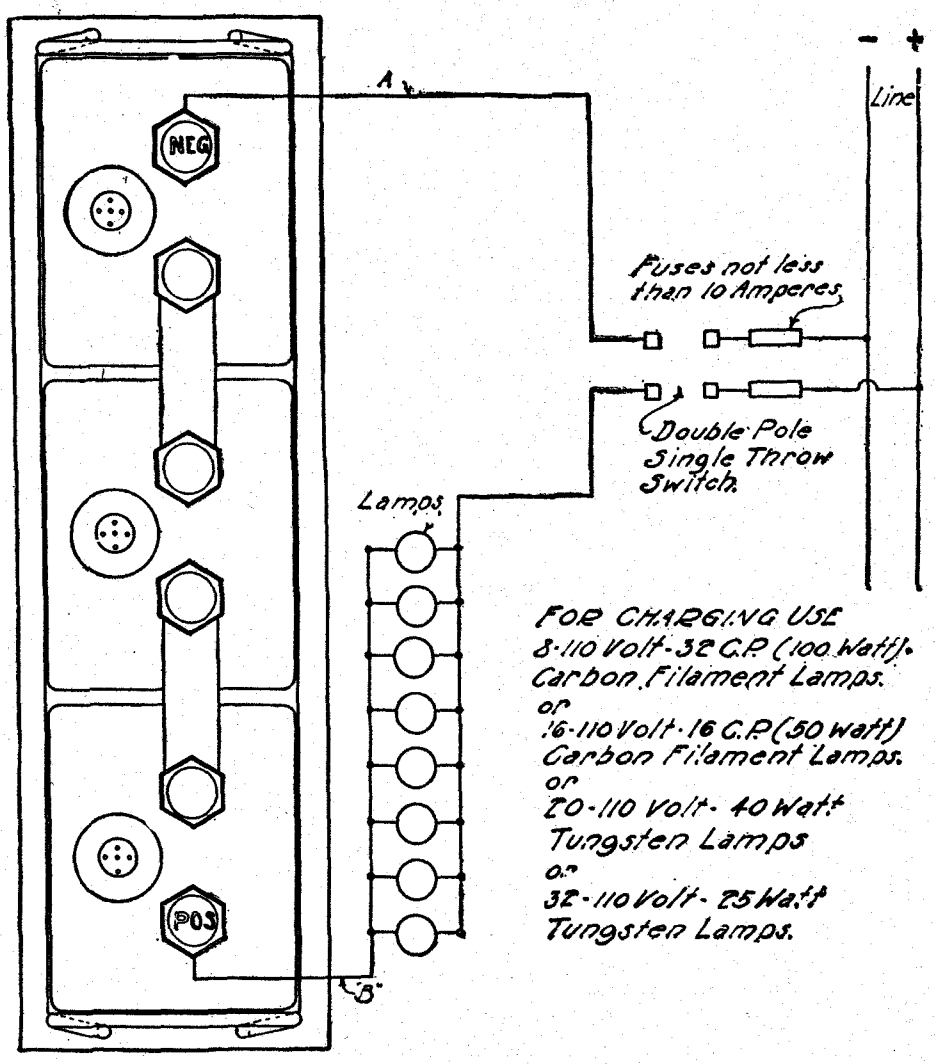


DIAGRAM OF CONNECTIONS
for
CHARGING ONE TYPE 3-PH-13 EXIDE BATTERY
FROM A 110 VOLT D.C. CIRCUIT

Fig. 4

HYDROMETER SYRINGE.

This instrument (Fig. 5) is for testing the specific gravity of the electrolyte of storage batteries. It is shipped unassembled, carefully packed in a substantial wooden box.

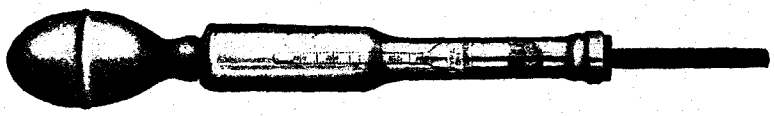


Fig. 5

To assemble, hold the glass barrel, to which is attached the rubber bulb, in a horizontal position, and insert the hydrometer stem end first. Wet the soft rubber plug which is attached to the hard rubber pipette (nozzle) and force rubber plug, grooved end first, into the end of the glass barrel as far as it will go, or until it strikes the shoulder in the barrel. It is important not to force the pipette too much in making the attachment, as the end of the pipette must not extend beyond the base of the grooves of the rubber plug—otherwise, the flow of the electrolyte will be retarded in emptying the hydrometer syringe.

DIRECTIONS FOR USING.

After removing the filling plug from the cover of the cell, compress the rubber bulb of the syringe and insert the pipette in the solution of the cell to be tested. Holding the instrument as nearly vertical as possible, gradually lessen the pressure on the bulb until the electrolyte rising in the barrel causes the hydrometer to float. In general, only enough electrolyte should be drawn to float the hydrometer free of the bottom by about one-half to three-quarters of an inch. The specific gravity reading is taken on the hydrometer at the surface of the electrolyte in the glass barrel.

If the electrolyte is below the top of the plates, or so low that enough cannot be drawn into the barrel to allow of a proper reading of the hydrometer, fill the cell to the proper level (see Fig. 3) by adding pure water; then do not take a reading until the water has been thoroughly mixed with the electrolyte. This can be accomplished by driving the car for several hours.

The specific gravity of the electrolyte is an indication of the amount of charge in the battery. In a fully charged battery the specific gravity should be from 1.270 to 1.290. When the gravity registers from 1.150 to 1.170 the battery is practically discharged, and should be recharged.

Hydrometer syringes are not a part of the electric system, but can be purchased from the Cadillac Motor Car Co.

VOLTAGE REGULATOR.

LOCATION: The voltage regulator (Fig. 6) is in the apparatus box (Fig. 8), located on the engine side of the dash.

FUNCTION: This instrument serves to control the amount of current flowing from the generator to the storage battery.

DESCRIPTION: By referring to Figures 6 and 8, the construction and operation of this device will be made clear. A magnet coil "A" surrounds the upper half of the mercury tube "B." Within this mercury tube is a plunger "C," comprising an iron tube with a coil of resistance wrapped around the lower portion on top of a special insulation. One end of this resistance wire is connected to the lower end of the tube, the other end being connected to a needle "D" carried in the center of the plunger. The lower portion of the mercury tube is divided by an insulating tube into two concentric wells, the plunger tube being partly immersed in the outer well, and the needle in the inner well. The space in the mercury tube above the body of mercury is filled with an especially treated oil which serves to protect the mercury from oxydization, to lubricate the plunger, and to form a dash pot for the plunger.

OPERATION: Inasmuch as the voltage of the storage battery varies with its condition of charge, the intensity of the magnetic pull exerted by the magnet coil "A" upon plunger "C" varies, and causes the plunger to move in and out of the mercury. When the battery is in a discharged condition the plunger "C" assumes a low position in the mercury tube, and vice versa. When the plunger is at a low position, the coil of resistance wire carried upon its lower portion is immersed in the mercury, and as the plunger rises the coil is withdrawn. Now the current to the shunt field of the generator must follow a path leading to the outer well of mercury, through the resistance coil wound on the plunger tube, to the needle carried at the center of the plunger, into the center well of mercury and out of the regulator.

It will be seen that as the plunger is withdrawn from the mercury, more resistance is thrown into this circuit, due to the fact that the current must pass through a greater length of resistance wire. This greater resistance in the field of the generator causes the amount of current flowing to the battery to be gradually reduced as the battery nears a state of complete charge, until finally the plunger is almost completely withdrawn from the mercury, throwing the entire length of resistance coil into the shunt field circuit, thus causing a condition of practical electric balance between the battery and generator, and obviating any possibility of overcharging the battery.

TEMPERATURE COMPENSATION: Changes in temperature which would affect the resistance of the voltage regulator coil, and tend to overcharge the battery in warm weather and undercharge it in cold weather, are compensated for by a resistance coil of special wire, which is wound around and is in series with the magnet coil "A."

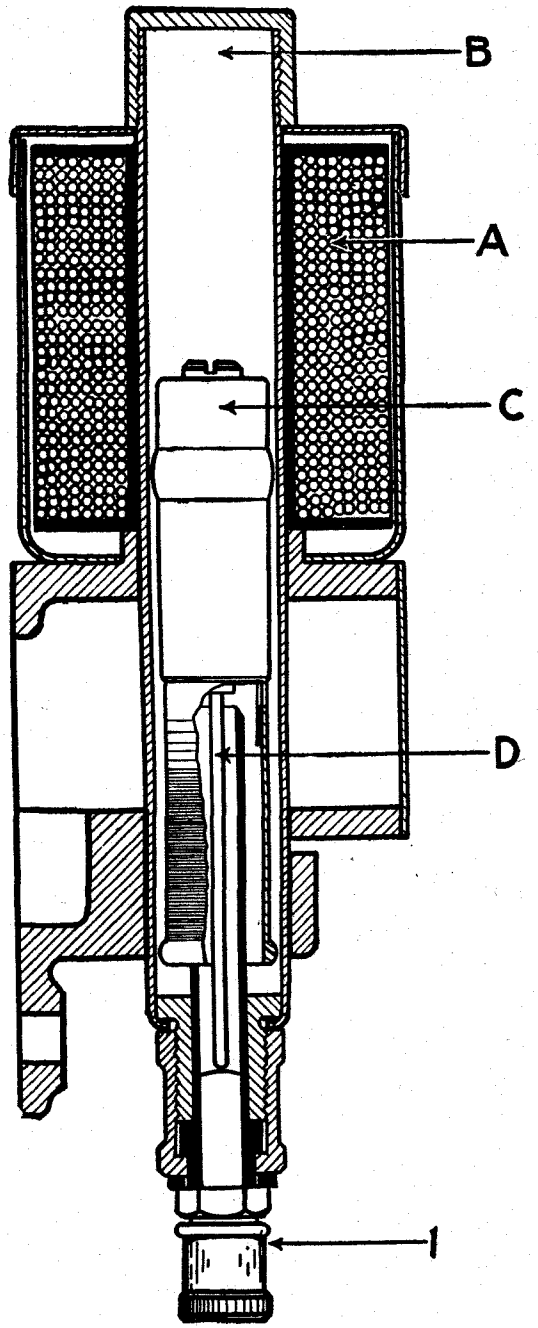


Fig. 6

AUTOMATIC CUT-OUT.

LOCATION: The automatic cut-out (Figs. 7 & 8) is located between the voltage regulator and ignition relay, in the apparatus box.

FUNCTION: This instrument closes the circuit between the generator and the storage battery when the generator voltage is high enough to charge the storage battery. It also opens the circuit as the generator slows down and its voltage becomes less than that of the storage battery, thus preventing the battery from discharging back through the generator.

DESCRIPTION: The cut-out relay is an electro-magnet with a compound winding. The voltage coil or fine wire winding is connected directly across the terminals of the generator. The current coil, or coarse wire winding, is in series with the circuit between the generator and the storage battery, and the circuit is opened and closed at the contacts "A."

When the engine is started, the generator voltage builds up and when it reaches about six volts a current passing through the voltage winding produces enough magnetism to overcome the tension of the spring "B," attracting the magnet armature "C" to core "D," which closes the contacts "A." These contacts close the circuit between the generator and storage battery. The current flowing through the coarse wire winding increases the pull on the armature and gives a good contact of low resistance at the points of contact.

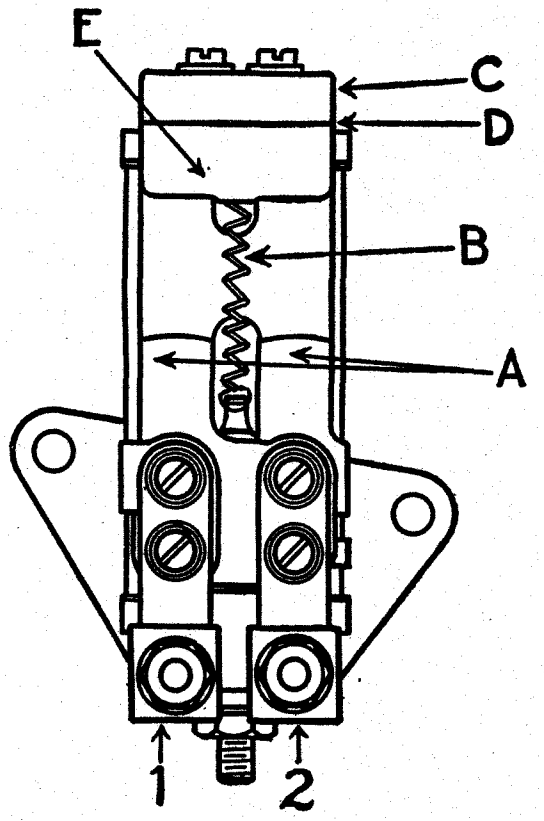
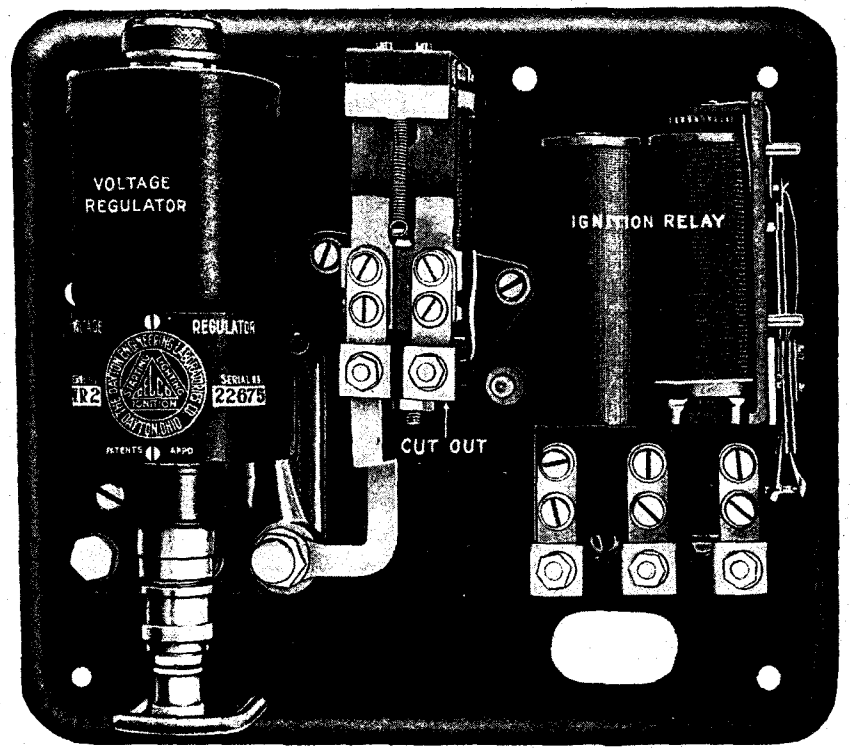


Fig. 7

When the generator slows down and its voltage drops below that of the storage battery, the battery sends a reverse current through the coarse wire winding, which kills the pull on the magnet armature "C." The spring "B" then opens the circuit between the generator and battery, and will hold it open until the generator is again started up.

A target "E" is provided on the automatic cut-out, which is actuated by the opening and closing of the relay. Its operation can be seen through the shutter in the apparatus box cover. When the target shows white it indicates that the generator is delivering current to the storage battery. When it shows black the automatic cut-out is open, which indicates that the generator is not delivering any current.



Apparatus Box.

Fig. 8

IGNITION RELAY.

LOCATION AND FUNCTION: This unit (Fig. 9) is located in the apparatus box (Fig. 8). It is connected in the dry battery ignition circuit and serves to break the primary circuit immediately after it is completed by the auxiliary contact mechanism in the timer, thereby inducing a high tension flow through the secondary circuit, which results in a spark at the spark plug.

DESCRIPTION AND OPERATION: Reference to Figures 8 and 9, in connection with the following description, will enable the reader to understand the parts of the ignition relay and their functions.

Magnet "A" attracts armature "B" when the current is completed through the timer. This action opens contacts "C," breaking the primary circuit. The condenser "D" is mounted beside the magnet coil.

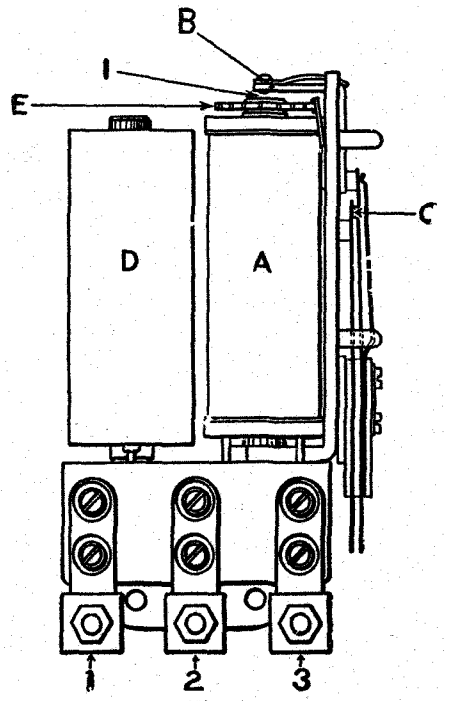


Fig. 9

The magnet "A" consists of two windings, one of comparatively coarse wire so connected that current ceases to flow through it when the contacts "C" are opened, and the other of comparatively fine wire, connected around contacts "C" in such a way as to hold the armature down after the circuit in the coarse wire winding is opened at contacts "C."

If it were not for the fine wire winding, the making and breaking of the coarse winding at contacts "C" would give a vibrating spark at the plug instead of a single spark. This effect is produced when starting, by opening the circuit through the fine wire winding, when the "Start" button on the combination switch is depressed and held in.

When a car has been standing for some time, moisture frequently condenses between the points on the spark plugs, and a vibrating spark breaks down this condensation and starts the motor much more readily than the single spark.

The adjustment of the relay is at the pole piece "E." This regulates the distance between the armature and magnet pole, and the gap between contacts "C." The adjustment is made by turning the notched head clockwise (looking down upon it) to increase the gap between contacts, and vice versa.

The correct distance between contacts "C" when the armature "B" is pressed down, is equal to approximately the thickness of one sheet of paper on which this book is printed. A very simple way in which the adjustment can be made, when the engine is running on the battery ignition, is to turn the notched head of the pole piece "E" in the counter-clockwise direction until the motor stops firing. Then turn it four or five notches in the opposite direction. Under no conditions should the adjustment screw be turned very far in either direction.

If particles of dirt get between the armature and pole piece at the point "I," they may be removed by slipping a piece of smooth paper between the parts mentioned, pressing down slightly upon the armature, and pulling out the paper.

If the armature vibrates feebly when the start button is depressed, it indicates weak dry cells or dirt either between the relay or timer contacts.

CIRCUIT-BREAKER.

LOCATION: The circuit-breakers are located under the cowl board.

FUNCTION: The function of the left hand circuit breaker is to open the circuit between the storage battery and the lights and the ignition apparatus.

The function of the right hand circuit breaker is to open the circuit between the storage battery and the electric horn, the carburetor heating unit, the electric gear shifting apparatus, the gauge lamp and the handy lamp when attached.

OPERATION: Should an accidental short circuit occur anywhere in the wiring to the lights or ignition apparatus the left circuit breaker will open, breaking the circuit and will begin vibrating, interrupting the current supply.

Should an accidental short circuit occur anywhere in the wiring to the electric horn, the carburetor heater, the electric gear shifting apparatus, the gauge lamp or the handy lamp when attached the right hand circuit breaker will open, breaking the current and will begin vibrating, interrupting the current supplied to these parts.

The circuit breaker will continue to vibrate until the short circuit or ground is removed.

DUAL AUTOMATIC DISTRIBUTOR AND TIMER.

LOCATION AND FUNCTION: This unit is carried just above the lubricator, near the forward end of the engine. Built in this unit is the mechanism for automatic control of timing. The timer serves to fix the proper interval of time between the sparks, and as the primary contact through the timer is broken, the distributor makes the contact in the secondary circuit, insuring a spark in the cylinder which is in firing position. In addition to the primary contacts for the magneto type of ignition, in which the spark occurs when the contact is broken, there is another contact mechanism for the auxiliary dry cell ignition, which is further described under "Ignition Relay."

The automatic advance mechanism maintains a fixed relation between engine speed and angle of spark advance.

The distributor consists of a cap or head of insulating material, carrying one high tension contact in the center, with four similar contacts spaced equi-distant about this center, and a rotor, which maintains constant communication with the central contact.

Directly beneath the distributor head and rotor is the timer, which consists of a cam "C," with four lobes or projections, and swinging arms pressed outward by the lobes of the cam to make a contact which completes the primary circuit.

The cam "C" is mounted on the upper end of the shaft, which is adjustable so that both the timing of the breaker mechanism and the rotor can be varied with relation to the engine, by simply loosening the screw "A" in the center of the shaft, and rotating the cam in the desired direction: clockwise to advance, and vice versa to retard. **The adjusting screw must always be set down tight after the cam is adjusted.**

The shaft which transmits motion to the timer is in the form of a tube. An inclined slot is cut through the wall of this hollow driving shaft. A smaller shaft, revolved by the engine gears, is carried inside this hollow shaft. A vertical slot is cut through this shaft. A pin, held by a collar which is adapted to slide upon the outside of the hollow timer shaft, passes through both the straight slot in the small shaft and the inclined slot in the hollow shaft. Obviously, if the collar holding this pin be moved along the hollow shaft, it will change its angular relation to the smaller shaft, and this change in relative position of the two shafts affects the advance of the spark timing.

In the automatic system, the position of this collar is governed by a centrifugal device, comprising a spring-loaded revolving ring which, as the speed increases, moves from an angular position toward a horizontal position.

This ring is connected to the sliding collar, and causes it to rise—advancing the spark as the engine speed increases; or to fall, retarding the spark as the engine speed decreases. (The spark position may be governed by the spark lever above the steering wheel if this be desirable.) The best point for setting the spark lever on the steering wheel sector when once determined by the operator of the car as a rule need not be changed, as the automatic advance mechanism should take care of the proper retarding of the spark for hill climbing and heavy pulling, also advancing for high speeds.

The position from which the automatic governor begins controlling the spark may be regulated by the spark advance lever on the steering wheel, as it has been found impossible to provide a full automatic control of the spark which will compensate for variations in gravity of gasoline, and other conditions which cannot be held constant.

The condenser, which is attached to the outside of the housing, is a simple assembly of metal foil and insulating material. It need not be further described, as it will require no attention.

The distributor requires no attention, save an occasional wiping of the contacts with a soft, smooth, oily rag, free from lint. The head of the distributor may be removed by pressing back the metal tongue at the side, rotating the head counter-clockwise until the notch in the rim of the head coincides with the tongue, and then lifting the head straight up.

The rotor may be removed by lifting straight up. The timer mechanism is exposed by the removal of this rotor.

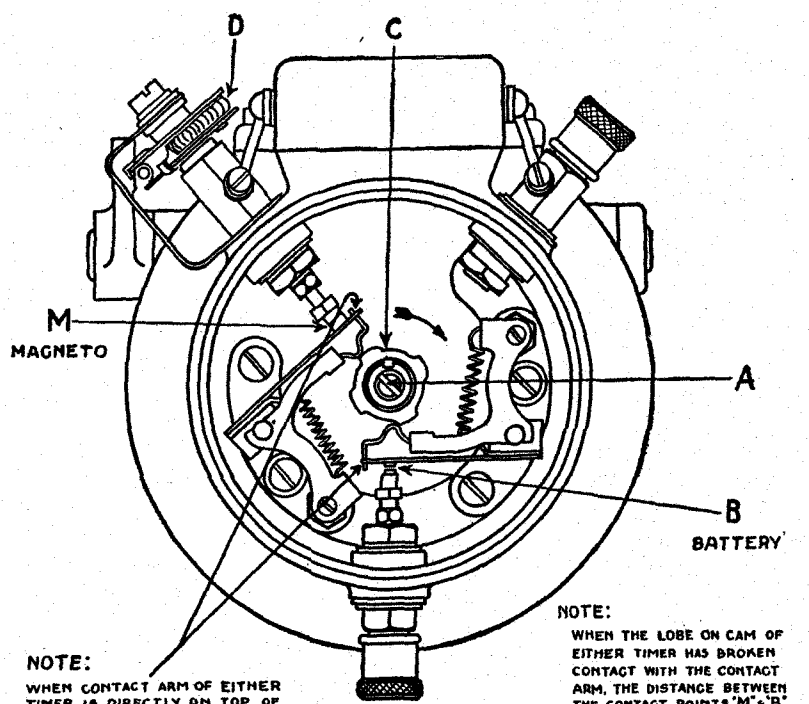


Fig. 10

TO TIME IGNITION.

(On cars on which the sector upon which the spark and throttle levers move is marked "Start" at the extreme left and "Driving range" at the right.)

First open the compression release cocks on the cylinder and crank the engine by hand until the piston in No. 1 cylinder is on firing center. (No. 1 cylinder is the one nearest the radiator).

Next, remove the distributor cover, also the rotor, and loosen the adjusting screw "A" (Fig. 10) just enough to allow the cam "C" to be turned by hand after the rotor is fitted. (The adjusting screw should not be loosened enough to allow the cam to turn on the shaft when the engine is cranked by hand).

Next, remove the spark lever to the extreme left on the sector and replace the rotor. Then turn the rotor by hand until the distributor brush is approximately under the terminal marked No. 1 on the distributor cover. (If the timer is only slightly out of adjustment this will be unnecessary).

Then switch on battery ignition, hold in on the vibrator button at the top of the switch on the cowl board, and turn the fly-wheel of the engine by hand in the direction which it runs.

If the cam "C" is properly set, the relay in the ignition system will start to vibrate one-half inch before center on the fly-wheel. If the relay starts to vibrate before this point on the fly-wheel is reached it will be necessary to rotate the cam slightly in a counter-clockwise direction to correct the adjustment. If the relay does not start to vibrate until after this point on the fly-wheel has been passed, it will be necessary to rotate the cam slightly in a clock-wise direction.

After the adjustment has been made properly be sure that the cam "C" is locked securely to the shaft by the adjusting screw "A".

It is good practice to recheck the timing after the adjustment is locked.

TO TIME IGNITION.

(On cars on which the sector upon which the spark and throttle levers move is marked "Bat. C" and "Mag. C.")

First, open the compression release cocks on the cylinders and crank the engine by hand until the piston in No. 1 cylinder is on firing center. (No. 1 cylinder is the one nearest the radiator).

Next, remove the distributor cover, also the rotor, and loosen the adjusting screw "A" (Fig. 10) just enough to allow the cam "C" to be turned by hand after the rotor is fitted. (The adjusting screw should not be loosened enough to allow the cam to turn on the shaft when the engine is cranked by hand).

Then replace the rotor and turn it by hand until the distributing brush is approximately under the terminal marked No. 1 on the distributor cover (if the timer is only slightly out of adjustment this will be unnecessary).

Then switch on battery ignition, hold in on the vibrator button at the top of the switch on the cowl board and retard the spark lever to its fully retarded position. (It is necessary to retard the spark lever to its fully retarded position before advancing it to take out all slack in the timer and control rods).

Then pull the spark lever towards advance position and note the point on the sector at which the relay starts to vibrate. If the cam "C" is properly set the relay will start to vibrate just as the spark lever reaches the battery centre (marked Bat. C.) on the sector. If the relay starts to vibrate before the spark lever reaches battery centre it will be necessary to rotate the cam slightly in a counter clockwise direction to correct the adjustment. If the relay does not start to vibrate until after the battery centre on the sector is passed it will be necessary to rotate the cam slightly in a clockwise direction.

After the adjustment has been made properly be sure that the cam "C" is locked securely to the shaft by the adjusting screw "A".

It is good practice to recheck the timing after the adjustment is locked.

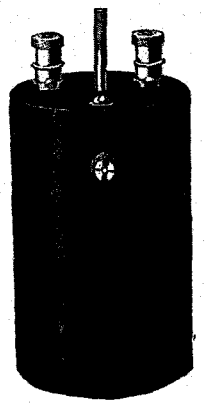


Fig. 11

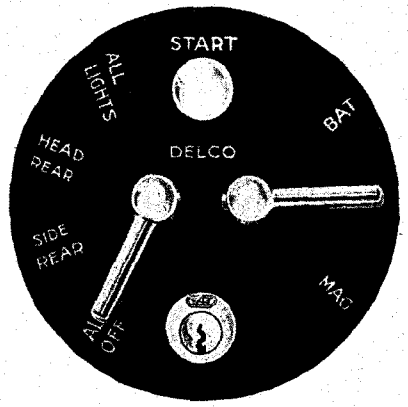


Fig. 12

IGNITION COIL.

LOCATION: The ignition coil is mounted just back of the distributor on the right-hand side of the motor.

DESCRIPTION: The coil consists of a primary winding of coarse wire, in comparatively few turns, and a secondary winding of many turns of fine wire, wound around an iron core, also the necessary insulation and terminals for wire connections.

The coil has a special cover made of bakelite, and moun ed on top of the coil, which prevents any water or dirt from entering and interfering with its operation.

COMBINATION SWITCH.

LOCATION: The combination switch is located on the cowl board. It makes the necessary connections for Ignition, Lighting and Starting. The lever on the left-hand side controls the lights, and the one on the right, the ignition.

The "Start" button is also incorporated in this switch.

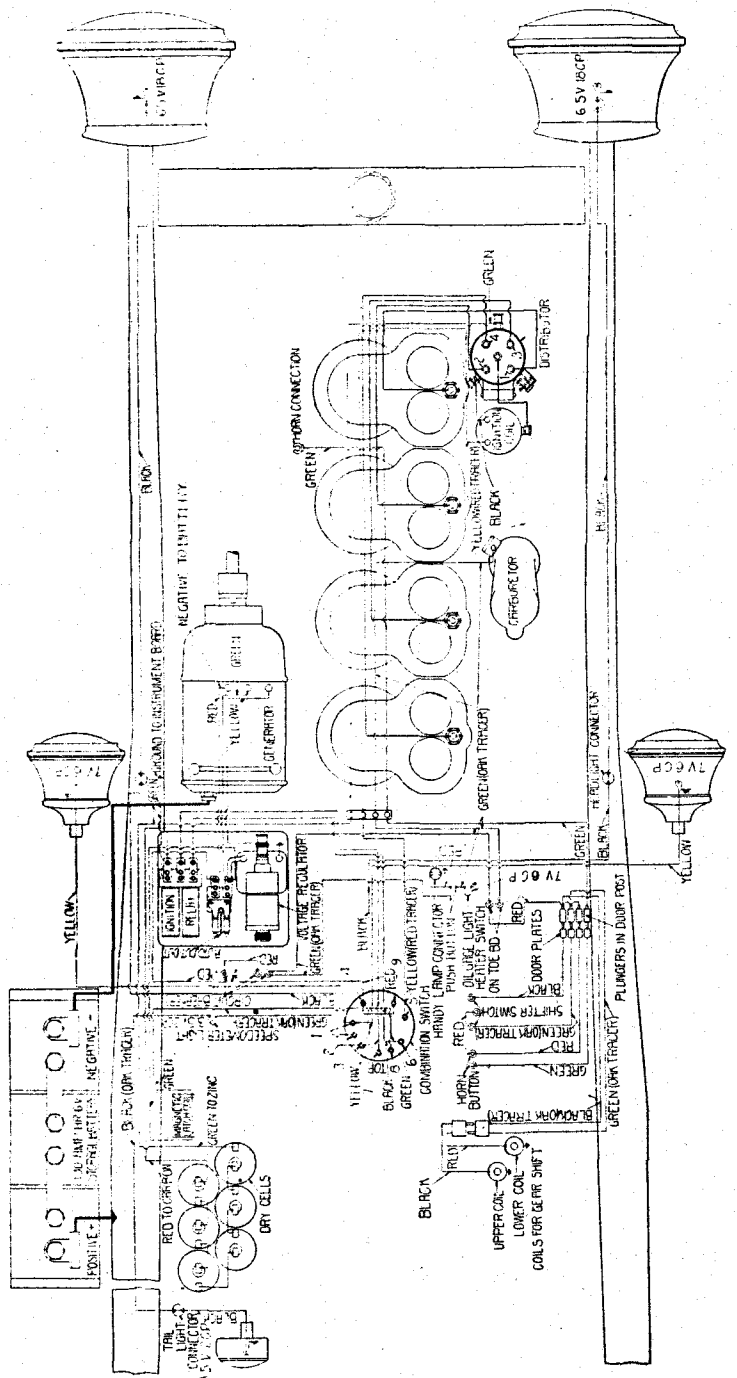
The combinations of lighting and ignition, as well as the "Start" button, are properly marked, so that the driver will have no difficulty in determining which combination of lights or which ignition system is in use.

A Yale Lock is incorporated in the switch. In order to lock it, the ignition lever must be on the "Off" position, while the lighting lever can be on any combination of lights.

The "Start" button is made inoperative when the switch is locked.

HANDY LAMP SOCKET.

A handy lamp socket is provided. It is attached to the back face of the cowl board directly in front of the steering post.


6 VOLT COIL
6 VOLT COIL
GREEN
OPTIONAL CONNECTION
DISTRIBUTOR
BLACK
CARBURETOR
GENERATOR
GREEN
YELLOW
RED
GREEN
HORN
YELLOW
BLACK
GREEN
RED
BLACK
GREEN
YELLOW
RED
BLACK
GREEN
RED
BLACK
GREEN
YELLOW
BLACK
GREEN
RED
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GREEN
YELLOW
BLACK
GREEN
RED
BLACK
GREEN
YELLOW

ADJUSTMENT: "D" is a safety valve which operates at any predetermined pressure. This is adjusted to operate at about ninety pounds pressure when it leaves the factory. If it should be found after long use that the pump does not deliver the proper pressure, screw down on the adjusting screw "E". This will increase the spring pressure on the valve "D" causing the valve to work at a higher pressure. It will be necessary to remove the cap "C" in order to make the adjustment at "E".

TIMING THE VALVES.

The fly-wheel is marked as follows:

C meaning Center.
I O meaning Inlet Opens.
I C meaning Inlet Closed.
E O meaning Exhaust Opens.
E C meaning Exhaust Closed.

Each of the above appears twice on the face of the fly-wheel. When a "C" is exactly at the top of the fly-wheel, it indicates that the crank shaft and pistons are on "center," that is, that two of the pistons are at their highest points and the other two at their lowest points.

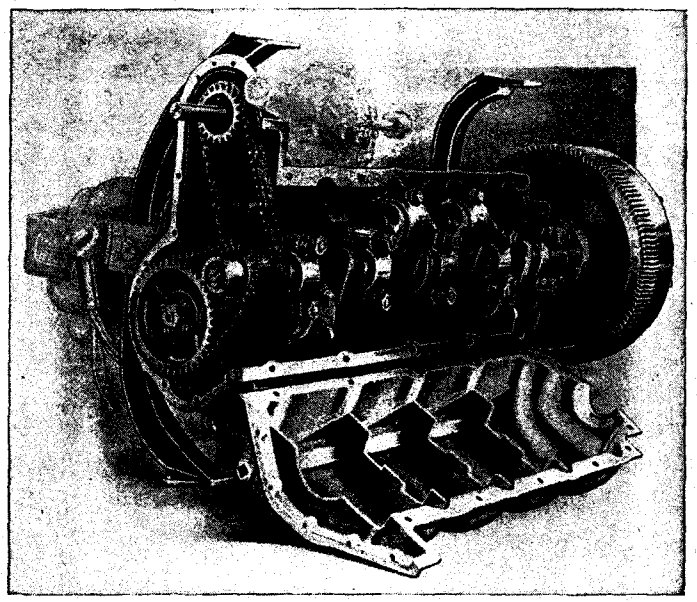
The positions of the letters on the fly-wheel clearly indicate the correct timing of the valves. There being four cylinders, the inlet and exhaust valves must be timed on each separately. As valves are all timed before the car leaves the factory, these instructions will be found adequate for such slight adjustments as may possibly from time to time be advisable.

In timing the valves always turn the engine in the direction in which it runs.

For example, take the forward cylinder. The inlet valve should be so timed that it will just start to open when some part of the space marked "I O" is at the top, under the pointer which is fastened to the crank case of the engine, and so it will just be entirely closed when the line marked "I C" on the opposite side of the fly-wheel has reached the top. The exhaust valve should be so timed that it will begin to open when the line marked "E O" is at the top under the pointer, and so that it will just be entirely closed when some part of the space marked between "E C" on the opposite side of the fly-wheel has reached the top.

It will be noted that the timing of the inlet closing "I C" and the exhaust opening "E O" are positive, and that a limit is allowed in closing of the exhaust and opening of the intake valve.

The adjustments of the inlet and exhaust valves are made by means of the screw in the cam roll slide. Turning the screw in the cam roll slide to the left (unscrewing it out) causes the valve to open earlier and close later, while turning the screw in the cam roll slide to the right (screwing it down) causes the valve to open later and close earlier.



Cadillac engine with front cover plate and oil pan removed, showing engine bearings and silent chains driving cam shaft, and pump shaft.

Adjustment of Engine Bearings.

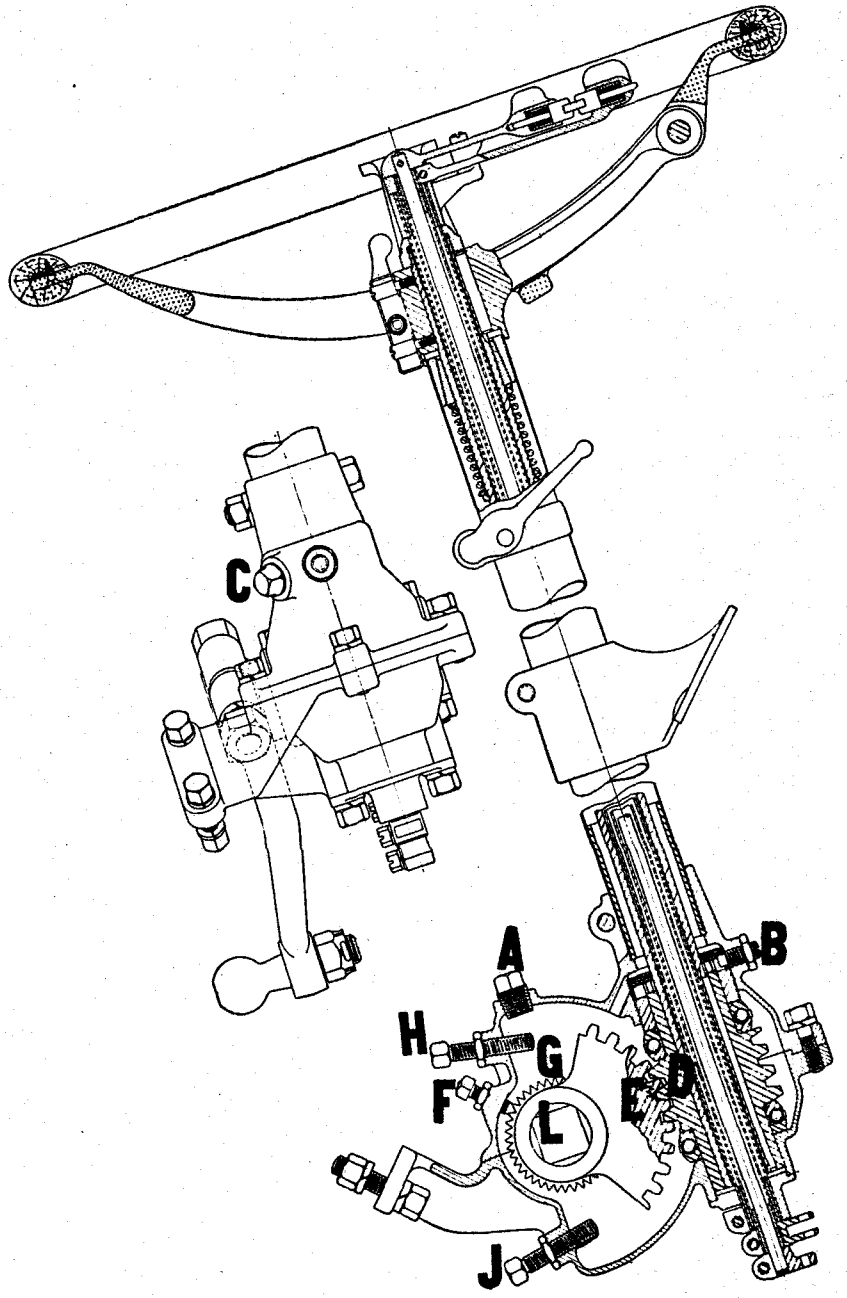
Do not neglect the crank shaft and connecting rod bearings. A slight knock or pound in the engine sometimes is caused by a looseness in one or more of the bearings, and they should always be kept properly adjusted. They are accessible by removing the sheet metal pan under the motor, and removing the oil pan from the crank case.

To adjust the connecting rod bearings, first loosen the Columbia lock nut and turn up the connecting rod bolt until it is quite tight. Then retighten the Columbia lock nut. The bearing will now probably be so tight that the crank shaft will not turn freely and should therefore be loosened. To do this, simply back off on the bolt and at the same time turn the Columbia lock nut in the same direction you are turning the bolt. The bolt should be backed off just sufficient to permit the crank shaft to revolve freely.

There are five main crank bearings, one at each end and three intermediate bearings between. It will be observed that the five main bearings are provided with liners. These are small pieces of metal which are placed between the two halves of the bearings. To tighten the main bearings, new liners of less thickness should be substituted. Each liner is stamped, showing its thickness in thousandths of an inch, thus, .180. We make these liners in a number of sizes with a difference of .001 of an inch between each size; therefore when new liners are necessary, they should be replaced with those which are sufficiently smaller than those taken out to make the correct adjustment, yet should be thick enough so that the bearings may be brought up against the liners without pinching the crank shaft. Liners in the bearings are not all the same size, so when you have occasion to take them out, be sure not to mix them and be sure to keep track of where each one was taken from.

Frequently a very slight adjustment may be made on the first occasion after changing the liners by simply tightening the nuts without again putting in new liners.

The thickness of a liner may be reduced with a fine file, but this should never be attempted excepting by someone who thoroughly understands how to do it, as any inaccuracy in the work may prove disastrous to the bearings.



Steering Gear.

STEERING GEAR.

The internal mechanism of the steering gear is oiled at (A) and (C), after taking out the plugs. Rear Axle oil and flake graphite is a good lubricant for this part.

Two adjustments are provided. The first is to take up end play in the steering staff. When this occurs, loosen the jamb nut and the set screw (B) and remove the plug (C). Then with a screw driver or something suitable turn up the adjusting collar, which can be seen through the hole from which plug (C) was removed. Then lock the collar with the set screw and jamb nut (B) and replace plug.

The other adjustment provides for taking up wear on the worm (D) and sector (E). The sector has its bearings in a pair of eccentric steel bushings and should wear occur it is taken up by turning these bushings so that they throw the sector closer toward the worm. To do this proceed as follows: First, remove the two set screws (F), which are on each side of the sector (but only one shows in the illustration). Through the holes from which set screws were taken, the two notched adjusting eccentric bushings (G) may be seen. Next, with a wrench, turn the hex heads on the bearing bushing forward, moving the sector toward the worm, just one notch of the bushings, or more if necessary, but one will usually be sufficient. In any event be very sure to **turn both sides exactly alike,** otherwise the gear will be thrown out of alignment. Then replace the set screws.

(H) and (J) are stop screws which limit the range of movement of the steering gear and front wheels.

SPRINGS.

After a new car has been driven a few hundred miles there is a slight tendency for the spring clips to loosen, caused by the many surfaces on the spring leaves becoming smoother and harmonizing with each other, which causes them to pack a few thousandths of an inch closer together. If this matter is neglected for two or three seasons the springs will settle more rapidly and there is a greater tendency for them to break. As a matter of life insurance for the car, it is well to tighten all spring clip bolts on the car after it has been driven about 1000 miles, and at the time the spring clips are tightened, all of the body bolts should be tightened, because they have a slight tendency to loosen on account of the heads of the bolts, washers, etc., more firmly seating into the wood.

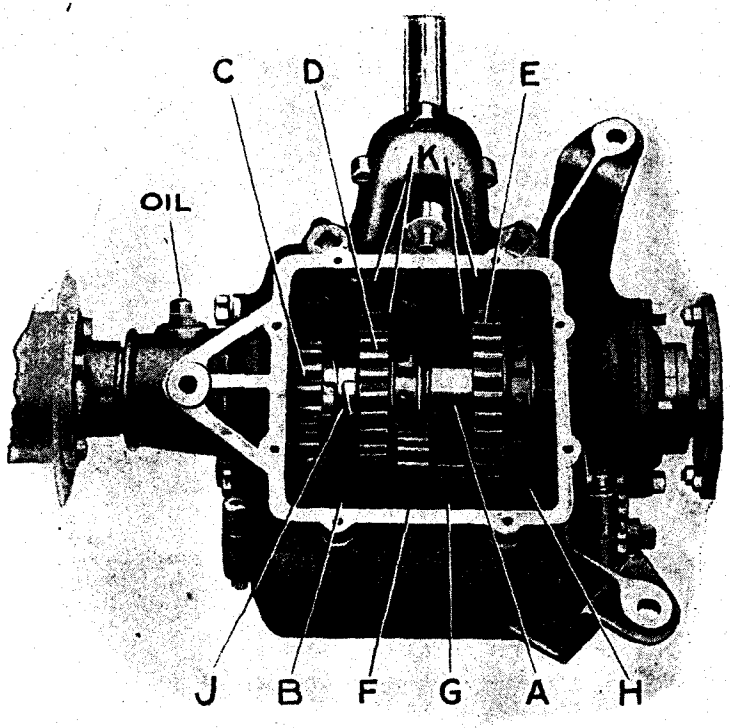
SPRING LUBRICATION.

When springs are not lubricated, water works its way in between the leaves and causes them to rust, often to such an extent that they become almost like solid pieces. This causes them to lose much of their spring action.

It is a good plan to jack up the frame of the car occasionally, so as to take the weight off the springs, and insert oil and graphite between the leaves.

It is also a good plan, about once a year, to have all the springs taken apart, the surfaces thoroughly cleaned and coated with a thick mixture of oil and graphite.

TRANSMISSION.



Keep sufficient liquid oil in transmission gear case so that the under teeth of the largest gear will enter into it their full depth. The best lubricant for this part is Cadillac rear axle and transmission lubricant (1914 model). In its absence we recommend a mixture of cup grease and oil, mixed to such a consistency that it will flow easily into the transmission bearings.

The transmission on the Cadillac is our selective type of sliding gear. The main transmission driving shaft "A," also the jack shaft "B," revolve on ball bearings.

There are three speeds forward and reverse. The speed changes are accomplished by means of a hand lever at the side of the car, the range of action being within an "H" shaped quadrant. The construction is such that a shift may be made from any gear to any other gear without "going through" a third.

The illustration shows the transmission in natural position; that is, even with the motor running and with the main engine clutch engaged, it would not drive the car because the transmission shaft "A" and the driving shaft to the rear axle are *not connected by the high speed clutch "J."*

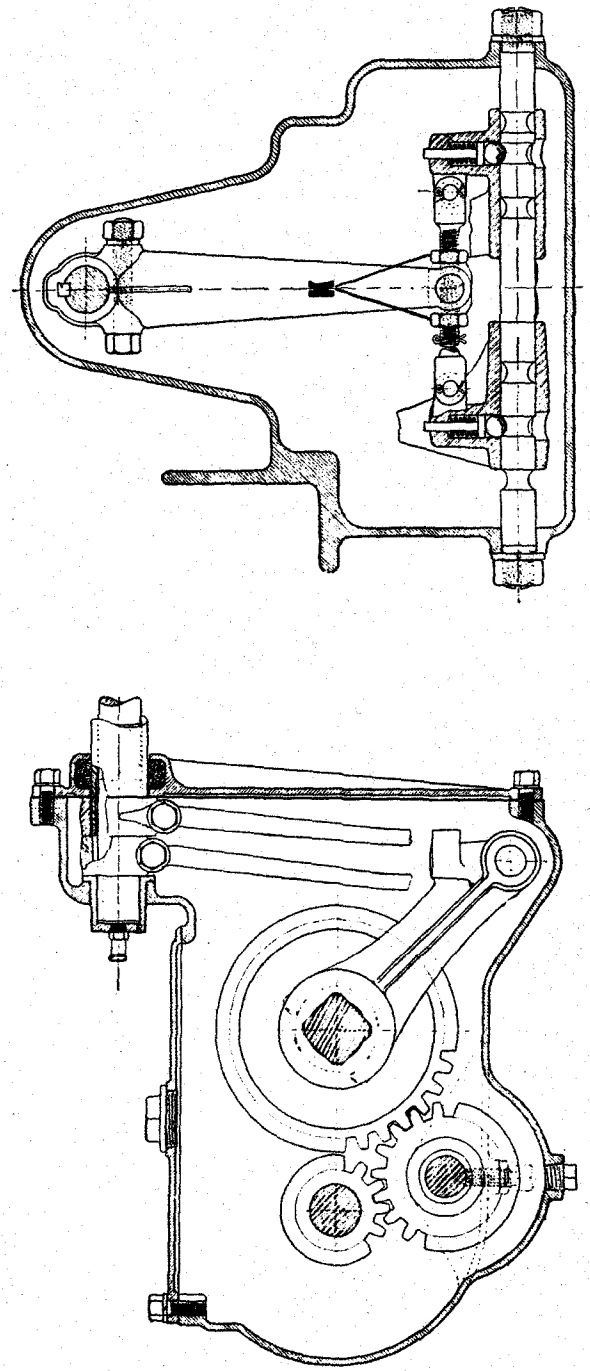
High speed is obtained by shifting the control lever so that the lugs at "J" interlock, thereby connecting the transmission shaft with the shaft which transmits the power to the rear axle.

Intermediate speed is obtained by shifting gear "D" into mesh with gear "F."

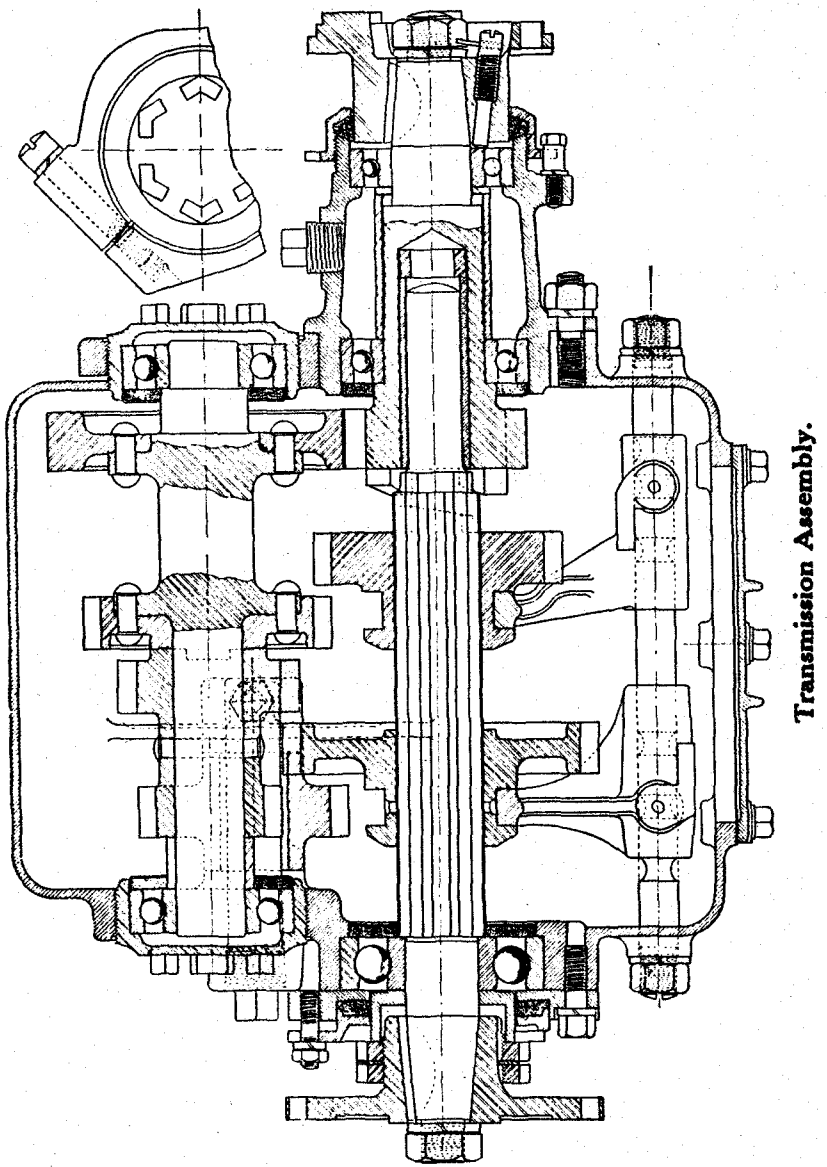
Low speed is obtained by shifting gear "E" into mesh with gear "G."

In reversing, gear "E" is shifted into mesh with the gear which is directly underneath gear "H."

When stopping the car, always be sure to shift the control lever to the neutral position.



Gear Shifting Mechanism.



Transmission Assembly.

ADJUSTMENT OF TRANSMISSION GEARS.

The teeth of the transmission gears should mesh so that the sides of the two gears in mesh will be flush or at least within 1/32 inch of being flush.

These gears are not liable to require adjustment unless some of the connections become bent or distorted by the operator's trying to shift gears without having the gear teeth in the correct position to mesh, or by some other improper handling.

If for any reason it becomes necessary to alter the position of the gears in order to make them mesh properly, first place the controller lever in the neutral position in the "H" plate. The gears should be so positioned that one does not rub against or interfere with another. Their position can be regulated by properly adjusting the shifting arms which are inside the transmission case. The adjustment for this is shown at "K."

CAUTION.—*After making the adjustment just mentioned, be sure to see* that the locking nuts are properly tightened.

MAIN CLUTCH.

Both the clutch pedal and the brake pedal are made in two pieces, slideably adjustable to accommodate different drivers. Additional adjustment of the brake pedal may be had by means of the attached pull rod and of the clutch pedal by means of the stay rod (D).

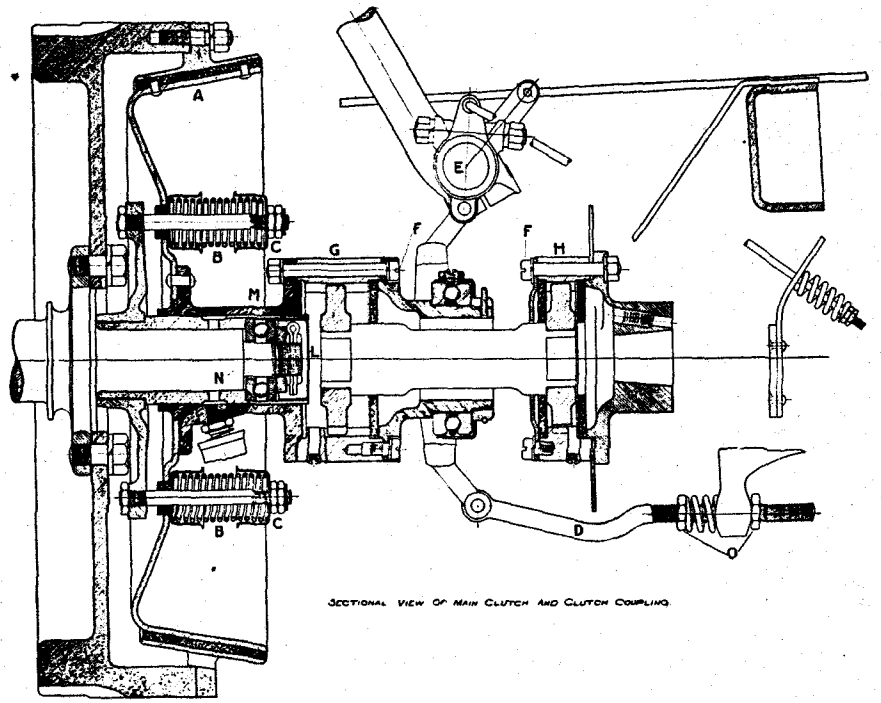
In altering the positions of either of these pedals, be sure not to alter them so much as to interfere with their proper action.

If after a car has been in use for some time it is found that the leather facing of the clutch has become dry and hard so that it does not "take hold" properly, it may be made more pliable by applying a little Neatsfoot oil. This, however, must be applied very sparingly, as too much will cause it to slip and possibly burn out. Under no circumstances should any but Neatsfoot oil be used. An application only once or twice a season is usually sufficient to keep clutch leather in good condition. To apply the oil, disengage the clutch and revolve the cone with the hand, at the same time applying the oil through the slots in the clutch ring. Another method is to disengage the clutch and jack up one rear wheel of the car. Then with some of the transmission gears engaged and by turning the rear wheel, the cone will revolve. While it is revolving, apply the oil through the slots in the clutch rings. Do *not use lubricating or mineral oil for this purpose.*

TO REMOVE MAIN CLUTCH AND UNIVERSAL JOINT.

1. Remove the twelve screws (F-F) and close together the sleeves (G) and (H). The joint may now be removed.

2. Remove the nuts (C-C) and the springs (B). The clutch disc now may be removed.



SECTIONAL VIEW OF MAIN CLUTCH AND CLUTCH COUPLING.

The clutch bushing may be withdrawn by removing the cap (L), the cotter pin (M), and the right-hand threaded nut (N).

In re-assembling the clutch, turn the nut (N) by hand until it brings up lightly, then back it off until the cotter pin can be inserted.

The ball race and the cap (L) both should be filled with dope before replacing.

ADJUSTMENT OF MAIN MOTOR CLUTCH.

After a car has been run for some time it may be found that the leather facing on the clutch has become compressed to some extent and consequently either permits the clutch to slip or to seat sufficiently far in the ring so that it allows the clutch pedal to come closer toward the driver.

To determine whether the main clutch (A) seats properly take hold of the left foot pedal and if you can move it back and forth an inch or more with only moderate pressure and without starting to release the clutch, the probabilities are that it is all right.

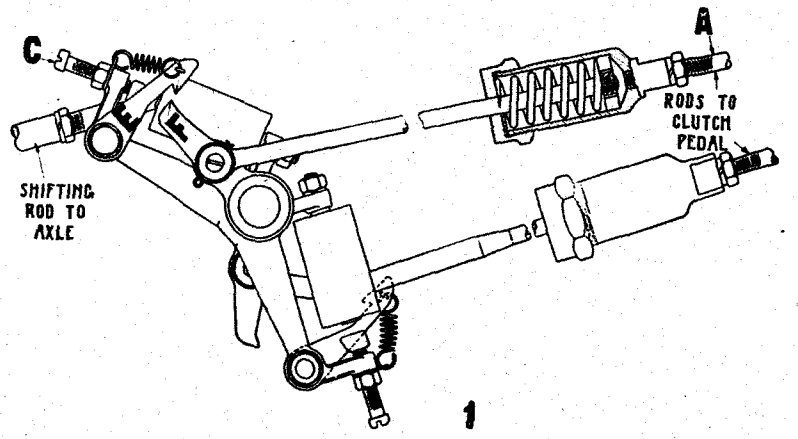
If the clutch should not seat firmly because the stay rod (D) does not permit it to do so, it will be necessary to lengthen the stay rod (D) by means of the nuts (O). However, if the stay rod (D) is so adjusted that it will permit the clutch to seat firmly, but the clutch does not do so on account of insufficient spring tension, then the tension should be increased by turning up the nuts (C) on the six springs.

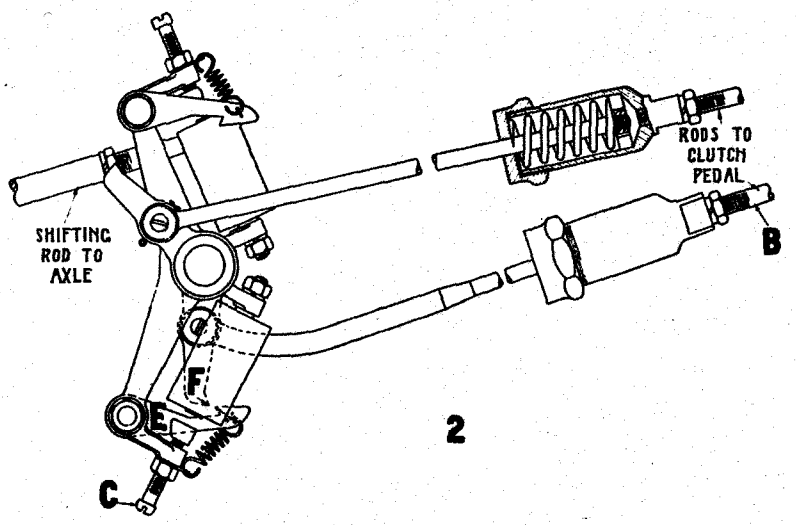
To compensate for wear on the face of the clutch leather it is simply necessary to adjust nuts (O) on rod (D). It is not necessary to change any other adjustment to compensate for wear on the clutch leather.

ADJUSTMENT OF THE MAGNETIC LATCHES IN THE ELECTRIC GEAR SHIFTING DEVICE.

To adjust the magnetic latch controlling the low direct drive, first shift the axle so that the shifting clutch is fully engaged with the high direct drive. Then adjust the arm "E" (Fig. 1) by the screw "C" until the points indicated by arrows on arms "E" and "F" just pass each other when the clutch pedal is pushed forward with the gear shifting switch in the neutral position.

To adjust the magnetic latch controlling the high direct drive, first shift the axle so that the shifting clutch is fully engaged in the low direct drive. Then adjust the arm "E" (Fig. 2) by the screw "C" until the points indicated by arrows on arms "E" and "F" just pass each other when the clutch pedal is disengaged with the gear shifting switch in neutral position.





ADJUSTMENT OF CONTROL RODS ON ELECTRIC GEAR SHIFTING DEVICE.

(See illustrations on preceding page.)

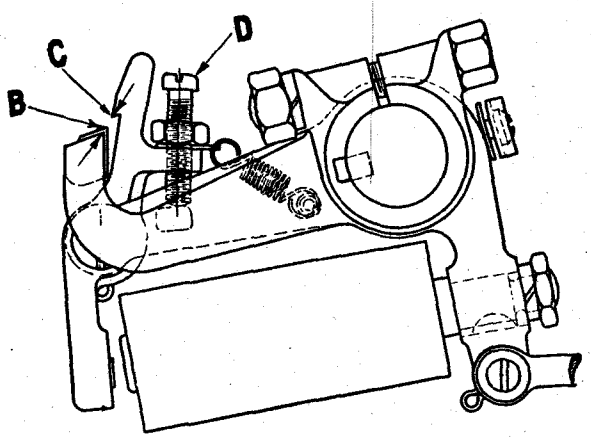
Before adjusting the control rods, rods "A" and "B" (Figs. 1 and 2) the rod "D" (refer to cut of clutch) should be adjusted to compensate for any wear which exists on the clutch leather. The nuts "O" on the rod "D" should be adjusted until the clutch pedal has a movement back and forth of one inch without disengaging the clutch.

To adjust the rod "A" (Fig. 1) have the shifting clutch in the axle fully engaged with the high direct position. Then adjust the length of rod "A" until the distance between the points indicated by the arrows on arms "E" and "F" is five-eighths of an inch. When making this adjustment be sure that the clutch pedal is held back properly by the spring provided for this purpose.

To adjust the rod "B" (Fig. 2) make sure that the shifting clutch in the axle is fully engaged in the low direct position. Then adjust the rod "B" until the distance between the points indicated on arms "E" and "F" by the arrows is five-eighths of a inch. As in adjusting rod "A" make sure that the clutch pedal is held back properly by the spring provided, when making the adjustment.

ADJUSTMENT OF STARTER MAGNETIC LATCH

The arm *"C" should be adjusted by the adjusting screw* "D" *that the arm* "B" will pass the arm "C" just allowing the point indicated by the arrows to clear each other when the main clutch is disengaged, and when the magnetic latch is in the disengaged position. Screwing up on the adjusting screw "D" decreases the distance between the points "B" and "C," and unscrewing the adjusting screw "D" increases the distance between these points.



Starter Magnetic Latch

REAR AXLE.

TIMKEN FULL FLOATING.

The driving gear housing should always contain one gallon of oil.

The best lubricant for this is Cadillac Rear Axle and Transmission Lubricant (1914 Model). In its absence we recommend the use of Vegetable Castor Oil. (Do not use Mineral Castor Oil).

CAUTION IN ADJUSTING TIMKEN BEARINGS.

When adjusting any Timken bearing, great care must be exercised not to get them too tight. These bearings will revolve even when adjusted very tightly, but that condition is sure to prove disastrous. They should be *adjusted so that a very slight amount of play or looseness may be discerned.* If after a bearing has been adjusted to a point that is apparently correct and the slots in the locking nut do not match up with the cotter pin holes or if the slots in the adjusting collar do not match with the locking plates, it is best to back off on the adjustment (loosen it) to the next cotter pin hole or slot rather than adjust the bearing a little tighter. It is far better to have a bearing a trifle too loose than too tight.

TO REMOVE AND REPLACE A REAR WHEEL.

Remove the screw which holds the hub cap and then unscrew the hub cap.

Withdraw the axle shaft.

Jack up the axle, so that the wheel will clear the floor.

Remove the two adjusting nuts and the lock washer.

The wheel can now be taken off.

Before putting the wheel on again see that the bearings are clean and filled with light grease which is free from grit and dirt.

In putting the wheel on again, set the adjusting nuts very carefully so that the bearings will not be too tight and see that the lock washer is between the two nuts. Also be sure that the outer nut is pulled up tightly against the washer so that the adjustment will be held. Both the front and rear wheels should be removed every 3000 or 4000 miles to examine the bearings and see that they are kept properly filled with light grease. A few drops of lubricating oil should also be put in occasionally through the oil hole in the hub.

TO REMOVE AND REPLACE REAR AXLE.

Disconnect all brake rods at rear axle.

Disconnect rear universal joint at flange.

Remove all nuts which retain the spring clips.

Disconnect front end of torque tube at cross member by removing bolts.

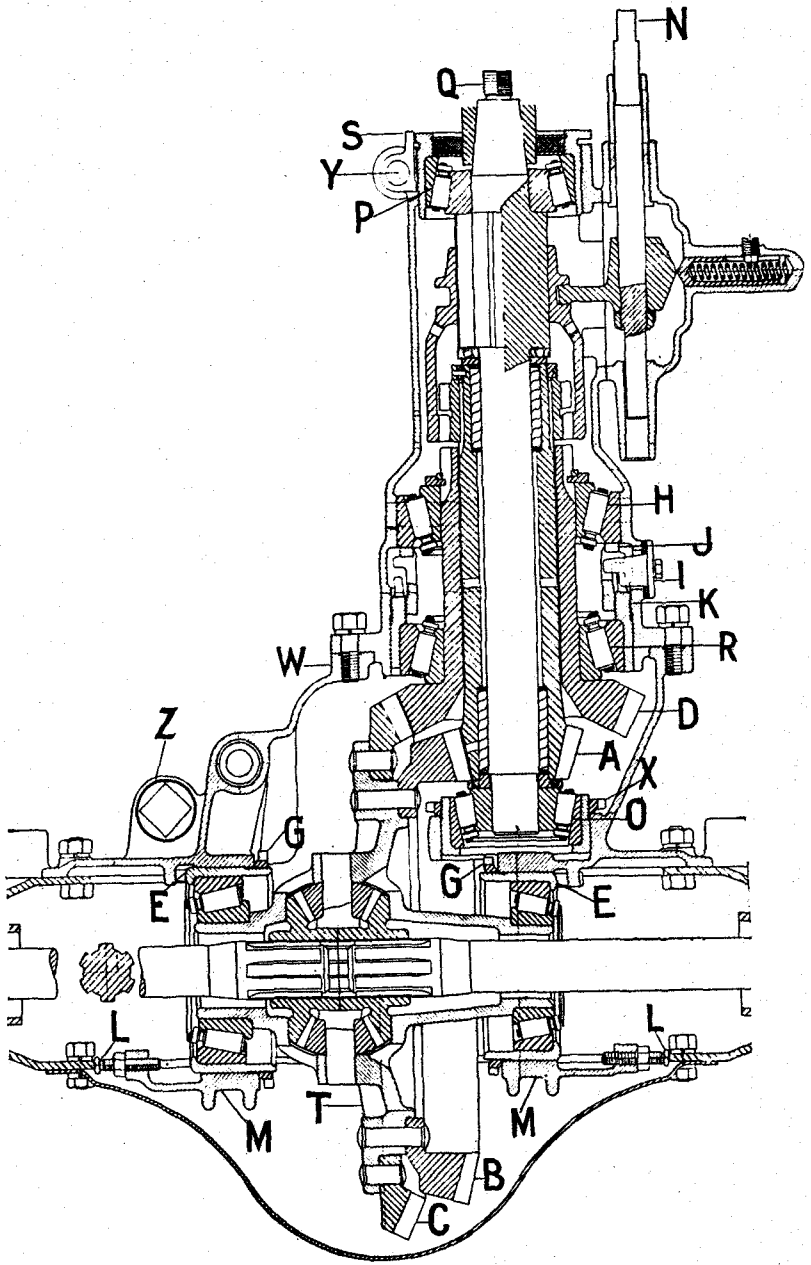
Disconnect rod for shifting rear axle gears at axle.

Jack up rear end of car by placing jacks under the rear springs just forward of axle to suspend the rear of the car.

Block up rear end of frame so that it cannot sway.

Roll axle and torque tube from under car.

To install axle, reverse the order of the above operations. Care must be taken in installing the axle to get the brakes correctly adjusted. (See special instructions for adjusting brakes.)



Rear Axle.

ADJUSTMENT OF BEVEL PINIONS AND LARGE BEVEL DRIVING GEARS.

In the design of the axle, provision is made for adjusting the pinions and the gears so that their teeth may be correctly meshed and all adjusting nuts securely locked in position. The large bevel gears "C" and "B" and the bevel pinions "A" and "D" are correctly adjusted when the car is assembled. After they have been in use for some time the wear in the bearings may cause the gears to lose their original relative positions and to require re-adjusting.

Extreme care should be used in adjusting, as the tooth form of the most accurately cut gears may be easily spoiled by running them when not properly meshed. The necessity for adjusting axle gears usually comes because the bearings that take the thrust of the gears become more permanently seated. Frequently it is necessary to adjust only the bearings taking the thrust, thereby putting the gears back in their original positions.

In order to adjust the gears to the best advantage a crank should be provided which can be attached to the forward end of the driving shaft "Q". By operating the shifting shaft "N" and turning the driving shaft "Q" by the crank the adjustment of either set of bevel gears may be tried until a position is found where they will run smoothly.

If after the car has been driven for some time it is found that the wear in the bearings has caused the gears to lose their original relative positions the wear may be compensated for by taking up the end play in the small pinion "A" or the large pinion "D" and the side play in the differential housing "T".

If undue end play is found in the pinion "A", remove the clamping bolt "Y" and the key "S" and adjust the bearing "P". Be careful not to adjust the bearings too tightly (see CAUTION in regard to adjusting Timken bearings). After the adjustment is made make sure that all adjustments are properly locked.

If undue end play is found in the large pinion "D", take off the locking plate "I". This will give access to the adjusting nuts "J" and "K". Hold the adjusting nut "J" and at the same time take up the adjusting nut "K" as far as possible without making the bearings too tight. (See CAUTION in regard to Timken bearings).

If, after following this method it should be found that further adjustment is required to bring either pinion into proper mesh, it must first be determined whether it is necessary to move the pinion toward the axle, or the large bevel gears towards the pinion, or both.

Referring to the drawing it will be seen that the large bevel gears "C" and "B" are attached to the gear mount "T," having a hub projecting on each side, that fits into the roller bearings. These bearings are carried in sleeves "E" "E" which are supported in the main carrier "W". The sleeves are threaded on their inner end to receive the adjusting nuts "G" "G".

To adjust large bevel gears, first loosen the four bolts that hold the two caps "M" "M". Draw the locking devices out of the slot in the adjusting nuts "G" "G", on the sleeves which carry the bearings in the gear mount. The adjusting nuts "G" "G" can now be turned, moving the gear mount with the gears in either direction as required.

In making these adjustments be sure to allow enough back lash between the teeth of each set of bevel gears so that they will not bind in turning. After the gears are correctly positioned and turn smoothly by hand, all nuts and bearings should be securely locked.

Be careful not to adjust the bearings too tightly. (See CAUTION in regard to adjusting Timken bearings).

The set screws "L" "L" in the caps should be adjusted so that they will set only very lightly against the edge of the hole in the housing and then be locked in that position.

TO REMOVE FRONT WHEEL AND ADJUST BEARINGS.

Take off hub cap, remove the two cotter pins and the washer which holds the adjusting nut from turning, then remove the adjusting nut.

CAUTION—Be sure to remove the lock washer before you attempt to remove the adjusting nut.

In replacing the wheel be sure to secure the adjusting nut with the locking washer provided and to replace both cotter pins.

The bearings should be adjusted as closely as possibly and yet allow the wheel to turn freely. There must be just a very slight amount of play. This can be readily felt by taking hold of the wheel and moving it side ways. It is better that the bearings be a trifle too loose rather than too tight. (See CAUTION in regard to adjusting bearings.)

Front wheels should be examined every three or four thousand miles, or at least once a year, and the bearings thoroughly cleaned in either gasoline or kerosene oil.

The bearings should be examined to determine whether any foreign substance has gotten into the roller cages that might damage them. The roller bearing should be thoroughly lubricated with a thin cup grease. (Do not use a heavy grease because it will be rolled away from the path of the roller and will not return.) A few drops of the lubricating oil should be applied occasionally through the oil cups.

N. B.—It is essential that the front wheel bearings be kept in proper adjustment.

BRAKES.

There are two pairs of brakes. The regular service brakes, which are operated by the right foot lever, contract upon the outside of the drums. The emergency brakes, operated by a hand lever, expand within the drums.

Connections from the foot lever and hand lever are made through equalizing bars so that each drum will be gripped with practically the same pressure. While these equalizing bars compensate for a certain amount of inequality in the tension, it is desirable to adjust the brakes as nearly alike as possible.

Brake bands are lined with a special lining which can be renewed when worn.

If the brake bands become too dry and grip the drums too suddenly, apply a little graphite mixed with oil.

When brake bands are wet and muddy they are less effective than when in proper condition, hence more care should be exercised in driving at such times.

The brakes and all parts relating thereto should be examined and tested occasionally to be sure that they are in serviceable condition.

The joints and all working parts should be oiled occasionally to avoid any possibility of the parts rusting and sticking together.

If brakes are in good condition, either pair will offer sufficient resistance to lock and slide the wheels, but doing this is bad practice excepting in case of emergency, as it is very injurious to the tires.

The brake band linings should not be allowed to drag on the drums when released, as that will cause unnecessary wear.

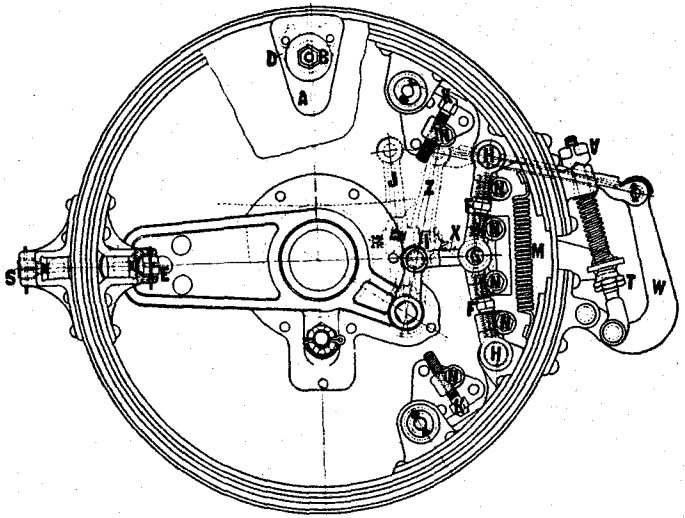
Do not attempt to adjust the brakes by the pull rods, as that will not properly compensate for wear on the linings.

TO ADJUST EXTERNAL BRAKES.

Turn the adjusting screw S until that part of the band opposite the screw is brought as close as possible to the brake drum without touching it. Adjust the two nuts T on the eye-bolt until the lower part of the brake band lining just clears the drum. Next adjust the nut V on the upper end of the eye-bolt to bring the lever W to the position shown in the illustration when the brake is applied.

When the brake is released, if the upper part of the brake band lining clears the drum more than 1/32 of an inch, the clearance should be reduced by the set screw X in the rocker lever Z.

After all adjustments are completed, be sure to lock all adjusting nuts.



TO ADJUST INTERNAL BRAKES.

The internal brake is designed so that all adjustments for clearance between the internal band and the drum can be made without removing the wheels.

Raise the axle with a jack so that the wheel can be turned by hand.

Remove the cover A from the opening in the brake drum. This can be done by unscrewing the lock-nut B and turning the bolt to the left about one-quarter turn until the clamping bar D is released.

Now turn the wheel until the opening gives access to the adjusting screw E. Turn this screw E until that part of the brake band lining in line with said screw is brought as close to the inner surface of the brake drum as possible without touching it.

Turn the wheel until it gives access to the six locking screwsNNNNNN. Loosen these six screws. Then turn the two adjusting screws F and F, which have right hand threads on one end and left hand threads on the other, until the center of the pin G stands about ¼ of an inch back of an imaginery line drawn through the centers of the two pins HH when the brake is applied.

With the brake released, adjust the screw I in the lever J and the stop screws K and K until the lower and upper parts of the brake band lining clear the drum about 1/32 of an inch.

The three coil springs MMM should be strong enough to hold the brake band sideways and against the stop screws KK so that it will not rattle.

After making the adjustments be sure to lock each one with the locking screws N. Also replace and fasten securely the cover of the opening in the drum.

TIRES.

TIRE GUARANTY. All tires and rims used on Cadillac automobiles are guaranteed by their respective makers, and in case of claims, should be sent to the factory or any of the branches of said makers (not to us), transportation charges prepaid.

Each tire maker publishes a booklet with instructions for care and repair of tires and every motorist should provide himself with one of these and thoroughly familiarize himself with the contents.

We give here a few suggestions that will apply to pneumatic tires in general.

The various size tires are constructed for the purpose of carrying up to certain maximum loads and no more. Owners should realize, therefore, that overloading a car beyond the intended carrying capacity of the tires is sure to materially shorten their life.

Do not turn corners or run over sharp obstructions, like car tracks, at a high rate of speed. Such practice is sure to strain or possibly break the fabric, with the result that the further life of the tires will be limited. Remember that most tire troubles are the result of abuse more than use.

In case of puncture the car should be stopped at once and the tube repaired or replaced. The tire should also be examined carefully and the cause of the puncture ascertained and the nail, glass or whatever it may be, should be extracted. Before replacing the tire on the wheel, examine the inside of the casing to see that the cause of the puncture is not still protruding, because it would, if allowed to remain, continue to cut the inner tube. It is also advisable to look over the outside of your tires frequently and take out any pieces of glass or other particles which may have become imbedded in the casing, as they are liable to work themselves in and finally puncture the inner tube.

A puncture, gash or cut in a casing sufficiently deep to expose the fabric should have a vulcanized repair made without delay. Otherwise, water and dirt will soon ruin the whole tire, the threads acting as a conductor for the moisture, the fabric thus becoming mildewed.

Experience has taught the careful driver to carry one or more spare tubes, as a cemented roadside repair will not always hold, especially in warm weather, as the heat generated in the tire may loosen the patch. When touring, a spare casing should always be carried.

The garage floor should be kept free from oil or gasoline. The tires on a car left standing on a grease-covered floor deteriorate quickly, the natural enemies of tires being oil and gasoline. These destroy the nature of the rubber, rendering it soft, so that it cuts and wears away quickly.

Tires that show wear on one side from use on rutty roads or from other causes should be turned around, thereby lengthening the life of the tire. It is also a good plan to place the rear tires on the front wheels when they

begin to show age, as the power being transmitted through the rear tires, they necessarily wear out sooner than the front tires, which are simply submitted to a rolling action and sustain less weight.

A sprung axle will often cause the quick wearing of a tire, for the reason that the tire is running on an angle, which sets up a grinding action. Tires run under these conditions will wear out in a very few miles. When a car is not to be used for an indefinite period all four wheels should be jacked up; this prevents the fabric from becoming set in one position.

Spare tubes should be kept lightly inflated. This keeps them in good condition and prolongs their life. They should not be stored in a greasy tool-box under any circumstances.

If the car is not used during the winter, it is better to remove the tires from the rims, keeping casings and tubes in a fairly warm atmosphere away from the light. It will be better to slightly inflate the tubes, as that keeps them very nearly in the position in which they will be used later on. Before the tires are put back, the rim should be thoroughly cleaned, and any rust carefully removed; a coat of paint or shellac is also advised.

If the tires are not removed and the car is stored in a light place, it will be well to cover the tires to protect them from the strong light, which has a deteriorating effect on rubber.

The greatest injury that can be done to tires on a car stored for the winter is to allow the weight of the car to rest on the tires. The car should be blocked up, so that no weight is borne by the tires, and the tires should then be deflated partially. This will relieve the tires of all strain, so that in the spring they should be no worse for the winter's storage.

Occasionally a tire will puncture without apparent good reason. In such cases examine the rim and it may be found that a bolt head protrudes above the rim surface and has finally worn through the tube. The obstruction should be buffed or filed off until the bolt lies flush with the rim bed.

If the trouble is caused by a bolt being too far into the rim, leaving a depression sufficiently sharp and deep to damage the tube, this should be filled in. A compound of pumice stone and coach varnish mixed to the consistency of putty will do the work nicely. Just fill the hole and leave it to dry for an hour or so, and it will become hard.

Spare tires should be strapped tightly to the tire holder; otherwise, the tires will chafe on the tire holders and become damaged.

AIR PRESSURE IN TIRES.

This is a much disputed point. Some tiremakers advise the use of an air pressure gauge and specify certain pressures for various size tires. Other makers claim a gauge is not of much value on account of a large percentage of pressure being lost in the piping and opening of the valve check. About the surest method seems to be to inflate the tires until they show very little or no depression under the load they are obliged to carry.

The minimum air pressure recommended by one maker for the various sizes of tires is as follows:

4½ inch tires, 90 pounds; 5 inch tires, 100 pounds.

To Cadillac Owners

NEW PARTS FOR REPAIRS.

To avoid unnecessary delay and useless correspondence PARTS FOR REPAIRS should, where possible, be ordered from the dealer from whom machine was purchased or from nearest local Cadillac dealer, who is generally in a position to know what is desired and how to order it. (If he is not we should like to know it.)

With more than seventy thousand Cadillac automobiles in use it is obviously impractical for us to deal direct with all Cadillac owners. We cannot open accounts with or sell at a discount to any except regular dealers with whom we make annual contracts. Where conditions are such as to, in our judgment, warrant it, we will fill orders for parts at prices listed in our parts catalogue f. o. b. factory providing Cash accompanies the Order.

In case orders are sent under above conditions we must have motor number, and model of machine with correct description, also sketch and exact dimensions of the part wanted.. If these are not procurable, return the part properly tagged, charges prepaid (or it will not be accepted), with a special letter of instructions and instructions for returning.. Otherwise we cannot promise prompt service or an intelligent fulfillment of the order.

Our responsibility in all cases ceases with delivery to the transportation company.

REPAIRS TO PARTS.

In the event of claims or the necessity for repairing parts, the same course should be followed as outlined above for ordering new parts. The only exception is tires.

TIRES.

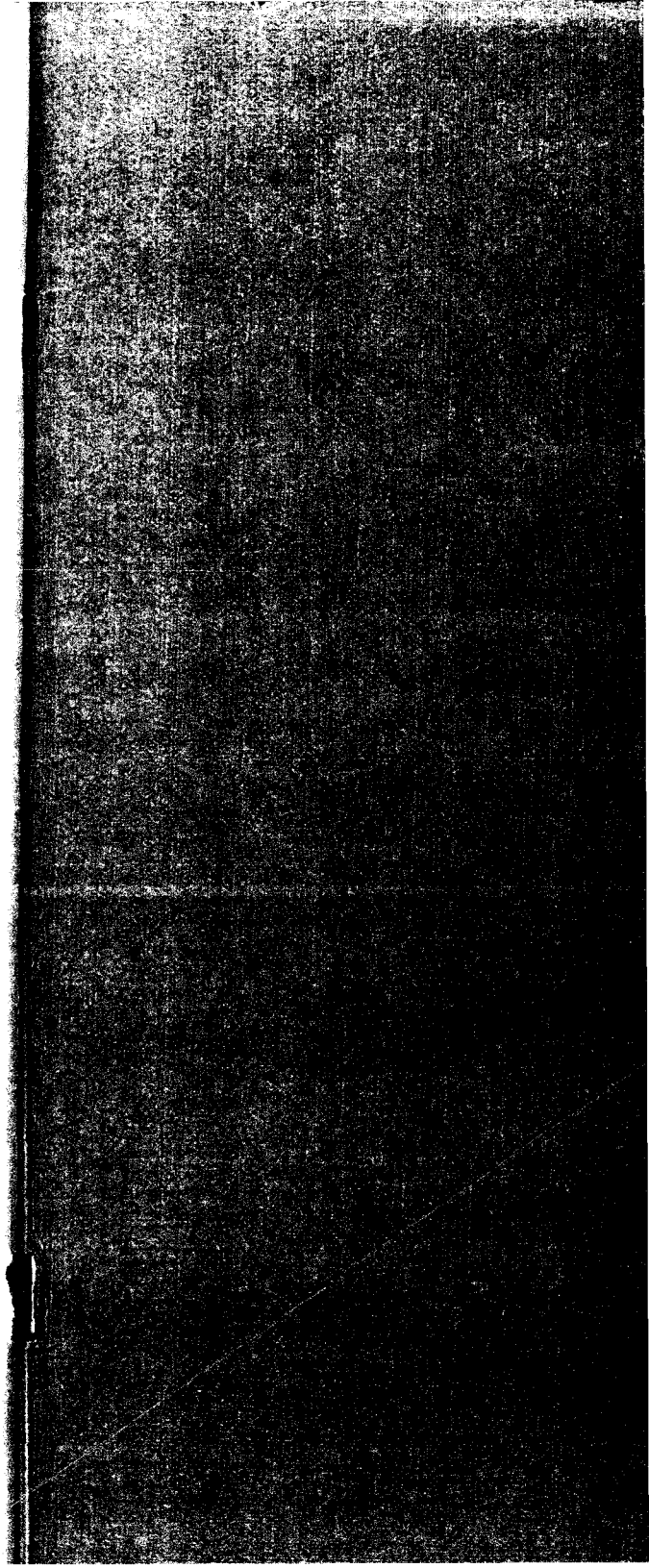
In cases of tire claims or repairs to tires, correspondence should be opened direct with the tire makers; and if necessary, the tires should be sent direct to said makers or their branches, transportation charges prepaid.

CADILLAC MOTOR CAR COMPANY,

Detroit, Mich.

This Book
is a part
of your car

It should always
be kept where
it is readily
accessible



Price List of Parts



This Price List is effective on and after July 1st, 1915
and supersedes all previous quotations.

Prices are subject to change without notice

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Cadillac Motor Car Company
Detroit, Michigan, U. S. A.

SECOND EDITION

Instructions

Unless these instructions are carefully followed, we will not be responsible for errors or delay.

To facilitate the prompt and correct handling of orders for parts, it is imperative that these instructions be carefully followed.

In order that parts wanted may be readily located, this list is arranged by groups; for example, the Engine Group, the Gasoline System, Electric Lighting System, etc., and under these respective headings will be found listed all parts that compose the groups and systems.

A number of parts are designated as "Right" and "Left." The "Right" side is the right side as you sit in the car.

Parts POSITIVELY MUST be ordered by serial part-number and by name in full as given herein. Also state the MODEL, the YEAR OF MAKE, and THE MOTOR NUMBER OF THE AUTOMOBILE. THE MOTOR number is stamped on the top of the crank case, in front of the first cylinder, on the left side.

If in doubt as to the correct designation of the part desired, send a sketch of it, giving dimensions. Or, send us the broken parts, CHARGES PREPAID, with your order for new parts. BE SURE to write YOUR OWN NAME AND ADDRESS plainly on the package. Tag each individual part contained in the package with your name and address, also state on the tag the MODEL and YEAR of MAKE and MOTOR NUMBER of the car from which the part is taken. BE SURE to write us at the time you send the package, stating what you are sending and how (mail, express or freight). This must be done REGARDLESS OF ANY FORMER CORRESPONDENCE. BE SURE to prepay carrying charges. Our Receiving Department refuses to accept packages on which charges have not been prepaid.

We do not list any part at less than five cents, for the reason that, though the part may not be worth more than a cent or two, the cost of handling it is several times that amount.

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To Cadillac Owners

NEW PARTS FOR REPAIRS.

To avoid unnecessary delay and useless correspondence PARTS FOR REPAIRS should, where possible, be ordered from the dealer from whom machine was purchased or from nearest local Cadillac dealer, who is generally in a position to know what is desired and how to order it. (If he is not we should like to know it.)

With more than sixty thousand Cadillac automobiles in use it is obviously impractical for us to deal direct with all Cadillac owners. We cannot open accounts with or sell at a discount to any except regular dealers with whom we make annual contracts. Where conditions are such as to, in our judgment, warrant it, we will fill orders for parts at prices listed in our parts catalogue f. o. b. factory providing Cash accompanies the Order.

In case orders are sent under above conditions we must have motor number, and model of machine with correct description, also sketch, and exact dimensions of the part wanted. If these are not procurable, return the part properly tagged, charges prepaid (or it will not be accepted), with a special letter of instructions and instructions for returning. Otherwise we cannot promise prompt service or an intelligent fulfillment of the order.

Our responsibility in all cases ceases with delivery to the transportation company.

REPAIRS TO PARTS.

In the event of claims or the necessity for repairing parts, the same course should be followed as outlined above for ordering new parts. The only exception is tires.

TIRES.

In cases of tire claims or repairs to tires, correspondence should be opened direct with the tire makers; and if necessary, the tires should be sent direct to said makers or their branches, transportation charges prepaid.

CADILLAC MOTOR CAR COMPANY,
Detroit, Mich.

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Cadillac Telegraph Code

Study this carefully before attempting to use it.

This telegraph code has been formulated for the convenience and economy of Cadillac dealers and users in telegraphing orders for parts.

When the order can be transmitted in a ten-word day message or a fifty-word night lettergram, we advise that plain language be used for the reason that in such cases there is no advantage or saving in using the code.

You are also cautioned not to use these code words in night lettergrams or day letters, as the telegraph companies will not permit it. The use of code words in night lettergrams or day letters will subject them to full toll charges; therefore, night lettergrams and day letters must be sent in plain English.

While this code system is extremely simple to understand and use, it must be used with absolute exactness or, like any code, it is worse than useless.

These same code words are also used in other Cadillac part lists. It is therefore necessary when this code is used, for us to know the book from which the parts are ordered.

The word which must be used to indicate parts ordered from this book is

Foredeem

This word "Foredeem" must be used immediately preceding the words indicating the parts ordered, as shown in the following example:

Example

Suppose you wanted to wire an order for the following parts to be shipped by express:

One sprocket on crank shaft for cam drive.
One grease cup for engine.
One lubricator drive shaft only.
One gasket for breather.

The first item in the foregoing list will be found on page 9, the 21st item, the code word for which is MOKAB.
The second item on page 8, the 15th item, and the code word is DIHAB.
The third item is on page 16, the 8th item, and the code word is LEZAB.
The fourth item is on page 6, the 16th item, and the code word is BIDAB.

The whole telegram, therefore, would read:

Cadillac Motor Car Company,
Detroit, Mich.

Express foredeem one each Mokab, Dihab, Lezab, Bidab.

(Signed).....

CAUTION.

In writing your telegrams, it is absolutely necessary that they be written so plainly that there will be no possible chance of the telegraph operator making any mistake in reading them, because a single letter transmitted incorrectly will change the word entirely and might cause us to ship the wrong article. Be careful not to confuse letters. Do not confuse C, with G. Do not confuse H. R. P. B. and K. or E. with F. It is best to have all telegrams typewritten and carefully checked over before sending.

THE CADILLAC COMPANY WILL NOT BE RESPONSIBLE FOR ERRORS WHICH MAY OCCUR AS THE RESULT OF INCORRECTLY WRITTEN OR INCORRECTLY TRANSMITTED TELEGRAMS.

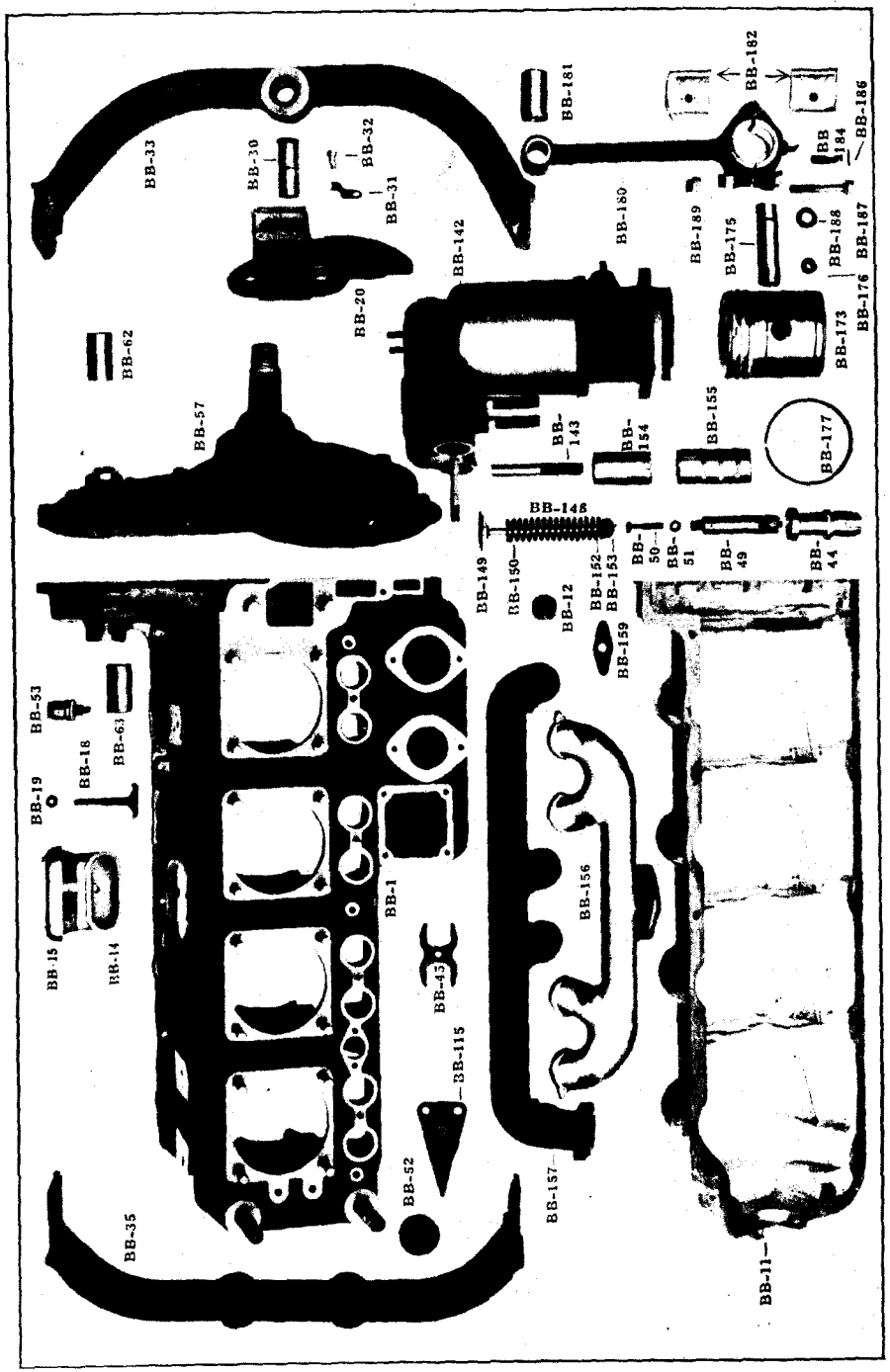
THE CODE WORDS SHOULD NOT BE USED WHEN ORDERING PARTS BY MAIL.

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MOTOR

CODE WORD	Serial			Part No.
BADAB	BB-1	Engine base only, assembled with studs and oil channels	$90.00	20001
DADAB	BB-2	Stud for main bearing cap	.10	13465
FADAB	BB-3	Nut for main bearing cap stud	.10	13473
KADAB	BB-4	Columbia lock nut for main bearing cap stud	.05	8940
MADAB	BB-5	Stud for attaching cylinders	.05	13557
PADAB	BB-6	Nut for stud for attaching cylinders ....per doz. $1.00—each	.10	7819
SADAB	BB-7	Columbia lock nut for stud for attaching cylinders	.05	8937
ZADAB	BB-8	Screw to fasten oil pan to engine base	.05	10025
BEDAB	BB-9	Gasket for oil pan, RIGHT	.05	13261
CEDAB	BB-10	Gasket for oil pan, LEFT	.05	13262
DEDAB	BB-11	Aluminum oil pan	34.00	14498
FEDAB	BB-12	Plug for front of oil pan	.10	2855
MEDAB	BB-14	Breather, body only	1.25	14149
REDAB	BB-15	Breather cap only, with strainer	.75	40000
TEDAB	BB-16	Screw for breather cap ....per doz. .25—each	.05	10236
BIDAB	BB-17	Gasket for breather	.05	13600
CIDAB	BB-18	Tee bolt for attaching breather	.15	16893
DIDAB	BB-19	Nut for tee bolt....per doz. .25—each	.05	B-1366
FIDAB	BB-20	Bracket for pivot pin on front of engine base	4.00	13180
LIDAB	BB-21	Screw to attach pivot bracket to engine base.....per doz. .25—each	.05	10006
PIDAB	BB-22	Stud for pivot pin bracket	.10	13466
RIDAB	BB-23	Nut for pivot pin bracket stud	.10	13474
SIDAB	BB-24	Lock washer for stud for pivot pin bracket	.05	11322
ZIDAB	BB-25	Dowel for pivot pin bracket and fan bracket.....per doz. .25—each	.05	13196
CODAB	BB-26	Bracket for fan on engine base	1.00	16624
DODAB	BB-27	Cap screw (long) for attaching fan bracket	.10	10035
KODAB	BB-28	Cap screw (short) for attaching fan bracket	.05	10024
MODAB	BB-29	Lock washer for cap screw for fan bracket.....per doz. .25—each	.05	11316
RODAB	BB-30	Pivot pin for front of engine	.75	13288
SODAB	BB-31	Retainer for pivot pin	.10	13295
TODAB	BB-32	Oiler for pivot pin	.15	13710
ZODAB	BB-33	Front engine support with bushing	6.00	20168
BUDAB	BB-34	Bushing for pivot pin in front engine support	.60	13291
DUDAB	BB-35	Rear engine support	6.00	13267
FUDAB	BB-36	Special cap screw for attaching engine support to bracket in frame (2 used in each bracket)	.10	13367
MUDAB	BB-37	Special cap screw for attaching engine support to bracket in frame (1 used in left front bracket)	.10	14001
SUDAB	BB-38	Lock washer for engine support attaching cap screw.per doz. .25—each	.05	11310

Be sure to put your name and motor number on parts returned and PREPAY CHARGES.
Read Instructions before ordering.
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CODE WORD				
BAHAB	BB-39	Special cap screw for attaching rear engine support to bracket in frame (1 used in each rear bracket).....	.20	14125
FAHAB	BB-40	Washer for special cap screw for attaching engine support to bracket in frame (1 used in each rear bracket)	.10	14126
MAHAB	BB-41	Stud in engine base for rear engine support	.10	13467
RAHAB	BB-42	Nut for stud for rear engine support..	.10	13476
SAHAB	BB-43	Lock washer for stud for rear engine support	.05	11323
ZAHAB	BB-44	Cam slide bushing.....	1.00	13057
BEHAB	BB-45	Clamp for cam slide bushing.....	.25	13061
CEHAB	BB-46	Stud for clamp for cam slide bushing. .....per doz. .25—each	.05	8838
FEHAB	BB-47	Nut for stud for cam slide bushing clamp.....per doz. .25—each	.05	10892
LEHAB	BB-48	Lock washer for stud for cam slide bushing clamp....per doz. .25—each	.05	11315
PEHAB	BB-49	Cam slide, assembled, with bushing, roll and pin	1.40	20120
SEHAB	BB-50	Screw for valve stem adjustment on cam slide	.10	13064
ZEHAB	BB-51	Check nut for screw, for valve stem adjustment on cam slide.....	.05	13065
CIHAB	BB-52	Cap for cam shaft hole.....	.30	2520
DIHAB	BB-53	Grease cup for engine.....	.35	17054
FIHAB	BB-54	Cap screw for attaching distributor to engine base	.05	13471
LIHAB	BB-55	Cap screw for attaching generator to engine base	.05	13469
PIHAB	BB-56	Lock washer for generator attaching cap screw.....per doz. .25—each	.05	11308
SIHAB	BB-57	Cover with bushing for front of engine	12.00	40001
ZIHAB	BB-58	Gasket for front engine cover.....	.10	14535
BOHAB	BB-59	Long screw for front engine cover 5/16" x 1¾" (1 used).....	.05	10017
DOHAB	BB-59A	Screw for front engine cover 5/16" x ⅞" (1 used).....per doz. .25—each	.05	10005
KOHAB	BB-60	Screw for front engine cover 5/16" x 1⅛" (15 used)...per doz. .25—each	.05	10007
MOHAB	BB-61	Dowel pin for front engine cover..... .....per doz. .25—each	.05	13196
ROHAB	BB-62	Bushing in front engine cover for pump driving shaft.....	.75	13112
TOHAB	BB-63	Bushing in front of engine base for pump driving shaft.....	.75	13112
BUHAB	BB-64	Dowel for pump shaft and sprocket bushing .....per doz. .25—each	.05	13689
DUHAB	BB-65	Dust pan under engine only, with inspection port cover, all cars.....	7.00	40195
KUHAB	BB-66	Dust pan under transmission only, all cars	5.00	16796
MUHAB	BB-67	Inspection port cover, with hinge for dust pan, curved	.50	40002
RUHAB	BB-68	Stud for locking inspection port cover	.05	13990
SUHAB	BB-69	Wing nut for inspection port cover stud	.10	6978

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1914 CADILLAC PRICE LIST OF PARTS 1914

CODE WORD				
BAKAB	BB-70	Lock washer for stud for locking inspection port cover..... .....per doz. .25—each	.05	11313
FAKAB	BB-71	Clamp for locking inspection port cover	.05	13991
LAKAB	BB-72	Hinge for inspection port cover.....	.20	16051
MAKAB	BB-73	Clip for holding dust pan, RIGHT ..	.05	14870
PAKAB	BB-74	Clip for holding dust pan, LEFT ...	.05	13644
RAKAB	BB-75	Stud for attaching dust pan, long, front (4 used).....	.05	13645
TAKAB	BB-76	Stud for attaching dust pan, short (9 used)	.05	13646
BEKAB	BB-77	Nut for long or short stud..... .....per doz. .25—each	.05	10892
DEKAB	BB-78	Stud on radiator cross member for front end of dust pan (2 used).....	.05	14914
KEKAB	BB-79	Nut for stud on radiator cross member for front end of dust pan..... .....per doz. .25—each	.05	2984
PEKAB	BB-80	Lock washer for long or short stud... .....per doz. .25—each	.05	11315

CRANK SHAFT AND FLY WHEEL.

CIKAB	BB-81	Crank shaft with studs $90.00		40003
FIKAB	BB-82	Stud for crank shaft.....	.05	13468
KIKAB	BB-83	Nut for stud for crank shaft..... .....per doz. 1.00—each	.10	7819
MIKAB	BB-84	Retaining washer for stud for crank shaft.....per doz. 1.00—each	.10	13562
RIKAB	BB-85	Emergency starting clutch on front end of crank shaft.....	.40	13193
TIKAB	BB-86	Woodruff key for emergency starting clutch	.10	11370
BOKAB	BB-87	Screw on front end of crank shaft....	.05	9794
COKAB	BB-88	Retaining washer for starting clutch on front end of crank shaft..... .....per doz. 1.00—each	.10	13562
KOKAB	BB-89	Lock washer for front end of crank shaft.....per doz. .25—each	.05	11316
MOKAB	BB-90	Sprocket on crank shaft for cam drive	2.00	16393
POKAB	BB-91	Sprocket on crank shaft, for pump drive, used with Morse chain.....	2.00	16865
SOKAB	BB-92	Woodruff key for sprocket on crank shaft	.10	11370
ZOKAB	BB-93	Cap for front main bearing before motor No. 92775.....	1.20	13045
CUKAB	BB-94	Cap for front main bearing after motor No. 92775.....	1.20	16830
FUKAB	BB-95	Cap for intermediate main bearings No. 2 and No. 4.....	1.20	13045
LUKAB	BB-96	Cap for center main bearing.....	1.20	13047
MUKAB	BB-97	Cap for rear main bearing.....	1.50	13046
PUKAB	BB-98	Main bearing, front No. 1.....	3.00	16880
SUKAB	BB-99	Main bearing, intermediate No. 2 and No. 4	3.00	13003

Order Parts by serial part number and name in full.
Give number of motor.
Read Instructions before ordering.
The telegraph code key-word for this book is FOREDEEM.

CODE WORD				
BALAB	BB-100	Main bearing, center No. 3.....	3.50	13004
DALAB	BB-101	Main bearing, rear No. 5.....	3.50	13005
KALAB	BB-102	Liner, short, for all main bearings, except rear	.15	13305
MALAB	BB-103	Liner, long, for main bearing, rear...	.20	13304

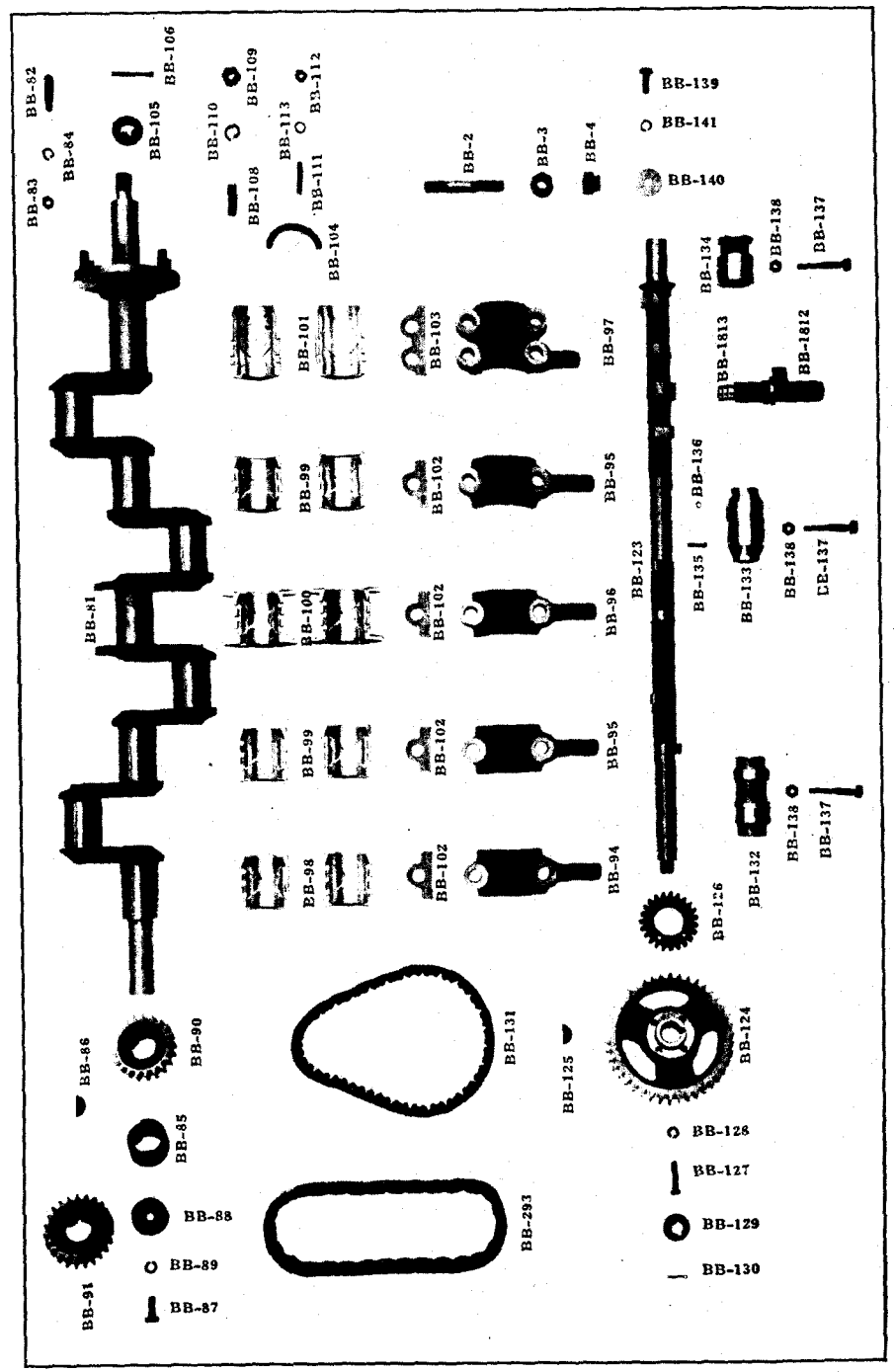
NOTE:—Liners are made in thicknesses varying from .170 to .190 and stamped accordingly. When ordering please state thickness wanted.

CELAB	BB-104	Oil retainer on crank shaft, for rear main bearing, with square inner edge	.50	14098
FELAB	BB-105	Nut for rear end of crank shaft.....	.30	7535
KELAB	BB-106	Cotter pin for nut on rear end of crank shaft.....per doz. .25—each	.05	15192
MELAB	BB-107	Fly wheel only, with studs.....	22.00	20240
RELAB	BB-108	Stud for fly wheel and main clutch ring.....per doz. .25—each	.05	6057
TELAB	BB-109	Nut for fly wheel stud..... .....per doz. .25—each	.05	10893
BILAB	BB-110	Lock washer for fly wheel stud..... .....per doz. .25—each	.05	11318
DILAB	BB-111	Taper stud for locking fly wheel and crank shaft	.05	12400
KILAB	BB-112	Nut for taper stud..per doz. .25—each	.05	B-1366
LILAB	BB-113	Lock washer for taper stud..... .....per doz. .25—each	.05	11316
RILAB	BB-114	Guard with braces for fly wheel.....	.60	20027
TILAB	BB-115	Indicator for valve timing.....	.20	13403
ZILAB	BB-116	Cap screw for indicator 3/8"—16 x 5/8" long.....per doz. .25—each	.05	10021
COLAB	BB-117	Lock washer for cap screw..... .....per doz. .25—each	.05	11316
FOLAB	BB-118	Cap screw 3/8"—16 x 5/8" long, for fly wheel guard brace..per doz. .25—ea.	.05	10021
LOLAB	BB-119	Lock washer for cap screw for fly wheel guard brace..per doz. .25—ea.	.05	11316
POLAB	BB-120	Cap screw 5/16"—18 x ½" long, for fly wheel guard.....per doz. .25—each	.05	10326
SOLAB	BB-121	Lock washer for cap screw for fly wheel guard.....per doz. .25—each	.05	11315

CAM SHAFT.

MULAB	BB-123	Integral cam shaft, only.....	15.00	13018
PULAB	BB-124	Sprocket, only, on cam shaft.....	4.50	16522
RULAB	BB-125	Key for sprocket.....	.10	11370
SULAB	BB-126	Driving gear on cam shaft for lubricator	1.50	13086

Be sure to put your name and motor number on parts returned and PREPAY CHARGES.
Read Instructions before ordering.
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CRANK SHAFT AND CAM SHAFT

CODE WORD				
BAPAB	BB-127	Screw for attaching gear to cam shaft sprocket.....per doz. .25—each	.05	10334
DAPAB	BB-128	Lock washer for gear attaching screw. .....per doz. .25—each	.05	11315
KAPAB	BB-129	Castle nut on front end of cam shaft.	.30	13475
LAPAB	BB-130	Cotter pin for nut on front end of cam shaft .....per doz. .25—each	.05	15164
PAPAB	BB-131	Silent chain for driving cam shaft...	4.50	16508
RAPAB	BB-132	Bearing for cam shaft, front	5.00	13093
SAPAB	BB-133	Bearing for cam shaft, center, complete	4.00	40056
ZAPAB	BB-134	Bearing for cam shaft, rear.....	3.00	13092
BEPAB	BB-135	Special screw for clamping upper and lower halves of center bearing.....	.05	13359
DEPAB	BB-136	Lock washer for special screw for bearing.....per doz. .25—each	.05	11313
KEPAB	BB-137	Retaining screw for cam shaft bearing	.10	13470
LEPAB	BB-138	Check nut for retaining screw..... .....per doz. .25—each	.05	B-1367
PEPAB	BB-139	Screw for rear end of cam shaft.....	.05	9794
REPAB	BB-140	Washer for rear end of cam shaft...	.15	13129
SEPAB	BB-141	Lock washer for screw on rear end of cam shaft.....per doz. .25—each	.05	11316

CYLINDER, WATER JACKET AND VALVE CHAMBER.

LIPAB	BB-142	Cylinder, water jacket, clamping ring and valve chamber, assembled, less valves $24.50		20245

NOTE:—Cylinder, water jacket, and valve chamber are assembled by special machinery and sold only as one unit. If replacement of any part of the group is necessary, return the complete unit to us, carrying charges prepaid. We will make repairs and charge only for the new parts used.

MOPAB	BB-143	Bushing for valve stem.....	.20	13062
POPAB	BB-144	Stud for attaching water inlet pipe to side of cylinders..per doz. .25—each	.05	9862
SOPAB	BB-145	Stud for attaching water outlet pipe to top of cylinders...per doz. .25—each	.05	8099
ZOPAB	BB-146	Nut for water circulating pipe stud... .....per doz. .25—each	.05	B-1366
CUPAB	BB-147	Lock washer for water circulating pipe stud.....per doz. .25—each	.05	11316
LUPAB	BB-149	Valve and stem for inlet or exhaust..	.75	40146
PUPAB	BB-150	Spring for inlet or exhaust valve.....	.15	13066
RUPAB	BB-151	Upper seat for spring for inlet or exhaust valve	.20	13276

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CODE WORD				
BARAB	BB-152	Foot for spring for inlet or exhaust valve	.40	9326
DARAB	BB-153	Washer, thrust for valve spring..... .....per doz. .25—each	.05	12413
KARAB	BB-154	Casing cap for valve spring.....	.75	13067
LARAB	BB-155	Sleeve for casing for valve spring....	1.00	13068
MARAB	BB-156	Intake manifold from carburetor to valve chamber	4.00	13026
RARAB	BB-157	Exhaust header from valve chamber to exhaust pipe	2.40	13025
TARAB	BB-158	Gasket for intake or exhaust manifolds	.10	13028
ZARAB	BB-159	Clamp for intake and exhaust manifolds	.40	13027
CERAB	BB-160	Stud for clamp.....	.05	13464
DERAB	BB-161	Nut for clamp stud.per doz. 1.00—each	.10	7819
MIRAB	BB-161-A	Gasket for spark plug..... .....per doz. $1.00—each	.10	8819
PIRAB	BB-168	Gasket for valve chamber cap.....	.10	14676
RIRAB	BB-169	Priming cock complete.....	.60	5251
SIRAB	BB-170	Stud for electric horn bracket on side of valve chamber.....	.20	16540
ZIRAB	BB-171	Steel valve chamber cap, tapped for priming cock	1.00	16320
CORAB	BB-172	Steel valve chamber cap, plain.....	1.00	16319

PISTON AND CONNECTING ROD.

NOTE:—When ordering the following assembled and disassembled parts, it will be absolutely necessary that the motor number be supplied and information given as to whether the piston has three (3) or nine (9) rings.

BURAB	BB-173	Piston with rings, used before motor No. A-1400 .....$	8.50	40006
DURAB	BB-174	Piston with rings, used after motor No. A-1400	8.50	40007
KURAB	BB-175	Piston pin	2.40	13012
LURAB	BB-176	Piston pin plug	.30	R-4-14
MURAB	BB-177	Piston ring, used before motor No. A-1400	.50	17906
RURAB	BB-178	Piston ring, used after motor No. A-1400	.50	17226

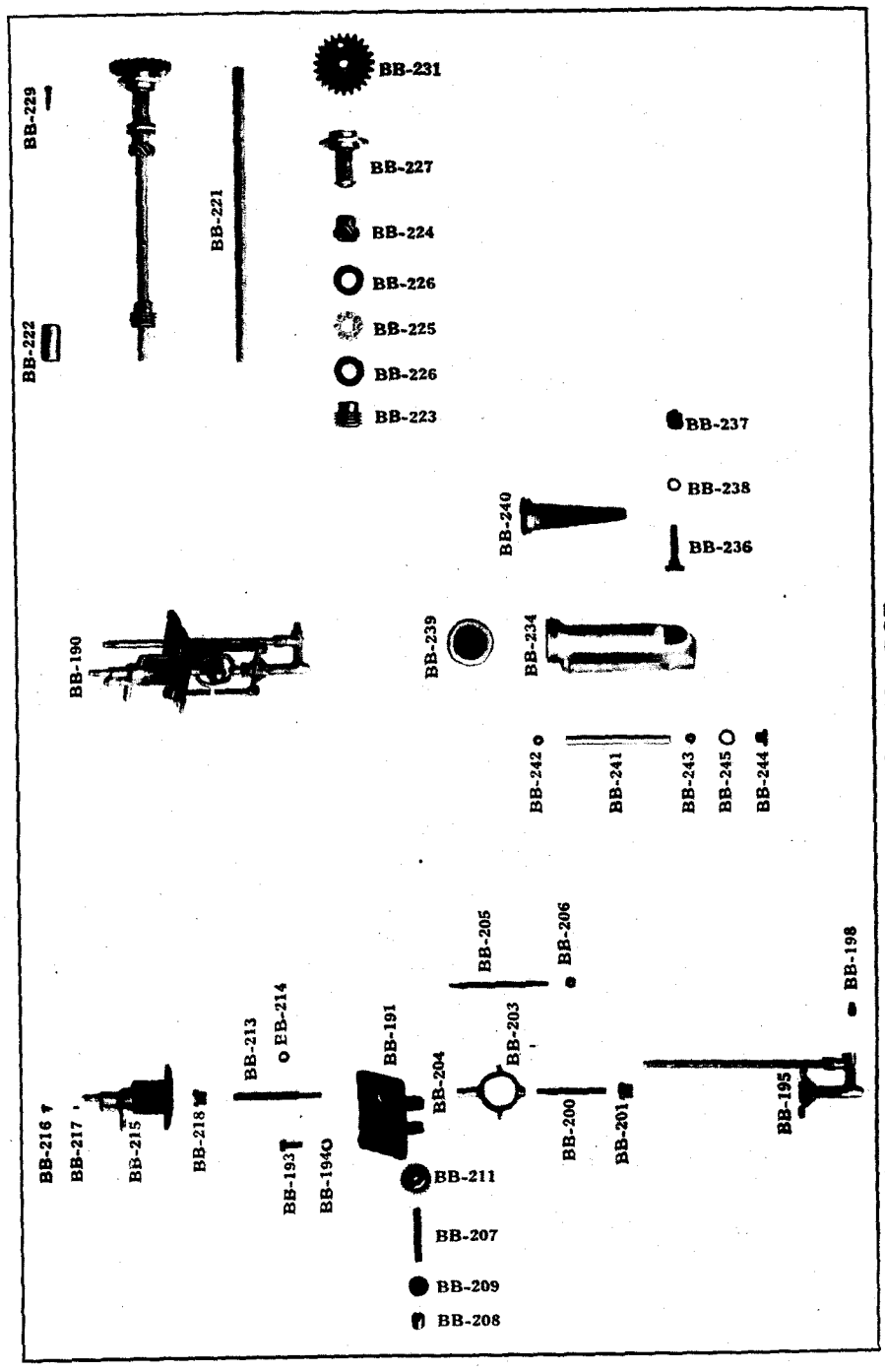
Order Parts by serial part number and name in full.
Give number of motor.
Read Instructions before ordering.
The telegraph code key-word for this book is FOREDEEM.

CODE WORD				
BASAB	BB-180	Connecting rod assembled with cap, oil tube, piston pin bushing, and crank end bearing	12.00	20274
FASAB	BB-181	Bushing for piston pin	1.00	13014
KASAB	BB-182	Bearing for crank end of connecting rod, upper	1.00	13001
LASAB	BB-182A	Bearing for crank end of connecting rod, lower	1.00	13002
MASAB	BB-183	Dowel pin for connecting rod bearing.	.10	13477
PASAB	BB-184	Oil tube for connecting rod cap	.20	14683
RASAB	BB-185	Oil tube for piston pin	.05	12451
SASAB	BB-186	Pin for oil tube for connecting rod cap.....per doz. .25—each	.05	13618
ZASAB	BB-187	Cap screw for connecting rod cap	.40	13008
BESAB	BB-188	Washer for connecting rod cap screw.	.10	2507
CESAB	BB-189	Columbia lock nut for connecting rod cap screw	.05	8938

LUBRICATING SYSTEM.

PESAB	BB-190	Lubricator pump with cover complete, assembled	$25.00	13242
SESAB	BB-191	Lubricator cover, only	2.00	13096
TESAB	BB-192	Lubricator cover, gasket	.05	13303
ZESAB	BB-193	Cap screw for lubricator cover.....per doz. .25—each	.05	10005
CISAB	BB-194	Lock washer for lubricator cover cap screw.....per doz. .25—each	.05	11315
FISAB	BB-195	Main cylinder for lubricator, with check valves assembled	1.20	20150
LISAB	BB-196	Ball for check valve for main cylinder.....per doz. .25—each	.05	H-75
PISAB	BB-197	Taper pin for retaining ball for main cylinder check valve.....per doz. .25—each	.05	6222
TISAB	BB-198	Pipe plug for lubricator main cylinder .....per doz. .25—each	.05	3467
BOSAB	BB-199	Discharge tube for lubricator main cylinder	.40	9433
DOSAB	BB-200	Plunger for lubricator main cylinder..	.20	6207
FOSAB	BB-201	Gland nut for lubricator main cylinder	.20	6206
KOSAB	BB-202	Packing for gland nut for lubricator main cylinder	.05	45001
MOSAB	BB-203	Pin for fastening plunger in yoke	.05	9437
POSAB	BB-204	Yoke for lubricator plunger	1.00	2645
ROSAB	BB-205	Tie rod for lubricator main and secondary cylinders	.10	6210
TOSAB	BB-206	Nut for cylinder tie rod.....per doz. .25—each	.05	10889
BUSAB	BB-207	Shaft for lubricator cam and worm wheel	.20	2654
DUSAB	BB-208	Bushing in lubricator cover for cam shaft	.20	2647
KUSAB	BB-209	Cam for lubricator cam shaft	.60	2646
LUSAB	BB-210	Taper pin for lubricator cam.....per doz. .25—each	.05	15009
PUSAB	BB-211	Worm wheel on lubricator cam shaft.	1.00	13100
RUSAB	BB-212	Taper pin for lubricator worm wheel..per doz. .25—each	.05	15010

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CODE WORD				
BAZAB	BB-213	Plunger for lubricator secondary cylinder	.40	5266
DAZAB	BB-214	Adjusting nut for lubricator secondary cylinder plunger	.10	5267
KAZAB	BB-215	Secondary cylinder with check valves on lubricator cover	1.60	20151
MAZAB	BB-216	Check valve for secondary cylinder...per doz. .25—each	.05	6209
RAZAB	BB-217	Screw for retaining secondary cylinder check valve.....per doz. .25—each	.05	6211
TAZAB	BB-218	Gland nut for lubricator secondary cylinder	.30	6198
BEZAB	BB-219	Packing for gland nut for lubricator secondary cylinder	.05	45001
LEZAB	BB-221	Lubricator drive shaft only	.75	13079
MEZAB	BB-222	Bushing for rear end of lubricator drive shaft	.75	13077
REZAB	BB-223	Worm gear on drive shaft for lubricator pump	.60	13099
TEZAB	BB-224	Spiral gear on drive shaft for distributor	.60	13081
CIZAB	BB-225	Retainer with balls, for lubricator drive shaft thrust bearing	1.00	40008
FIZAB	BB-226	Collar for lubricator drive shaft thrust bearing	.15	13084
LIZAB	BB-227	Bushing for front end of lubricator drive shaft	1.50	13076
PIZAB	BB-228	Packing for front bushing for lubricator drive shaft	.05	13408
SIZAB	BB-229	Cap screw for front bushing for lubricator drive shaft	.05	13277
ZIZAB	BB-230	Lock washer for screw for lubricator drive shaft front bushing.....per doz. .25—each	.05	11314
DOZAB	BB-231	Gear on front end of lubricator drive shaft	1.25	13085
KOZAB	BB-232	Taper pin for gear and worm on lubricator drive shaft.....per doz. .25—each	.05	15028

NOTE:—See Distributor lists for distributor shaft parts.

ZOZAB	BB-233	Lubricator filler assembled, complete..	3.00	13243
BUZAB	BB-234	Aluminum body only for lubricator filler	1.50	40269
DUZAB	BB-235	Gasket for body for lubricator filler...	.05	13116
FUZAB	BB-236	Tee head screw for attaching filler....	.15	13115
KUZAB	BB-237	Nut for filler attaching screw	.10	13122
LUZAB	BB-238	Lead washer for filler attaching screw	.05	13285
MUZAB	BB-239	Cap for lubricator filler	.25	13118
PUZAB	BB-240	Strainer, complete, for lubricator filler	.40	40055
SUZAB	BB-241	Sight glass for lubricator filler	.20	13117
TUZAB	BB-242	Cork washer for sight glass for lubricator filler.....per doz. .25—each	.05	H-83

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CODE WORD				
BABED	BB-243	Retaining plug for sight glass for lubricator	.10	2656
DABED	BB-244	Drain plug for lubricator filler	.10	13123
FABED	BB-245	Lead washer for plug for lubricator filler	.05	13113
LABED	BB-246	Oil pipe, complete, assembled, from lubricator to engine, first type 21¾" long	1.00	40196
PABED	BB-247	Nipple on engine base for lubricator oil pipe	.20	14960
SABED	BB-248	Oil pipe, complete, assembled, from dash to lubricator	1.00	40197
ZABED	BB-249	Oil pipe, complete, assembled, from dash to sight feed on instrument board	.25	40114
DEBED	BB-250	Oil pipe, complete, assembled, from instrument board to dash	.25	40113
KEBED	BB-251	Oil pipe, complete, assembled, from lubricator secondary cylinder to dash	1.00	40115
MEBED	BB-252	Nut for oil pipe union.....per doz. .25—each	.05	B-1559
REBED	BB-253	Clip for holding oil pipes together (4 used).....per doz. .25—each	.05	12585
TEBED	BB-254	Screw for oil pipe clip	.05	10238
ZEBED	BB-254A	Nut for screw for oil pipe clip.....per doz. .25—each	.05	10887
CIBED	BB-255	Lock washer for screw for oil pipe clip.....per doz. .25—each	.05	11313
FIBED	BB-256	Elbow for ¼" pipe on dash (2 used)..	.25	17030
KIBED	BB-257	Check nut on elbow on dash	.05	H-487
LIBED	BB-257A	Oil pipe complete from lubricator to engine, second type 29¾" long	1.00	40271

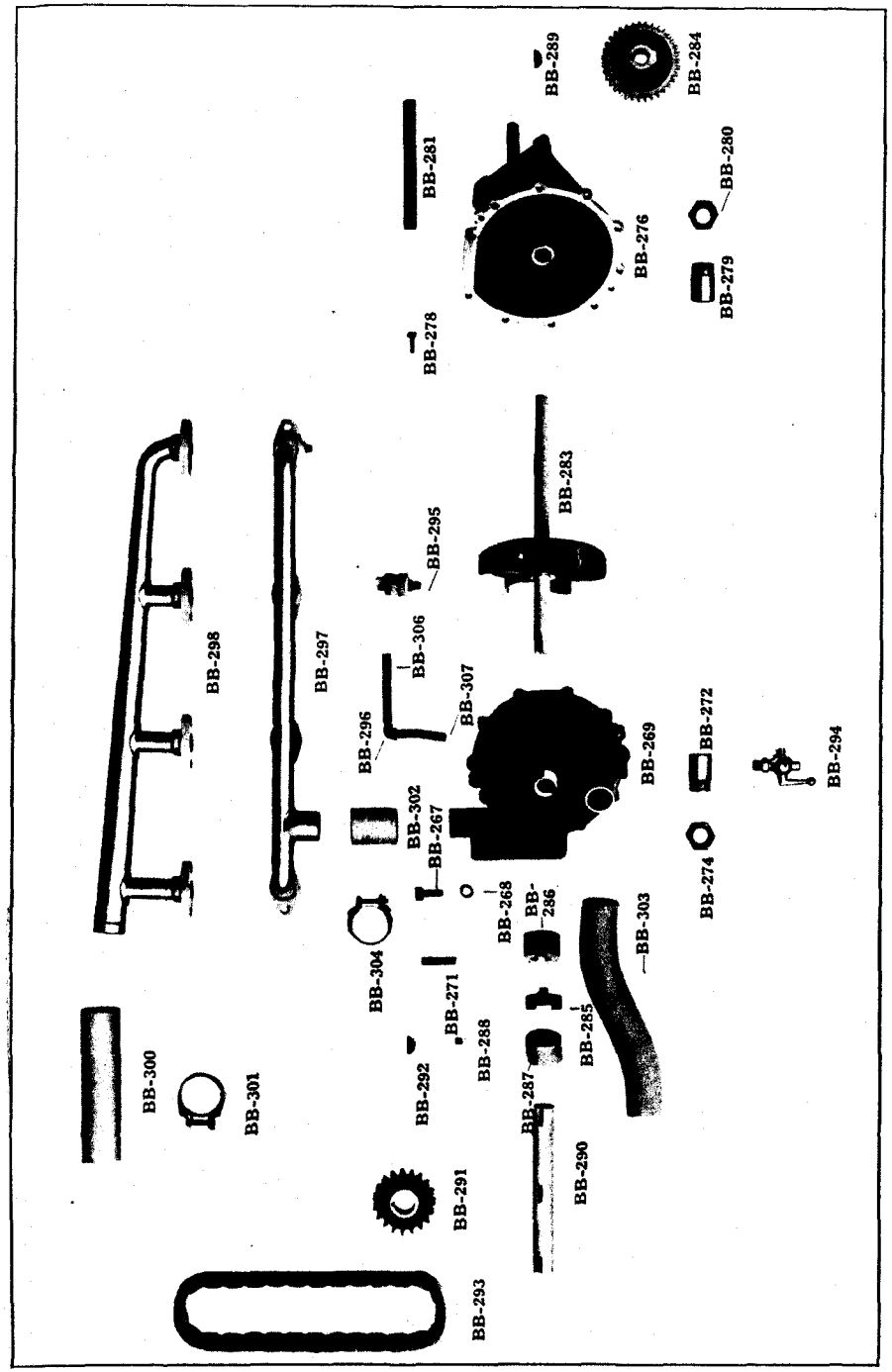
SIGHT FEED ON DASH.

SIBED	BB-258	Sight feed complete, all cars	3.20	16536
TIBED	BB-259	Flat washer for nipple, for sight feed.....per doz. .25—each	.05	4526
BOBED	BB-260	Nut on nipple for sight feed	.05	H-487
COBED	BB-261	Bracket on back of sight feed	.10	45003
DOBED	BB-262	Nickel rim, with glass for sight feed..	.60	45004
FOBED	BB-263	Glass for sight feed	.35	98
KOBED	BB-264	Body of sight feed only, with nipples for all cars	2.25	45006
MOBED	BB-265	Gasket for glass for sight feed	.05	45007

PUMP AND WATER CONNECTIONS.

ZOBED	BB-266	Pump assembled complete	10.00	20531
BUBED	BB-267	Cap screw ⅜"—16 x 1" to attach pump to engine	.05	10024
DUBED	BB-268	Lock washer for pump attaching screw.....per doz. .25—each	.05	11316
KUBED	BB-269	Pump body, with bushing	5.50	20170
MUBED	BB-270	Dowel for pump body.....per doz. .25—each	.05	13196
RUBED	BB-271	Threaded taper pin for pump body flange	.05	14151
TUBED	BB-272	Bushing for pump body	.50	13053
ZUBED	BB-273	Dowel for pump body bushing	.05	13689

Order Parts by serial part number and name in full.
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PUMP AND WATER CONNECTIONS

CODE WORD				
BAHED	BB-274	Gland nut for pump body bushing....	.30	13056
CAHED	BB-275	Packing for pump, flax. for body and cover gland nut, 4 pieces, each 3″ long	.05	13408
KAHED	BB-276	Pump cover, with bushing and stud shaft	2.00	20169
RAHED	BB-277	Gasket for pump (paper).....	.05	13051
SAHED	BB-278	Screw for pump cover..... .....per doz. .25—each	.05	R-4-412
TAHED	BB-279	Bushing for pump cover.....	.50	13054
ZAHED	BB-280	Gland nut for pump cover bushing...	.30	13055
BEHED	BB-281	Stud shaft on pump cover for tire pump	.25	13959
FEHED	BB-282	Taper pin for stud shaft for tire pump .....per doz. .25—each	.05	15028
LEHED	BB-283	Pump impeller, with shaft	4.00	20529
REHED	BB-284	Driving gear on impeller shaft for tire pump	1.00	13956
TEHED	BB-285	Cross for pump driving or impeller shaft	.30	13109
BIHED	BB-286	Coupling for pump impeller shaft, front and rear	.75	13108
DIHED	BB-287	Coupling for pump driving shaft.....	.75	13107
FIHED	BB-288	Set screw for coupling and pump driving gear	.10	11578
LIHED	BB-289	Woodruff key for coupling, and air pump driving gear, and impeller....	.10	11361
PIHED	BB-290	Pump driving shaft	1.00	13127
RIHED	BB-291	Sprocket on pump driving shaft used with Morse chain only	2.00	16866
SIHED	BB-292	Key on sprocket	.10	11361
TIHED	BB-293	Morse silent chain for driving pump sprocket, 58 link, 1¼″ wide.....	4.50	16869
BOHED	BB-294	Pet cock assembled, complete, for draining pump	.60	13479
DOHED	BB-295	Grease cup for pump No. 000.....	.35	17055
FOHED	BB-296	Extension elbow for grease cup for pump	.10	B-600
LOHED	BB-297	Copper pipe for inlet on side of cylinders for water circulation.....	5.00	13070
POHED	BB-298	Copper pipe for outlet on top of cylinder for water circulation.....	6.00	13069
SOHED	BB-299	Gasket for water circulation pipes	.05	7551
TOHED	BB-300	Hose connection from motor to radiator	.60	7696
BUHED	BB-301	Clamp for rubber hose, motor to radiator	.15	7737
DUHED	BB-302	Hose connection from pump to motor.	.20	13110
FUHED	BB-303	Hose connection from radiator to pump	.60	20136
LUHED	BB-304	Clamp for rubber hose, pump to motor, and radiator to pump.....	.15	13120
PUHED	BB-305	Pipe plug, for rear end of water inlet pipe	.05	3467
SUHED	BB-306	Coupling for grease cup extension....	.10	14969
TUHED	BB-307	Nipple for grease cup extension.....	.05	14970

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CARBURETOR.

CODE WORD				
BAKED	BB-308	Carburetor complete assembled.....	20.00	16111
CAKED	BB-309	Chamber only, for float.....	1.00	14875
DAKED	BB-310	Thumb screw for float chamber.....	.15	14881
FAKED	BB-311	Washer for thumb screw for float chamber.....per doz. .25—each	.05	14882
LAKED	BB-312	Diaphragm in bowl	3.00	14876
MAKED	BB-313	Electric heater for carburetor.....	2.00	16455
PAKED	BB-314	Strangle tube and diaphragm.....	.80	20181
TAKED	BB-315	Spray nozzle only, for carburetor.....	.30	14883
ZAKED	BB-316	Float for carburetor.....	.75	14877
BEKED	BB-317	Stop for float on diaphragm.....	.05	16406
CEKED	BB-318	Float lever	.10	14878
DEKED	BB-319	Pin for float lever..per doz. .25—each	.05	14879
FEKED	BB-320	Screw for float.....per doz. .25—each	.05	14880
KEKED	BB-321	Nut for screw for float.....	.05	14905
LEKED	BB-322	Needle or inlet valve.....	.15	13392
MEKED	BB-323	Primer assembled, complete for carburetor	.60	20177
REKED	BB-324	Plunger for primer	.10	16222
SEKED	BB-325	Spring for plunger on primer.....	.10	9549
TEKED	BB-326	Screw for clamping diaphragm to the body .....per doz. .25—each	.05	10239
BIKED	BB-327	Gasket for carburetor (paper) between manifold and carburetor	.05	16826
DIKED	BB-328	Body only, assembled, with nipples and accelerator valve for carburetor....	7.00	20467
KIKED	BB-329	Screw to attach carburetor to manifold	.05	10023
LIKED	BB-330	Plug for draining body of carburetor.	.10	13551
MIKED	BB-331	Nipple on body for water inlet and outlet pipes	.15	16498
RIKED	BB-332	Fillister head clamp screw for throttle control lever .....per doz. .25—each	.05	10199
TIKED	BB-333	Throttle control lever, only	.30	16397
MOKED	BB-336	Trunion on carburetor for throttle rod	.10	8648
POKED	BB-337	Accelerator lever for throttle.....	.20	16409
ROKED	BB-338	Taper pin for accelerator lever.....	.05	15001
SOKED	BB-339	Accelerator valve, only, for carburetor	.20	16399
TOKED	BB-340	Screw for accelerator valve..... .....per doz. .25—each	.05	9580
BUKED	BB-341	Shaft for accelerator valve.....	.30	16407
CUKED	BB-342	Spring for accelerator shaft.....	.15	13263
DUKED	BB-343	Stop screw for air control valve finger	.05	9581
KUKED	BB-344	Cover for auxiliary air valve.....	.15	16402
LUKED	BB-345	Cover complete with block and leather stop	.35	20175
RUKED	BB-346	Block for auxiliary air valve stop.....	.05	16648
SUKED	BB-347	Leather for auxiliary air valve stop..	.05	16647
TUKED	BB-348	Rivet to fasten leather to cover for auxiliary air valve	.05	15250

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CODE WORD				
BALED	BB-349	Washer for rivet to fasten leather to cover for auxiliary air valve.....	.05	11429
DALED	BB-350	Screw for auxiliary air valve cover... .....per doz. .25—each	.05	10559
KALED	BB-351	Plunger for air adjusting nut.....	.10	12265
LALED	BB-352	Spring for plunger	.10	12266
MALED	BB-353	Lever arm for operating auxiliary air valve	.50	16404
RALED	BB-354	Pin for lever arm for operating auxiliary air valve.....per doz. .25—each	.05	16221
TALED	BB-355	Cotter pin in air lever pin..... .....per doz. .25—each	.05	15221
BELED	BB-356	Auxiliary air valve	1.00	16418
CELED	BB-357	Leather with retainer for auxiliary air valve	.10	40198
FELED	BB-358	Pin for auxiliary air valve.....	.05	16220
KELED	BB-359	Cotter pin for auxiliary air valve..... .....per doz. .25—each	.05	15221
MELED	BB-360	Cover for auxiliary air valve lever slot	.05	16405
PELED	BB-361	Screw for cover for lever slot..... .....per doz. .25—each	.05	10559
SELED	BB-362	Spring for auxiliary air valve lever to air valve	.05	16401
ZELED	BB-363	Spring for auxiliary air valve adjusting lever	.05	16410
CILED	BB-364	Adjusting wheel, with screw for auxiliary air valve spray needle.....	.25	16403
FILED	BB-365	Fibre block on carburetor for carburetor heater	.20	16833
LILED	BB-366	Screw to fasten fibre block to carburetor body.....per doz. .25—each	.05	11565
PILED	BB-367	Washer for screw to fasten block to carburetor .....per doz. .10—each	.05	11434
SILED	BB-368	Contact screw on fibre block for carburetor heater terminal.....	.05	11566
ZILED	BB-369	Washer for contact screw (4 used).. .....per doz. .25—each	.05	5255
COLED	BB-370	Nut for contact screw (4 used)..... .....per doz. .25—each	.05	R-4-660

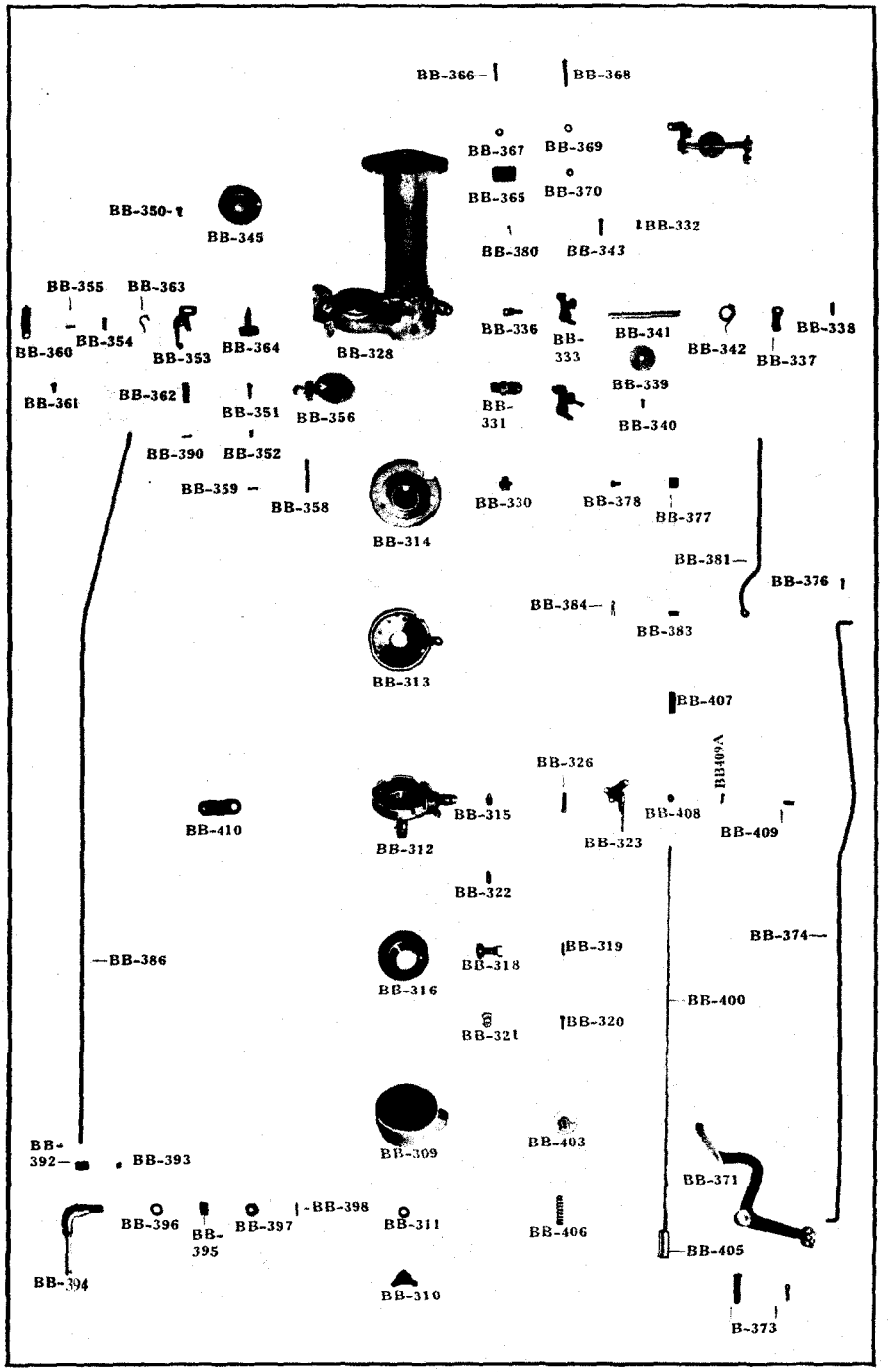
CARBURETOR CONTROL

POLED	BB-371	Accelerator foot pedal, all cars except coupe	.75	16890
SOLED	BB-372	Accelerator foot pedal, coupe only...	.75	17232
ZOLED	BB-373	Pin for accelerator foot pedal.....	.05	7407
BULED	BB-373A	Cotter pin.....per doz. .25—each	.05	15171
CULED	BB-374	Accelerator rod, all cars except coupe	.25	16813
DULED	BB-375	Accelerator rod, coupe	.25	17332
FULED	BB-376	Cotter pin for accelerator rod..... .....per doz. 25—each	.05	15150
LULED	BB-377	Collar for hand throttle rod.....	.15	5278
MULED	BB-378	Screw for collar for hand throttle rod .....per doz. .25—each	.05	5277
PULED	BB-379	Trunion on carburetor throttle for throttle rod	.10	8648
SULED	BB-380	Cotter pin for trunion on throttle lever .....per doz. .25—each	.05	15151

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CODE WORD				
BAMED	BB-381	Rod from throttle arm to accelerator lever, touring, seven-passenger, phaeton, coupe and roadster.....	.15	16811
FAMED	BB-382	Rod from throttle arm to accelerator lever, open and closed limousine...	.15	17066
LAMED	BB-383	Pin for rod between arm and accelerator rod	.05	12074
PAMED	BB-384	Cotter pin for rod between throttle arm and accelerator valve lever.... .....per doz. .25—each	.05	15152
TAMED	BB-385	Rod for air control on steering column, all cars except roadster and coupe, 1st type, threaded end.....	.50	16812
CEMED	BB-386	Rod for air control on steering column, all cars except roadster and coupe, 2nd type, plain end.....	.40	17022
KEMED	BB-387	Rod for auxiliary air control on coupe	.40	17331
LEMED	BB-388	Rod for auxiliary air control on roadster	.40	17395
PEMED	BB-389	Washer for air control rod.....	.05	6187
REMED	BB-390	Cotter pin for air control rod on air valve lever arm...per doz. .25—each	.05	15150
TEMED	BB-391	Swivel for air control rod, 1st type, threaded	.20	9695
BIMED	BB-392	Swivel for air control rod, 2nd type, plain	.15	17021
DIMED	BB-393	Screw in swivel block for 2nd type rod	.05	11253
KIMED	BB-394	Lever for air control on steering column	.40	13716
MIMED	BB-395	Spring for lever for air control on steering column	.10	13727
RIMED	BB-396	Washer for lever for air control.....	.05	13736
SIMED	BB-397	Nut for air control lever on steering column	.15	13719
ZIMED	BB-398	Pin for nut for lever for air control..	.05	16859
FOMED	BB-400	Push rod, with button for primer, all cars except coupe	.80	20187
LOMED	BB-401	Push rod for primer, assembled with button, coupe	.80	40199
ROMED	BB-403	Bearing for primer rod, all cars except coupe	.25	16998
TOMED	BB-404	Bearing for primer rod, coupe.....	.25	17366
ZOMED	BB-405	Button for primer push rod.....	.20	13720
BUMED	BB-406	Spring for primer push rod button...	.10	12234
CUMED	BB-407	Yoke for primer rod and primer lever	.15	13722
DUMED	BB-408	Check nut for primer rod yoke..... .....per doz. .25—each	.05	10887
KUMED	BB-409	Pin for yoke for primer rod and primer lever	.05	13726
LUMED	BB-409A	Cotter pin.....per doz. .25—each	.05	15150
MUMED	BB-410	Bracket for air control rod on exhaust pipe, touring, seven-passenger, phaeton	.15	16975
SUMED	BB-411	Bracket for air control rod on exhaust pipe, roadster	.15	17410
ZUMED	BB-412	Block for fuse on heater circuit.....	.25	16454

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CARBURETOR AND CONTROL

CODE WORD				
BARED	BB-413	Fuse on carburetor heater circuit, 25 amp. 250 volt	.15	16972
DARED	BB-414	Copper water pipe from carburetor to cylinder, assembled	.60	40191
KARED	BB-415	Copper water pipe from carburetor to radiator, assembled	.80	40192
MARED	BB-416	Copper gasoline pipe from strainer to carburetor	1.00	40193
RARED	BB-417	Petcock on 4th cylinder and radiator for carburetor water system	.60	16122
TARED	BB-418	Switch on body for carburetor heater	1.50	35K
ZARED	BB-419	Push button only for carburetor heater switch	.25	25169D
CERED	BB-420	Plunger for carburetor heater switch.	.20	25292D
DERED	BB-421	Spring for carburetor heater switch.	.05	26637K

Note:—When ordering wires for carburetor heater circuit be sure to specify length of wire and whether car is equipped with fuse or circuit breaker.

SERED	BB-422	No. 12 green primary wire in ignition tube, used on heater on carburetor to No. 2 terminal on dash, with oak tracer, 3′ long with connectors, all cars	.35	22-01
DIRED	BB-423	No. 12 red primary wire with connectors from No. 3 door post plunger to hot side of heater switch 20″ long, all cars except coupe, open and inside drive limousines	.20	23-06
PIRED	BB-424	No. 12 green primary wire with connectors and with oak tracer, from No. 2 circuit breaker terminal to hot side of heater switch 2′ 9½″ long, all cars except coupe, open and inside drive limousines	.35	22-16
CORED	BB-425	No. 12 green primary wire with oak tracer and connectors from heater switch on toe board to No. 2 terminal on front of dash, 2′ 11½″ long, coupe only	.40	22-24
MORED	BB-426	No. 12 black primary wire, with connectors, and oak tracer from heater fuse or circuit breaker to No. 9 terminal on combination switch, 21″ long	.20	21-03
ZORED	BB-427	No. 10 red primary wire, with connectors from automatic cutout terminal No. 2 to circuit breaker, 2′ 3″ long, touring, seven-passenger, roadster	.25	03-01
FURED	BB-428	No. 12 red primary wire, with connectors, from circuit breakers to heater fuse block, 5½″ long, all cars	.15	23-03
MURED	BB-429	No. 10 red primary wire from automatic cutout terminal No. 2, to circuit breaker No. 1, terminal No. 1, 2′ 3″ long, touring, seven-passenger and roadster	.25	03-07

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CODE WORD				
BASED	BB-430	No. 10 red primary wire from automatic cutout terminal No. 2, to circuit breaker No. 1, terminal No. 1, 2′ 6″ long, all cars except touring, seven-passenger, roadster	.10	03-10
LASED	BB-431	No. 10 red primary wire from circuit breaker No. 1, terminal No. 1 to circuit breaker No. 2, terminal No. 1, 5½″ long, all cars	.15	03-08
SASED	BB-432	No. 12 green primary wire with connections and oak tracer, from No. 2 circuit breaker terminal No. 2, to push button switch on instrument board 2′ 7″ long, all cars	.35	22-17
DESED	BB-433	No. 12 red primary wire, with connections, from handy lamp connector, to push button switch on instrument board, 7″ long, for coupe, open and inside drive limousines	.40	23-12
PESED	BB-434	No. 12 red primary wire from handy lamp connection, to push button on instrument board, 11″ long, all cars except coupe, open and inside drive limousines	.45	23-07
BISED	BB-435	Handy lamp connector on instrument board	.30	17272
DISED	BB-436	No. 12 red primary wire, with connections, from No. 3 door post plunger terminal, to circuit breaker, 3′ 6″ long	.40	23-02
MISED	BB-437	No. 10 red primary wire, with connectors, from terminal No. 4 on combination switch, to circuit breaker, 21″ long	.20	03-03
TISED	BB-438	No. 12 green primary wire, with oak tracer and connectors, from cold side of heater switch on toe board, to terminal No. 2 on front of dash, 2′ 9½″ long, all cars except coupe	.25	22-03
FOSED	BB-439	No. 10 red primary wire with terminals from No. 1 circuit breaker terminal No. 2 to terminal No. 4 on combination switch, 21″ long, all cars except coupe	.20	03-04
ROSED	BB-440	No. 10 red primary wire, with connectors, from No. 1 circuit breaker terminal No. 2 to No. 4 terminal on combination switch 3′ 9″ long, coupe	.45	03-09
BUSED	BB-441	No. 12 red primary wire, with connectors from terminal No. 9 on combination switch, to terminal No. 4 on combination switch 5½″ long, all cars except coupe	.10	23-16
LUSED	BB-442	No. 12 green primary wire with oak tracer and connectors from live side of heater switch on toe board, to terminal on heater fuse, 2′ 9½″ long	.25	22-04

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BATED	BB-443	No. 12 green primary wire with connectors, from No. 1 terminal on front of dash, to No. 4 plunger in door post, 2′ 11″ long, all cars except coupe, open and inside drive limousines	.25	22-05
MATED	BB-444	No. 12 red primary wire with connectors from No. 4 terminal on combination switch, to handy lamp connector, 17½″ long	.50	23-01
TATED	BB-445	No. 12 green primary wire with oak tracer and connectors from No. 4 terminal on combination switch, to push button for oil gauge light, 24″ long	.25	22-07

PARTS FOR STORAGE BATTERY

ZATED	BB-446A	Stay bolt only for battery box, threaded at bottom	.10	17025
BETED	BB-447A	Nut for stay bolt for battery box .....per doz. .25—each	.05	11652
CETED	BB-448A	Lock washer for stay bolt for battery box, 2nd type....per doz. .25—each	.05	11315
DETED	BB-449A	Handles for battery box, complete with fittings	.40	1190
FETED	BB-451A	Through bolts only for reinforcing case	.05	1981
KETED	BB-452A	Nut for through bolts only for reinforcing case	.04	1982
LETED	BB-453A	Holddown for stay bolt on wood box for storage battery, 2nd type, no screws	.05	895
METED	BB-454A	Hard rubber screw for vent cap for storage battery cell cover plate	.17	1977
RETED	BB-455A	No. 1 extra flexible black wire with connectors, from ground on frame to positive terminal on storage battery, 9½″ long, all cars	1.00	11-01
TETED	BB-456A	Ground connection for wire No. 11-01	.25	16463
BITED	BB-457A	Ferrule for storage battery lug	.05	17131
DITED	BB-458A	Lug for positive storage battery terminal to ground connection	.10	17133

AUTO ELECTRIC HORN

KITED	BB-01	Auto electric horn	$12.00	4-K
MITED	BB-02	Horn, front, long, assembled	2.50	26491K
RITED	BB-03	Horn, front, short	2.50	11522K
TITED	BB-04	Horn shell with name plate	1.75	11176D
BOTED	BB-05	Name plate for horn	.15	83-K
COTED	BB-06	Rivet for name plate, per dz. .25—each	.05	26250K
FOTED	BB-07	Knurled nut on horn shell	.10	24388D
LOTED	BB-08	Lock washer under knurled nut, ...per doz. .25—each	.05	26440K
POTED	BB-09	Plain washer for knurled shell nut .....per doz. .25—each	.05	24389D
SOTED	BB-010	Bolt, short, for horn front, ...per doz. 25—each	.05	25104D
ZOTED	BB-011	Bolt, long, for horn front, ...per doz. .25—each	.05	25105D
DUTED	BB-012	Lock washer for horn shell, screw, 9 used, ...per doz. .25—each	.05	25117D
FUTED	BB-013	Nut for horn bracket screw, 3 used, ...per doz. .25—each	.05	25106D
LUTED	BB-014	Cap nut for fastening horn front to housing, 6 used	.15	25109D

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BAZED	BB-015	Housing for horn complete assembled	2.00	11177D
CAZED	BB-016	Stud in housing for horn shell	.05	26425K
DAZED	BB-017	Cork ring between diaphragm and housing	.15	21450D
KAZED	BB-018	Diaphragm for horn	.35	26531K
LAZED	BB-019	Cork ring between diaphragm and horn front	.15	24264D
PAZED	BB-020	Condenser for electric horn, 1st type	3.30	49
RAZED	BB-021	Condenser for auto horn, 2nd type	3.30	55
SAZED	BB-022	Screw for second type condenser .....per doz. .25—each	.05	26700K
ZAZED	BB-023	Lock washer on mounting screw for second type condenser .....per doz. .25—each	.05	23867D
DEZED	BB-024	Assembly of core for coils	1.50	26534K
FEZED	BB-025	Field coil, 2 used	.50	25076K
KEZED	BB-026	Screw for mounting core .....per doz. .25—each	.05	24694D
MEZED	BB-027	Retainer for coils on core	.05	24668D
PEZED	BB-028	Lock washer for armature spring screw.....per doz. .25—each	.05	24276D
SEZED	BB-029	Clamp for armature spring.doz. .25—ea.	.05	24689D
TEZED	BB-030	Lock washer on contact spring, mounting screw.....per doz. .25—each	.05	24555D
BIZED	BB-031	Nut on upper end of tapper	.05	24686D
CIZED	BB-032	Armature complete	.55	11178D
DIZED	BB-033	Armature complete, less pins	.40	25109K
FIZED	BB-034	Dowel pin	.05	25123K
KIZED	BB-035	Tapper for auto horn	.20	24691D
LIZED	BB-036	Screw for either end of armature spring.....per doz. .25—each	.05	24698D
PIZED	BB-037	Insulating bushing for tapper in housing	.10	24690D
SIZED	BB-038	Contact screw and nut	2.00	11498D
TIZED	BB-039	Nut for contact screw	.05	25131K
ZIZED	BB-040	Fibre insulator under circuit breaker, ...per doz. .25—each	.05	24682D
COZED	BB-041	Circuit breaker for contact spring .....per doz. .25—each	.05	24608D
DOZED	BB-042	Mica insulator between circuit breaker and armature spring .....per doz. .25—each	.05	24683D
LOZED	BB-043	Armature springs, 6 used	.05	24681D
MOZED	BB-044	Spring binding post	.25	10724D
POZED	BB-045	Screw on housing opposite spring binding post	.05	26536K
SOZED	BB-046	Fibre insulator between spring binding post and frame..per doz. .25—ea.	.05	25153D
BUZED	BB-047	Washer on screw opposite spring binding post.....per doz. .25—each	.05	15066K
DUZED	BB-048	Insulating bushing for spring binding post on housing	.05	24999D
KUZED	BB-049	Terminal for coil and condenser .....per doz. .25—each	.05	24685D
MUZED	BB-050	Lock washer on spring binding post and screw opposite.pr doz. .25—each	.05	24206D
PUZED	BB-051	Nut for spring binding post .....per doz. .25—each	.05	21491D
RUZED	BB-052	Terminal support for contact screw	.10	24680D
SUZED	BB-053	Lock washer under contact screw, adjusting nut.....per doz. .25—each	.05	24667D
TUZED	BB-054	Binding screw for contact spring .....per doz. .25—each	.05	24697D
ZUZED	BB-055	Washer between terminal support and contact spring....per doz. .25—each	.05	24687D

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BABIG	BB-056	Fibre washer between contact spring and coil clips.....per doz. .25—each	.05	25101D
DABIG	BB-057	Washer between contact spring and housing.....per doz. .25—each	.05	25107D
KABIG	BB-058	Contact spring with point	2.00	11309D
LABIG	BB-059	Insulating bushing on contact spring, mounting screw	.05	24684D
PABIG	BB-060	Fibre insulating plate, for contact spring binding screws..... .....per doz. .25—each	.05	25102D
TABIG	BB-061	Nut on contact spring for binding screws.....per doz. .25—each	.05	24688D

PUSH BUTTON SWITCH.

DEBIG	BB-062	Push button switch for electric horn..	1.25	36K
FEBIG	BB-063	Mounting bracket assembled for push button switch	.20	26138K
LEBIG	BB-064	Contact spring complete under push button for horn switch.....	.15	26148K
PEBIG	BB-065	Contact spring complete, second one under push button	.15	26146K
SEBIG	BB-066	Button only for horn switch.....	.25	26142K
TEBIG	BB-067	Bushing for long terminal screw..... .....per doz. .25—each	.05	26151K
BIBIG	BB-068	Bushing for short terminal screw.... .....per doz. .25—each	.05	26152K
DIBIG	BB-069	Clamp for terminal assembly..... .....per doz. .25—each	.05	25258K
KIBIG	BB-070	Escutcheon for horn switch.....	.15	26131K
LIBIG	BB-071	Escutcheon between nickeled plate and mounting	.10	26133K
PIBIG	BB-072	Insulator for contact spring next to button.....per doz. .25—each	.05	23670K
SIBIG	BB-073	Insulator at bottom of push button and on stud.....per doz. .25—each	.05	26149K
ZIBIG	BB-074	Insulator for contact spring and mounting screw..per doz. .25—each	.05	26150K
COBIG	BB-075	Nut for terminal post screw..... .....per doz. .25—each	.05	22050K
FOBIG	BB-076	Terminal, post only for switch..... .....per doz. .25—each	.05	26139K
LOBIG	BB-077	Special screw through mounting into terminal post, long ....per doz. .25—each	.05	26153K
ROBIG	BB-078	Special screw through mounting into terminal post, short ....per doz. .25—each	.05	26154K
ZOBIG	BB-079	Screw through square hole in terminal post.....per doz. .25—each	.05	26257K
CUBIG	BB-080	Screw for escutcheon, nickeled..... .....per doz. .25—each	.05	6018K
FUBIG	BB-081	Screw for brass escutcheon to mounting.....per doz. .25—each	.05	14080K
LUBIG	BB-082	Lock washer on terminal post screws .....per doz. .25—each	.05	22198K
TUBIG	BB-083	Flat washer for terminal post..... .....per doz. .25—each	.05	271K

MOTOR GENERATOR

MUBIG	BB-487	Generator assembled, complete	135.00	MG-24
PUBIG	BB-488	Generator frame with poles, pieces and dowels	21.00	12314D
SUBIG	BB-489	Rear end housing only, for generator	6.70	22313D

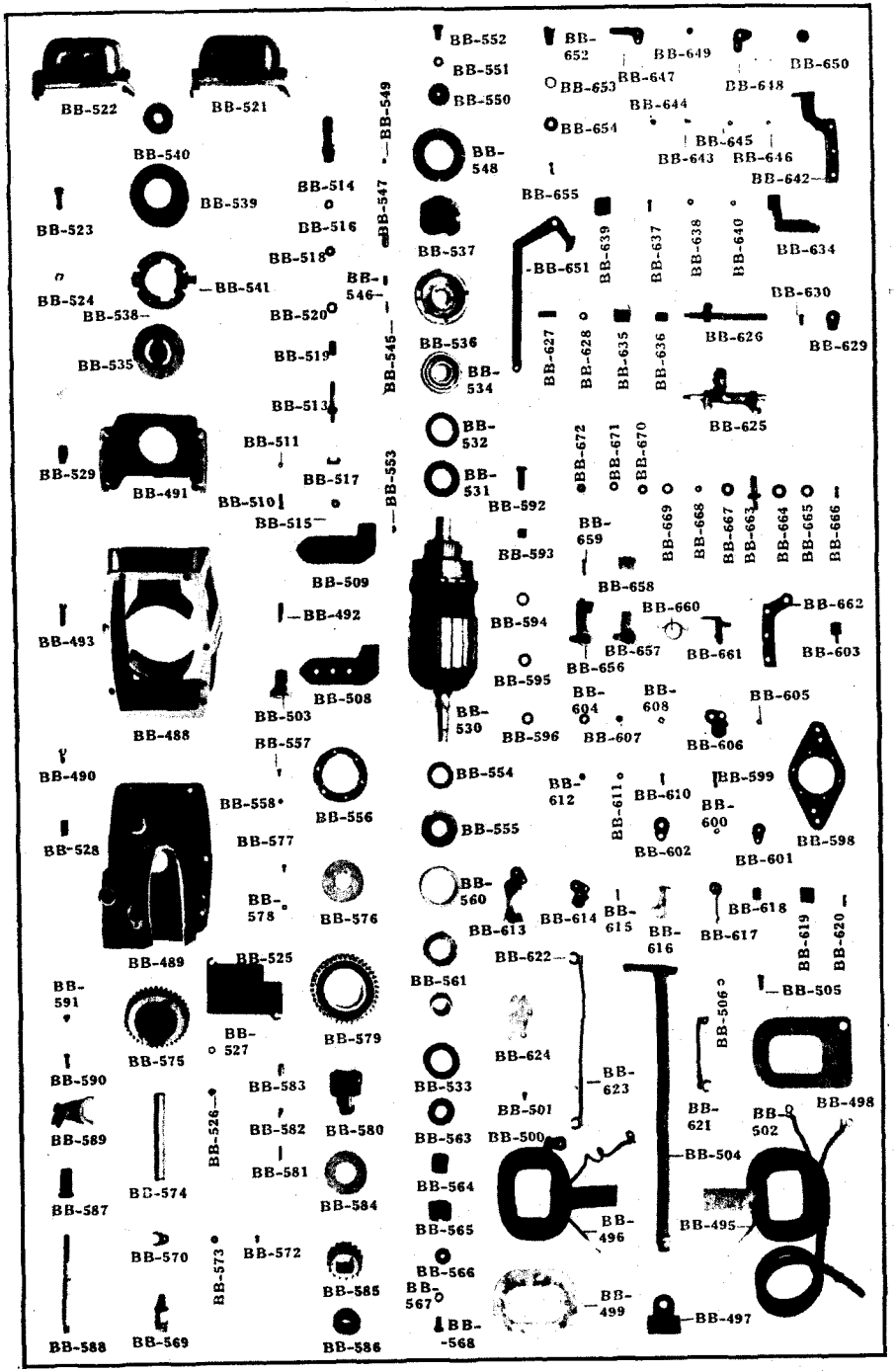
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CODE WORD				
BADIG	BB-490	Screw for rear end housing only.....	.05	20403D
CADIG	BB-491	End housing only, front, for generator	2.00	20957D
DADIG	BB-492	Dowel pin for front and rear housing .....per doz. .25—each	.05	20039D
KADIG	BB-493	Screw for attaching front end frame.	.05	21082D
LADIG	BB-494	Field coils for generator upper and lower assembled with lead cable....	15.00	10384D
PADIG	BB-495	Upper field coil with lead cable.....	7.50	12287D
RADIG	BB-496	Lower field coil with series field connector	7.50	12288D
TADIG	BB-497	Lug on generator lead wire for negative battery terminal	.10	2443D
BEDIG	BB-498	Fibre liner between field coil and housing, upper	.05	22120D
DEDIG	BB-499	Fibre liner between field coil and housing, lower	.05	22114D
KEDIG	BB-500	Series field connector on lower field coil	.20	
MEDIG	BB-501	Screw for series field connector..... .....per doz. .25—each	.05	20300D
REDIG	BB-502	Terminal clip for shunt field coils.... .....per doz. .25—each	.05	20067D
TEDIG	BB-503	Large hexagon head bolt for fastening pole piece to generator housing....	.55	20041D
BIDIG	BB-504	Brass flexible metal conduit from generator to storage battery 9/16"x16" long, complete	1.50	
FIDIG	BB-505	Screw to fasten flange to battery..... .....per doz. .25—each	.05	10273
LIDIG	BB-506	Lock washer for flange screw..... .....per doz. .25—each	.05	11314
PIDIG	BB-507	Copper ferrule on negative lug, on battery end of generator conductor....	.10	17134
SIDIG	BB-508	Bakalite insulating base for terminals on top of generator.....	2.00	22396D
ZIDIG	BB-509	Cap for terminal posts on generator insulating base	.25	22397D
CODIG	BB-510	Screw for cap for terminal posts on generator	.05	20543D
FODIG	BB-511	Lock washer for screw for terminal posts on generator..per doz. .25—ea.	.05	20241D
LODIG	BB-512	Terminal clip for lead wires on top of generator.....per doz. .25—each	.05	22452D
PODIG	BB-513	Brass terminal post only for generator	.30	22398D
RODIG	BB-514	Generator terminal post complete.....	.75	
SODIG	BB-515	Generator terminal stud nut..... .....per doz. .25—each	.05	20075D
ZODIG	BB-516	Lock washer for upper and lower end of generator terminal stud..... .....per doz. .25—each	.05	20137D
DUDIG	BB-517	Brass clamp for wires on top of generator terminal stud..... .....per doz. .25—each	.05	22395D
LUDIG	BB-518	Flat washer for lower end of generator terminal stud.per doz. .25—ea.	.05	20114D
PUDIG	BB-519	Fibre bushing for generator terminal stud on top of generator.....	.05	20077D
SUDIG	BB-520	Fibre washer for generator terminal stud.....per doz. .25—each	.05	20076D

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CODE WORD				
BAFIG	BB-521	Upper front end cover (aluminum), complete with thumb screws.....	1.75	10078D
DAFIG	BB-522	Lower front end cover (aluminum), complete, with screen and thumb screws	2.00	10077D
LAFIG	BB-523	Thumb screw for upper or lower front end cover	.15	21531D
PAFIG	BB-524	Washer for thumb screw for front end housing.....per doz. .25—each	.05	20484D
SAFIG	BB-525	Bottom plate for rear end housing...	.15	21080D
TAFIG	BB-526	Screw for bottom plate for rear end housing.....per doz. .25—each	.05	20553D
BEFIG	BB-527	Lock washer for screw for bottom cover plate for rear end housing... .....per doz. .25—each	.05	20484D
FEFIG	BB-528	Spring oiler on top rear end housing..	.25	11285D
KEFIG	BB-529	Oiler for front end bearing on end frame	.25	11926D
MEFIG	BB-530	Armature for generator.....	50.00	12271D
PEFIG	BB-531	Retaining collar for inside felt for front bearing....per doz. .25—each	.05	20808D
SEFIG	BB-532	Felt oil retainer, inside, for bearing, rear end	.05	20803D
ZEFIG	BB-533	Felt oil retainer, outside, for bearing, front and rear end..... .....per doz. .25—each	.05	21703D
CIFIG	BB-534	Ball bearing, complete, for driving clutch, front end	6.00	11029D
FIFIG	BB-535	Driving clutch, complete, on front end of armature shaft	8.00	10382D
LIFIG	BB-536	Driving clutch outer shell.....	5.35	22286D
MIFIG	BB-537	Cam for driving clutch.....	4.00	20012D
PIFIG	BB-538	Plate with pin for driving clutch dust cap, on front end housing and spring fastener, complete	.60	10007D
TIFIG	BB-539	Dust cap for driving clutch on front end of armature	.55	20794D
BOFIG	BB-540	Cross for generator and coupling on pump shaft	.30	13109
DOFIG	BB-541	Spring fastener, complete, for dust cap on driving clutch.....	.20	
KOFIG	BB-542	Screw for spring fastener on dust cap for driving clutch.per doz. .25—ea.	.05	20801D
MOFIG	BB-543	Spring for fastener on dust cap for driving clutch...per doz. .25—each	.05	20307D
ROFIG	BB-544	Shell for spring fastener on dust cap for driving clutch	.10	20802D
TOFIG	BB-545	Spring for plunger in driving clutch cam.....per doz. .25—each	.05	20024D
BUFIG	BB-546	Plunger for driving clutch cam..... .....per doz. .25—each	.05	20017D
DUFIG	BB-547	Roll for driving clutch cam.....	.10	23625D
FUFIG	BB-548	Retainer or cover plate for rolls for driving clutch	.15	20878D
LUFIG	BB-549	Screw for driving clutch roller retainer for cover plate..... .....per doz. .25—each	.05	21477D
RUFIG	BB-550	Steel washer for clamping driving clutch on front end armature shaft	.10	22321D

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MOTOR GENERATOR

CODE WORD				
BAKIG	BB-551	Lock washer for driving clutch shell clamp screw.....per doz. .25—each	.05	20145D
DAKIG	BB-552	Clamp screw for driving clutch outer shell on front end of armature shaft .....per doz. .25—each	.05	20054D
LAKIG	BB-553	Key for driving clutch on armature shaft	.05	21544D
PAKIG	BB-554	Thin sheet steel washer on rear end of armature shaft next to steel washer 20798.....per doz. .25—each	.05	2735D
TAKIG	BB-555	Steel washer, inner, for rear bearing of armature shaft	.25	20798D
BEKIG	BB-556	Retaining plate for rear ball race, inside	.10	20797D
DEKIG	BB-557	Screw for retaining plate for rear ball race for bearing.per doz. .25—each	.05	20178D
KEKIG	BB-558	Lock washer for screw for retaining plate.....per doz. .25—each	.05	20241D
MEKIG	BB-559	Ball bearing, complete, assembled, for rear of generator with outer race...	6.50	
REKIG	BB-560	Ball race, outer, for armature (Norma, N-23 A-125), rear end.....	2.15	22418D
TEKIG	BB-561	Ball retainer with balls and inner race	4.30	10828D
BIKIG	BB-561A	Ball retainer with balls.....	2.70	11187D
CIKIG	BB-563	Steel washer for outer felt oil retainer on rear end of armature shaft.....	.05	20966D
FIKIG	BB-564	Sleeve for rear end of armature shaft	.15	20873D
KIKIG	BB-565	Small pinion on rear end of armature shaft	1.35	20870D
MIKIG	BB-566	Clamp washer for small pinion on armature shaft	.20	21536D
RIKIG	BB-567	Lock washer for pinion retaining screw.....per doz. .25—each	.05	20145D
TIKIG	BB-568	Screw for retaining small pinion on armature shaft..per doz. .25—each	.05	20054D
BOKIG	BB-569	Grease cup for starting clutch shaft...	.30	17053
COKIG	BB-570	Clip for starting clutch shaft..... .....per doz. .25—each	.05	20848D
FOKIG	BB-571	Woodruff key for starting clutch shaft	.05	21544D
KOKIG	BB-572	Screw for starting clutch shaft clip... .....per doz. .25—each	.05	20178D
MOKIG	BB-573	Lock washer for starting clutch shaft clip screw.....per doz. .25—each	.05	20142D
ROKIG	BB-574	Shaft for starting clutch for generator	.80	20244D
SOKIG	BB-575	Starting clutch, complete, assembled with pinion and gear	10.70	10044D
ZOKIG	BB-576	Roll retainer or cover plate, outside. for starting clutch	.15	2575D
CUKIG	BB-577	Screw for roll retainer or cover plate on starting clutch.per doz. .25—ea.	.05	20023D
FUKIG	BB-578	Lock washer for starting clutch roll retainer screw...per doz. .25—each	.05	20393D
LUKIG	BB-579	Large gear for generator starting clutch	5.00	21316D
PUKIG	BB-580	Cam for generator starting clutch...	4.00	20020D
RUKIG	BB-581	Spring for roll plunger for starting clutch.....per doz. .25—each	.05	21538D

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CODE WORD				
BALIG	BB-582	Plunger for roll for starting clutch... .....per doz. .25—each	.05	20017D
DALIG	BB-583	Roll for starting clutch.....	.10	23625D
FALIG	BB-584	Roll retainer between cam and pinion for starting clutch	.10	20022D
LALIG	BB-585	Starting pinion for generator starting clutch	1.35	20465D
PALIG	BB-586	Special hex. nut, grooved, for shifting yoke	.45	20027D
SALIG	BB-587	Bushing in rear housing for shifting rod for generator gears.....	.55	20849D
ZALIG	BB-588	Rod for shifting generator gears.....	.40	21199D
BELIG	BB-589	Yoke for gear shifting rod with stud pin and cotter pin	1.60	10528D
CELIG	BB-590	Clamp screw for shifting rod yoke..	.05	21129D
DELIG	BB-591	Screw for motor brush switch link... .....per doz. .25—each	.05	22478D
KELIG	BB-592	Brass screw for terminal on bottom of housing for motor brush.....	.10	21073D
MELIG	BB-593	Fibre spacing collar for series field lead	.10	21059D
RELIG	BB-594	Fibre washer for motor brush connector screw.....per doz. .25—each	.05	21117D
TELIG	BB-595	Fibre bushing for screw for series field terminal	.05	21060D
BILIG	BB-596	Washer for motor brush connector screw terminal..per doz. .25—each	.05	20238D
DILIG	BB-597	Generator armature brush holder, complete, with arms, springs, brushes, studs, etc.	4.25	10591D
LILIG	BB-598	Brush holder and bearing retainer plate, only for generator armature brushes	.15	21374D
RILIG	BB-599	Screw for brush holder bearing retainer plate.....per doz. .25—each	.05	20970D
TILIG	BB-600	Lock washer for brush holder and bearing retainer plate..... .....per doz. .25—each	.05	20241D
COLIG	BB-601	Brush holder terminal reinforcement plate.....per doz. .25—each	.05	20494D
FOLIG	BB-602	Fibre insulator for brush holder terminal reinforcement plate	.05	20493D
LOLIG	BB-603	Generator brush terminal assembled.	.25	10039D
MOLIG	BB-604	Fibre washer for brush switch spring terminal.....per doz. .25—each	.05	21429D
ROLIG	BB-605	Fibre bushing for generator brush holder.....per doz. .50—each	.05	20491D
TOLIG	BB-606	Generator brush holder bracket fibre insulator	.05	21296D
BULIG	BB-607	Nut for generator brush spring terminal.....per doz. .25—each	.05	20068D
DULIG	BB-608	Lock washer for generator brush spring terminal..per doz. .25—each	.05	20495D
KULIG	BB-609	Washer for generator brush screw.... .....per doz. .25—each	.05	20810D
MULIG	BB-610	Fillister head screw for generator brush holder.....per doz. .25—each	.05	20107D
RULIG	BB-611	Lock washer for generator brush holder bracket.....per doz. .25—each	.05	20495D
TULIG	BB-612	Nut, hex. for motor brush holder terminal.....per doz. .25—each	.05	20068D

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CODE WORD				
BAMIG	BB-613	Generator brush holder bracket with stud, spring, cotter pin, arm, brush and screws	1.00	
DAMIG	BB-613A	Generator brush arm screw with brush only	.85	10059D
FAMIG	BB-614	Generator brush holder bracket with stud	.35	10038D
LAMIG	BB-615	Generator brush arm cotter pin.....per doz. .25—each	.05	20163D
PAMIG	BB-616	Generator brush arm only.....per doz. .25—each	.05	21405D
SAMIG	BB-617	Generator brush arm spring	.10	20046D
TAMIG	BB-618	Generator brush retaining plate.....	.05	21418D
ZAMIG	BB-619	Carbon generator brush only.....	.50	24443D
BEMIG	BB-620	Generator brush retaining plate screw.....per doz. .25—each	.05	21899D
DEMIG	BB-621	Generator brush terminal conductor with clips from center terminal on generator main housing to generator brush terminal	.35	10086D
MEMIG	BB-622	Terminal clip on ends of jumper wire for generator field.....per doz. .25—each	.05	22386D
SEMIG	BB-623	Jumper wire with clips from upper to lower motor brush	.70	10355D
ZEMIG	BB-624	Fibre guard on inside of front generator housing for jumper wire, for generator lower brush	.05	22326D
DIMIG	BB-625	Motor lifting brush, complete with shaft, arms, spring, spacer and brush	6.00	10401D
KIMIG	BB-626	Motor brush arm shaft, complete, assembled	1.35	10332D
MIMIG	BB-627	Slotted end of brass shaft through main housing for motor brush arm	.20	22542D
RIMIG	BB-628	Lock washer for motor brush arm shaft.....per doz. .25—each	.05	20791D
TIMIG	BB-629	Clamp on shaft for motor brush holder	.80	22581D
ZIMIG	BB-630	Screw for clamp for motor brush arm.....per doz. .25—each	.05	21746D
COMIG	BB-631	Set screw for brass shaft for motor brush arm.....per doz. .25—each	.05	20065D
FOMIG	BB-632	Lock washer for set screw on motor brush arm shaft..per doz. .25—each	.05	20345D
LOMIG	BB-633	Lifting motor brush holder, complete with brush	3.35	10381D
POMIG	BB-634	Lifting motor brush holder, complete less brush	2.25	11599D
SOMIG	BB-635	Tension spring for motor brush holder, upper	.05	22324D
ZOMIG	BB-636	Spacing sleeve for motor brush arm..	.25	22254D
BUMIG	BB-637	Screw for clamping brush, in holder, upper.....per doz. .25—each	.05	22654D
DUMIG	BB-638	Washer for motor brush screw, upper and lower.....per doz. .25—each	.05	22827D
KUMIG	BB-639	Metite motor brush only, upper.....	.95	24642D
LUMIG	BB-640	Lock washer for motor brush screw, upper and lower.per doz. .25—each	.05	20827D
PUMIG	BB-641	Spring binding post for motor brush lead wire	.25	10039D
SUMIG	BB-642	Motor brush holder bracket, only, upper	.40	22276D

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CODE WORD				
BAPIG	BB-643	Screw for motor brush switch blade..	.05	21887D
CAPIG	BB-644	Insulating bushing for brush lifting switch screw	.10	22318D
FAPIG	BB-645	Lock washer for motor brush switch blade.....per doz. .25—each	.05	20647D
LAPIG	BB-646	Washer for motor switch blade screw.....per doz. .25—each	.05	21914D
PAPIG	BB-647	Motor brush switch blade, complete..	.15	10339D
RAPIG	BB-648	Fibre insulator between brush holder plate and contact spring.....	.05	22249D
TAPIG	BB-649	Brush lifting switch spring terminal insulating bushing	.05	21741D
BEPIG	BB-650	Washer for motor brush switch terminal.....per doz. .25—each	.05	20165D
DEPIG	BB-651	Lifting arm on inside main generator housing, for lifting motor brush...	.75	10356D
KEPIG	BB-652	Screw for holding brush lifting arm to housing	.10	22424D
MEPIG	BB-653	Lock washer for screw for brush lifting lever.....per doz. .25—each	.05	20381D
REPIG	BB-654	Special spring lock washer for upper motor brush lifting lever.....per doz. .25—each	.05	22172D
ZEPIG	BB-655	Cotter pin for brush lifting lever screw.....per doz. .25—each	.05	22578D
CIPIG	BB-656	Brush holder with tension spring stud, lower, for motor, complete with brush	2.70	10454D
KIPIG	BB-657	Brush holder with tension spring stud only, lower, for motor.....	1.40	11103D
MIPIG	BB-658	Metite brush, lower, only	1.10	24449D
PIPIG	BB-659	Screw to fasten lower Metite brush to holder.....per doz. .25—each	.05	22750D
SIPIG	BB-660	Tension spring for lower Metite brush	.05	22367D
TIPIG	BB-661	Copper connecting arm with stud from lower Metite brush holder to lower field coil	.30	10028D
COPIG	BB-662	Motor brush holder plate only, lower	.15	22273D
DOPIG	BB-663	Brass stud for Metite brush holder, lower, only	.70	22176D
KOPIG	BB-664	Special spring lock washer for lower Metite brush holder stud.....per doz. .25—each	.05	22172D
POPIG	BB-665	Washer for motor brush arm stud....per doz. .25—each	.05	21428D
SOPIG	BB-666	Cotter pin for motor brush arm stud..per doz. .25—each	.05	20163D
ZOPIG	BB-667	Fibre washer, inner, for motor brush holder stud.....per doz. .25—each	.05	20076D
CUPIG	BB-668	Fibre bushing for motor brush holder stud	.05	21078D
FUPIG	BB-669	Fibre washer for motor brush arm stud.....per doz. .25—each	.05	20125D
LUPIG	BB-670	Washer for motor brush terminal stud.....per doz. .25—each	.05	20114D
PUPIG	BB-671	Lock washer for motor brush holder stud.....per doz. .25—each	.05	20137D
SUPIG	BB-672	Nut for motor brush holder stud.....per doz. .25—each	.05	20075D

Order Parts by serial part number and name in full.
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STARTING CONTROL PARTS

(Apparatus Box)

CODE WORD				
KARIG	BB-673	Apparatus box complete with voltage regulator, automatic cutout and controlling relay	$40.00	5506D
PARIG	BB-674	Apparatus box base with solid post and wire protector	1.75	10390D
SARIG	BB-675	Stud for apparatus box	.15	2906D
TARIG	BB-676	Large cover with thumb screw for apparatus box	2.95	10392D
BERIG	BB-677	Thumb screw and washer for apparatus box, large cover	.15	21146D 20114D
DERIG	BB-678	Wire protector for mercury tube for voltage regulator on apparatus box base	.10	22434D
LERIG	BB-679	Nut for wire protector on apparatus box base.....per doz. .25—each	.05	21748D
PERIG	BB-680	Rubber dust washer with rim for cover on apparatus box	.25	22881D
SERIG	BB-681	Felt dust washer for condulet between conduit and apparatus box	.10	22733D

(Ignition Relay)

FIRIG	BB-682	Ignition relay, complete, on apparatus box	$10.00	383D
LIRIG	BB-683	Screw for attaching ignition relay to apparatus box....per doz. .25—each	.05	20035D
PIRIG	BB-684	Base for ignition relay (front)	.40	24293D
RIRIG	BB-685	Base for ignition relay (side)	.70	13000D
SIRIG	BB-686	Vibrating coil for ignition relay	2.70	11082D
TIRIG	BB-687	Condenser coil for ignition relay	1.75	10735D
ZIRIG	BB-688	Adjusting screw for ignition relay coil	.40	11087D
BORIG	BB-689	Lock washer for condensor clamp nut .....per doz. .25—each	.05	24274D
DORIG	BB-690	Armature for controlling relay coil	.25	11131D
FORIG	BB-691	Pin for armature for ignition relay coil	.05	24303D
KORIG	BB-692	Vibrator springs assembled on mounting block	2.70	11084D
MORIG	BB-693	Screw for attaching vibrator spring mounting block to relay.....per doz. .25—each	.05	24299D
SORIG	BB-694	Coil clamp nut and condenser clamp nut (4 used).....per doz. .25—each	.05	24285D
ZORIG	BB-695	Lock washer used to fasten coils to base of ignition relay.....per doz. .25—each	.05	24274D
DURIG	BB-696	Fibre insulator between brass terminals and ignition relay base (2 holes).....per doz. .25—each	.05	24282D
LURIG	BB-697	Brass screws to fasten terminal to ignition relay base..per doz. .25—each	.05	24375D
PURIG	BB-698	Hard rubber bushing for terminal post.....per doz. .25—each	.05	24283D
SURIG	BB-699	Plain washer for terminal post.....per doz. .25—each	.05	25265D

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CODE WORD				
BASIG	BB-700	Lock washer for screws which fasten ignition relay to base.....per doz. .25—each	.05	20495D
FASIG	BB-701	Lock washer for ignition relay terminal.....per doz. .25—each	.05	24276D
LASIG	BB-702	Hex. nut for screws which fasten terminal to base.....per doz. .25—each	.05	23638D
PASIG	BB-703	Special head screw for wire clamp on terminal of ignition relay.....per doz. .25—each	.05	23620D
TASIG	BB-704	Brass terminal plate on relay base	.05	24152D
ZASIG	BB-705	Terminal clip for ignition relay.....per doz. .25—each	.05	24281D
CESIG	BB-706	Brass terminal arm for wire contact	.05	24284D
DESIG	BB-707	Fibre washer for terminal post.....per doz. .25—each	.05	24275D

(Automatic Cutout)

RESIG	BB-708	Automatic cutout complete, assembled, for apparatus box	8.00	5686D
TESIG	BB-709	Pull back spring for contact plate for automatic cutout	.05	24343D
BISIG	BB-710	Guide pin in core, for armature coil.....per doz. .25—each	.05	25099D
DISIG	BB-711	Armature only for automatic cutout	.35	11302D
FISIG	BB-712	Fibre bushing for armature screw.....per doz. .25—each	.05	24263D
LISIG	BB-713	Steel pivot pin to hinge armature to bracket.....per doz. .25—each	.05	24082D
PISIG	BB-714	Indicating shutter for automatic cutout	.20	24309D
SISIG	BB-715	Brass contact plate for automatic cutout, fastened to armature	.10	23762D
ZISIG	BB-716	Brass screw for attaching contact plate to armature.....per doz. .25—each	.05	24342D
COSIG	BB-717	Lock washer for contact post.....per doz. .25—each	.05	24337D
FOSIG	BB-718	Long fibre insulator for brass contact plate to armature.per doz. .25—each	.05	23765D
LOSIG	BB-719	Lock washer for automatic cutout terminal.....per doz. .25—each	.05	24276D
POSIG	BB-720	Lock washer for double contact screw .....per doz. .25—each	.05	24339D
SOSIG	BB-721	Fibre washer for brass screw for attaching contact plate.....per doz. .25—each	.05	24261D
BUSIG	BB-722	Plain washer for terminal post binding screw.....per doz. .25—each	.05	24336D
DUSIG	BB-723	Contact arm connecting series and shunt windings (2 holes)	.05	23767D
KUSIG	BB-724	Contact arm (4 holes)	.05	23768D
LUSIG	BB-725	Grounding plate for shunt coil	.05	23763D
MUSIG	BB-726	Copper terminal plate, for series coil.	.05	24259D
PUSIG	BB-727	Brass screw for attaching terminal plates to contact plates (4 used).....per doz. .25—each	.05	24413D

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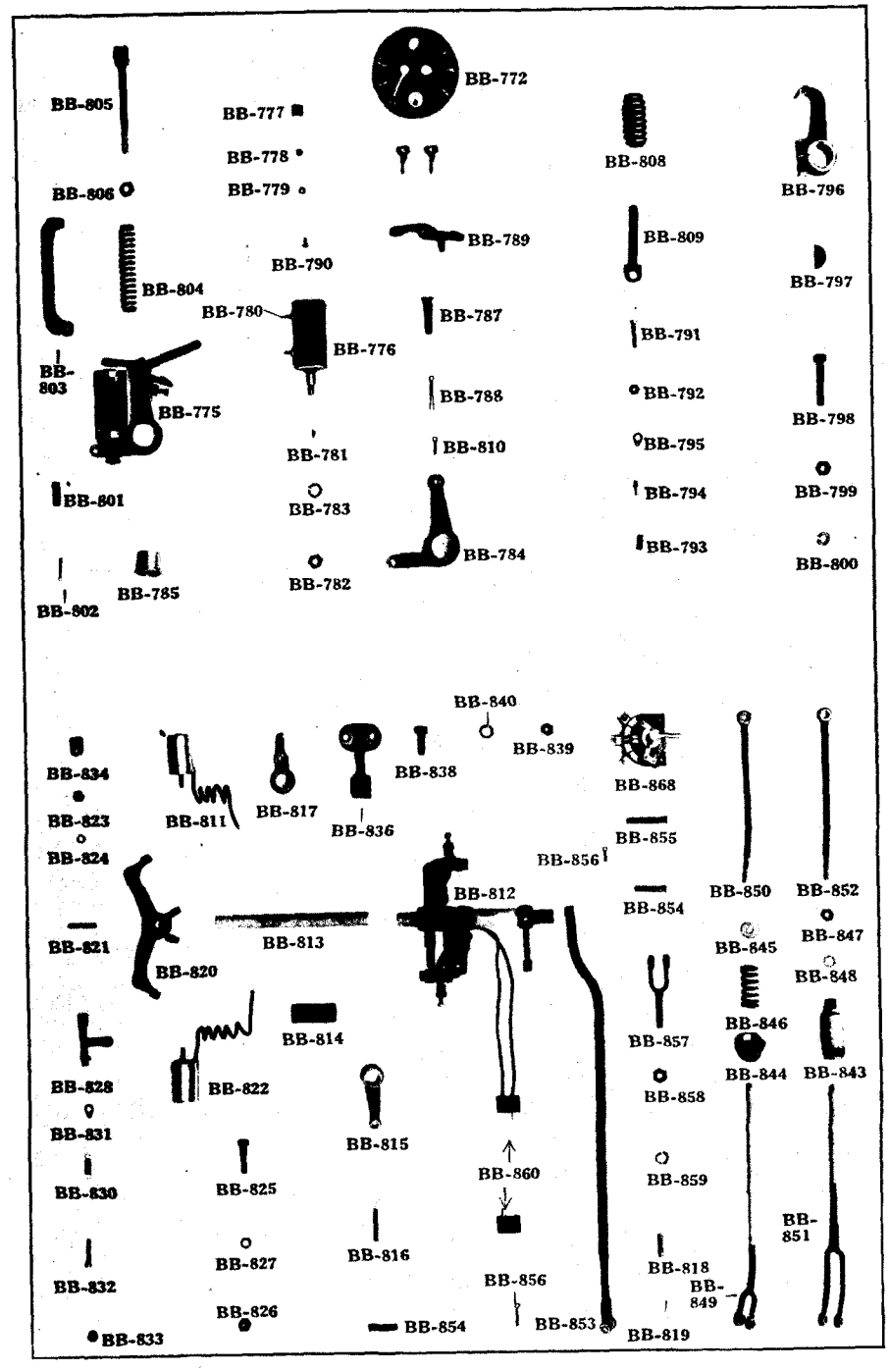
CODE WORD				
BATIG	BB-728	Fibre washer for contact arm screw.. .....per doz. .25—each	.05	24257D
DATIG	BB-729	Flat washer for screw for operating shutter.....per doz. .25—each	.05	24341D
KATIG	BB-730	Hard rubber bushing for screw for terminal post.....per doz. .50—each	.05	20418D
MATIG	BB-731	Brass terminal arm for wire contact.	.10	24225D
PATIG	BB-732	Relay terminal screw..per doz. .25—ea.	.05	23620D
RATIG	BB-733	Brass nut for bolt for brass clip at lower end of terminal arm..... .....per doz. .25—each	.05	23638D
ZATIG	BB-734	Brass terminal clip at lower end of terminal arm....per doz. .25—each	.05	24281D
CETIG	BB-735	Fibre insulator for copper arm, and brass terminal arm, for automatic cutout (2 holes)..per doz. .25—each	.05	24235D
KETIG	BB-736	Fibre insulator for copper arm, and brass terminal arms, for automatic cutout (4 holes)..per doz. .25—each	.05	24213D
PETIG	BB-737	Coil assembled for automatic cutout..	2.15	11329D
RETIG	BB-738	Brass nut for retaining coil for automatic cutout.....per doz. .25—each	.05	24285D
TETIG	BB-739	Lock washer for retaining coil for automatic cutout..per doz. .25—each	.05	24274D
BITIG	BB-740	Screw for attaching automatic cutout to apparatus box..per doz. .25—each	.05	20035D
DITIG	BB-741	Lock washer for screw for attaching automatic cutout to apparatus box.. .....per doz. .25—each	.05	20495D
LITIG	BB-742	Bracket for attaching automatic cutout to bottom of apparatus box.....	.10	23761D
PITIG	BB-743	Bracket or heel iron for mounting terminal plates and pinned armature...	.50	23637D
SITIG	BB-744	Washer for double contact arm screw .....per doz. .25—each	.05	24340D

(Voltage Regulator)

KOTIG	BB-745A	Voltage regulator complete, less mercury tube	8.65	10844D
LOTIG	BB-746	Voltage regulator mercury tube, assembled complete only.....	6.00	10224D
POTIG	BB-747	Clamp screw for mercury tube on body of voltage regulator..... .....per doz. .25—each	.05	20936D
TOTIG	BB-748	Body only for voltage regulator.....	2.00	11234D
ZOTIG	BB-749	Coil assembled for voltage regulator..	2.15	12409D
BUTIG	BB-750	Fibre insulator for wire from coil to body	.10	22410D
DUTIG	BB-751	Outside shell for voltage regulator coil	.70	10074D
KUTIG	BB-752	Screw for attaching shell to body.... .....per doz. .25—each	.05	20300D
MUTIG	BB-753	Top cover for coil outside shell.....	.15	22506D
PUTIG	BB-754	Spring lock washer for regulator coil cover	.05	21361D
SUTIG	BB-755	Clamp screw for outside shell for voltage regulator coil.per doz. .25—each	.05	21256D

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STARTING CONTROL PARTS



REAR AXLE CONTROL

CODE WORD				
BABOM	BB-756	Lock washer for clamp screw.....per doz. .25—each	.05	20345D
FABOM	BB-757	Name plate for voltage regulator....	.15	22282D
KABOM	BB-758	Screw for name plate for voltage regulator.....per doz. .25—each	.05	21705D
MABOM	BB-759	Special nut for terminal screw.....	.15	22513D
PABOM	BB-760	Terminal screw on body of voltage regulator	.10	22417D
SABOM	BB-761	Nut for terminal screw.....per doz. .25—each	.05	21263D
ZABOM	BB-762	Fibre washer for terminal on body of voltage regulator.per doz. .25—each	.05	21298D
CEBOM	BB-763	Flat washer under terminal on body of voltage regulator.....per doz. .25—each	.05	21679D
KEBOM	BB-764	Fibre bushing for terminal on body of voltage regulator..per doz. .25—each	.05	20939D
MEBOM	BB-765	Lock washer for terminal on body of voltage regulator..per doz. .25—each	.05	20791D
REBOM	BB-766	Flat washer for regulator terminal...per doz. .25—each	.05	22616D
TEBOM	BB-767	Mounting screw for voltage regulator	.05	22229D
ZEBOM	BB-768	Lock washer for above screw.....per doz. .25—each	.05	20137D
DIBOM	BB-769	Flat brass conductor from voltage regulator to automatic cutout.....	.10	22437D
FIBOM	BB-769A	Flat resistance conductor.....	.10	22888D
KIBOM	BB-770	Terminal clip for voltage regulator...per doz. .25—each	.05	20316D
MIBOM	BB-771	Clip for lead wire on voltage regulator .....per doz. .25—each	.05	22512D
RIBOM	BB-772	Switch, combination starting, lighting, and ignition	20.00	1042D
TIBOM	BB-773	Push button switch on door of coupe for starting	1.25	36K
BOBOM	BB-774	Plate for starting switch on coupe door	.30	17312
DOBOM	BB-775	Assembly of magnet coil with bracket lever, pawl and spring.....	5.50	
KOBOM	BB-776	Coil for magnetic clutch.....	3.00	7A-D
LOBOM	BB-777	Clip for clutch magnet coil.....	.05	20373D
MOBOM	BB-778	Hex. nut for clip screw.doz. .25—each	.05	23639D
ROBOM	BB-779	Lock washer on clip screw.doz. .25—ea.	.05	24539D
TOBOM	BB-780	Screw for coil clip..per doz. .25—each	.05	
ZOBOM	BB-781	Key No. 2 Woodruff, for coil for magnetic clutch	.05	11352
CUBOM	BB-782	Nut for stud for magnetic clutch coil.	.05	R4-701
DUBOM	BB-783	Lock washer for stud for magnetic clutch coil.....per doz. .25—each	.05	11316
KUBOM	BB-784	Bracket lever for magnetic clutch coil	1.20	9381
LUBOM	BB-785	Bushing for bracket lever for magnetic clutch coil	.60	13615
PUBOM	BB-786	Spacer for bushing for bracket lever, for magnetic clutch coil.....	.15	13617
SUBOM	BB-787	Pivot pin for pawl on bracket lever...	.15	13690

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CODE WORD				
BADOM	BB-788	Cotter pin for pivot pin for pawl.....per doz. .25—each	.05	15165
DADOM	BB-789	Pawl on bracket lever for magnetic interlocker	1.00	9383
KADOM	BB-790	Magnetic tip for pawl.....	.05	9379
LADOM	BB-791	Stop screw for pawl, No. 14—24 x 1¼"	.05	12221
MADOM	BB-792	Check nut for stop screw for pawl...	.05	10888
PADOM	BB-793	Spring for pawl.....	.05	12000
RADOM	BB-794	Pin for spring for pawl.....	.05	9378
SADOM	BB-795	Fastener for pawl spring.....	.05	12227
TADOM	BB-796	Driver for magnetic interlocker.....	1.00	9382
ZADOM	BB-797	Key No. A Woodruff for magnetic interlocker driver	.05	11363
CEDOM	BB-798	Clamp screw ⅜"—16 x 2¼", for magnetic interlocker driver.....	.05	10033
FEDOM	BB-799	Nut for clamp screw for magnetic interlocker driver...per doz. .25—each	.05	10893
LEDOM	BB-800	Lock washer for clamp screw for magnetic interlocker driver.....per doz. .25—each	.05	11306
REDOM	BB-801	Pin on bracket lever for yoke or link to generator gear shifting rod.....	.05	12232
TEDOM	BB-802	Cotter pin for pin on bracket lever for yoke or link to generator gear shifting rod.....per doz. .25—each	.05	15165
CIDOM	BB-803	Link connecting lever bracket to generator gear shifting rod.....	.60	14061
FIDOM	BB-804	Spring for link connection to generator gear shifting rod.....	.30	14122
SIDOM	BB-805	Stud with tapped hex. head for link..	.30	14062
ZIDOM	BB-806	Check nut for connecting rod from link to generator gear shifting rod (3 used)	.05	R4-701
DODOM	BB-807	Bracket on cross member for retracting spring	.15	13693
KODOM	BB-808	Retracting spring for magnetic interlocker	.10	14121
MODOM	BB-809	Guide for retracting spring.....	.15	13697
PODOM	BB-810	Cotter pin for guide.per doz. .25—each	.05	15172
RODOM	BB-810A	Clamp for resistance conductor.....per doz. .25—each	.05	24281D
SODOM	BB-810B	Washer for resistance conductor.....per doz. .25—each	.05	20393D
TODOM	BB-810C	Nut for resistance conductor.....per doz. .25—each	.05	20347D
ZODOM	BB-810D	Stud for resistance conductor.per doz.	.10	22894D
BUDOM	BB-810E	Lock washer for resistance conductor .....per doz. .25—each	.05	20791D

REAR AXLE CONTROL

CUDOM	BB-811	Rear axle control magnet (1 used), (red wire)	2.00	9A-K
FUDOM	BB-812	Magnetic interlocker complete assembled with shaft lever and coils.....	10.00	16140
LUDOM	BB-813	Shaft for magnetic interlocker.....	.35	16785
MUDOM	BB-814	Spacer for shaft for magnetic interlocker	.15	16784
RUDOM	BB-815	Lever on shaft for rear axle pull rod.	.50	16680
SUDOM	BB-816	Taper pin in lever for rear axle pull rod	.05	15053
ZUDOM	BB-817	Driver for magnetic interlocker control	.80	16683

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CODE WORD				
BAFOM	BB-818	Pin for yoke on driver for interlocker control	.05	16788
DAFOM	BB-819	Cotter pin for pin in yoke on driver..per doz. .25—each	.05	15165
KAFOM	BB-820	Bracket on shaft to hold coils and pawls	2.00	16682
MAFOM	BB-821	Taper pin for pawl and coil bracket...	.05	15055
PAFOM	BB-822	Magnetic coil for rear axle control (1 used), black wire with red tracer...	2.00	8A-K
SAFOM	BB-823	Nut to hold coil on bracket	.05	10888
TAFOM	BB-824	Lock washer for nut for coil bracket..per doz. .25—each	.05	11314
BEFOM	BB-825	Cap screw for pawl on coil bracket..	.05	16787
CEFOM	BB-826	Nut for cap screw for pawl on coil bracket..per doz. .25—each	.05	10892
FEFOM	BB-827	Lock washer for stud on coil bracket..per doz. .25—each	.05	11315
LEFOM	BB-828	Pawl for magnetic interlocker coil....	.80	16681
MEFOM	BB-829	Cotter pin in pawl...per doz. 25—each	05	15161
PEFOM	BB-830	Spring for pawl for interlocker coil..	.05	16932
REFOM	BB-831	Steel fastener for pawl spring	.05	12227
SEFOM	BB-832	Screw for adjusting travel of pawl..	.05	12221
TEFOM	BB-833	Nut for screw for adjusting travel of pawl	.05	10888
BIFOM	BB-834	Clip for coil wires	.05	16925
CIFOM	BB-835	Bracket on frame for magnetic interlocker shaft, double	1.00	17082
FIFOM	BB-836	Bracket on frame for magnetic interlocker shaft, single	.50	16786
LIFOM	BB-837	Screw for bracket on frame for magnetic interlocker ⅜" x 2½"..per doz. 1.00—each	.10	10034
RIFOM	BB-838	Screw for bracket on frame for magnetic interlocker ⅜" x 1¼"	.05	10026
TIFOM	BB-839	Nut for screw to fasten bracket to frame..per doz. .25—each	.05	10893
BOFOM	BB-840	Lock washer for screw to fasten bracket to frame..per doz. .25—each	.05	11316
DOFOM	BB-841	Rod from pedal to interlocker, complete with housing and spring for high speed control	2.25	16157
LOFOM	BB-842	Rod from pedal to interlocker, complete with housing and spring for low speed control	2.00	16158
ROFOM	BB-843	Housing for spiral spring for control rods	.40	16791
TOFOM	BB-844	Cap for end of spring housing for control rods	.50	16794
BUFOM	BB-845	Nut for inside of housing for spring for control rods	.05	16793
DUFOM	BB-846	Spring for control driver rod	.15	16792
FUFOM	BB-847	Nut, check, for control driver rod..per doz. .25—each	.05	R4-702
LUFOM	BB-848	Lock washer for check nut for control driver rod....per doz. .25—each	.05	11315
PUFOM	BB-849	Rod from spring to magnetic interlocker for low speed	.50	16782
SUFOM	BB-850	Rod from spring to pedal for low speed	.35	16781

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BAGOM	BB-851	Rod from spring to interlocker for high speed	.75	16729
DAGOM	BB-852	Rod from spring to pedal for high speed	.35	16780
KAGOM	BB-853	Rod from magnetic interlocker to rear axle	1.00	16783
MAGOM	BB-854	Pin to fasten rod yoke to lever yoke (short)	.05	7407
RAGOM	BB-855	Pin to fasten yoke to lever yoke (long)	.10	16789
TAGOM	BB-856	Cotter pin to fasten rod yoke to lever yoke..per doz. .25—each	.05	15171
BEGOM	BB-857	Yoke for adjustable driver rod to rear axle	.50	16730
DEGOM	BB-858	Check nut for yoke for driver rod..per doz. .25—each	.05	R4-701
KEGOM	BB-859	Lock washer for check nut..per doz. .25—each	.05	11316
MEGOM	BB-860	Connector block for gear shifter for rear axle control, two halves	.50	16329
REGOM	BB-861	Clip on connector for supporting wires	.05	17421
TEGOM	BB-862	Screw for holding clip to connector..per doz. .25—each	.05	11590
BIGOM	BB-863	Nut for screw for clip for connector..per doz. 25—each	.05	11654
DIGOM	BB-864	Washer for screw for clip for connector..per doz. .25—each	.05	11343
KIGOM	BB-865	Metal conduit on body for gear shifter wires	1.25	16979
MIGOM	BB-866	Clip for holding metal conduit to body, large	.10	16978
RIGOM	BB-867	Clip for holding metal conduit to body, all cars, small	.10	14026
TIGOM	BB-868	Switch complete on door for rear axle control	2.00	38K
BOGOM	BB-869	Cover or plate for switch on coupe door	.25	17311
DOGOM	BB-870	Bracket for shifter switch on door for coupe	.20	17220
KOGOM	BB-871	Lever for gear shifter switch	.40	23793D
LOGOM	BB-872	Screw for switch for rear axle control	.05	23745D
MOGOM	BB-873	Spring contacts in door sill complete for rear axle control	.75	16129
POGOM	BB-873A	Contact arm in gear shifter switch...	.95	11526D
ROGOM	BB-874	Plate on door column for spring contact for rear axle control, all cars except coupe	.15	16851
ZOGOM	BB-875	Casing for spring contact	.25	16853
BUGOM	BB-876	Spring in casing for spring contact...	.05	16852
CUGOM	BB-877	Plunger in casing for spring contact..	.15	16855
DUGOM	BB-878	Cap for plunger in casing for spring contact	.15	16856
KUGOM	BB-879	Special nut for spring contact on door jamb	.05	11651
MUGOM	BB-880	Washer for spring contact on door jamb..per doz. .25—each	.05	11433
RUGOM	BB-881	Plate for spring contact on door column for rear axle control, coupe....	.15	17259
TUGOM	BB-882	Spring contact plate on coupe (1 used)	.10	17258

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BAHOM BB-883	Screw No. 10x7/8" flat head wood for clip 16978.....per doz. .10—each	.05	
DAHOM BB-884	Screw No. 8x3/4" round head wood blued, for switch No. 16316..... .....per doz. .15—each	.05	
LAHOM BB-885	Shifter wires and conduit complete with connectors	2.25	
PAHOM BB-886	No. 12 green primary wire, with oak tracer and connectors, from ½ connector No. 16329 to No. 2 plunger in door post, 5 ft. long, all cars except coupe and inside drive limousine...	.50	22-13
BEHOM BB-887	No. 12 black primary wire, with oak tracer and connectors, from ½" connector No. 16329 to No. 1 plunger in door post, 5 ft. long, touring, seven-senger, roadster	.50	21-04
LEHOM BB-888	No. 12 green primary wire, with oak tracer and connectors, from No. 2 door plate to No. 1 shifter switch terminal, 10" long, all cars except coupe and inside drive limousine...	.25	22-14
TEHOM BB-889	No. 12 green primary wire and connectors from No. 4 door plate to No. 1 terminal for horn button, 13" long, all cars except coupe and inside drive limousine	.30	22-15
FIHOM BB-890	No. 12 black primary wire with connectors from No. 1 door plate to No. 3 shifter switch terminal, 6" long, touring, seven-passenger, phaeton roadster	.25	21-05
RIHOM BB-891	No. 12 red primary wire with connectors from No. 3 plate to No. 2 shifter switch terminal, 12" long, all except coupe, and inside drive limousine	.30	23-04
COHOM BB-892	No. 12 red primary wire with connectors from No. 2 horn button terminal to No. 2 shifter switch terminal 7" long, all cars except coupe and, inside drive limousine.....	.20	23-05
MOHOM BB-893	Contact plate in door frame for shifter and horn wires.....	.15	16851
ROHOM BB-894	No. 14 red primary wire with connectors, 13" long, from coil to non-reversible connector, all cars.....	.15	43-02
ZOHOM BB-895	No. 14 black primary wire with connectors, 13" long, from coil to non-reversible connector, all cars.....	.15	41-02
DUHOM BB-896	No. 12 black primary wire from No. 1 door plate to terminal No. 3 shifter switch 13½" long, open limousine only	.30	21-18
MUHOM BB-897	No. 12 yellow primary from No. 5 door plate to switch on coupe only, 18" long	.25	24-04
SUHOM BB-898	No. 12 green primary from No. 4 door plate to switch on coupe only, 8" long	.15	22-28

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CODE WORD			
BAKOM BB-899	No. 12 red primary from No. 3 door plate to switch on coupe only, 2' 1" long	.35	23-10
FAKOM BB-900	No. 12 green primary wire with oak tracer from No. 2 door plate to switch, on coupe only, 9" long.....	.20	22-20
MAKOM BB-901	No. 12 black primary wire from No. 1 door plate to switch, on coupe only, 13" long	.25	21-11
SAKOM BB-902	No. 12 yellow primary wire from magnet coil to No. 5 door plunger on coupe, 8' 5" long.....	1.00	24-05
BEKOM BB-903	No. 12 green primary with oak tracer and connectors from non-reversible connector to No. 2 door plunger, 4' 0" long, coupe only	.50	22-18
KEKOM BB-904	No. 12 black primary wire with oak tracer and connectors from non-reversible connector to No. 1 door plunger 4' 0" long, coupe only.....	.50	21-10
REKOM BB-905	No. 12 green primary wire with oak tracer and connectors from high gear shifter switch to non-reversible connector, 6' 3" long, inside drive limousine	.75	22-25
CIKOM BB-906	No. 12 black primary wire with oak tracer from low gear shifter to non-reversible connector, 6' 3" long, coupe only	.75	21-15

ELECTRIC LIGHTING SYSTEM

SIKOM BB-907	Combination starting, lighting and ignition switch on instrument board..	20.00	1042D
ZIKOM BB-908	Clamp for combination switch, all cars except coupe	.50	20051D
COKOM BB-909	Flange for combination switch for coupe	.80	17171
FOKOM BB-910	Screw for clamp for combination switch, all cars except coupe.....	.05	10332
LOKOM BB-911	Screw for flange for combination switch for coupe..per doz. .25—each	.05	11579
POKOM BB-912	Lock washer for clamp screw on combination switch, all cars except coupe .....per doz. .25—each	.05	11315
TOKOM BB-913	Screw for clamp for combination switch on instrument board, all cars except coupe.....per doz. .25—each	.05	10277
CUKOM BB-914	Lock washer for clamp screw No. 10277.....per doz. .25—each	.05	11314
FUKOM BB-915	Three-way push button switch for dome lights on open limousine (2 used)	1.95	13854
MUKOM BB-916	Single push button switch for pillar lights for open limousine (two-way)	1.25	17912
RUKOM BB-917	Single push button switch for corner lights, inside drive limousine (two-way)	1.25	17912
TUKOM BB-918	Single push button switch for dome light for coupe (two-way).....	1.25	17912

Order Parts by serial part number and name in full.
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CODE WORD				
BALOM	BB-919	Dome light, complete with bulb for open limousine and coupe.....	5.00	
DALOM	BB-920	Corner Pullman light complete with bulb for inside drive and open limousine	4.00	
LALOM	BB-921	Door complete with glass for corner Pullman light	3.75	
PALOM	BB-922	Pillar light complete with bulb for open limousine, RIGHT or LEFT..	10.00	16432
SALOM	BB-923	Frosted globe for pillar light.....	1.50	45202
TALOM	BB-924	Washer for pillar light.....	.05	11437
ZALOM	BB-925	Gasket for flange on pillar lamp.....	.05	17239
BELOM	BB-926	Headlight, complete, with bulb, RIGHT or LEFT	12.00	20124
DELOM	BB-927	Door complete with glass and rim for head light	6.25	45204
KELOM	BB-928	Head light glass only.....	1.75	45205
LELOM	BB-929	Side lamp complete with bulb, RIGHT or LEFT	5.00	20123
PELOM	BB-930	Flange complete with glass and rim for side light.....	2.25	45206
SELOM	BB-931	Bolt for side lamp, all closed cars.....	1.00	17011
TELOM	BB-932	Bolt for side lamp, all open cars.....	.75	16433
ZELOM	BB-933	Tail lamp and bracket complete screws, nuts and washers.....	4.00	20125
CILOM	BB-934	Tail lamp complete, assembled with tube, wire and license tag bracket...	6.00	16109
FILOM	BB-935	Support for license tag	.50	16441
KILOM	BB-936	Red glass for tail lamp, round.....	.35	18457
LILOM	BB-937	White glass for tail lamp.....	.20	45208
MILOM	BB-938	Lock washer on support for license tag.....per doz. .25—each	.05	11317
RILOM	BB-939	Nut on support for license tag..... .....per doz. .25—each	.05	10894
TILOM	BB-940	Screw for license tag.....	.05	11025
ZILOM	BB-941	Lock washer for screw....doz. .25—ea.	.05	11316
COLOM	BB-942	Check nut for screw.per doz. .25—each	.05	R4-701
FOLOM	BB-943	Special tail lamp bracket complete with plate, tube, flange and wire, less lamp, when used with circular tire trunk or wire wheels.....	3.00	XE7387 XC7388 XC7389 13565
POLOM	BB-944	Shoe for license tag bracket.....	.10	16436
ROLOM	BB-945	Tube for tail lamp and license tag, standard all except Coupe, I. D. L.	1.00	16435
SOLOM	BB-945A	Tube for tail lamp, I. D. L. and Coupe	1.00	17556
TOLOM	BB-946	Tube for tail lamp and license tag, foreign	1.00	16434
BULOM	BB-947	Connector on tail lamp wire, at lamp.	.30	16974
CULOM	BB-948	Clamp, complete with blocks and nuts to hold tail light and license tag bracket to frame tube.....	1.50	16165
KULOM	BB-949	Clamp only to fasten tail lamp tube and license tag bracket to frame...	.75	16442
MULOM	BB-950	Block to fasten tail lamp tube and license tag bracket to frame, lower.	.20	16438
RULOM	BB-951	Ball 3/16" steel, for block for tail lamp bracket	.05	3821
TULOM	BB-952	Block to fasten tail lamp tube and license tag bracket to frame, upper.	.40	16440

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CODE WORD				
BAPOM	BB-953	Nut for clamp to fasten tail lamp to frame tube.....per doz. .25—each	.05	10894
DAPOM	BB-954	Lock washer for clamp to fasten tail lamp to frame tube..... .....per doz. .25—each	.05	11317
LAPOM	BB-955	Handy lamp, complete.....	2.00	20298
MAPOM	BB-956	Connection on instrument board for handy lamp	.60	17272
RAPOM	BB-957	Bulb for headlight, 6½ V-18 CP.....	.30	16677
SAPOM	BB-958	Bulb for tail and speedometer light, 3½ V-2 CP.....	.25	16679
ZAPOM	BB-959	Bulb for side and gauge light open cars, pillar light, closed cars, 7-V, 6 CP.....	.35	16678
DEPOM	BB-960	Bulb for dome lights, coupe and limousine, pear shaped, 7 V-6 CP.....	.50	
KEPOM	BB-961	Bulb for gauge and sight feed light, all closed cars, 6 V-2 CP.....	.50	17086
MEPOM	BB-962	Socket connector for tail lamp wire..	.60	16660
PEPOM	BB-963	Plug connector for tail lamp, side lamp, speedometer and gauge light.	.30	16659
SEPOM	BB-963A	Receptacle for bulb.....	.75	19856
TEPOM	BB-964	Connector for speedometer and gauge light (shell)	.30	16756
BIPOM	BB-965	Connector for headlight wires (shell)	.35	16658
CIPOM	BB-966	Bracket for speedometer light bulb...	.30	16802
DIPOM	BB-967	Connector, switch type No. 5, on all closed cars	.60	17085
KIPOM	BB-968	Push button switch on instrument board for gauge light.....	1.25	40K
MIPOM	BB-969	Bracket for gauge light on instrument board	.35	16803
RIPOM	BB-970	Screw to fasten gauge and speedometer bracket to instrument board, for touring, seven-passenger, roadster and phaeton.....per doz. .25—each	.05	10274
BOPOM	BB-971	Screw to fasten ground wire to speedometer light bracket..... .....per doz. .25—each	.05	10559
FOPOM	BB-972	Bracket for handy lamp connection on instrument board	.10	16899
LOPOM	BB-973	Screw to fasten bracket for handy lamp connections on instrument board.....per doz. .25—each	.05	10273
ROPOM	BB-974	Lock washer for screw for gauge, speedometer and handy lamp brackets.....per doz. .25—each	.05	11314
ZOPOM	BB-975	Clip for tail lamp wires.....	.05	16861
BUPOM	BB-976	Clip for wires on instrument board for handy lamp connection.....	.05	16944
DUPOM	BB-977	Clip for head light connection.....	.05	16999
FUPOM	BB-978	Clip for dome lamp for inside drive and open limousine.....	.05	17081
LUPOM	BB-979	Double clip for wires on gauge light and speedometer bracket on instrument board	.05	16925
RUPOM	BB-980	Clip to fasten wires to side of dash, all open cars.....	.05	16824
TUPOM	BB-981	Clip to fasten wires to dash, all cars.	.05	17128
ZUPOM	BB-981A	Clamp for tail lamp glass.....	.45	20416

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CODE WORD				
BAROM	BB-982	Clip to fasten wires to side of dash, inside drive limousine.....	.05	17127
DAROM	BB-983	Clip to fasten wires to top of dash, all cars	.05	17126
KAROM	BB-984	Clip to fasten wires to dash, on closed cars	.05	17125
MAROM	BB-985	Fibre insulator on speedometer light bracket screw.....per doz. .25—each	.05	16805
RAROM	BB-986	Fibre insulator on speedometer light bracket	.05	16806
TAROM	BB-987	Rubber insulator for terminals on No. 12 wires.....per doz. .25—each	.05	16985
BEROM	BB-988	Nut for speedometer and gauge lamp connector	.05	16935
DEROM	BB-989	Cover for pillar lamp wires, LEFT, on open limousine.....	.40	17067
KEROM	BB-990	Cover for pillar lamp wires, RIGHT, on open limousine.....	.40	17080
MEROM	BB-991	Clip for head light wires.....	.05	16860
PEROM	BB-992	Clip for conduit for body wire, under floor	.05	16748
SEROM	BB-993	Screw to fasten wire cover to open limousine bodies..per doz. .25—each	.05	10682
ZEROM	BB-994	Flange for speedometer light on all closed cars	.75	17057
CIROM	BB-995	Screw for wire terminal on flange.... .....per doz. .25—each	.05	11586
FIROM	BB-996	Terminal on speedometer light flange, all closed cars.....	.15	23199K
LIROM	BB-997	Insulator for speedometer light screw on all closed cars.....	.05	17121
PIROM	BB-998	Insulator for speedometer light flange on all closed cars.....	.05	17122
SIROM	BB-999	Housing for speedometer light on all closed cars	1.50	17124
ZIROM	BB-1000	Washer for gauge and speedometer light housing, all closed cars.....	.05	17320
COROM	BB-1001	Screw to fasten flange and wire clips to instrument board..... .....per doz. .25—each	.05	10235
KOROM	BB-1002	Lock washer for screw to fasten clips and flange to instrument board..... .....per doz. .25—each	.05	11313
POROM	BB-1003	Flange for gauge light on instrument board, inside drive limousine.....	.75	17139
SOROM	BB-1004	Housing for gauge light on coupe and open limousine	1.50	17236
ZOROM	BB-1005	Flange for gauge light on open limousine and coupe.....	.75	17235
CUROM	BB-1006	Housing for gauge light on inside drive limousine	1.50	17138
FUROM	BB-1007	Bracket, tail light connector, inside drive limousine and coupe.....	.75	17249

NOTE:—When ordering wires, specify length, serial number, and model of car.

SUROM	BB-1008	Conduit for head light wires, RIGHT	.50	16933
TUROM	BB-1009	Conduit for head light wires, LEFT.	.50	16934

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CODE WORD				
BASOM	BB-1010	No. 12 reinforced extra heavy black wire with connector 4′ 6½″ long, from head light to shell connector, RIGHT or LEFT, all cars.....	1.20	21-06
KASOM	BB-1011	No. 12 black primary wire with connectors 3′ 6″ long, from shell connector to switch, RIGHT or LEFT, all cars except coupe.....	.75	21-08
RASOM	BB-1012	Conduit for body wiring, complete with wires and connections.....	7.00	
TASOM	BB-1013	No. 12 black primary wire, with oak tracer and connector No. 16659. speedometer to tail lamp 12′ 5″ long, all cars	1.75	21-02
DESOM	BB-1014	Rubber plug connector for headlight wires	.30	16757
KESOM	BB-1015	No. 14 red primary wire, with connectors, from ignition relay terminal No. 3 to dry cell carbon, 3′ 3″ long, all cars	.40	43-03
RESOM	BB-1016	Rubber insulator for wires..... .....per doz. .25—each	.05	9779
TESOM	BB-1017	Single spade terminal for wire on ignition relay.....per doz. .25—each	.05	16837
BISOM	BB-1018	Single split round head connector for wires.....per doz. .25—each	.05	8186
DISOM	BB-1019	No. 14 green primary wire, with connectors, from terminal No. 4 on dash to dry cell zinc, 5′ 1″ long, touring, seven-passenger and roadster	.50	42-03
PISOM	BB-1020	No. 14 green primary wire, with connectors, from terminal No. 4 on dash to dry cell zinc, 5′ 2½″ long, all cars except touring, seven-passenger and roadster.....	.50	42-13
BOSOM	BB-1021	No. 12 green primary wire, with connectors, from No. 8 terminal on combination switch to magnet coil, 5′ 2″ long, all cars except coupe.....	.50	22-09
KOSOM	BB-1022	No. 12 green primary wire, with connectors, from automatic cutout terminal No. 1 to magnet coil, 2′ 7″ long, all cars.....	.30	22-10
ROSOM	BB-1023	No. 12 green primary wire, with connectors, from automatic cutout terminal No. 1 to No. 2 terminal on generator, 20″ long, all cars.....	.20	22-11
BUSOM	BB-1024	Double clip for primary wire.....	.05	16836
CUSOM	BB-1025	Connector for wire on generator.....	.05	17136
DUSOM	BB-1026	No. 10 red primary wire, with connectors, from automatic cutout terminal No. 2 to No. 3 terminal on generator, 20″ long, all cars except coupe	.20	03-02
PUSOM	BB-1027	No. 12 black primary wire, with oak tracer, and connectors from heater fuse or circuit breaker to No. 9 terminal on combination switch, 21″ long	.20	21-03

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CODE WORD				
BATOM	BB-1028	No. 10 red primary wire, with connectors, from automatic cutout terminal No. 2 to terminal No. 3 on generator, 19″ long, all cars except coupe	.20	03-06
KATOM	BB-1029	No. 12 yellow primary wire, with connectors, from voltage regulator No. 1 to No. 1 terminal on generator, 19¾″ long, all cars	.20	24-01
RATOM	BB-1030	Connector on wire to voltage regulator.....per doz. .25—each	.05	17132
TATOM	BB-1031	No. 14 yellow primary wire, with connectors, from ignition relay terminal No. 2 to No. 7 terminal on switch, 3′ 10″ long, all cars except coupe...	.40	44-03
DETOM	BB-1032	No. 14 black primary wire, with connectors, from ignition relay terminal No. 1 to No. 6 terminal on switch, 3′ 10″ long, all cars except coupe...	.40	41-03
METOM	BB-1033	No. 12 green primary wire, with connectors, from ground terminal on apparatus box to ground terminal on cowl, 2′ 8″ long, all cars except coupe and inside drive limousine...	.30	22-12
ZETOM	BB-1034	No. 12 green primary wire, with connectors, from ground terminal on apparatus box to ground terminal on cowl, 2′ 8″ long, all closed cars.....	.30	22-34
FITOM	BB-1035	Connector for ground wire, cowl board end, all closed cars.....per doz. .25—each	.05	12989
MITOM	BB-1036	Connector for ground wire, apparatus box end.....per doz. .25—each	.05	17029
RITOM	BB-1037	Connector for ground wire, cowl board end, touring, phaeton, and roadster.....per doz. .25—each	.05	8185
ZITOM	BB-1038	Brass nipple on condulet for lighting and ignition tube.....	.15	16842
COTOM	BB-1039	Brass conduit tube for lighting and ignition wires	1.25	16749
FOTOM	BB-1040	Condulet on lighting and ignition tube	.40	16750
KOTOM	BB-1041	½″ flexible conduit 10½″ long from brass tube to generator terminals...	.30	
MOTOM	BB-1042	No. 12 yellow primary wire, with connectors, from side light to No. 1 combination switch terminals, 3′ 5″ long, RIGHT or LEFT, all cars except coupe	1.50	24-02 24-03
ZOTOM	BB-1043	Tail light jumper wire, No. 12 reinforced extra heavy black wire with connectors, 15½″ long, touring and open limousine only.....	1.00	21-01
FUTOM	BB-1044	No. 12 green primary wire, with oak tracer and connectors from oil gauge light to push button switch, 7½″ long, all cars except inside drive limousine	.60	22-06

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CODE WORD				
BAZOM	BB-1045	No. 14 yellow primary wire with red tracer and connectors from No. 5 terminal on combination switch to terminal No. 3 on front of dash, 17″ long, all cars except coupe.....	.20	44-02
LAZOM	BB-1046	No. 12 green primary wire, with oak tracer and connectors from speedometer light to No. 2 terminal on combination switch, 20″ long, all cars except coupe, open and inside drive limousines	.20	22-08
ZAZOM	BB-1047	No. 12 reinforced extra heavy black wire for tail lamp with connectors, 18″ long, seven-passenger, phaeton and roadster	1.00	21-16
FEZOM	BB-1048	No. 12 reinforced extra heavy black wire for right hand tail lamp with connectors, 2′ 7″ long, touring only.	1.50	21-17
MEZOM	BB-1049	No. 12 green primary wire, with oak tracer and connectors from gauge light to push button switch, 12″ long, inside drive limousine only...	.50	22-33
TEZOM	BB-1050	No. 12 green primary wire, with oak tracer and connectors from No. 2 on combination switch to speedometer light, 5′ 0″ long, coupe only...	.50	22-21
DIZOM	BB-1051	No. 12 green primary wire, with oak tracer and connectors complete from No. 2 on combination switch to speedometer light, 19″ long, open and inside drive limousine.....	.20	22-22
PIZOM	BB-1052	No. 14 red primary wire, complete from switch on pillar post to dome light, 14′ 8″ long, coupe only.....	1.50	43-09
TIZOM	BB-1053	No. 14 green primary wire, complete from switch on pillar post to dome light, 17′ 0″ long, coupe only.....	1.60	42-09
COZOM	BB-1054	No. 12 reinforced extra heavy black primary wire, from tail lamp connector on body to tail lamp, 21″ long, coupe and inside drive limousine	1.00	21-12
MOZOM	BB-1055	No. 14 yellow primary wire, with red tracer and connectors complete from terminal No. 3 on dash to No. 5 on combination switch, 3′ 4″ long, coupe only	.40	44-07
ZOZOM	BB-1056	No. 12 yellow primary wire, complete with connectors from right side light to terminal No. 1 on combination switch, 2′ 4″ long, coupe only..	.60	24-06
FUZOM	BB-1057	No. 12 yellow primary wire, complete with connectors from left side light to terminal No. 1 on combination switch, 5′ 6″ long, coupe only.....	1.00	24-07
PUZOM	BB-1058	No. 12 black primary wire, complete with connectors from right head light connector to No. 3 terminal on combination switch, 3′ 4″ long, RIGHT side, coupe only.....	.75	21-13

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CODE WORD				
BABUP	BB-1059	No. 12 black primary wire, complete with connectors from left head light connection to No. 3 terminal on combination switch, LEFT SIDE, 5′ 7″ long, coupe only	1.00	21-14
LABUP	BB-1060	No. 12 green primary wire, complete with connectors from No. 1 terminal on dash to horn switch, 5′ 4″ long, inside drive limousine	.60	22-26
SABUP	BB-1061	No. 12 red primary wire, complete with connectors from live side of heater switch to live side of horn switch, 3′ 5½″ long, inside drive limousine	.40	23-13
DEBUP	BB-1062	No. 12 green primary wire, with oak tracer and connectors complete from live side of heater switch to terminal No. 2 on circuit breaker No. 2, 2′ 9½″ long, inside drive limousine	.35	22-19
PEBUP	BB-1063	No. 12 red primary wire with connectors from shifter switch to live side of horn switch, 6″ long, inside drive limousine	.10	23-15
ZEBUP	BB-1064	No. 14 red primary wire only, from live side of heel board switch to left hand corner light, 25′ long, inside drive limousine only	2.50	43-10
FIBUP	BB-1065	No. 14 red primary wire only, from left corner light wire to right corner light, 12″ long, inside drive limousine	.10	43-11
PIBUP	BB-1066	No. 14 green primary wire, from ground on instrument board to left corner light, 20′ 6″ long, inside drive limousine	2.00	42-10
ZIBUP	BB-1067	No. 14 green primary wire, from left corner light wire to right corner light, 12″ long, inside drive limousine	.10	42-11
FOBUP	BB-1068	No. 12 red primary wire, complete with connectors from live side of heater switch to No. 3 door post terminal, 7′ 6″ long, coupe only	.75	23-14
POBUP	BB-1069	No. 12 green primary wire, with oak tracer, complete with connectors from live side of heater switch to terminal No. 2 on circuit breaker No. 2, 2′ 11½″ long, coupe only	.35	22-32
BUBUP	BB-1070	No. 14 red primary wire, from No. 3 door post wire to live side of heel board switch, 18″ long	.20	43-12
FUBUP	BB-1071	No. 12 green primary wire, complete with connectors for horn from No. 1 terminal on dash to No. 4 door post terminal, 8′ 2″ long, open limousine only	.75	22-27
RUBUP	BB-1072	No. 14 green primary wire, complete from ground connection on instrument board to left corner light, 22′ 0″ long, open limousine only	2.00	42-12

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CODE WORD				
BADUP	BB-1073	No. 14 green primary wire from corner light wire to dome light, 5′ 6″ long, all closed cars	.50	42-04
FADUP	BB-1074	No. 14 green primary wire, from corner light wire to right corner light, 12″ long, open limousine only	.10	42-05
MADUP	BB-1075	No. 14 green primary wire, to left pillar light, 11′ 0″ long, open limousine only	1.00	42-06
SADUP	BB-1076	No. 14 green primary wire, from left pillar light wire to right pillar light, 4′ 6″ long, open limousine only	.40	42-07
BEDUP	BB-1077	No. 14 red primary wire, from left pillar light to right pillar light, 11′ 2″ long, open limousine	1.00	43-04
FEDUP	BB-1078	No. 14 red primary wire, tapped on left pillar light wire to heel board switch, 4′ 8″ long, open limousine	.40	43-05
MEDUP	BB-1079	No. 12 red primary wire, complete with connectors from heater switch to No. 3 door post plunger, 5′ 10½″ long, open limousine	.60	23-08
TEDUP	BB-1080	No. 12 green primary wire, with oak tracer and connectors from live side of heater switch to terminal No. 2 of circuit breaker No. 2, 2′ 9½″ long, open limousine	.30	22-29
FIDUP	BB-1081	No. 12 red primary wire, tapped on live heater switch wire No. 23-08 to live side of heel board switch, 20″ long, open limousine	.15	23-09
PIDUP	BB-1082	No. 14 red primary wire, to left corner light, 11′ 6″ long, open limousine	1.00	43-06
TIDUP	BB-1083	No. 14 red primary wire tapped on wire No. 43-06 to dome light, 3′ 0″ long, open limousine	.25	43-07
CODUP	BB-1084	No. 14 red primary wire, tapped on wire No. 43-06, to right corner light, 12″ long, open limousine	.10	43-08
KODUP	BB-1085	No. 14 yellow primary wire, with red tracer from inside switch to heel board switch, 18′ 8″ long, open limousine	1.75	44-04
RODUP	BB-1086	No. 14 yellow primary wire, with red tracer from inside switch to heel board switch, 18′ 8″ long, open limousine	1.75	44-05
BUDUP	BB-1087	No. 12 green primary wire, complete with terminals from No. 1 terminal on dash to No. 4 door post plunger, 9′ 2″ long, coupe only	1.00	22-31
KUDUP	BB-1088	Reinforcement for ground connection	.15	16467
LUDUP	BB-1089	Ground connection on side bar for cable from storage battery	.25	16468
PUDUP	BB-1090	Screw to fasten ground connection to side bars.....per doz. .25—each	.05	11555
SUDUP	BB-1091	Contact plate for ground wire	.10	16515
TUDUP	BB-1092	Screw ¼″ x 1″ hexagon for contact plate	.05	10060

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CODE WORD				
BAFUP	BB-1093	No. 12 green primary wire, complete with grommets from ground on cowl to ground on instrument board, for coupe and inside drive limousine, 12" long	.10	22-23
LAFUP	BB-1094	Grommet for ground wire.....per doz. .25—each	.05	12984

IGNITION SYSTEM

ZAFUP	BB-1095	Box, complete with supports, cover and lining for dry cells	1.50	40319
CEFUP	BB-1096	Cover with lining, for dry cell battery box	.50	20137
DEFUP	BB-1097	Spring for cover fastener	.05	4204
FEFUP	BB-1098	Hook for cover fastener	.05	4203
KEFUP	BB-1099	Cap screw to attach support for battery box to frame.per doz. .25—each	.05	10023
MEFUP	BB-1100	Nut for cap screw to attach support for battery box to frame.....per doz. .25—each	.05	10893
SEFUP	BB-1101	Lock washer for cap screw to attach support for battery box to frame...per doz. .25—each	.05	11315
BIFUP	BB-1102	Lining for cover or bottom of battery box	.10	16761
DIFUP	BB-1103	Lining for sides of battery box	.20	16762
FIFUP	BB-1104	Terminal on dry cell battery box cover	.35	16807
KIFUP	BB-1105	Button on cover of dry cell battery box	.05	4363
MIFUP	BB-1106	Fastener on spring for dry cell battery box	.05	4199
RIFUP	BB-1107	Terminal for electric generator primary wire	.05	17136
TIFUP	BB-1108	Circuit breaker complete (2 used)	6.50	5692D
ZIFUP	BB-1109	Cover for circuit breaker (2 used)	.50	17144
BOFUP	BB-1110	Double wire terminal for primary wire	.05	16836
COFUP	BB-1111	Ignition tube complete, assembled with wires, connectors and flexible conduit, when long horn projector is used	12.00	16123
LOFUP	BB-1112	Ignition tube complete, assembled with wires, connectors and flexible conduit, when short horn projector is used	12.00	16123
SOFUP	BB-1113	Terminal on primary wire for ignition coil.....per doz. .25—each	.05	8186
ZOFUP	BB-1114	Single primary wire terminal.....per doz. .25—each	.05	16837
CUFUP	BB-1115	Terminal on secondary wires in ignition tube	.05	16889
FUFUP	BB-1116	Terminal on secondary wires, for dual automatic distributor	.05	16986
LUFUP	BB-1117	Terminal on horn wire in ignition tube	.05	17135
MUFUP	BB-1118	Brass nipple in end of ignition tube near dash	.30	16532
RUFUP	BB-1119	Brass collar to hold flexible conduit to ignition tube for horn	.10	16727
TUFUP	BB-1120	Brass nipple to hold flexible conduit to tube (2 used)	.15	16530

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CODE WORD				
BAGUP	BB-1121	Brass collar on flexible conduit for heater	.10	17041
DAGUP	BB-1122	Brass conduit tube for ignition wires, long, used with long horn projector	3.00	16523
KAGUP	BB-1123	Brass conduit tube for ignition wires, long, used with short horn projector	3.00	16523
MAGUP	BB-1124	Brass conduit tube for ignition wires, short	1.25	16633
RAGUP	BB-1125	Rubber insulators on ends of wires (3 used).....per doz. .25—each	.05	9779
TAGUP	BB-1126	Secondary wire, black, 2' 4½" long, from No. 1 on distributor to No. 1 cylinder with connectors, all cars	1.10	1-01
CEGUP	BB-1127	Secondary wire, black, 2' 9" long, from No. 2 on distributor to No. 2 cylinder, with connectors, all cars	1.20	1-02
KEGUP	BB-1128	Secondary wire, black, 3' 5¼" long, from No. 3 on distributor to No. 3 cylinder, with connectors, all cars	1.25	1-03
PEGUP	BB-1129	Secondary wire, black, 3' 10¾" long, from No. 4 on distributor to No. 4 cylinder with connectors, all cars	1.30	1-04
TEGUP	BB-1130	No. 14 yellow primary wire, with red tracer, in ignition tube, from terminal No. 1 on coil, 4' 4" long, to terminal No. 3 on dash with connectors, all cars	.40	44-01
FIGUP	BB-1131	No. 14 green primary wire in ignition tube, from terminal No. 5 of distributor to terminal No. 4 on dash, 3' 9½" long, with connectors, all cars	.35	42-01
RIGUP	BB-1132	No. 12 green primary wire in ignition tube, used on heater on carburetor, to No. 2 terminal on dash, with oak tracer, 3' long with connectors, all cars	.35	22-01
COGUP	BB-1133	No. 12 Green primary wire in ignition tube from horn to No. 1 terminal on dash 3' 5" long, with connectors	.40	22-02
KOGUP	BB-1134	¼" flexible brass conduit for heater wire fastened on ignition tube, 18" long	.40	
POGUP	BB-1135	¼" flexible brass conduit for horn wire, fastened on ignition tube, 16" long	.35	
TOGUP	BB-1136	Ignition coil for dual automatic distributor	12.50	2104D
BUGUP	BB-1137	Cover for ignition coil (Bakalite)	1.90	11530D
CUGUP	BB-1138	Clamp on engine base for ignition coil	.40	16521
DUGUP	BB-1139	Screw for clamp on engine base, for ignition coil 5/16"—18x1⅛" long	.05	10331
KUGUP	BB-1140	Screw for clamp on engine base for ignition coil 5/16"—18x1¼" long	.05	10332
MUGUP	BB-1141	Lock washer for screw for clamp on engine base.....per doz. .25—each	.05	11315
RUGUP	BB-1142	Brass bushing in copper tube for secondary wires, rear end	.30	16533

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CODE WORD				
BAHUP	BB-1143	Bracket for copper tube on top of cylinder front and rear, when horn with long projector is used.....	.25	16535
FAHUP	BB-1144	Hexagon head screw, to fasten bracket on copper tube...per doz. .25—each	.05	10004
LAHUP	BB-1145	Lock washer for screw for copper tube bracket.....per doz. .25—each	.05	11315
PAHUP	BB-1146	Shield on dash for terminal block.....	.20	16976
RAHUP	BB-1147	Four contact, terminal block complete on dash	1.00	23780K
TAHUP	BB-1148	Fibre strip for terminal block on dash	.05	16895
ZAHUP	BB-1149	Secondary wire, with connectors from terminal No. 3 on ignition coil to terminal No. 6 on distributor, 10″ long, all cars.....	.25	1-05
FEHUP	BB-1150	No. 14 black primary wire, with connectors, from No. 2 terminal on ignition coil to No. 7 terminal on distributor, 6″ long, all cars.....	.15	41-01
PEHUP	BB-1151	No. 14 red primary wire, with connectors, from carbon on dry cell to battery box connections, 12″ long, all cars	.10	43-01
ZEHUP	BB-1152	No. 14 green primary wire, with connectors, from zinc on dry cell to battery box terminal, 12″ long, all cars	.10	42-02
FIHUP	BB-1153	No. 14 yellow primary wire, with connectors, from ignition relay terminal No. 2 to No. 7 on combination switch, 6′ 4″ long, coupe only.....	.75	44-06
PIHUP	BB-1154	No. 14 black primary wire, with connectors, from ignition relay terminal No. 1 to No. 6 on combination switch, 6′ 4″ long, coupe only.....	.75	41-04
ZIHUP	BB-1155	No. 12 red primary wire, with connectors, from No. 4 to No. 9 terminal on combination switch, 5½″ long, coupe only.....	.10	23-11

DUAL AUTOMATIC DISTRIBUTOR

POHUP	BB-1156	Dual automatic distributor complete..$32.00		
ROHUP	BB-1156A	Dual automatic distributor complete, Style B, less head and rotor.....	26.00	105D
SOHUP	BB-1157	Housing only, for distributor.....	4.95	23442D
TOHUP	BB-1158	Cap screw to attach distributor to engine base	.05	13471
BUHUP	BB-1159	Lock washer for screw to attach distributor to engine base..... .....per doz. .25—each	.05	11315
FUHUP	BB-1160	Cover plate for housing.....	.10	23863D
KUHUP	BB-1161	Screw to fasten cover plate to housing .....per doz. .25—each	.05	23943D
MUHUP	BB-1161A	Distributor driven shaft, assembled...	5.00	13241
PUHUP	BB-1162	Bronze bracket for distributor on engine base	2.00	13075
SUHUP	BB-1163	Gasket for distributor bracket..... .....per doz. .25—each	.05	16799

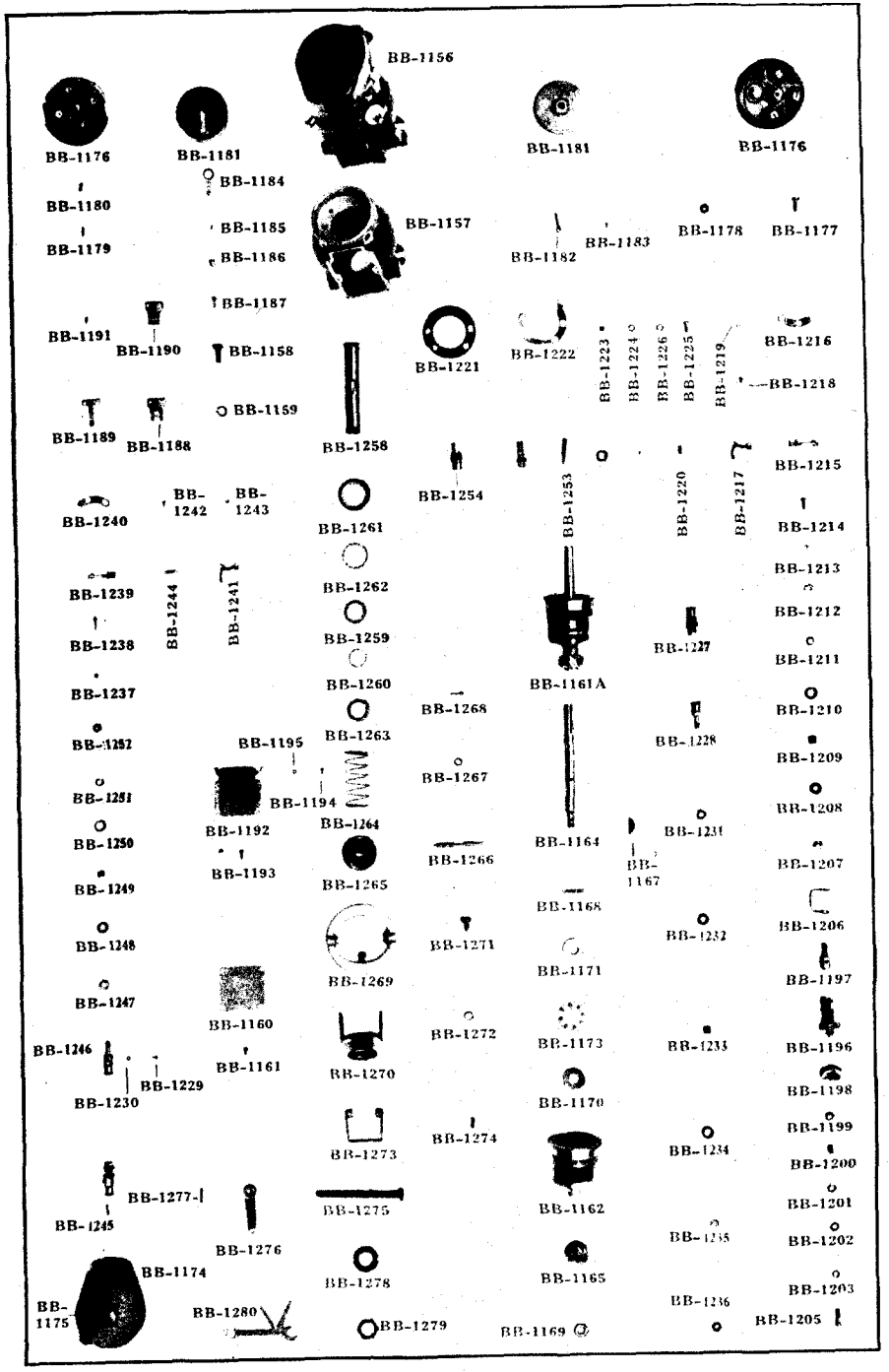
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CODE WORD				
BAKUP	BB-1164	Distributor driven shaft only, for distributor	.40	13391
DAKUP	BB-1165	Spiral driven gear for distributor driven shaft	1.00	13080
KAKUP	BB-1166	Spiral drive gear for distributor driven shaft on lubricator drive shaft..	.60	13081
MAKUP	BB-1167	Key for distributor driven gear.....	.10	11353
PAKUP	BB-1168	Taper pin for distributor drive gear.. .....per doz. .25—each	.05	15028
SAKUP	BB-1169	Nut for distributor driven shaft.....	.05	7824
TAKUP	BB-1170	Thrust washer for bearing for distributor driven shaft.....	.05	9633
BEKUP	BB-1171	Thrust collar for bearing for distributor driven shaft.....	.10	9632
DEKUP	BB-1172	Taper pin for thrust collar for distributor driven shaft..... .....per doz. .25—each	.05	15029
LEKUP	BB-1173	Retainer with balls for distributor driven shaft	1.00	20325
PEKUP	BB-1174	Protector for head on distributor.....	1.90	11873D
REKUP	BB-1175	Thumb screw on protector.....	.25	10657D
SEKUP	BB-1176	Head with binding post for distributor	2.75	11644D
TEKUP	BB-1177	Screw for binding post on distributor head	.05	23830D
BIKUP	BB-1178	Nut for center binding post on distributor head.....per doz. .25—each	.05	21491D
DIKUP	BB-1179	Plunger in distributor head..... .....per doz. .25—each	.05	21425D
KIKUP	BB-1180	Spring for plunger in distributor head	.05	21424D
LIKUP	BB-1181	Rotor complete for distributor.....	2.00	11153D
MIKUP	BB-1182	Guide for rotor for distributor.....	.10	11870D
PIKUP	BB-1183	Screw for guide for distributor rotor. .....per doz. .25—each	.05	23811D
SIKUP	BB-1184	Terminal for distributor rotor..... .....per doz. .25—each	.05	11871D
ZIKUP	BB-1185	Screw for retaining rotor terminal.. .....per doz. .25—each	.05	21514D
COKUP	BB-1186	Brush for distributor rotor.....	.05	23831D
DOKUP	BB-1187	Spring for distributor brush..... .....per doz. .25—each	.05	23812D
KOKUP	BB-1188	Slotted clip for distributor head.....	.10	21782D
LOKUP	BB-1189	Lock clip for distributor head.....	.05	21781D
MOKUP	BB-1190	Plain clip for distributor head.....	.05	21783D
POKUP	BB-1191	Screw to fasten clip to housing..... .....per doz. .25—each	.05	23423D
SOKUP	BB-1192	Condenser for automatic distributor..	2.40	10742D
TOKUP	BB-1193	Screw to fasten condenser to distributor.....per doz. .25—each	.05	23424D
BUKUP	BB-1194	Screw to fasten condenser connector to generator terminal post..... .....per doz. .25—each	.05	23870D
FUKUP	BB-1195	Lock washer for screw to fasten condenser connector to generator terminal post.....per doz. .25—each	.05	20345D
MUKUP	BB-1196	Generator terminal complete with resistance coil and guard.....	1.25	
RUKUP	BB-1197	Generator terminal stud only.....	.25	23769D
SUKUP	BB-1198	Resistance unit complete for distributor	.25	10648D

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CODE WORD				
BALUP	BB-1199	Flange brass washer for resistance unit	.05	23773D
CALUP	BB-1200	Fibre bushing for resistance unit.....	.05	23778D
DALUP	BB-1201	Fibre washer for resistance unit screw .....per doz. .25—each	.05	23782D
KALUP	BB-1202	Flat brass washer for resistance unit screw.....per doz. .25—each	.05	23783D
MALUP	BB-1203	Lock washer for resistance unit screw .....per doz. .25—each	.05	23425D
RALUP	BB-1204	Guard for resistance unit.....	.20	23770D
SALUP	BB-1205	Screw to fasten resistance unit to generator terminal stud.....	.05	23772D
ZALUP	BB-1206	Terminal strap connector for distributor	.05	23779D
CELUP	BB-1207	Brass washer for generator terminal stud, inside and outside..... .....per doz. .25—each	.05	23445D
KELUP	BB-1208	Brass washer, outside, for generator terminal stud....per doz. .25—each	.05	23818D
MELUP	BB-1209	Fibre bushing in housing for generator terminal stud	.05	23785D
RELUP	BB-1210	Fibre washer, inside, for generator terminal stud....per doz. .25—each	.05	23789D
TELUP	BB-1211	Lock washer for generator terminal stud.....per doz. .25—each	.05	20791D
BILUP	BB-1212	Nut for generator terminal stud..... .....per doz. .25—each	.05	20704D
DILUP	BB-1213	Lock nut for generator contact screw .....per doz. .25—each	.05	21748D
KILUP	BB-1214	Contact screw assembled with tungsten point on generator terminal.....	2.00	11411D
MILUP	BB-1215	Contact arm assembled with tungsten point for generator ignition.....	2.70	11408D
RILUP	BB-1216	Circuit breaker segment, assembled, RIGHT, for generator ignition....	.35	11115D
TILUP	BB-1217	Stop bracket on segment for contact arm.....per doz. .25—each	.05	23733D
BOLUP	BB-1218	Screw for stop bracket on segment... .....per doz. .25—each	.05	21836D
DOLUP	BB-1219	Lock washer for stop bracket screw.. .....per doz. .25—each	.05	20345D
KOLUP	BB-1220	Spring for contact arm, generator ignition	.05	23398D
MOLUP	BB-1221	Fibre ring insulator, for circuit breaker	.05	23944D
ROLUP	BB-1222	Terminal connector for distributor...	.30	23945D
SOLUP	BB-1223	Hard rubber bushing for screw to attach circuit breaker segment..... .....per doz. .25—each	.05	21945D
BULUP	BB-1224	Fibre washer for screw to attach circuit breaker segment..... .....per doz. .25—each	.05	23941D
FULUP	BB-1225	Screw to attach circuit breaker segment to housing..... .....per doz. .25—each	.05	23879D
MULUP	BB-1226	Flat washer for screw to attach circuit breaker segment..per doz. .25—each	.05	23876D
RULUP	BB-1227	Battery terminal complete for distributor	.75	
TULUP	BB-1228	Terminal assembly for battery ignition	.35	11968D

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DUAL AUTOMATIC DISTRIBUTOR

CODE WORD				
BARUP	BB-1229	Screw to fasten condenser connector to common terminal post.....per doz. .25—each	.05	22370D
FARUP	BB-1230	Lock washer for screw to fasten condenser connector to common terminal post.....per doz. .25—each	.05	23886D
MARUP	BB-1231	Brass washer for battery terminal assembly, inside and outside.....per doz. .25—each	.05	23445D
SARUP	BB-1232	Fibre washer, outside, for battery terminal assembly..per doz. .25—each	.05	23870D
ZARUP	BB-1233	Fibre bushing in housing for battery terminal assembly	.10	23791D
CERUP	BB-1234	Fibre washer, inside, for battery terminal assembly....per doz. .25—each	.05	23789D
FERUP	BB-1235	Lock washer for battery terminal assembly.....per doz. .25—each	.05	20791D
LERUP	BB-1236	Nut for battery terminal assembly.....per doz. .25—each	.05	20704D
PERUP	BB-1237	Lock nut for battery contact screw.....per doz. .25—each	.05	21748D
SERUP	BB-1238	Contact screw assembled with platinum point for battery ignition.....	1.85	10937D
ZERUP	BB-1239	Contact arm assembled with platinum point for battery ignition.....	1.35	10700D
CIRUP	BB-1240	Circuit breaker segment, assembled, LEFT, for battery ignition.....	.35	11213D
FIRUP	BB-1241	Stop bracket on segment for contact arm.....per doz. .25—each	.05	23733D
LIRUP	BB-1242	Screw for stop bracket on segment.....per doz. .25—each	.05	21836D
PIRUP	BB-1243	Lock washer for stop bracket screw..per doz. .25—each	.05	20345D
SIRUP	BB-1244	Spring for contact arm, battery ignition	.05	23398D
ZIRUP	BB-1245	Common terminal assembly complete.	.60	
CORUP	BB-1246	Common terminal assembly only.....	.30	11869D
DORUP	BB-1247	Brass washer for common terminal assembly, inside and outside.....per doz. .25—each	.05	23345D
LORUP	BB-1248	Fibre washer, outside, for common terminal assembly.per doz. .25—each	.05	23780D
RORUP	BB-1249	Fibre bushing in housing for common terminal assembly	.05	23795D
TORUP	BB-1250	Fibre washer, inside, for common terminal assembly.per doz. .25—each	.05	23410D
BURUP	BB-1251	Lock washer for common terminal assembly.....per doz. .25—each	.05	20791D
DURUP	BB-1252	Nut for common terminal assembly.....per doz. .25—each	.05	20914D
KURUP	BB-1253	Expanding screw for distributor cam shaft	.10	23426D
MURUP	BB-1254	Expanding cam shaft assembled with cam for distributor.....	1.10	11585D
SURUP	BB-1255A	Distributor shaft complete with cones and adjusting nut.....	4.35	11439D
ZURUP	BB-1256A	Shaft only, with upper cone.....	3.55	11726D

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CODE WORD				
DASUP	BB-1258	Shaft only, for distributor, 2nd type..	3.20	20210D
FASUP	BB-1259	Cone, lower, for distributor shaft....	.50	20774D
LASUP	BB-1260	Thrust collar, inner, for bearing for distributor shaft	.15	23940D
PASUP	BB-1261	Bearing cup, upper or lower, for distributor	.80	20775D
SASUP	BB-1262	Ball retainer with balls, upper or lower, for distributor shaft.....	.25	10282D
ZASUP	BB-1263	Spring seat for distributor governor spring	.15	23939D
CESUP	BB-1264	Governor spring for distributor, 2nd type	.25	22675D
DESUP	BB-1265	Advance collar for distributor shaft..	.95	23846D
FESUP	BB-1266	Advance pin for collar for distributor shaft	2.15	23850D
LESUP	BB-1267	Flat retaining washer for advance pin.....per doz. .25—each	.05	23843D
PESUP	BB-1268	Cotter pin for retaining advance pin in collar, 1/16" x ½".....per doz. .25—each	.05	
TESUP	BB-1269	Governor ring for distributor.....	1.75	11236D
ZESUP	BB-1270	Governor ring carrier bracket for distributor	3.75	23861D
CISUP	BB-1271	Screw to attach governor ring to carrier bracket	.10	23954D
FISUP	BB-1272	Lock washer for screw to attach governor ring.....per doz. .25—each	.05	20725D
LISUP	BB-1273	Advance yoke with rollers for distributor	.55	10938D
PISUP	BB-1274	Screw for attaching advance yoke to advance shaft....per doz. .25—each	.05	23403D
SISUP	BB-1275	Advance lever shaft for distributor...	.40	11232D
TISUP	BB-1276	Lever for distributor advance.....	.40	24119D
ZISUP	BB-1277	Taper pin for distributor advance lever.....per doz. .25—each	.05	24079D
COSUP	BB-1278	Round nut on lower end of distributor shaft	.25	21443D
FOSUP	BB-1279	Hex. nut on lower end of distributor shaft	.20	21444D
LOSUP	BB-1280	Combination gauge and wrench for distributor	.35	11001D

EMERGENCY STARTING MECHANISM

ZOSUP	BB-1281	Starting crank with handle.....	1.50	17962
BUSUP	BB-1282	Shaft only, for starting crank.....	1.00	13194
DUSUP	BB-1283	Bushing for starting crank shaft.....	.30	13106
FUSUP	BB-1284	Pin for starting crank shaft bushing..	.05	15029
KUSUP	BB-1285	Spring for starting crank shaft.....	.10	13282
LUSUP	BB-1286	Clutch for starting crank shaft on crank shaft	.40	13193
PUSUP	BB-1287	Key for starting crank shaft clutch...	.10	11370
RUSUP	BB-1288	Retainer for starting crank shaft clutch	.10	13562
TUSUP	BB-1289	Screw for clutch retainer.....	.05	9794

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CODE WORD				
BATUP	BB-1290	Lock washer for clutch retainer screw .....per doz. .25—each	.05	11316
DATUP	BB-1291	Cap for protecting end of starting crank shaft	1.50	14223
KATUP	BB-1292	Disc on starting crank cap.....	.25	14058

CLUTCH COUPLING

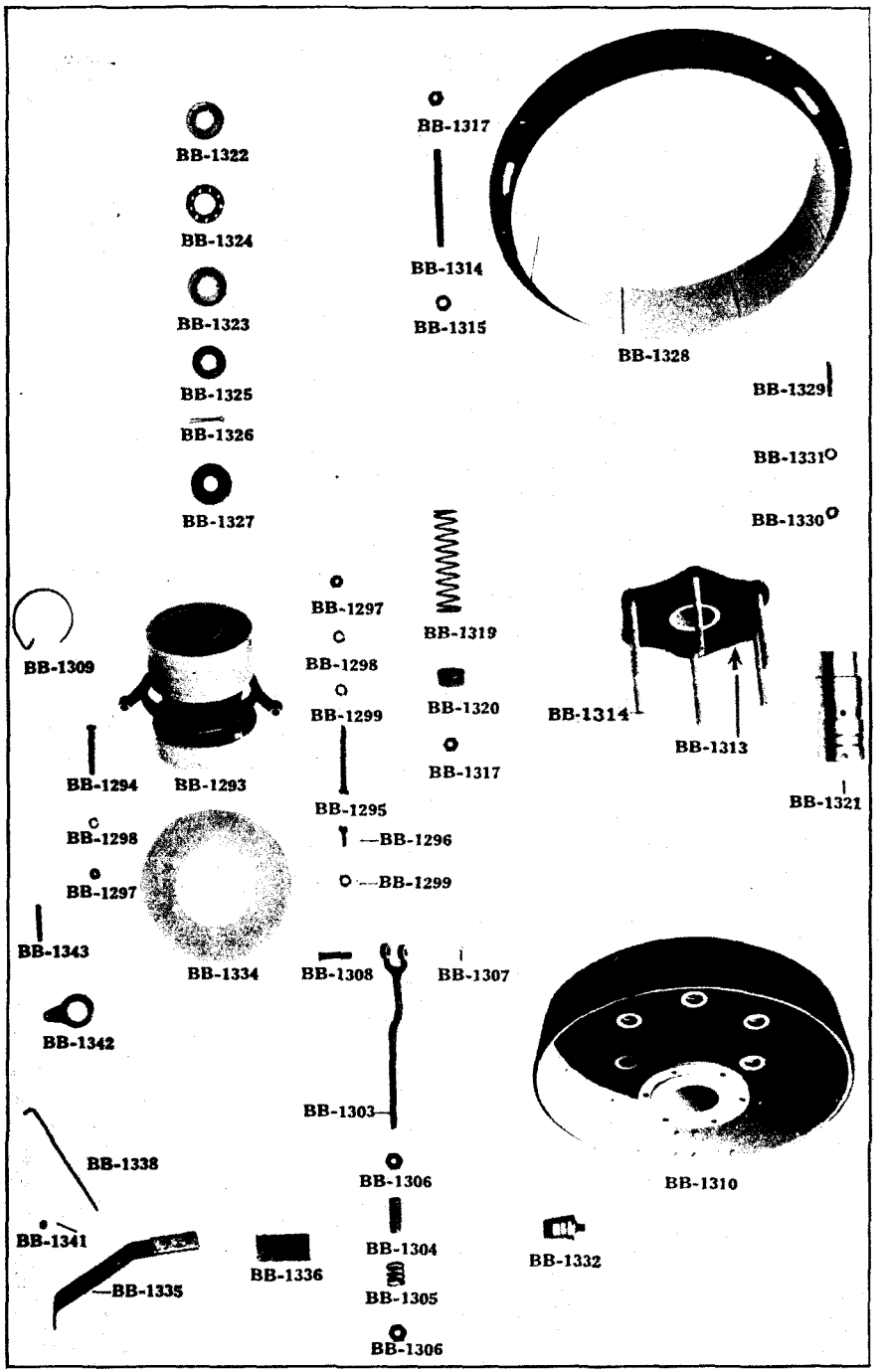
NOTE:—The component parts of the clutch coupling are not listed for the reason that they are assembled by means of special machinery. If any replacements are necessary, return the complete clutch coupling, carrying charges prepaid, and repairs will be made charging only for parts replaced.

LETUP	BB-1293	Coupling for main clutch complete, assembled $30.00		13202
PETUP	BB-1294	Cap screw for attaching clutch coupling to transmission flange.....	.05	13409
SETUP	BB-1295	Cap screw for attaching clutch coupling to main clutch hub.....	.10	13410
ZETUP	BB-1296	Cap screw to attach oil retainer plate to internal gears..per doz. .25—each	.05	10326
CITUP	BB-1297	Nut for cap screw for attaching clutch coupling.....per doz. .25—each	.05	10892
FITUP	BB-1298	Lock washer for clutch coupling cap screw (used in countersunk holes). .....per doz. .25—each	.05	11335
MITUP	BB-1299	Lock washer for clutch coupling cap screw (used on surface)..... .....per doz. .25—each	.05	11315
SITUP	BB-1300	Plug for oil holes in internal gear and main clutch release bearing.....	.05	6891
ZITUP	BB-1301	Boss for oil hole plug for main clutch release bearing	.05	7331
DOTUP	BB-1303	Hold back rod for main clutch shifter.	.60	13341
FOTUP	BB-1304	Sleeve for shifter hold back rod.....	.05	7319
KOTUP	BB-1305	Spring for shifter hold back rod.....	.05	7318
LOTUP	BB-1306	Nut for shifter hold back rod.....	.05	H-1704
MOTUP	BB-1307	Cotter pin for shifter hold back rod.. .....per doz. .25—each	.05	15171
ROTUP	BB-1308	Pin for shifter hold back rod.....	.05	7408
SOTUP	BB-1309	Locking wire for retaining nut for main clutch release bearing.....	.10	13159

MAIN CLUTCH

FUTUP	BB-1310	Main clutch cone, with hub, leather and rivets, assembled.....$32.00		13248
LUTUP	BB-1311	Leather, with 34 rivets, for main clutch cone	2.00	16384 6398
PUTUP	BB-1312	Rivets for leather, for main clutch cone .....per lb.	.50	6398
SUTUP	BB-1313	Disc only, for main clutch.....	1.80	7539

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MAIN CLUTCH AND COUPLING

CODE WORD				
BABAR	BB-1314	Stud for main clutch disc.....	.10	7527
CABAR	BB-1315	Leather washer for main clutch disc stud.....per doz. .25—each	.05	8711
FABAR	BB-1316	Retainer for leather washer on main clutch disc stud.....	.10	8710
LABAR	BB-1317	Nut for stud in main clutch disc..... .....per doz. .25—each	.05	R-4-701
PABAR	BB-1318	Cotter pin for stud in main clutch disc .....per doz. .25—each	.05	15162
SABAR	BB-1319	Spring for main clutch.....	.10	13296
TABAR	BB-1320	Cup for main clutch spring.....	.10	7531
ZABAR	BB-1321	Bushing for main clutch hub.....	4.00	7538
BEBAR	BB-1322	Ball race, inner, for rear end of crank shaft	.60	7534
DEBAR	BB-1323	Ball race, outer, for rear end of crank shaft	.60	7533
KEBAR	BB-1324	Ball retainer, with balls, for rear end of crank shaft.....	.80	7536
MEBAR	BB-1325	Nut for rear end of crank shaft.....	.30	7535
PEBAR	BB-1326	Cotter pin for nut on rear end of crank shaft.....per doz. .25—each	.05	15192
SEBAR	BB-1327	Cap for bearing in bushing on rear of crank shaft	.10	7537
ZEBAR	BB-1328	Friction ring for main clutch and fly wheel	10.00	7529
CIBAR	BB-1329	Stud on fly wheel to attach friction ring.....per doz. .25—each	.05	6057
FIBAR	BB-1330	Nut for stud to attach friction ring... .....per doz. .25—each	.05	10893
LIBAR	BB-1331	Lock washer for stud to attach friction ring.....per doz. .25—each	.05	11316
PIBAR	BB-1332	Grease cup for main clutch hub.....	.35	17054

BRAKE FOR MAIN CLUTCH

DOBAR	BB-1334	Disc for main clutch brake.....	.60	13312
FOBAR	BB-1335	Spring, with friction pad, for clutch brake	.20	20128
LOBAR	BB-1336	Friction pad for clutch brake spring..	.10	7376
MOBAR	BB-1337	Rivet No. 10 to attach friction pad to spring for clutch brake..... .....per doz. .25—each	.05	9092
SOBAR	BB-1338	Rod for clutch brake spring.....	.10	13343
TOBAR	BB-1339	Cotter pin for rod for clutch brake spring.....per doz. .25—each	.05	15151
BUBAR	BB-1340	Coil spring for clutch brake.....	.10	7381
CUBAR	BB-1341	Nut for brake spring rod..... .....per doz. 25—each	.05	10887
FUBAR	BB-1342	Collar or arm on clutch release shaft for clutch brake.....	.40	9840
LUBAR	BB-1343	Taper pin No. 5 for arm for clutch brake	.05	15073

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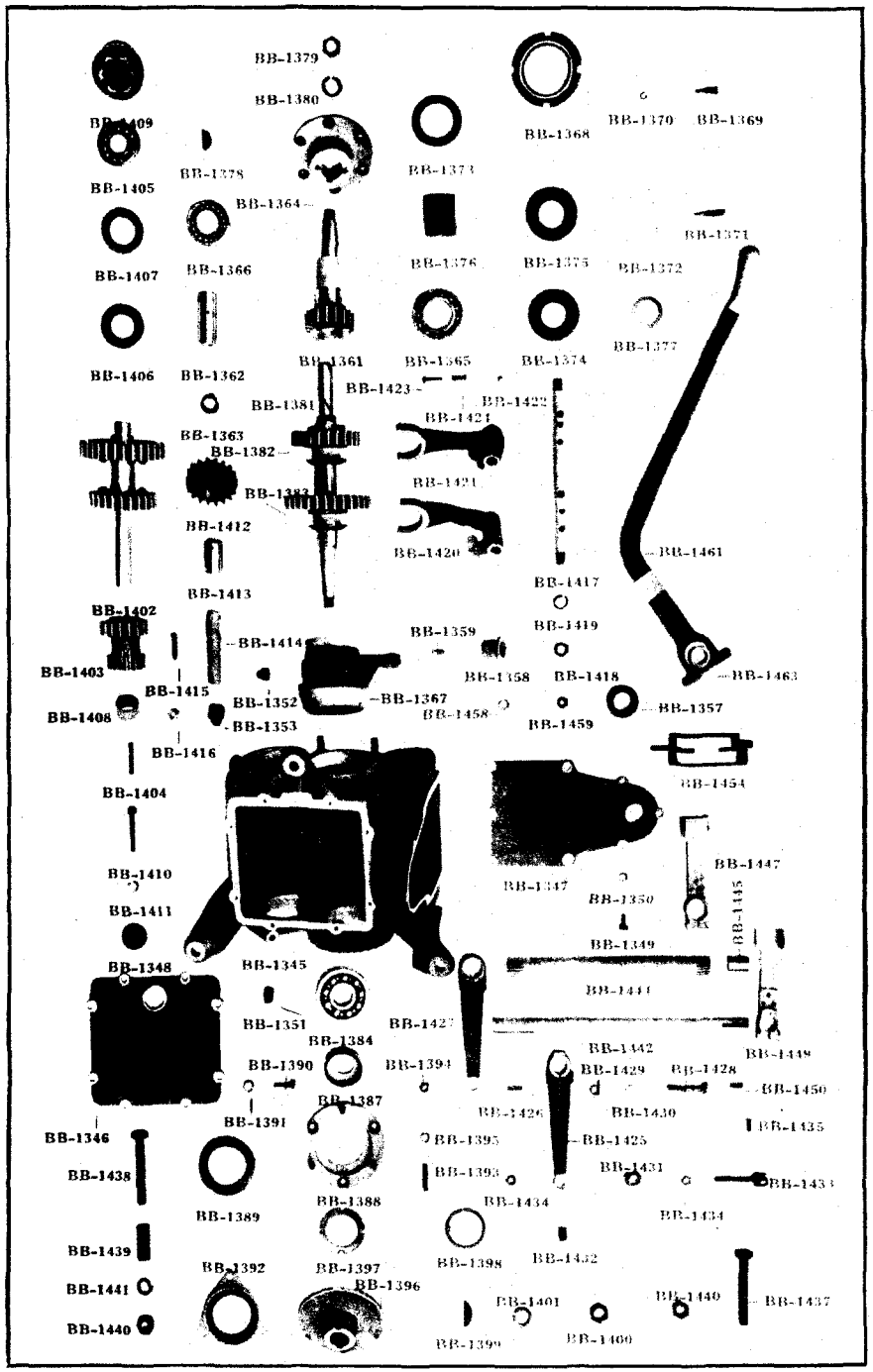
TRANSMISSION AND CONTROL

CODE WORD				
CADAR	BB-1345	Transmission case with studs.....	36.00	20248
DADAR	BB-1346	Top cover for transmission case.....	2.00	6102
FADAR	BB-1347	Side cover for transmission case.....	1.60	9288
KADAR	BB-1348	Plug for top cover of transmission case	.20	2896
MADAR	BB-1349	Cap screw for transmission cover.... .....per doz. .25—each	.05	10004
RADAR	BB-1350	Lock washer for transmission cover screws.....per doz. .25—each	.05	11315
TADAR	BB-1351	Pipe plug for bottom of transmission case.....per doz. .25—each	.05	3466
BEDAR	BB-1352	Pipe plug for clutch connection mounting.....per doz. .25—each	.05	4519
DEDAR	BB-1353	Pipe plug for reverse pin hole..... .....per doz. .25—each	.05	6117
KEDAR	BB-1354	Stud for front of transmission case (4 used).....per doz. .25—each	.05	6065
MEDAR	BB-1355	Nut for stud for front of transmission case.....per doz. .25—each	.05	10894
REDAR	BB-1356	Lock washer for stud for front of transmission case (4 used)..... .....per doz. .25—each	.05	11317
ZEDAR	BB-1357	Felt dust washer for side of transmission case	.10	11802
CIDAR	BB-1358	Bushing in transmission case for controller lever shaft.....	.60	6116
FIDAR	BB-1359	Oiler for transmission case bushing..	.10	3473
KIDAR	BB-1360	Gasket for side cover of transmission case	.05	9278
MIDAR	BB-1361	Clutch connection only, for transmission	20.00	7603
RIDAR	BB-1362	Bushing for clutch connection.....	.80	3048
SIDAR	BB-1363	Spacer for clutch connection bushing.	.10	6170
TIDAR	BB-1364	Flange for transmission clutch connection	2.20	13151
BODAR	BB-1365	Annular bearing, front, for clutch connection (No. 207).....	7.00	6167
DODAR	BB-1366	Annular bearing, rear, for clutch connection (No. 6245).....	9.00	3424
KODAR	BB-1367	Mounting for clutch connection bearing	2.20	9368
MODAR	BB-1368	Gland nut for clutch connection bearing	.40	9367
RODAR	BB-1369	Special screw for locking gland nut for clutch connection bearing.....	.05	9369
TODAR	BB-1370	Lock washer for special screw for locking gland nut..per doz. .25—ea.	.05	11314
BUDAR	BB-1371	Adjusting screw for annular bearing for clutch connection.....	.10	7607
DUDAR	BB-1372	Locking wire for adjusting screw for annular bearing..per doz. .25—each	.05	8501
KUDAR	BB-1373	Felt washer, front, for clutch connection bearing	.10	11806
MUDAR	BB-1374	Felt washer, rear, for clutch connection bearing	.10	11804
RUDAR	BB-1375	Retainer for rear felt washer for clutch connection bearing.....	.10	6120
TUDAR	BB-1376	Spacer for clutch connection bearing..	.30	6118

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CODE WORD				
BAFAR	BB-1377	Washer for spacer, for clutch connection bearing	.10	6144
DAFAR	BB-1378	Woodruff key for clutch connection	.10	11378
FAFAR	BB-1379	Nut for end of clutch connection	.20	6168
KAFAR	BB-1380	Lock washer for clutch connection end nut (2 used)	.05	11322
MAFAR	BB-1381	Driving shaft for transmission	8.00	6109
PAFAR	BB-1382	Shipper gear for high and intermediate speeds	9.00	7387
SAFAR	BB-1383	Shipper gear for low and reverse speeds	12.00	6108
ZAFAR	BB-1384	Annular bearing for transmission driving shaft (No. 8530)	12.00	6165
CEFAR	BB-1385	Felt washer, front, for transmission driving shaft main bearing	.10	11807
FEFAR	BB-1386	Retainer for front felt washer for transmission driving shaft main bearing	.10	6137
MEFAR	BB-1387	Retaining collar for transmission driving shaft main bearing	.20	9363
REFAR	BB-1388	Retainer for main bearing for transmission driving shaft	.80	9360
TEFAR	BB-1389	Felt washer for main bearing retainer for transmission driving shaft	.10	11805
BIFAR	BB-1390	Cap screw for main bearing retainer (3 used)	.05	10025
DIFAR	BB-1391	Lock washer for cap screw for main bearing retainer..per doz. .25—each	.05	11316
KIFAR	BB-1392	Gland for main bearing retainer, rear, for transmission	.40	9365
MIFAR	BB-1393	Stud for main bearing retainer (3 used).....per doz. .25—each	.05	9370
RIFAR	BB-1394	Nut for stud for main bearing retainer (3 used).....per doz. .25—each	.05	6505
TIFAR	BB-1395	Lock washer for stud for main bearing retainer.....per doz. .25—each	.05	11315
BOFAR	BB-1396	Flange for transmission driving shaft	2.00	76SF
COFAR	BB-1397	Lock nut for transmission driving shaft flange (2 used)	.40	7783
FOFAR	BB-1398	Washer for transmission driving shaft flange lock nut	.05	7782
LOFAR	BB-1399	Woodruff key for transmission driving shaft, special nickel steel	.10	11385
POFAR	BB-1400	End nut for transmission driving shaft	.20	6168
ROFAR	BB-1401	Lock washer for end nut for transmission drive shaft	.05	11322
TOFAR	BB-1402	Jack shaft with driving gear and intermediate gear assembled	20.00	20255
ZOFAR	BB-1402A	Locking key for front annular bearing for jack shaft.....per doz. .50—each	.05	17523
BUFAR	BB-1402B	Locking key for rear annular bearing for jack shaft....per doz. .50—each	.05	17522
DUFAR	BB-1403	Low and reverse gear for jack shaft	9.00	6110
FUFAR	BB-1404	Pin for low and reverse gear on jack shaft	.05	16733
LUFAR	BB-1405	Annular bearing for jack shaft, front or rear, No. 306 (2 used)	8.00	6166
PUFAR	BB-1406	Felt washer for jack shaft bearing (2 used)	.10	11803
SUFAR	BB-1407	Retainer for felt washer for jack shaft bearing (2 used)	.10	6147

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TRANSMISSION AND CONTROL

CODE WORD				
BAHAR	BB-1408	Spacer for jack shaft, rear bearing...	.15	6152
CAHAR	BB-1409	Mounting cap for jack shaft bearing, front or rear, (2 used).....	.80	6134
FAHAR	BB-1410	Clamping screw for mounting for jack shaft bearing (2 used).....	.05	6183
LAHAR	BB-1411	Lock washer for jack shaft bearing mounting clamp screw..... .....per doz. .25—each	.05	11316
RAHAR	BB-1412	Reverse pinion for transmission.....	6.00	6106
SAHAR	BB-1413	Bushing for transmission reverse pinion	.80	6131
ZAHAR	BB-1414	Shaft for transmission reverse pinion	1.60	6114
BEHAR	BB-1415	Set screw for reverse pinion shaft...	.05	R4-327
CEHAR	BB-1416	Lock nut for set screw for reverse pinion shaft.....per doz. .25—each	.05	R4-701
FEHAR	BB-1417	Shifter rod for guiding shifter forks in transmission	2.40	14753
LEHAR	BB-1418	End nut for shifter rod (2 used)....	.10	6141
MEHAR	BB-1419	Lock washer for end nut for shifter rod (2 used)....per doz. .25—each	.05	11340
REHAR	BB-1420	Shifter fork for high and intermediate speeds	2.40	40267
TEHAR	BB-1421	Shifter fork for low and reverse speeds	2.40	40268
BIHAR	BB-1422	Steel ball for shifter fork (2 used)..	.05	6127
CIHAR	BB-1423	Plunger for shifter fork (2 used)...	.10	6155
DIHAR	BB-1424	Spring for shifter fork plunger (2 used)	.05	6161
KIHAR	BB-1425	Rocker arm for high and intermediate speeds	1.20	13368
MIHAR	BB-1426	Key for rocker arm for high and intermediate speeds	.05	13494
RIHAR	BB-1427	Rocker arm for low and reverse speeds	1.20	13369
SIHAR	BB-1428	Clamping screw for rocker arm (2 used)	.05	13364
ZIHAR	BB-1429	Nut for rocker arm clamping screw (2 used)	.05	13365
COHAR	BB-1430	Lock washer for rocker arm clamping screw .....per doz. .25—each	.05	11337
FOHAR	BB-1431	Trunion for rocker arm (2 used)....	.20	6140
KOHAR	BB-1432	Pin for rocker arm trunion (2 used).	.10	6163
LOHAR	BB-1433	Link for rocker arm and shifter fork	.40	6164
MOHAR	BB-1434	Nut for rocker arm and shifter link (4 used)	.10	5671
ROHAR	BB-1435	Pin for rocker arm and shifter fork link (2 used).....	.10	6154
TOHAR	BB-1436	Cotter pin for link pin..... .....per doz. .25—each	.05	15161
BUHAR	BB-1437	Hanger bolt for rear end of transmission (2 used).....	.20	16938
DUHAR	BB-1438	Hanger bolt for front end of transmission	.20	6184
KUHAR	BB-1439	Spacer for transmission hanger bolt (3 used)	.10	6961
MUHAR	BB-1440	Nut for transmission front and rear hanger bolt.....per doz. .25—each	.05	B-1361
RUHAR	BB-1441	Lock washer for transmission hanger bolt (3 used)....per doz. .25—each	.05	11320

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CODE WORD				
BAKAR	BB-1442	Shaft for controller lever, all cars except coupe	.80	16230
DAKAR	BB-1443	Shaft for controller lever, coupe.....	.80	13337
FAKAR	BB-1444	Tube with bushings for controller lever	1.60	20252
LAKAR	BB-1445	Bushing for controller lever shaft tube (2 used).....	.30	3009
PAKAR	BB-1446	Oiler for transmission controller lever shaft	.10	3473
SAKAR	BB-1447	Attachment corrugated (on tube) for low and reverse speed control, all all cars except coupe.....	2.00	40189
BEKAR	BB-1448	Attachment corrugated (on tube) for low and reverse speed control, coupe	2.00	21028
FEKAR	BB-1449	Attachment (on shaft) for high and intermediate speed control, all cars	2.00	40190
LEKAR	BB-1450	Key for attachment.....	.05	13506
MEKAR	BB-1451	Clamping screw for attachment (2 used)	.05	13366
REKAR	BB-1452	Nut for clamping screw (2 used)....	.05	13365
SEKAR	BB-1453	Lock washer for clamping screw (4 used) .....per doz. .25—each	.05	11337
ZEKAR	BB-1454	"H" plate for controller lever, all cars except coupe.....	2.00	16228
CIKAR	BB-1455	"H" plate for controller lever, coupe.	2.00	13329
DIKAR	BB-1456	Cap screw for "H" plate, short.....	.05	10030
FIKAR	BB-1457	Cap screw for "H" plate, long.....	.05	10033
KIKAR	BB-1458	Lock washer for cap screw for "H" plate .....per doz. .25—each	.05	11316
MIKAR	BB-1459	Nut for cap screws for "H" plate.... .....per doz. .25—each	.05	10893
RIKAR	BB-1460	Control lever with collar, coupe only..	8.00	40200
SIKAR	BB-1461	Control lever with collar, all cars except coupe and roadster.....	8.00	40201
ZIKAR	BB-1462	Control lever, roadster, with collar....	8.00	40202
BOKAR	BB-1463	Hinge collar for control lever, all cars except coupe	.60	16642
DOKAR	BB-1464	Hinge collar for control lever, coupe	.60	13346
FOKAR	BB-1465	Pin for controller lever hinge collar, all cars except coupe.....	.05	16643
LOKAR	BB-1466	Pin for controller lever, coupe.....	.05	13363
MOKAR	BB-1467	Washer for pin for controller lever hinge collar (2 used), all cars.....	.05	H-1108

FRAME

NOTE:—When ordering frame specify model of car on which it is to be applied.
Price may be had upon application.

MUKAR	BB-1469	Side bar, RIGHT, with outriggers, all cars except roadster and coupe.....	18.00	20161
RUKAR	BB-1470	Side bar, LEFT, with outriggers, all cars except roadster and coupe.....	18.00	20157
TUKAR	BB-1471	Side bar, RIGHT, with outriggers, roadster	18.00	20160

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CODE WORD				
BALAR	BB-1472	Side bar, RIGHT, with outriggers, coupe	18.00	20159
CALAR	BB-1473	Side bar, LEFT, with outriggers, coupe and roadster	18.00	20158
DALAR	BB-1474	Front outrigger, LEFT	1.50	6340
FALAR	BB-1475	Front outrigger, RIGHT	1.50	6339
KALAR	BB-1476	Cross member for radiator	5.00	16466
LALAR	BB-1477	Bracket for front engine support, RIGHT	1.50	13273
PALAR	BB-1478	Bracket for front engine support, LEFT	1.50	13274
SALAR	BB-1479	Bracket for rear engine support, RIGHT	2.00	13280
ZALAR	BB-1480	Bracket for rear engine support, LEFT	1.50	13281
CELAR	BB-1481	Bracket for headlight fork, RIGHT	1.00	16262
DELAR	BB-1482	Bracket for headlight fork, LEFT	1.00	16263
FELAR	BB-1483	Fork for headlight, RIGHT or LEFT	1.75	16472
KELAR	BB-1484	Acorn nut for headlight fork	.20	9479
LELAR	BB-1485	Nickel plated lock washer for headlight fork	.05	11318
PELAR	BB-1486	Screw 3/8" x 1 3/8" to fasten headlight fork to front fender	.05	10024
SELAR	BB-1487	Nut for screw to fasten headlight fork to front fender..per doz. .25—each	.05	10893
ZELAR	BB-1488	Lock washer for screw to fasten headlight fork to front fender.....per doz. .25—each	.05	11316
DILAR	BB-1489	Nut on lower end of headlight fork	.10	6773
FILAR	BB-1490	Lock washer on lower end of headlight fork.....per doz. .25—each	.05	11310
LILAR	BB-1491	Tie rod for headlight forks	1.00	16517
MILAR	BB-1492	Clamp, complete, for license tag on tie rod for headlight fork	.50	20254
RILAR	BB-1493	Bracket for front fender iron	.60	16283
SILAR	BB-1494	Bracket for front of rear fender, roadster	.80	17173
ZILAR	BB-1495	Bracket for rear of rear fender, roadster	.60	17174
COLAR	BB-1496	Bracket, rear fender iron, front or rear, coupe	.60	17172
FOLAR	BB-1497	Bushing in guide for speedometer shaft	.10	12724
LOLAR	BB-1498	Guide for speedometer shaft, coupe	.15	17230
POLAR	BB-1499	Quadrant bracket for control lever for "H" plate, all cars except coupe	3.00	17040
SOLAR	BB-1500	Quadrant bracket for control lever for "H" plate, coupe	3.00	13271
ZOLAR	BB-1501	Bearing for control shaft, all cars except coupe	.75	16229
CULAR	BB-1502	Bearing for control shaft, coupe	.75	13297
DULAR	BB-1503	Hanger for running board, all cars	3.00	16645
FULAR	BB-1504	Bracket bearing on RIGHT side bar for foot lever shaft	.60	6422
LULAR	BB-1505	Bracket bearing on LEFT side bar for foot lever shaft	.80	7646
PULAR	BB-1506	Cross member for front of transmission	3.00	16778
SULAR	BB-1507	Bracket for retracting spring	.15	13693
TULAR	BB-1508	Bracket for accelerator pedal, all cars except coupe	.60	13147

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CODE WORD				
BAMAR	BB-1509	Bracket for accelerator pedal, coupe.	.60	17158
CAMAR	BB-1510	Cross member for rear of transmission	3.00	16278
FAMAR	BB-1511	Pad for transmission	.10	6945
KAMAR	BB-1512	Bracket on cross member for torsion rod hanger	1.20	13411
MAMAR	BB-1513	Cross member for brake equalizer	6.00	16277
PAMAR	BB-1514	Guide bracket for brake equalizer, LEFT	.50	16265
SAMAR	BB-1515	Guide bracket for brake equalizer, RIGHT	.50	16264
ZAMAR	BB-1516	Guard for brake equalizer bar, bolted on	.25	17416
CEMAR	BB-1517	Bracket bearing on RIGHT side bar for brake rocker shaft	.60	16273
FEMAR	BB-1518	Hanger for front end of muffler	.10	16457
KEMAR	BB-1519	Hanger or bracket for rear end of muffler	.50	16460
MEMAR	BB-1520	Bracket for front spring shackle, with bushing	.75	20103
REMAR	BB-1521	Bushing in bracket bearing for front spring shackle	.35	30613
TEMAR	BB-1522	Bracket, either side for rear side spring	1.50	13269
BIMAR	BB-1523	Cross member for rear end of frame	6.00	16257
CIMAR	BB-1524	Pocket for rubber bumper for rear axle	.40	16251
FIMAR	BB-1525	Rubber bumper for rear axle	.60	13339
KIMAR	BB-1526	Rebound strap	1.60	16326
LIMAR	BB-1527	Pin for rebound strap	.05	16243
PIMAR	BB-1529	Spacer for rebound strap	.05	16848
RIMAR	BB-1530	Cotter pin for rebound strap, 3/32" x 5/8".....per doz. .25—each	.05	15160
TIMAR	BB-1531	Hanger for rebound strap, inner, RIGHT, rear	.20	16252
BOMAR	BB-1532	Hanger for rebound strap, inner, RIGHT, forward	.20	17044
DOMAR	BB-1533	Hanger for rebound strap, inner, LEFT, rear	.20	16253
KOMAR	BB-1534	Hanger for rebound strap, inner, LEFT, forward	.20	17045
MOMAR	BB-1535	Hanger for rebound strap, outer, RIGHT and LEFT	.10	16254
ROMAR	BB-1536	Anti-rattler spring for rebound strap	.10	16244
SOMAR	BB-1537	Outrigger on rear of RIGHT side bar	3.00	16281
TOMAR	BB-1538	Outrigger on rear of LEFT side bar	3.00	16282
ZOMAR	BB-1539	Plug for rear outrigger	.10	16250
BUMAR	BB-1540	Taper plug in rear outrigger	.25	17240
DUMAR	BB-1541	Tube for rear cross spring in rear outrigger	8.00	16255
KUMAR	BB-1542	Screw to fasten plug into side bar .....per doz. .25—each	.05	10598
MUMAR	BB-1543	Washer, flat, for screw 10598 .....per doz. .25—each	.05	45008
RUMAR	BB-1544	Lower tire carrier, complete, with strap, for 7-passenger touring and open limousine cars	4.00	16132

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CODE WORD				
BAPAR	BB-1545	Support for lower tire carrier, 7-passenger, touring and open limousine cars	1.50	16479
FAPAR	BB-1546	Hinge complete with pins for lower tire carrier, all open cars	2.50	16130
LAPAR	BB-1547	Hinge, female half, for lower tire carrier, all open cars	1.25	16621
PAPAR	BB-1548	Hinge, male half, for lower tire carriers, all open cars	1.25	16622
SAPAR	BB-1549	Pin for hinge for lower extra tire carrier, all open cars	.05	16480
ZAPAR	BB-1550	Pin—taper No. 6x1¾" on lower tire carrier	.10	15092
CEPAR	BB-1551	Pin—taper No. 6x1⅞" on lower tire carrier, through plate—all cars except coupe and inside drive	.10	15093
KEPAR	BB-1552	Strap for all extra tire carriers, all open cars	.30	14047
MEPAR	BB-1553	Lower tire carrier, complete, with strap, for phaeton	4.00	16189
REPAR	BB-1554	Support for lower tire carrier, phaeton	1.25	17270
TEPAR	BB-1555	Lower tire carrier, complete, with strap, roadster	4.00	16190
BIPAR	BB-1556	Support for lower tire carrier, roadster	2.00	17253
CIPAR	BB-1557	Upper RIGHT extra tire carrier, complete for 7-passenger and open limousine	3.00	16142
KIPAR	BB-1558	Upper LEFT extra tire carrier, complete for 7-passenger and open limousine	3.00	16143
PIPAR	BB-1559	Upper RIGHT extra tire support, for 7-passenger and open limousine	1.50	16513
SIPAR	BB-1560	Upper LEFT extra tire support for 7-passenger and open limousine	1.50	16514
ZIPAR	BB-1561	Hinge, complete with pins for all upper extra tire carriers, all open cars	2.50	16131
COPAR	BB-1562	Hinge, female half, all upper extra tire carriers, all open cars, RIGHT or LEFT	1.20	16619
KOPAR	BB-1563	Hinge, male half, all upper extra tire carriers, all open cars, RIGHT or LEFT	1.25	16620
POPAR	BB-1564	Pin for hinge, all upper extra tire carriers, all open cars	.05	16481
SOPAR	BB-1565	Pin, taper No. 2x1-¼" on upper extra tire carrier, all open cars	.05	15030
ZOPAR	BB-1566	Nut for support for all upper extra tire carriers, all open cars	.10	6773
CUPAR	BB-1567	Lock washer for nut for support for all upper extra tire carriers, all open cars.....per doz. .25—each	.05	11320
KUPAR	BB-1568	Upper RIGHT extra tire carrier, complete for touring car	3.00	16144
MUPAR	BB-1569	Upper RIGHT extra tire carrier support for touring car	1.50	16500
RUPAR	BB-1570	Upper LEFT extra tire carrier, complete for touring car	3.00	16145

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CODE WORD				
BASAR	BB-1571	Upper LEFT extra tire carrier support, touring car	1.50	16501
DASAR	BB-1572	Upper RIGHT extra tire carrier, complete for phaeton	3.00	16185
KASAR	BB-1573	Upper RIGHT extra tire carrier support, phaeton	1.50	17266
MASAR	BB-1574	Upper LEFT extra tire carrier, complete for phaeton	3.00	16186
RASAR	BB-1575	Upper LEFT extra tire carrier support, phaeton	1.50	17267
TASAR	BB-1576	Upper RIGHT extra tire carrier, complete for roadster	3.00	16187
BESAR	BB-1577	Upper RIGHT extra tire carrier support, roadster	1.50	17254
DESAR	BB-1578	Upper LEFT extra tire carrier, complete for roadster	3.00	16188
KESAR	BB-1579	Upper LEFT extra tire carrier support, roadster	1.50	17255
MESAR	BB-1580	Support, upper RIGHT extra tire carrier, for foreign cars with 880 mm. tires, roadster	1.50	17256
SESAR	BB-1581	Support, upper LEFT extra tire carrier, for foreign cars with 880 mm. tires, roadster	1.50	17257
BISAR	BB-1582	Support, upper RIGHT extra tire carrier, for foreign cars with 880 mm. tires, 7-passenger and open limousine	1.50	17108
KISAR	BB-1583	Support, upper LEFT, extra tire carriers for foreign cars with 880 mm. tires, 7-passenger and open limousine	1.50	17109
RISAR	BB-1584	Support, upper RIGHT, extra tire carrier for foreign cars with 880 mm. tires, touring car	1.50	17110
ZISAR	BB-1585	Support, upper LEFT, extra tire carrier for foreign cars with 880 mm. tires, touring car	1.50	17111
DOSAR	BB-1586	Support, upper RIGHT, extra tire carrier for foreign cars with 880 mm. tires, phaeton	1.50	17268
LOSAR	BB-1587	Support, upper LEFT, extra tire carrier for foreign cars with 880 mm. tires, phaeton	1.50	17269
ROSAR	BB-1588	Upper RIGHT extra tire carrier support used with 37x5 tires, touring car	1.50	17313
TOSAR	BB-1589	Upper LEFT extra tire carrier support used with 37x5 tires, touring car	1.50	17514
BUSAR	BB-1590	Upper RIGHT extra tire carrier support used with 37x5 tires, seven-passenger and open limousine	1.50	17515
FUSAR	BB-1591	Upper LEFT extra tire carrier support used with 37 x 5 tires, seven-passenger and open limousine	1.50	17516
MUSAR	BB-1592	Upper RIGHT extra tire carrier support used with 37 x 5 tires, phaeton	1.50	17511
RUSAR	BB-1593	Upper LEFT extra tire carrier support used with 37 x 5 tires, phaeton	1.50	17512

Order Parts by serial part number and name in full.
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CODE WORD				
BATAR	BB-1594	Upper RIGHT extra tire carrier support used with 37 x 5 tires, roadster	1.50	17509
DATAR	BB-1595	Upper LEFT extra tire carrier support used with 37 x 5 tires, roadster	1.50	17510

SPRINGS AND ATTACHMENTS

RATAR	BB-1596	Front spring, RIGHT, all cars	$ 8.00	17356
SATAR	BB-1597	Front spring, LEFT, all cars	8.00	17357
TATAR	BB-1598	Rear side spring, RIGHT or LEFT, touring, phaeton, inside drive limousine	12.00	16241
CETAR	BB-1599	Rear side spring, RIGHT or LEFT, seven-passenger and open limousine	12.00	16857
FETAR	BB-1600	Rear side spring, RIGHT or LEFT, roadster and coupe	12.00	17204
LETAR	BB-1601	Rear cross spring, touring, phaeton, inside drive limousine	9.00	16242
PETAR	BB-1602	Rear cross spring, roadster and coupe	9.00	17205
RETAR	BB-1603	Rear cross spring, seven-passenger, open limousine	11.00	16858
TETAR	BB-1604	Center bolt with nut for spring	.10	45009
BITAR	BB-1606	Bushing for eye leaf in spring	.35	30613
CITAR	BB-1607	Clip for leaves of spring	.20	45012
DITAR	BB-1608	Bolted clamp for leaves of spring, 2⅛"	.20	653
FITAR	BB-1609	Small bolt with nut for clamp	.10	45014
KITAR	BB-1610	Clip for front spring, all cars	.40	9621
LITAR	BB-1610A	Bolted clamp for leaves of spring, 1½" deep	.20	628
MITAR	BB-1611	Clip for rear side spring, touring, phaeton, roadster, coupe and closed limousine	.40	14044
RITAR	BB-1611A	Bolted clamp for leaves of spring 1¾" deep	.20	634
TITAR	BB-1611B	Bolted clamp for leaves of spring 2" deep	.20	633
SITAR	BB-1612	Clip for rear cross spring, touring, phaeton, and inside drive limousine, for use with 1" spring perch	.80	17207
COTAR	BB-1613	Clip for rear cross spring, touring, phaeton, roadster and inside drive limousine, used with 1½" spring perch	.80	16240
LOTAR	BB-1614	Clip for rear cross spring, seven-passenger, open limousine, for use with 1" spring perch	.80	17206
ROTAR	BB-1615	Clip for rear side spring, seven-passenger, open and closed limousine	.50	16426
ZOTAR	BB-1616	Clip for rear cross spring, seven-passenger and limousine, for use with 1½" perch	.80	17083
DUTAR	BB-1617	Clip for rear cross spring, coupe and roadster	.80	17340
KUTAR	BB-1618	Stud for rear side spring seat, all cars except seven-passenger and open limousine	.10	14156
PUTAR	BB-1619	Stud for rear side spring seat, seven-passenger and open limousine	.10	17130
SUTAR	BB-1620	Nut for front spring clip	.05	10897

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CODE WORD				
BAZAR	BB-1621	Lock washer for front spring clip, per doz. .25—each	.05	11310
DAZAR	BB-1622	Nut for rear spring stud and clip	.05	5602
FAZAR	BB-1623	Lock washer for rear spring stud and clip, per doz. .25—each	.05	11309
LAZAR	BB-1624	Outside plate only, for shackle for rear end of front spring	.20	6409
PAZAR	BB-1625	Inside plate only, for shackle for rear end of front spring	.20	9242
SAZAR	BB-1626	Bolt for bottom of rear end of front spring	.30	8019
ZAZAR	BB-1627	Nut for bottom bolt for front spring shackle	.10	6411
CEZAR	BB-1628	Dust cap for front spring shackle	.30	13846
DEZAR	BB-1629	Fillister head screw for attaching dust cap, No. 14, 20 x ¾", per doz. .25—each	.05	10274
LEZAR	BB-1630	Nut for screw for attaching dust cap, per doz. .25—each	.05	10889
PEZAR	BB-1631	Lock washer for screw for attaching dust cap, per doz. .25—each	.05	11314
SEZAR	BB-1632	Shackle, RIGHT only	2.00	20295
TEZAR	BB-1632A	Plate for rear spring shackle, threaded	.30	7554
ZEZAR	BB-1632B	Plate for rear spring shackle, plain	.30	7555
CIZAR	BB-1632C	Pin for spring shackle, plain	.10	7557
DIZAR	BB-1632D	Pin for spring shackle, tapped	.20	8017
FIZAR	BB-1632E	Knuckle for spring shackle	.50	7558
BIZAR	BB-1633	Shackle, LEFT only, except roadster	2.00	20296
KIZAR	BB-1634	Step, rear spring shackle, roadster	.35	17346
LIZAR	BB-1635	Special spring shackle, LEFT rear, for roadster, complete with step	3.00	16093
PIZAR	BB-1636	Spring plate or bumper bracket for front spring	.40	5304
SIZAR	BB-1637	Rubber bumper for front spring	.40	5305
TIZAR	BB-1638	Spring plate for rear side spring	.50	7695
ZIZAR	BB-1639	Spring plate for rear cross spring, all cars except coupe and closed limousine	1.00	16427
DOZAR	BB-1640	Spring plate for rear cross spring, coupe and closed limousine	1.00	17176
KOZAR	BB-1641	Bolt for spring ends	.30	18309
LOZAR	BB-1642	Nut for spring end bolt	.10	6411
MOZAR	BB-1643	Lock washer spring end bolt, per doz. .25—each	.05	11310
ROZAR	BB-1644	Grease cup for spring, small	.30	17053
SOZAR	BB-1645	Grease cup for spring, large	.35	17054
TOZAR	BB-1646	Elbow for grease cup, special except roadster	.20	16838
POZAR	BB-1646A	Elbow for grease cup, roadster only	.20	17558
ZOZAR	BB-1647	Nipple for grease cup extension	.10	16385
BUZAR	BB-1648	Coupling for grease cup extension	.05	19754
CUZAR	BB-1649	Shim for spring perch, front	.05	6415
DUZAR	BB-1650	Shim for rear cross spring, all cars	.05	17179
FUZAR	BB-1651	Shim for spring perch, rear side	.05	16396
KUZAR	BB-1652	Elbow for grease cup nipple	.10	B-600
LUZAR	BB-1653	Perch for rear cross spring, 1st type, 1½" thick	1.25	16389
PUZAR	BB-1654	Perch for rear cross spring, 2d type, 1" thick	1.00	17159

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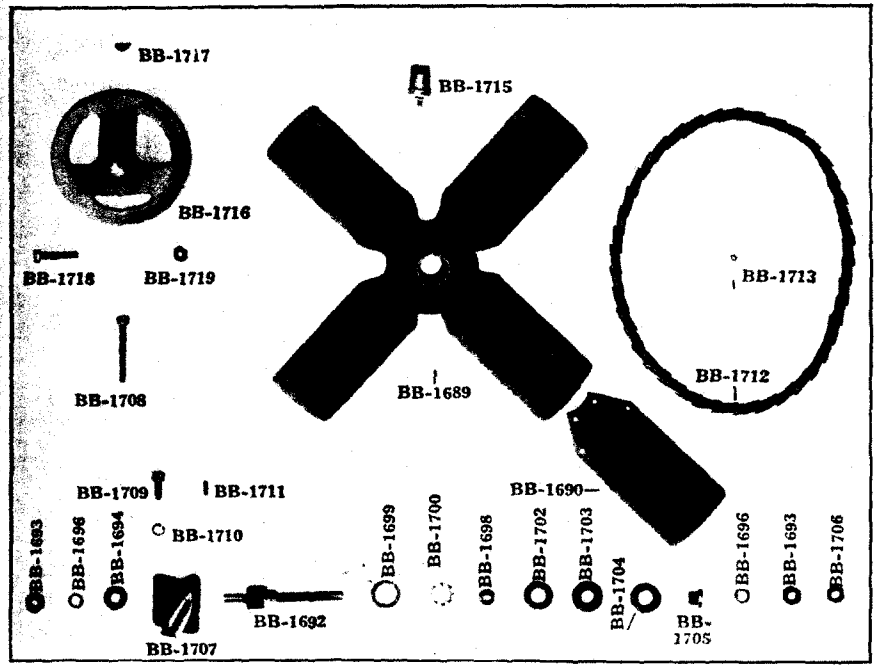
RADIATOR

CODE WORD				
BABAS	BB-1655	Radiator, complete	$75.00	13215
CABAS	BB-1656	Outside casing only, for radiator	10.00	12749
DABAS	BB-1657	Flat head screw, No. 10, 24 x ½", for attaching outside casing to radiator core.....per doz. .25—each	.05	10758
LABAS	BB-1658	Nut for casing attaching screw.....per doz. .25—each	.05	B-1350
PABAS	BB-1659	Lock washer for casing attaching screw.....per doz. .25—each	.05	11313
SABAS	BB-1660	Filler cap for radiator	1.00	7677
TABAS	BB-1661	Gasket for radiator filler cap	.10	7679
BEBAS	BB-1662	Strainer for radiator filler	.40	20030
DEBAS	BB-1663	Pet cock, complete, for pipe from carburetor to radiator	.60	16122
KEBAS	BB-1664	Drain cock complete, for radiator outlet	.60	14024
MEBAS	BB-1665	Plug for radiator outlet	.15	17422
PEBAS	BB-1666	Stud for plate for bottom of radiator	.10	14056
REBAS	BB-1667	Spacer for stud for bottom of radiator	.10	14055
SEBAS	BB-1668	Slotted hexagon nut, for radiator attaching stud	.10	14054
ZEBAS	BB-1669	Cotter pin for nut for radiator attaching stud.....per doz. .25—each	.05	15167
CIBAS	BB-1670	Spring for radiator stud	.10	14057
DIBAS	BB-1671	Leather washer for bottom of radiator	.05	14060
FIBAS	BB-1672	Strainer or gauze for outlet	.20	20026
LIBAS	BB-1673	Hose connection from radiator to pump	.60	20136
PIBAS	BB-1674	Hose connection from engine to radiator	.60	7696
SIBAS	BB-1675	Clamp for hose connection from radiator to pump	.15	13120
ZIBAS	BB-1676	Clamp for hose connection from engine to radiator	.15	7737
COBAS	BB-1677	Screw for inlet connection and tie rod.....per doz. .25—each	.05	10005
FOBAS	BB-1678	Lock washer for screw for inlet connection and tie rod.....per doz. .25—each	.05	11305
MOBAS	BB-1679	Tie rod between radiator and dash	.40	20778
POBAS	BB-1680	Bracket on dash for radiator tie rod	.20	5032
ROBAS	BB-1681	Step bolt and nut for attaching tie rod bracket to dash	.05	H-1631
TOBAS	BB-1682	Nut for tie rod between radiator and dash.....per doz. .25—each	.05	10892
BUBAS	BB-1683	Lock washer for nut for radiator tie rod.....per doz. .25—each	.05	11315
DUBAS	BB-1684	Bracket on radiator for hinge rod for hood	.15	6460
KUBAS	BB-1685	Rivet, 3/16" x ¼", to fasten bracket to casing.....per doz. .25—each	.05	12326
MUBAS	BB-1686	Guard for radiator, in front of fan	.30	8288
PUBAS	BB-1687	Lace for radiator casing	.20	30702

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FAN

CODE WORD				
CADAS	BB-1689	Fan spider with blades and pulley	4.40	20438
DADAS	BB-1690	Blade for fan spider	.20	9487
FADAS	BB-1691	Rivet with washer for fan blade.....per doz. .10—each	.05	12452 4120
LADAS	BB-1692	Fan shaft	1.20	5236
MADAS	BB-1693	Nut for fan shaft	.05	5237
PADAS	BB-1694	Washer for fan shaft, large	.05	5238
RADAS	BB-1695	Lock nut for fan shaft	.05	H-76
SADAS	BB-1696	Flat lock washer for fan shaft, either end.....per doz. .25—each	.05	6357
CEDAS	BB-1698	Cone for fan bearing	.25	6351
DEDAS	BB-1699	Ball race for fan bearing	.50	6350
FEDAS	BB-1700	Ball retainer with balls	.20	20153
KEDAS	BB-1701	Steel ball for fan bearing.....per doz. .25—each	.05	H-75
MEDAS	BB-1702	Steel washer for fan bearing felt oil retainer.....per doz. .25—each	.05	6353
REDAS	BB-1703	Felt washer for fan bearing.....per doz. .25—each	.05	11801



FAN

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CODE WORD				
BAFAS	BB-1704	Retainer for felt washer.....per doz. .25—each	.05	6355
DAFAS	BB-1705	Adjusting nut for fan bearing.....	.10	6352
FADAS	BB-1706	Check nut for fan bearing adjusting nut	.05	6358
LAFAS	BB-1707	Bracket for fan on engine base.....	1.00	16624
MAFAS	BB-1708	Cap screw, long, for attaching fan bracket	.10	10035
RAFAS	BB-1709	Cap screw, short, for attaching fan bracket	.05	10024
TAFAS	BB-1710	Lock washer for fan bracket cap screw.....per doz. .25—each	.05	11316
BEFAS	BB-1711	Dowel pin for fan bracket and pivot pin bracket.....per doz. .25—each	.05	13196
DEFAS	BB-1712	Fan belt	2.00	16611
FEFAS	BB-1713	Fan belt rivet and washer.....per doz. .25—each	.05	5603-4
KEFAS	BB-1713A	Screw for fan belt..per doz. .25—each	.05	11595
LEFAS	BB-1714	Leather link for fan belt.....per doz. .50—each	.05	45209
MEFAS	BB-1714A	Nut for fan belt screw.....per doz. .25—each	.05	11655
PEFAS	BB-1715	Grease cup for fan, No. 000.....	.30	17053
REFAS	BB-1716	Fan driving sheave, lower.....	3.00	13121
SEFAS	BB-1717	Key for fan driving sheave, lower....	.10	11361
TEFAS	BB-1718	Clamping screw for lower fan sheave.	.05	10032
ZEFAS	BB-1719	Nut for clamping screw for fan sheave .....per doz. .25—each	.05	10893

HOOD

NOTE:—In ordering Hood Panels specify whether striped or plain.

SIFAS	BB-1720	Hood complete, assembled for all open cars .....$	28.00	16295
ZIFAS	BB-1721	Hood complete, assembled for all closed cars	28.00	16156
COFAS	BB-1722	Top panel, RIGHT, assembled with one-half each of side and top hinges, all open cars.....	6.50	20033
KOFAS	BB-1723	Top panel, RIGHT, assembled with one-half each of side and top hinges, all closed cars.....	6.50	40272
POFAS	BB-1724	Top panel, LEFT, assembled with one-half each of side and top hinges, all open cars	6.50	20034
TOFAS	BB-1725	Top panel, LEFT, assembled with one-half each of side and top hinges, all closed cars	6.50	40274
CUFAS	BB-1726	Side panel, RIGHT, assembled with hood handle, hooks for hood fasteners and one-half of side hinge, all open cars	8.00	20031
LUFAS	BB-1727	Side panel, RIGHT, assembled with hood handle, hooks for hood fasteners and one-half of side hinge, all closed cars	8.00	40276

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CODE WORD				
BAGAS	BB-1728	Side panel, LEFT, assembled with hood handle, hooks for hood fasteners and one-half of side hinge, all open cars	8.00	20032
KAGAS	BB-1729	Side panel, LEFT, assembled with hood handle, hooks for hood fasteners and one-half of side hinge, all closed cars	8.00	40278
RAGAS	BB-1730	Handle for hood.....	.40	3439½
SAGAS	BB-1731	Reinforcement plate for hood handle.	.05	13707
TAGAS	BB-1732	Rivet for hood handle.....per doz. .25—each	.05	8891
BEGAS	BB-1733	Rod, center, for hood hinge.....	.30	16298
CEGAS	BB-1734	Rod, either side, for hood hinge.....	.20	13449
DEGAS	BB-1735	Hood shelf, RIGHT, all cars.....	1.00	16367
FEGAS	BB-1736	Hood shelf, LEFT, all cars.....	1.00	16368
KEGAS	BB-1737	Bolt, nickel plated, to fasten hood shelf to frame	.05	19297
MEGAS	BB-1738	Leather washer for hood shelf bolt...	.05	9344
PEGAS	BB-1739	Nut for bolt to fasten hood shelf to frame.....per doz. .25—each	.05	10892
SEGAS	BB-1740	Lock washer for hood shelf bolt.....per doz. .25—each	.05	11315
ZEGAS	BB-1741	Plate, RIGHT, for hood shelf.....	.25	16296
BIGAS	BB-1742	Plate, LEFT, for hood shelf.....	.25	16297
CIGAS	BB-1743	Lace for hood shelf plate.....	.20	30702
FIGAS	BB-1744	Hood fastener, complete, assembled, front	.75	16159
LIGAS	BB-1745	Hood fastener, complete, assembled, rear	.75	16160
RIGAS	BB-1746	Eye bolt complete, with flange bolt and pin, front	.50	40046
BOGAS	BB-1747	Eye bolt complete, with flange and pin, rear	.50	40047
KOGAS	BB-1748	Cap for spring for hood fastener.....	.10	16290
LOGAS	BB-1749	Handle for hood fastener.....	.25	13176
MOGAS	BB-1750	Spring for handle for hood fastener..	.10	5288
POGAS	BB-1751	Screw, 5/16"—18 x 1", to hold flange to frame, rear.....	.05	10006
SOGAS	BB-1752	Lock washer for flanged bolt for hood fastener.....per doz. .25—each	.05	11315
ZOGAS	BB-1753	Hexagon head nut for flanged bolt for hood fastener, front.....per doz. .25—each	.05	10892
DUGAS	BB-1754	Hook on hood for hood fastener.....	.50	13936
FUGAS	BB-1755	Rivet for hood fastener hook.....per doz. .25—each	.05	9004
LUGAS	BB-1756	Lace for rear hood support.....	.20	30702

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GASOLINE SYSTEM

CODE WORD				
BAHAS	BB-1757	Gasoline tank complete, for touring car, phaeton and roadster	$25.00	16110
DAHAS	BB-1758	Gasoline tank complete, for coupe and closed limousine	25.00	16162
KAHAS	BB-1759	Gasoline tank complete for seven-passenger and open limousine	25.00	16161
MAHAS	BB-1760	Cap for filler for all gasoline tanks	.50	16372
PAHAS	BB-1761	Gasket for gasoline tank filler cap	.10	16373
RAHAS	BB-1762	Plug for settling chamber on gasoline tank	.10	17006
TAHAS	BB-1763	Bands for gasoline tank, less bolts and nuts	1.00	16106
BEHAS	BB-1764	Screw for tank strap	.10	11588
CEHAS	BB-1765	Nut on front screw on gasoline tank strap	.05	10895
FEHAS	BB-1766	Lock nut on gasoline tank band screw	.05	8937
KEHAS	BB-1767	Lock washer on front screw on gasoline tank strap....per doz. .25—each	.05	11318
MEHAS	BB-1768	Screw to fasten gasoline tank to frame	.10	10072
PEHAS	BB-1769	Washer, ½" flat, on screws for hanging gasoline tank	.05	11439
SEHAS	BB-1770	Lock washer on screw on tank to frame.....per doz. .25—each	.05	11318
ZEHAS	BB-1771	Gasoline gauge complete, on tank	6.00	16808
BIHAS	BB 1772	Gasoline gauge complete, on tank, all foreign cars	6.00	16168
DIHAS	BB-1773	Head for gauge	1.80	3
FIHAS	BB-1774	Fibre washer for head	.05	9JS
KIHAS	BB-1775	Flange for glass	.40	8
LIHAS	BB-1776	Leather washer for flange	.05	10
MIHAS	BB-1777	Dial, silver	.35	22JS
PIHAS	BB-1778	Dial, Imperial gallons, foreign cars, black	.35	22B
SIHAS	BB-1779	Pointer, silver	.35	6S
TIHAS	BB-1780	Pointer, black	.35	6
ZIHAS	BB-1781	Float and arm	.80	26
BOHAS	BB-1782	Float arm extension bearing	.60	23
COHAS	BB-1783	Magnet	.50	25
DOHAS	BB-1784	Spring ring	.15	10A
FOHAS	BB-1785	Glass	.15	7
POHAS	BB-1787	Gasket for tank valve connection	.05	16383
ROHAS	BB-1788	Valve stem with wing nut for gasoline tank, all cars except seven-passenger	.50	20106
TOHAS	BB-1789	Valve stem with wing nut for gasoline tank, seven-passenger	.50	20107
BUHAS	BB-1790	Packing for valve stem on gasoline tank.....per doz. .25—each	.05	16987
DUHAS	BB-1791	Wing nut on valve stem on gasoline tank	.15	16724
KUHAS	BB-1792	Pin taper No. 1 for wing nut on stem on gasoline tank..per doz. .25—each	.05	15015
MUHAS	BB-1793	Cotter pin on valve stem on gasoline tank.....per doz. .25—each	.05	15173
RUHAS	BB-1794	Packing nut for valve stem	.05	16721
SUHAS	BB-1795	Connection only with pipe and strainer on gasoline tank	2.00	20009

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CODE WORD				
BAKAS	BB-1796	Screw to fasten gasoline connection to tank.....per doz. .25—each	.05	10328
FAKAS	BB-1797	Lock washer on screw for connection on gasoline tank..per doz. .25—each	.05	11315
LAKAS	BB-1798	Gasoline strainer complete, assembled.	1.20	16124
MAKAS	BB-1799	Body only for gasoline strainer	.80	16827
PAKAS	BB-1800	Plug with gauze for gasoline strainer.	.40	20258
SAKAS	BB-1801	Lead washer on plug for gasoline strainer.....per doz. .25—each	.05	3145
ZAKAS	BB-1802	Clamp on instrument board for hand pressure pump	.35	16416
CEKAS	BB-1803	Screw to fasten clamp to instrument board.....per doz. .25—each	.05	10273
FEKAS	BB-1804	Screw for clamp, on hand pump.....per doz. .25—each	.05	10332
LEKAS	BB-1805	Clip, gasoline pipe, upper half, all cars .....per doz. .25—each	.05	17229
PEKAS	BB-1806	Clip, gasoline pipe, lower half, all cars .....per doz. .25—each	.05	17228
SEKAS	BB-1807	Screw for clip on gasoline pipe.....per doz. .25—each	.05	10238
ZEKAS	BB-1808	Lock washer on clamp for hand pressure pump.....per doz. .25—each	.05	11314
CIKAS	BB-1809	Lock washer on clamp screw for pressure pump.....per doz. .25—each	.05	11315
FIKAS	BB-1810	Air pressure gauge complete on instrument board	3.50	16537
LIKAS	BB-1811	Hand air pressure pump on instrument board	3.00	16646
PIKAS	BB-1812	Body for air pump on cam shaft	.75	16365
RIKAS	BB-1813	Plunger for air pump on cam shaft	.20	16364
SIKAS	BB-1814	Spring for plunger	.05	16366
TIKAS	BB-1815	Screw to attach air pump body to engine base	.05	13471
BOKAS	BB-1816	Lock washer for screw to attach pump to base.....per doz. .25—each	.05	11315
DOKAS	BB-1817	Copper gasoline pipe from gasoline tank to strainer, 5/16" pipe, 114¾" long	2.00	40110
LOKAS	BB-1818	Gasoline pipe from strainer to carburetor, 5/16" pipe, 36" long	1.00	40111
POKAS	BB-1819	Gasoline air pipe from gasoline tank to tee, 5/16" pipe, 114¾" long	2.00	40112
SOKAS	BB-1820	Gasoline air pipe from tee to power pump on engine base, 5/16" pipe, 17¼" long	.50	40108
BUKAS	BB-1821	Gasoline air pipe from tee to dash on body, ¼" pipe, 20¼" long	.35	40109
LUKAS	BB-1823	Tee for copper air pipe on dash	.40	17447
RUKAS	BB-1824	Nut for copper air pipe tee	.05	H-487
SUKAS	BB-1824A	Nipple on power pressure pump for air pipe, 5/16" pipe	.15	16476

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CODE WORD				
FALAS	BB-1826	Gasoline air pipe from dash to gauge on instrument board, ¼" pipe.....	.25	40194
TALAS	BB-1828	Gasoline air pipe from dash to hand pressure pump on instrument board, ¼" pipe	.25	40151
CELAS	BB-1829	Steel clip to hold gasoline pipe to breather	.05	16878
FELAS	BB-1830	Steel clip at fly wheel guard for air pipe	.05	16877
LELAS	BB-1831	Flat washer for steel clip on breather	.05	4526
MELAS	BB-1832	Steel clip, upper and lower, used on copper pipe for gasoline and air pipe, all cars except coupe.....	.10	40027
SELAS	BB-1833	Fibre used with steel clips on gasoline and air pipes.....per doz. .25—each	.05	16874
ZELAS	BB-1834	Screw, ¾", used on clip to hold copper pipes.....per doz. .25—each	.05	10562
CILAS	BB-1835	Screw, 1", for holding clip together on gasoline pipes.....per doz. .25—each	.05	10276
FILAS	BB-1836	Nut for screw on upper clip on gasoline pipe.....per doz. .25—each	.05	10889
LILAS	BB-1837	Nut for screw for gasoline pipe clip.. .....per doz. .25—each	.05	10887
PILAS	BB-1838	Lock washer used on screw for upper clip.....per doz. .25—each	.05	11314
SILAS	BB-1839	Lock washer used on screw for clip.. .....per doz. .25—each	.05	11313
ZILAS	BB-1840	Nut for ⅜" copper pipe union.....	.10	16477
BOLAS	BB-1841	Nut for 5/16" copper pipe union.....	.10	16478
COLAS	BB-1842	Nut, 5/16" copper pipe.....	.10	16872
DOLAS	BB-1842A	Sleeve for 5/16" copper pipe.....	.05	16873
FOLAS	BB-1843	Nut for ¼" copper pipe union.....	.05	B-1559
KOLAS	BB-1844	Tee for copper pipe near rear engine support	.40	16629
MOLAS	BB-1845	Extension filler pipe complete, for gasoline tank, all cars except coupe and inside drive limousine.....	2.50	16199

MUFFLER

CULAS	BB-1846	Muffler complete, assembled.....$	6.00	16116
DULAS	BB-1847	Hanger for front end of muffler.....	.10	16457
FULAS	BB-1848	Hanger for rear end of muffler.....	.50	16460
KULAS	BB-1849	Screw to attach muffler to hanger, rear end.....per doz. .25—each	.05	10008
MULAS	BB-1850	Nut for screw to attach muffler to hanger.....per doz. .25—each	.05	10892
RULAS	BB-1851	Lock washer for nut for screw to attach muffler to hanger..... .....per doz. .25—each	.05	11315

Be sure to put your name and motor number on parts returned and PREPAY CHARGES.
Read Instructions before ordering.
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CODE WORD				
BAMAS	BB-1852	Hex. cap screw for clamping outlet pipe to muffler.....	.05	10035
DAMAS	BB-1853	Hex. cap screw for clamping inlet pipe to muffler	.05	10036
KAMAS	BB-1854	Hex. nut, ⅜", for clamping screw.... .....per doz. .25—each	.05	10893
MAMAS	BB-1855	Lock washer, ⅜", for clamping screw. .....per doz. .25—each	.05	11316
RAMAS	BB-1856	Outlet pipe for muffler, all cars.....	1.00	16469
SAMAS	BB-1857	Exhaust pipe, bent, from header to cutout	2.00	16459
ZAMAS	BB-1858	Flange for attaching exhaust pipe to header	.40	13144
CEMAS	BB-1859	Gasket for flange.....	.10	13143
DEMAS	BB-1860	Hex. cap screw, ⅜", to fasten flange to manifold, inside.....	.05	10033
KEMAS	BB-1861	Hex. cap screw, ⅜", to fasten flange to manifold, outside.....	.10	10034
MEMAS	BB-1862	Hex. nut for flange cap screw.....	.05	12926
PEMAS	BB-1863	Check nut for flange cap screw.....	.05	12927
REMAS	BB-1864	Hex. cap screw, ⅜", for clamping exhaust pipes to cutout valve.....	.05	10035
TEMAS	BB-1865	Hex. nut, ⅜", for clamping screw.... .....per doz. .25—each	.05	10893
BIMAS	BB-1866	Lock washer, ⅜", for clamping screw .....per doz. .25—each	.05	11316
DIMAS	BB-1867	Exhaust pipe from cutout to muffler..	1.00	16458
FIMAS	BB-1868	Muffler cutout complete, assembled...	4.00	16107
KIMAS	BB-1869	Body for muffler cutout.....	2.00	16287
LIMAS	BB-1870	Shaft for muffler cutout, lower valve.	.30	16285
MIMAS	BB-1871	Shaft for muffler cutout, upper valve.	.30	13139
PIMAS	BB-1872	Valve for muffler cutout, lower.....	.20	16286
RIMAS	BB-1873	Screw for muffler cutout valve.....	.05	10505
SIMAS	BB-1874	Lever for muffler cutout valve shaft, upper	.30	13137
ZIMAS	BB-1875	Lever for muffler cutout valve shaft, lower	.30	16284
COMAS	BB-1876	Link for muffler cutout valve shaft...	.10	13140
DOMAS	BB-1877	Taper pin for valve shaft levers.....	.05	15001
FOMAS	BB-1878	Valve for muffler cutout, upper.....	.20	13141
KOMAS	BB-1879	Clamp connection for front end of muffler	1.00	16518
MOMAS	BB-1880	Clamp connection on rear end of muffler	.75	16519
ROMAS	BB-1881	Plunger only for muffler cutout lever used with detachable button.....	.50	16527
TOMAS	BB-1882	Plunger for muffler cutout lever, complete	.50	17449
BUMAS	BB-1883	Spring for muffler cutout plunger.....	.10	13136
CUMAS	BB-1884	Hook on plunger for spring.....	.10	4816
DUMAS	BB-1885	Button for muffler cutout plunger.....	.40	8250
FUMAS	BB-1886	Adjustable yoke for muffler cutout plunger	.10	H-952
LUMAS	BB-1887	Nut for adjustable yoke.....	.05	H-1702
MUMAS	BB-1888	Pin for plunger.....	.05	7407
PUMAS	BB-1888A	Cotter pin.....per doz. .25—each	.05	15171
RUMAS	BB-1889	Pin for lever for lower muffler cutout valve	.05	8252
TUMAS	BB-1890	Exhaust pipe reinforcement at manifold	.20	13142

Order Parts by serial part number and name in full.
Give number of motor.
Read Instructions before ordering.
The telegraph code key-word for this book is FOREDEEM.

BRAKE AND CLUTCH CONNECTIONS

CODE WORD				
LAPAS	BB-1892	Hand brake lever only, all cars except coupe and roadster	8.00	16232
PAPAS	BB-1893	Hand brake lever only, coupe	8.00	17337
RAPAS	BB-1894	Hand brake lever only, roadster	8.00	17237
SAPAS	BB-1895	Grip for hand brake lever	1.00	6095
TAPAS	BB-1896	Pin for grip for hand brake lever	.05	8184
ZAPAS	BB-1897	Binding screw for hand brake lever	.10	13508
BEPAS	BB-1898	Slotted hex. nut for binding screw, for hand brake lever	.05	13507
DEPAS	BB-1899	Cotter pin for hex. nut for binding screw.....per doz. .25—each	.05	15164
KEPAS	BB-1900	Key for hand brake lever	.10	13362
LEPAS	BB-1901	Spring for hand brake lever rod	.05	3022
MEPAS	BB-1902	Hand brake lever rod, all cars except coupe	.40	16226
REPAS	BB-1903	Hand brake lever rod, coupe	.40	13361
SEPAS	BB-1904	End for hand brake lever rod, upper end	.15	3018
ZEPAS	BB-1905	Cotter pin for rod end... .25 per doz.	.05	15152
BIPAS	BB-1906	Pin for end for hand brake lever rod, upper	.05	8737
DIPAS	BB-1907	Pin for hand brake lever rod, lower	.05	16640
FIPAS	BB-1908	Cotter pin for end for hand brake lever rod, lower.....per doz. .25—each	.05	15153
LIPAS	BB-1909	Dog plate for hand brake lever rod, all cars except coupe	.80	16641
PIPAS	BB-1910	Dog plate for hand brake lever rod, coupe	.80	5648
SIPAS	BB-1911	Ratchet for hand brake lever, all cars except coupe	1.00	16225
ZIPAS	BB-1912	Ratchet for hand brake lever, coupe	1.00	13348
BOPAS	BB-1913	Screw for ratchet for hand brake lever	.05	10033
COPAS	BB-1914	Lock washer for ratchet screw (2 used) .....per doz. .25—each	.05	11316
FOPAS	BB-1915	Nut for ratchet screw.....per doz. .25—each	.05	10893
LOPAS	BB-1916	Shaft for hand brake lever, all cars except coupe	.60	16227
POPAS	BB-1917	Shaft for hand brake lever, coupe	.60	13505
ROPAS	BB-1918	Arm for inner end of hand brake shaft	1.00	13357
TOPAS	BB-1919	Clamping screw for arm for inner end of hand brake lever shaft	.05	10052
BUPAS	BB-1920	Nut for clamp screw for arm for inner end of hand brake lever shaft .....per doz. .25—each	.05	10894
FUPAS	BB-1921	Lock washer for clamp screw for arm for inner end of hand brake lever shaft .....per doz. .25—each	.05	11307
MUPAS	BB-1922	Key for arm for inner end of hand brake shaft	.10	13362

Be sure to put your name and motor number on parts returned and PREPAY CHARGES.
Read Instructions before ordering.
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CODE WORD				
BARAS	BB-1924	Brake foot lever, only	3.80	13323
CARAS	BB-1925	Pad, adjustable, for foot brake lever, all cars except coupe	1.20	16236
FARAS	BB-1926	Pad, adjustable, for foot brake lever, coupe	1.20	17305
LARAS	BB-1927	Clamp screw for clamping pad to foot lever	.05	12602
TARAS	BB-1929	Sleeve nut for clamp screw for clamping pad to foot lever, all cars	.05	17426
BERAS	BB-1930	Spacer between brake and clutch foot levers	.25	9685
DERAS	BB-1931	Rocker shaft for brake	1.00	12065
FERAS	BB-1932	Grease cup for brake rocker shaft	.30	17053
KERAS	BB-1933	Bracket on cross members for brake rocker shaft	2.00	16274
MERAS	BB-1934	Screw for bracket for brake rocker shaft.....per doz. .25—each	.05	10006
RERAS	BB-1935	Nut for screw for bracket for brake rocker shaft.....per doz. .25—each	.05	10892
TERAS	BB-1936	Lock washer for screw for bracket for brake rocker shaft.....per doz. .25—each	.05	11305
CIRAS	BB-1937	Flat washer on screw for bracket for brake rocker shaft.per doz. .25—each	.05	H-1675
FIRAS	BB-1938	Arm for brake rocker shaft, short	.60	9959
KIRAS	BB-1939	Arm for brake rocker shaft, long	.70	9290
LIRAS	BB-1940	Clamp screw for arm for brake rocker shaft	.05	10033
PIRAS	BB-1941	Nut for clamp screw for arm for brake rocker shaft.....per doz. .25—each	.05	10893
TIRAS	BB-1942	Key for arm for brake rocker shaft	.05	11359
ZIRAS	BB-1943	Lock washer for clamp screw.....per doz. .25—each	.05	11306
CORAS	BB-1944	Tube with arms for brake rocker shaft	4.00	12056
FORAS	BB-1945	Clutch release shaft only, all cars except coupe	3.00	13844
LORAS	BB-1946	Clutch release shaft only, coupe	3.00	14269
MORAS	BB-1947	Bushing for clutch release shaft (2 used)	.60	13615
RORAS	BB-1948	Spacer, RIGHT, for clutch release shaft	.15	16015
TORAS	BB-1949	Arm center for clutch release shaft	1.00	7658
ZORAS	BB-1950	Key for center arm on clutch release shaft	.10	11374
CURAS	BB-1951	Clamping screw for center arm on clutch release shaft	.05	10033
FURAS	BB-1952	Nut for clamping screw for center arm.....per doz. .25—each	.05	10893
LURAS	BB-1953	Lock washer for clamping screw for center arm.....per doz. .25—each	.05	11306
PURAS	BB-1954	Arm for main clutch brake, on clutch release shaft	.40	9840
SURAS	BB-1955	Taper pin, No. 5, for arm for main clutch brake	.05	15073

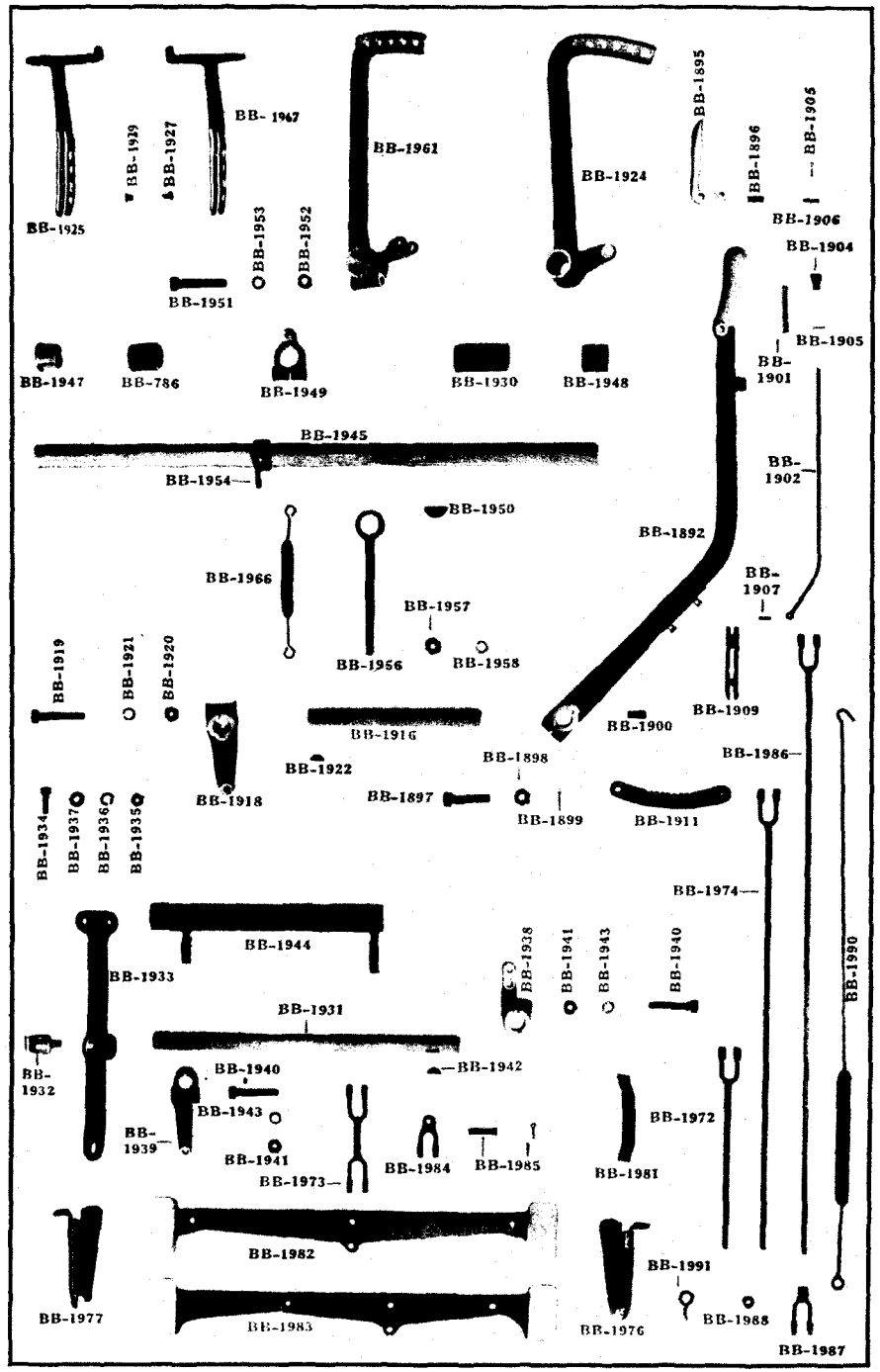
Order Parts by serial part number and name in full.
Give number of motor.
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CODE WORD				
BATAS	BB-1956	Tie rod for clutch release shaft.....	.60	13315
CATAS	BB-1957	Nut for tie rod for clutch release shaft.....per doz. .25—each	.05	10894
FATAS	BB-1958	Lock washer for tie rod for clutch release shaft.....per doz. .25—each	.05	11317
TATAS	BB-1961	Foot lever only, for clutch release shaft	3.80	16235
BETAS	BB-1962	Clamping screw for clutch release shaft foot lever	.05	10033
DETAS	BB-1963	Nut for clamping screw for clutch release shaft foot lever.....per doz. .25—each	.05	10893
LETAS	BB-1964	Lock washer for clamping screw.....per doz. .25—each	.05	11306
PETAS	BB-1965	Key for clutch release shaft foot lever	.10	11374
RETAS	BB-1966	Coil spring from clutch release shaft foot lever to transmission case.....	.20	14043
TETAS	BB-1967	Adjustable pad only for clutch release shaft foot lever, all cars except coupe	1.20	16237
CITAS	BB-1968	Adjustable pad only for clutch release shaft foot lever, coupe.....	1.20	17306
FITAS	BB-1969	Clamp screw for clamping pad to foot lever	.05	12602
PITAS	BB-1971	Sleeve nut for screw for clamping pad to foot lever.....	.05	17426

BRAKE PULL RODS

COTAS	BB-1972	Pull rod for arm on hand brake lever shaft	.30	13512
FOTAS	BB-1973	Link for equalizing bar for external or internal brake	.50	13513
LOTAS	BB-1974	Pull rod from pedal to rocker shaft arm for external brake, all cars except roadster	.50	13511
ROTAS	BB-1975	Pull rod from pedal to rocker shaft arm, for external brake, roadster..	.50	14339
TOTAS	BB-1976	Guide bracket, RIGHT on frame, for brake equalizing bar	.50	16264
BUTAS	BB-1977	Guide bracket, LEFT on frame, for brake equalizing bar	.50	16265
DUTAS	BB-1978	Guard for brake equalizer bar, bolted on	.25	17416
KUTAS	BB-1979	Screw to fasten guide to bracket.....	.05	10271
LUTAS	BB-1980	Lock washer for guide screw.....per doz. .25—each	.05	11314
PUTAS	BB-1981	Spring in bracket on frame, for brake equalizing bar	.05	16275
SUTAS	BB-1982	Equalizing bar for external brake....	.75	16266
TUTAS	BB-1983	Equalizing bar for internal brake....	.75	16267

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BRAKE AND CLUTCH CONNECTIONS

CODE WORD				
BADAT	BB-1984	Clevice for equalizing bar.....	.30	13376
CADAT	BB-1985	Pin for clevice.....	.05	7407
DADAT	BB-1985A	Cotter pin for pin...per doz. .25—each	.05	15171
FADAT	BB-1986	Pull rod from rear axle to equalizing bar, for external or internal brake (32″ long)	.50	13377
MADAT	BB-1987	Yoke for brake pull rod.....	.40	H-952
PADAT	BB-1988	Check nut for yoke for brace pull rod	.05	H-1702
RADAT	BB-1989	Pin for brake pull rod yoke.....	.05	7407
SADAT	BB-1989A	Cotter pin.....per doz. .25—each	.05	15171
TADAT	BB-1990	Spring from rear axle to equalizing bar, for external or internal brake.	.30	9318
BEDAT	BB-1991	Hook on rear axle for brake spring..	.05	12317

STEERING MECHANISM

NOTE:—When ordering STEERING MECHANISM specify the model of car on which it is to be installed. Price may be had upon application.

DIDAT	BB-1997	Support for steering gear tube.....	.50	16421
FIDAT	BB-1998	Screw for attaching support to lower housing	.05	10024
LIDAT	BB-1999	Lock washer for screw for support for steering gear tube.per doz. .25—each	.05	11316
PIDAT	BB-2000	Clamp screw for support..... .....per doz. .25—each	.05	13584
SIDAT	BB-2001	Lock washer for clamp screw..... .....per doz. .25—each	.05	11314
ZIDAT	BB-2002	Tilting steering wheel complete assembled including rim and spider, hub and latch	15.00	16194
DODAT	BB-2003	Cover plate for latch on tilting steering wheel	.30	16302
KODAT	BB-2004	Latch for tilting steering wheel, RIGHT	.50	16303
MODAT	BB-2005	Latch for tilting steering wheel, LEFT	.50	16550
PODAT	BB-2006	Spring in latch on tilting steering wheel	.05	16308
SODAT	BB-2007	Screw for latch cover on tilting steering wheel	.05	11551
ZODAT	BB-2008	Lock washer for screw for latch cover on tilting steering wheel..... .....per doz. .25—each	.05	11313
DUDAT	BB-2009	Screw—1-7/16″ for hinge on tilting steering wheel	.10	11550
KUDAT	BB-2010	Spherical washer on tilting steering wheel hinge	.05	11426
MUDAT	BB-2011	Nut for screw for hinge on tilting steering wheel	.10	11650
RUDAT	BB-2012	Spider and rim for tilting steering wheel	10.00	40128
TUDAT	BB-2013	Hub only for tilting steering wheel, with dowel pins	4.00	20781

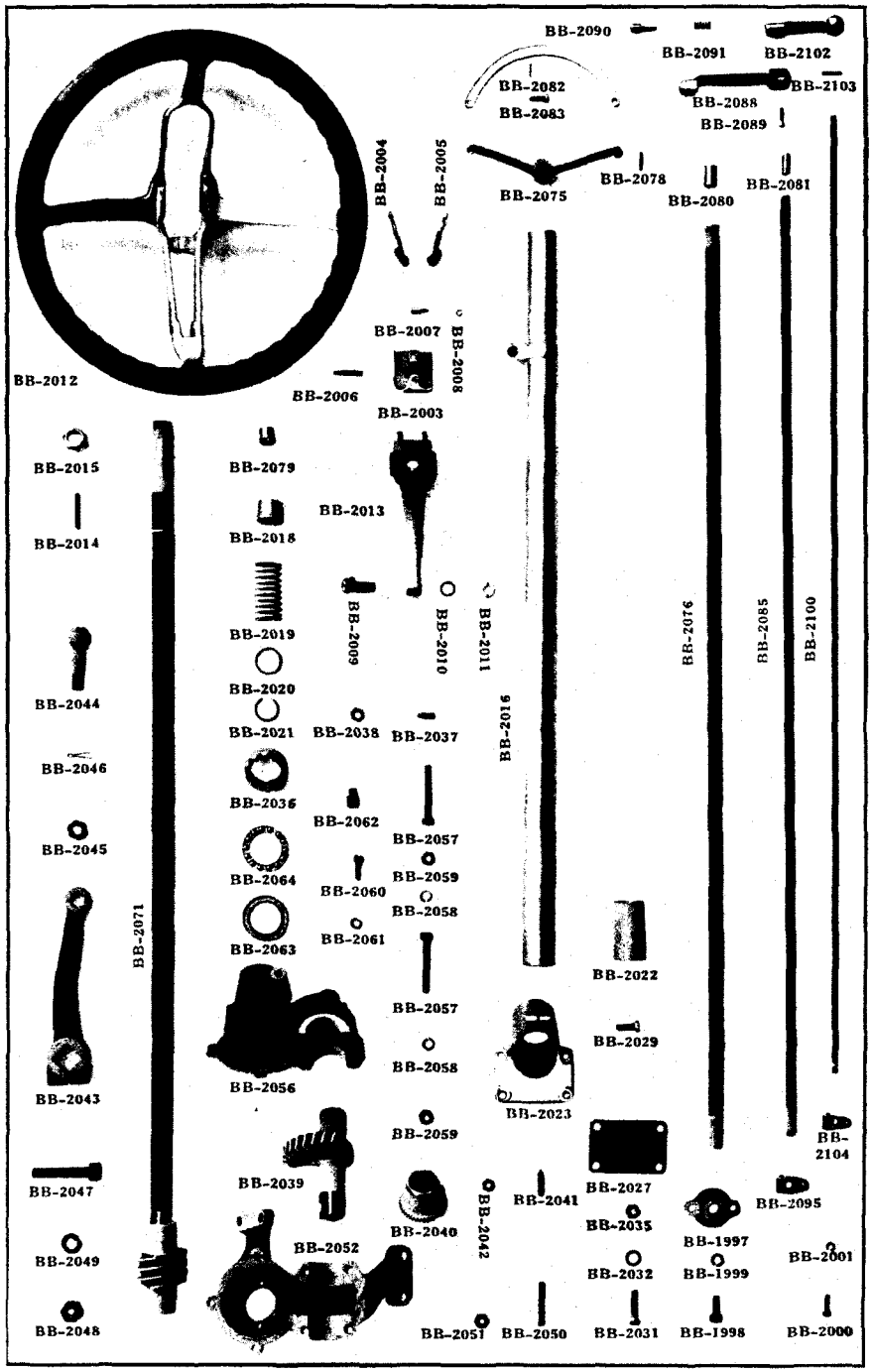
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CODE WORD				
BAFAT	BB-2014	Key for hub in steering wheel.....	.10	17149
CAFAT	BB-2015	Nut for end of steering column.....	.30	3213
DAFAT	BB-2016	Steering casing or column assembled, with auxiliary air lever bracket and bushing with internal taper for steering mechanism for all cars except coupe	4.00	40279
PAFAT	BB-2017	Steering casing or column assembled with auxiliary air lever bracket and bushing with internal taper, coupe..	4.00	40280
TAFAT	BB-2018	Bushing with external taper on steering tube	.60	9906
BEFAT	BB-2019	Spring for housing bushing.....	.15	9909
CEFAT	BB-2020	Washer for bushing and spring in top steering column..per doz. .25—each	.05	9910
FEFAT	BB-2021	Ring for lower end of spring for housing bushing	.05	9908
LEFAT	BB-2022	Bushing in lower end of steering casing	.80	9086
PEFAT	BB-2023	Flange (on dash) for steering column, touring seven-passenger, phaeton ..	3.00	17541
SEFAT	BB-2024	Flange for steering column on dash for roadster	3.00	17170
ZEFAT	BB-2025	Flange for steering column on dash for coupe	3.00	17175
CIFAT	BB-2026	Flange (on dash) for steering column, open and closed limousine....	3.00	14203
FIFAT	BB-2027	Reinforcement for flange on dash, touring car, seven-passenger, phaeton, roadster	.10	16939
MIFAT	BB-2028	Reinforcement on toe board for steering column on coupe.....	.10	17397
RIFAT	BB-2029	Screw for clamping flange on casing, touring, seven-passenger, phaeton—⅜″—16x1½″	.05	10356
ZIFAT	BB-2030	Screw for clamping flange on casing—⅜″—16x1″, all cars except touring, seven-passenger and phaeton, used on 17170, 17175, 14203, 17541.....	.05	10356
FOFAT	BB-2031	Screw to attach flange to dash.....	.10	12817
KOFAT	BB-2032	Flat washer 3/16″ for screw 12817 on flange on open and closed limousine .....per doz. .25—each	.05	R4-347
POFAT	BB-2033	Check nut for screw to attach flange to dash, all cars except limousine.. .....per doz. .25—each	.05	10893
TOFAT	BB-2034	Lock washer for screw to attach flange to dash, all cars except limousine.....per doz. .25—each	.05	11316
CUFAT	BB-2035	Nut for screw to attach flange to dash on screw 12817 on open and closed limousine.....per doz. .25—each	.05	R4-701
KUFAT	BB-2036	Nut for adjusting steering tube.....	.75	30956
LUFAT	BB-2037	Set screw for nut to adjust steering tube	.05	3167
PUFAT	BB-2038	Check nut for set screw to adjust nut for steering tube.per doz. .25—each	.05	R4-701
SUFAT	BB-2039	Sector for worm on steering gear....	8.00	13327

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CODE WORD				
BAGAT	BB-2040	Eccentric bushing to adjust sector in steering gear	1.00	6011
DAGAT	BB-2041	Set screw for eccentric bushing in steering gear	.05	3332
KAGAT	BB-2042	Lock nut for set screw in eccentric bushing.....per doz. .25—each	.05	R-4-702
MAGAT	BB-2043	Arm only, for steering gear	3.00	9196
PAGAT	BB-2044	Pivot for steering arm	.50	9198
RAGAT	BB-2045	Castle nut for pivot	.10	9197
SAGAT	BB-2046	Cotter pin for pivot.per doz. .25—each	.05	15175
TAGAT	BB-2047	Clamp bolt for arm on steering gear.	.10	10090
ZAGAT	BB-2048	Nut for clamp bolt in arm on steering gear	.10	10896
CEGAT	BB-2049	Lock washer for steering arm clamp bolt.....per doz. .25—each	.05	11319
FEGAT	BB-2050	Screw to limit travel of sector in steering gear	.05	11030
LEGAT	BB-2051	Lock nut for screw to limit travel of segment in steering gear.....per doz. .25—each	.05	R4-701
REGAT	BB-2052	Housing lower half, for steering gear, touring, seven-passenger and phaeton	8.00	16625
ZEGAT	BB-2053	Housing lower half for steering gear, inside drive and open limousine	8.00	13321
CIGAT	BB-2054	Housing, lower half, for steering gear, roadster	8.00	17216
FIGAT	BB-2055	Housing lower half, for steering gear, coupe	8.00	13320
LIGAT	BB-2056	Housing, upper half, for steering gear, all cars	8.00	7561
PIGAT	BB-2057	Long bolt for clamping casing in upper housing and attaching upper housing to lower	.05	10035
TIGAT	BB-2058	Lock washer for long bolt for clamping housing on casing and attaching upper housing to lower.....per doz. .25—each	.05	11316
DOGAT	BB-2059	Nut for long bolt in steering gear housing.....per doz. .25—each	.05	10893
KOGAT	BB-2060	Cap screw to attach upper steering gear housing to lower half.....per doz. .25—each	.05	10007
POGAT	BB-2061	Lock washer for cap screw in steering gear housing.....per doz. .25—each	.05	11315
SOGAT	BB-2062	Plug in steering gear housing	.05	3466
TOGAT	BB-2063	Ball race in steering gear	1.00	6012
ZOGAT	BB-2064	Ball retainer, with balls, in steering gear (2 used)	1.50	20489
CUGAT	BB-2065	Cap screw to attach steering gear housing to engine support bracket 7/16"—14x1¾" long	.05	10048
KUGAT	BB-2066	Lock washer for hex. cap screw for attaching steering gear to engine support bracket...per doz. .25—each	.05	11307
PUGAT	BB-2067	Nut, 7/16"—14, for hex. cap screw for attaching steering gear to engine support bracket...per doz. .25—each	.05	10894

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STEERING MECHANISM

CODE WORD				
BAKAT	BB-2068	Cap screw, hex. ⅜"—16x1¼" attaching steering gear to side bar.....	.05	10026
DAKAT	BB-2069	Nut ⅜"—16 for cap screw for attaching steering gear to side bar..... .....per doz. .25—each	.05	10893
LAKAT	BB-2070	Lock washer for hex. cap screw for attaching steering gear to side bar.... .....per doz. .25—each	.05	11306
RAKAT	BB-2070A	Steering tube with worm for steering column, limousine and sedan, marked (4)	14.00	16128A
ZAKAT	BB-2070B	Steering tube with worm for steering column, phaeton, seven-passenger and touring, marked (0).....	14.00	16128B
DEKAT	BB-2071	Steering tube with worm for steering column, roadster, marked (R).....	14.00	16128C
LEKAT	BB-2072	Steering tube with worm for steering column for coupe, marked (C).....	14.00	16174
BIKAT	BB-2075	Segment arm only for staff, for spark and throttle control	1.50	16422
DIKAT	BB-2076	Staff only for spark and throttle control, all cars except coupe.....	1.50	40204
KIKAT	BB-2077	Staff only for spark and throttle control for coupe	1.50	40210
MIKAT	BB-2078	Taper pin for staff and segment arm for spark and throttle control..... .....per doz. .25—each	.05	15010
SIKAT	BB-2079	Small bushing in steering tube for spark and throttle control staff.....	.15	3181
ZIKAT	BB-2080	Bushing in spark and throttle control staff for throttle tube (2 used).....	.25	H-827
COKAT	BB-2081	Bushing in throttle tube for spark rod	.15	7580
DOKAT	BB-2082	Controller segment for spark and throttle levers on steering wheel...	.75	16425
FOKAT	BB-2082A	Controller segment for spark and throttle on steering wheel, used with 105-B distributor	.75	17593
KOKAT	BB-2083	Screw to attach controller segment... .....per doz. .25—each	.05	H-870

SPARK AND THROTTLE

BUKAT	BB-2085	Throttle tube only, all cars except coupe	1.00	40208
LUKAT	BB-2087	Throttle tube only, coupe.....	1.00	40206
MUKAT	BB-2088	Lever for throttle tube, all cars.....	1.00	16423
PUKAT	BB-2089	Clamp screw for lever on throttle tube .....per doz. .25—each	.05	12816
SUKAT	BB-2090	Plunger in spark and throttle lever...	.15	7570
TUKAT	BB-2091	Spring for plunger in spark or throttle lever	.05	6161

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CODE WORD				
BALAT	BB-2092	Bushing in spark and throttle control staff for throttle tube	.25	H-827
DALAT	BB-2093	Bushing in steering tube for spark and throttle control staff	.15	3181
KALAT	BB-2094	Bushing in throttle tube	.15	7580
LALAT	BB-2095	Arm on lower end of throttle tube...	.40	16585
MALAT	BB-2096	Clamp screw for arm on spark and throttle tube (2 used)..... .....per doz. .25—each	.05	13584
SALAT	BB-2097	Lock washer for clamp screw arm on spark and throttle tube..... .....per doz. .25—each	.05	11314
KELAT	BB-2100	Spark rod, only, all cars except coupe	.25	16524
MELAT	BB-2101	Spark rod, only, coupe.....	.25	17156
PELAT	BB-2102	Lever for spark rod on steering wheel	.75	16424
RELAT	BB-2103	Pin for spark rod lever.....	.05	H-869
SELAT	BB-2104	Arm for lower end of spark control rod	.40	16584
ZELAT	BB-2105	Rod for spark control to dual automatic distributor, for all cars except open and closed limousine.....	.15	16814
DILAT	BB-2106	Rod for spark control to dual automatic distributor, open and closed limousine	.15	17092
LILAT	BB-2107	Pin for spark control.....	.05	13726
MILAT	BB-2107A	Cotter pin for pin..per doz. .25—each	.05	15150
PILAT	BB-2108	Yoke for control rod for dual automatic distributor	.10	16843
SILAT	BB-2109	Check nut for yoke on control rod for dual automatic distributor..... .....per doz. .25—each	.05	10887

STEERING CONNECTING ROD

BOLAT	BB-2110	Steering connecting rod complete, assembled, STANDARD TREAD...	8.00	16171
DOLAT	BB-2111	Steering connecting rod complete, assembled, WIDE TREAD.....	8.00	16172
KOLAT	BB-2112	Tube only, for steering connecting rod, STANDARD TREAD.....	4.50	13325
MOLAT	BB-2113	Tube only, for steering connecting rod, WIDE TREAD.....	4.50	13324
ROLAT	BB-2114	Ball socket for pivot for steering connecting rod, rear (2 used).....	.40	9200
TOLAT	BB-2115	Ball socket for pivot for steering connecting rod, front (2 used)....	.40	9202
BULAT	BB-2116	Cotter pin for plug, for front and rear end of steering connecting rod .....per doz. .25—each	.05	15183
FULAT	BB-2117	Spring for rear of steering connecting rod, end.....	.10	9199
LULAT	BB-2118	Plug for front and rear end of steering connecting rod.....	.20	9203
PULAT	BB-2119	Disc for rear end of steering connecting rod	.10	9201

Order Parts by serial part number and name in full.
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CODE WORD				
BAMAT	BB-2120	Leather covering for front end of steering connecting rod.....	.60	12214
DAMAT	BB-2121	Leather covering for rear end of steering connecting rod.....	.60	12213
KAMAT	BB-2122	Lace 3/16″ x 5′ for leather boot for front or rear steering connecting rod end	.10	19185

FENDERS

ZAMAT	BB-2123	Front fender, RIGHT, complete with irons, STANDARD TREAD, all cars except roadster, open limousine and coupe	10.00	16572
FEMAT	BB-2124	Front fender, RIGHT, complete with irons for open limousine, and WIDE TREAD on all cars except roadster and coupe.....	10.00	16993
PEMAT	BB-2125	Front fender, RIGHT, complete with irons, STANDARD TREAD, roadster and coupe.....	10.00	17199
TEMAT	BB-2126	Front fender, RIGHT, complete with irons, WIDE TREAD roadster and coupe	10.00	17406
CIMAT	BB-2127	Front fender, LEFT, complete with irons, STANDARD TREAD, all cars except roadster, open limousine and coupe.....	10.00	16573
LIMAT	BB-2128	Front fender, LEFT, complete with irons, open limousine and WIDE TREAD on all cars except roadster and coupe.....	10.00	16994
SIMAT	BB-2129	Front fender, LEFT, complete with irons, STANDARD TREAD, roadster and coupe.....	10.00	17200
BOMAT	BB-2130	Front fender, LEFT, complete with irons, WIDE TREAD, roadster and coupe	10.00	17407
FOMAT	BB-2131	Rear fender, RIGHT, complete, touring car, STANDARD TREAD....	9.00	16670
LOMAT	BB-2132	Rear fender, RIGHT, complete, touring car, WIDE TREAD.....	9.00	16995
POMAT	BB-2133	Rear fender, LEFT, complete, touring car, STANDARD TREAD....	9.00	16671
SOMAT	BB-2134	Rear fender, LEFT, complete, touring car, WIDE TREAD.....	9.00	16996
ZOMAT	BB-2135	Rear fender, RIGHT, complete, for seven-passenger, STANDARD TREAD	9.00	16661
DUMAT	BB-2136	Rear fender, RIGHT, complete, for seven-passenger WIDE TREAD...	9.00	17201
KUMAT	BB-2137	Rear fender, LEFT, complete, for seven-passenger STANDARD TREAD	9.00	16662
PUMAT	BB-2138	Rear fender, LEFT, complete, for seven-passenger, WIDE TREAD..	9.00	17202
SUMAT	BB-2139	Rear fender, RIGHT, complete less shield, phaeton, STANDARD TREAD	9.00	17193

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CODE WORD				
BAPAT	BB-2140	Rear fender, RIGHT, complete less shield, phaeton, WIDE TREAD...	9.00	17386
DAPAT	BB-2141	Rear fender, LEFT, complete less shield, phaeton, STANDARD TREAD	9.00	17194
LAPAT	BB-2142	Rear fender, LEFT, complete less shield, phaeton, WIDE TREAD...	9.00	17387
PAPAT	BB-2143	Shield for RIGHT rear fender, phaeton	2.50	17388
SAPAT	BB-2144	Shield for LEFT rear fender, phaeton	2.50	17389
TAPAT	BB-2145	Rear fender, RIGHT, complete, with irons, STANDARD TREAD, roadster	11.00	17197
CEPAT	BB-2146	Rear fender, RIGHT, complete, with irons, WIDE TREAD, roadster...	11.00	17408
FEPAT	BB-2147	Rear fender, LEFT, complete, with irons, STANDARD TREAD roadster	11.00	17198
MEPAT	BB-2148	Rear fender, LEFT, complete, with irons, WIDE TREAD, roadster....	11.00	17409
SEPAT	BB-2149	Rear fender, RIGHT, complete with irons, coupe	11.00	17195
ZEPAT	BB-2150	Rear fender, LEFT, complete, with irons, coupe	11.00	17196
CIPAT	BB-2151	Rear fender, RIGHT, complete, open limousine	9.00	17189
FIPAT	BB-2152	Rear fender, LEFT, complete, open limousine	9.00	17190
LIPAT	BB-2153	Rear fender, RIGHT, complete, closed limousine	10.00	17191
PIPAT	BB-2154	Rear fender, LEFT, complete, closed limousine	10.00	17192
SIPAT	BB-2155	Rear fender, RIGHT, complete, with irons, for coupe, WIDE TREAD..	11.00	17500
ZIPAT	BB-2156	Rear fender, LEFT, complete, with irons, for coupe, WIDE TREAD..	11.00	17501

FENDER ATTACHMENTS AND IRONS

LOPAT	BB-2157	Cap screw for attaching fenders to open and closed limousine bodies..	.05	10032
POPAT	BB-2158	Lag screw for attaching fenders to open and closed limousine bodies, 3/8″ x 2″ long.....	.05	
TOPAT	BB-2159	Lag screw, 3/8″ x 2″ for attaching fenders to body, 2 used on phaeton	.05	
BUPAT	BB-2160	Special hex. screw, long, for attaching rear fender to body, touring, seven-passenger and phaeton and open limousine	.05	13823
KUPAT	BB-2161	Special hex. screw, short, for attaching rear fender to body, touring, seven-passenger and phaeton (6 used) .....per doz. .25—each	.05	11573
RUPAT	BB-2162	Fender iron, front, for RIGHT fender, STANDARD TREAD, all cars except open limousine.....	2.00	16413

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CODE WORD				
BARAT	BB-2163	Fender iron, front for RIGHT front fender, limousine and all WIDE TREAD cars	2.00	16980
FARAT	BB-2164	Fender iron, front of LEFT front fender, STANDARD TREAD, all cars except open limousine	2.00	16414
MARAT	BB-2165	Fender iron, front for LEFT front fender, limousine and all WIDE TREAD cars	2.00	16981
SARAT	BB-2166	Fender iron, rear for RIGHT front fender, STANDARD TREAD, all cars except open limousine	2.00	16411
BERAT	BB-2167	Fender iron, rear for RIGHT front fender, limousine, and all WIDE TREAD cars	2.00	16982
FERAT	BB-2168	Fender iron, rear for LEFT front fender, STANDARD TREAD, all cars except open limousine	2.00	16412
MERAT	BB-2169	Fender iron, rear for LEFT front fender, limousine, and all WIDE TREAD cars	2.00	16983
SERAT	BB-2170	Step for rear fender, roadster only	.75	17347
TERAT	BB-2171	Screw for rear fender step, roadster only.....per doz. .25—each	.05	10006
BIRAT	BB-2172	Lock washer for rear fender step screw, roadster only.....per doz. .25—each	.05	11315
FIRAT	BB-2173	Reinforcement rod for fender step, roadster	.25	17349
LIRAT	BB-2174	Plate, reinforcement, for fender iron step, roadster	.15	17348
PIRAT	BB-2175	Fender iron front, for rear RIGHT fender, coupe	1.25	17297
SIRAT	BB-2176	Fender iron front, for rear LEFT fender, coupe	1.25	17298
ZIRAT	BB-2177	Fender iron rear, for rear RIGHT fender, coupe	1.25	17295
CORAT	BB-2178	Fender iron rear, for rear LEFT fender, coupe	1.25	17296
FORAT	BB-2179	Fender iron front, for rear RIGHT fender, roadster, STANDARD TREAD	1.25	17323
MORAT	BB-2180	Fender iron front, for rear LEFT fender, roadster, STANDARD TREAD	1.25	17324
SORAT	BB-2181	Fender iron rear, for rear RIGHT fender, roadster, STANDARD TREAD	1.25	17325
BURAT	BB-2182	Fender iron rear, for rear LEFT fender, roadster, STANDARD TREAD	1.25	17326
FURAT	BB-2183	Fender iron rear, for rear RIGHT fender, roadster, WIDE TREAD..	1.25	17451
LURAT	BB-2184	Fender iron rear, for rear LEFT fender, roadster, WIDE TREAD..	1.25	17452
PURAT	BB-2185	Fender iron front, for rear RIGHT fender, roadster, WIDE TREAD..	1.25	17453
SURAT	BB-2186	Fender iron front, for rear LEFT fender, roadster, WIDE TREAD..	1.25	17454

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CODE WORD				
BATAT	BB-2187	Nut for fender iron	.10	6773
CATAT	BB-2188	Lock washer for fender iron.....per doz. .25—each	.05	11320
FATAT	BB-2189	Fender iron front, for RIGHT rear fender, coupe, WIDE TREAD	1.25	17528
LATAT	BB-2190	Fender iron rear, for RIGHT rear fender, coupe, WIDE TREAD	1.25	17530
PATAT	BB-2191	Fender iron front, for LEFT rear fender, coupe, WIDE TREAD	1.25	17529
SATAT	BB-2192	Fender iron rear, for LEFT rear fender, coupe, WIDE TREAD	1.25	17531

RUNNING BOARDS AND DUST SHIELDS

NOTE:—Two types of running boards were used on the STANDARD TREAD, touring car, seven-passenger and phaeton.

The first type had the foot scraper 16 inches from the rear fender.

The second type had the foot scraper 4 inches from the rear fender.

In ordering running boards, bindings, or mats for these models it will be necessary to give the motor number of the car on which they are to be used, also to give the distance of the foot scraper from the rear fender.

PITAT	BB-2193	Running board, RIGHT, complete with mat, binding and fender end brackets, touring, seven-passenger, inside drive limousine and phaeton, STANDARD TREAD, first type..	6.50	20217
BOTAT	BB-2194	Running board, LEFT, complete with mat, binding and fender end brackets, touring, seven-passenger, inside drive limousine and phaeton, STANDARD TREAD, first type..	6.50	20218
LOTAT	BB-2195	Running board, only, RIGHT, touring, seven-passenger, inside drive limousine and phaeton. STANDARD TREAD, first type	2.00	16705
SOTAT	BB-2196	Running board, LEFT, only, touring, seven-passenger, inside drive limousine and phaeton, STANDARD TREAD, first type	2.00	16708
CUTAT	BB-2197	Linoleum mat for running board, RIGHT, touring, seven-passenger, inside drive limousine and phaeton, STANDARD TREAD, first type..	1.50	16706
LUTAT	BB-2198	Linoleum mat for running board, LEFT, touring, seven-passenger, inside drive limousine and phaeton, STANDARD TREAD, first type..	1.50	16709

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CODE WORD				
BABAX	BB-2199	Binding for running board, RIGHT touring, seven-passenger, inside drive limousine and phaeton, STANDARD TREAD, first type..	1.50	16707
KABAX	BB-2200	Binding for running board, LEFT, touring, seven-passenger, inside drive limousine and phaeton, STANDARD TREAD, first type..	1.50	16710
RABAX	BB-2201	Running board, RIGHT, complete with mat, binding and fender end brackets, touring, phaeton, inside drive limousine and seven-passenger STANDARD TREAD, second type	6.50	20219
CEBAX	BB-2202	Running board, LEFT, complete with mat, binding and fender end brackets, touring, phaeton, inside drive limousine and seven-passenger, STANDARD TREAD, second type	6.50	20220
MEBAX	BB-2203	Running board, only, RIGHT, STANDARD TREAD, touring, seven-passenger, phaeton, inside drive limousine, second type.....	2.00	16991
TEBAX	BB-2204	Running board, only, LEFT, STANDARD TREAD, touring, seven-passenger, phaeton and inside drive limousine, second type	2.00	16992
DIBAX	BB-2205	Binding with screws for running board, RIGHT, all cars except roadster, coupe and open limousine, STANDARD TREAD, second type	1.50	18076
MIBAX	BB-2206	Binding with screws for running board, LEFT, all cars except roadster, coupe and open limousine, STANDARD TREAD, second type	1.50	18079
TIBAX	BB-2207	Linoleum mat for running board RIGHT, all cars except roadster, coupe and open limousine, STANDARD TREAD, second type.....	1.50	17002
DOBAX	BB-2208	Linoleum mat for running board, LEFT, all cars except roadster, coupe, and open limousine, STANDARD TREAD, second type.....	1.50	17003
MOBAX	BB-2209	Scraper on running board.....	.50	16704
POBAX	BB-2210	Screw to fasten scraper to running board, No. 10—7/8" oval head..... .....per doz. .25—each	.05	
TOBAX	BB-2211	Running board, RIGHT, complete with mat, binding and fender end brackets, limousine and all WIDE TREAD cars except roadster and coupe	6.50	20225
FUBAX	BB-2212	Running board, LEFT, complete with mat, binding and fender end brackets, limousine and all WIDE TREAD cars except roadster and coupe	6.50	20226
RUBAX	BB-2213	Running board only, RIGHT, limousine and all WIDE TREAD cars except roadster and coupe.....	2.00	17017

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CODE WORD				
BADAX	BB-2214	Running board, only, LEFT, limousine and WIDE TREAD on all cars except roadster and coupe....	2.00	17014
FADAX	BB-2215	Running board, RIGHT, complete with mat, binding and fender end brackets, roadster and coupe, STANDARD TREAD	4.50	20221
PADAX	BB-2216	Running board, RIGHT, complete with mat, binding and fender end brackets, roadster and coupe, WIDE TREAD	4.50	20224
ZADAX	BB-2217	Running board, LEFT, complete with mat, binding and fender end brackets, roadster and coupe, STANDARD TREAD	4.50	20222
FEDAX	BB-2218	Running board, LEFT, complete with mat, binding and fender end brackets, roadster and coupe, WIDE TREAD	4.50	20223
PEDAX	BB-2219	Running board, only, RIGHT, roadster and coupe, WIDE TREAD.....	1.25	17546
SEDAX	BB-2220	Running board, only, LEFT, roadster and coupe, WIDE TREAD.....	1.25	17549
ZEDAX	BB-2221	Running board, only, RIGHT, roadster and coupe, STANDARD TREAD.	1.25	17160
CIDAX	BB-2222	Running board, only, LEFT, roadster and coupe, STANDARD TREAD.	1.25	17163
FIDAX	BB-2223	Binding with screws for running board, RIGHT, limousine and all cars, WIDE TREAD, except roadster and coupe.....	1.50	17016
PIDAX	BB-2224	Binding with screws for running board, LEFT, limousine and all cars, WIDE TREAD, except roadster and coupe.....	1.50	17019
ZIDAX	BB-2225	Binding with screws, RIGHT, for roadster and coupe, STANDARD TREAD	.75	17162
DODAX	BB-2226	Binding with screws, RIGHT, for roadster and coupe, WIDE TREAD	.75	17548
KODAX	BB-2227	Binding with screws, LEFT, for roadster and coupe, STANDARD TREAD	.75	17164
PODAX	BB-2228	Binding with screws, LEFT, for roadster and coupe, WIDE TREAD...	.75	17551
SODAX	BB-2229	Screw for binding for running board, flat head, No. 6x5/8"..... .....per doz. .25c—each	.05	
BUDAX	BB-2230	Screw for binding for running board oval head, No. 6x5/8"..... .....per doz. .25c—each	.05	
FUDAX	BB-2231	Linoleum mat for running board, RIGHT, limousine and all cars except roadster and coupe, WIDE TREAD..	1.50	17015
PUDAX	BB-2232	Linoleum mat for running board, LEFT, limousine and all cars except roadster and coupe, WIDE TREAD	1.50	17018
RUDAX	BB-2232A	Battery box only, less cover.....	4.00	40039

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CODE WORD				
BAFAX	BB-2233	Linoleum mat for running board, RIGHT, for Roadster and Coupe, STANDARD TREAD	.80	17161
FAFAX	BB-2234	Linoleum mat for running board, RIGHT, for Roadster and Coupe, WIDE TREAD	.80	17547
MAFAX	BB-2235	Linoleum mat for running board, LEFT, for Roadster and Coupe, STANDARD TREAD	.80	17165
SAFAX	BB-2236	Linoleum mat for running board, LEFT, for Roadster and Coupe, WIDE TREAD	.80	17550
BEFAX	BB-2237	Bolt for fastening running board to hanger	.05	19297
DEFAX	BB-2238	Lock washer for bolt for fastening running board...per doz. .25—each	.05	11315
KEFAX	BB-2238A	Nut for bolt.....per doz. .25—each	.05	11673
LEFAX	BB-2239	Special washer for running board, bolt.....per doz. .25—each	.05	13184
REFAX	BB-2240	Bracket for attaching fenders to running board, RIGHT or LEFT, STANDARD TREAD, all cars except standard limousine.....	.60	16280
BIFAX	BB-2241	Bracket for attaching fenders to running board, RIGHT or LEFT, limousine and all WIDE TREAD cars	.60	8679
KIFAX	BB-2242	Hex. head screw ⅜"—16x¾" long for attaching fender to bracket, rear....	.05	8733
MIFAX	BB-2243	Hex. head screw, ⅜"—16x⅞" for attaching fender to bracket, front....	.05	10023
RIFAX	BB-2244	Lock washer for screw..... .....per doz. .25—each	.05	11316
TIFAX	BB-2245	Bolt for attaching bracket to running board	.05	14656
BOFAX	BB-2246	Lock washer for bolt..... .....per doz. .25—each	.05	11314
FOFAX	BB-2247	Dust shields, RIGHT, all cars except Roadster and Coupe.....	6.00	16637
LOFAX	BB-2248	Dust shield, LEFT, complete with battery box and cover, all cars except Roadster and Coupe.....	14.00	40040
ROFAX	BB-2249	Dust shield, RIGHT, for Roadster and Coupe	5.00	17218
TOFAX	BB-2250	Dust shield, LEFT, complete with battery box and cover, for Roadster and Coupe	12.00	40041
ZOFAX	BB-2250A	Detachable battery box with cover and knobs	6.00	16117
CUFAX	BB-2251	Cover on dust shield for non-detachable storage battery box.....	2.00	16702
DUFAX	BB-2151A	Detachable battery box cover.....	2.00	17415
FUFAX	BB-2252	Screw 14—24x⅜" to fasten battery box supports to dust shield.....	.05	10596
LUFAX	BB-2253	Washer for screws..per doz. .25—each	.05	11314
PUFAX	BB-2254	Nut for above screws.per doz. .25—each	.05	10889
SUFAX	BB-2255	Knob for battery box cover.....	.30	16694
ZUFAX	BB-2255A	Washer for knob...per doz. .25—each	.05	11430

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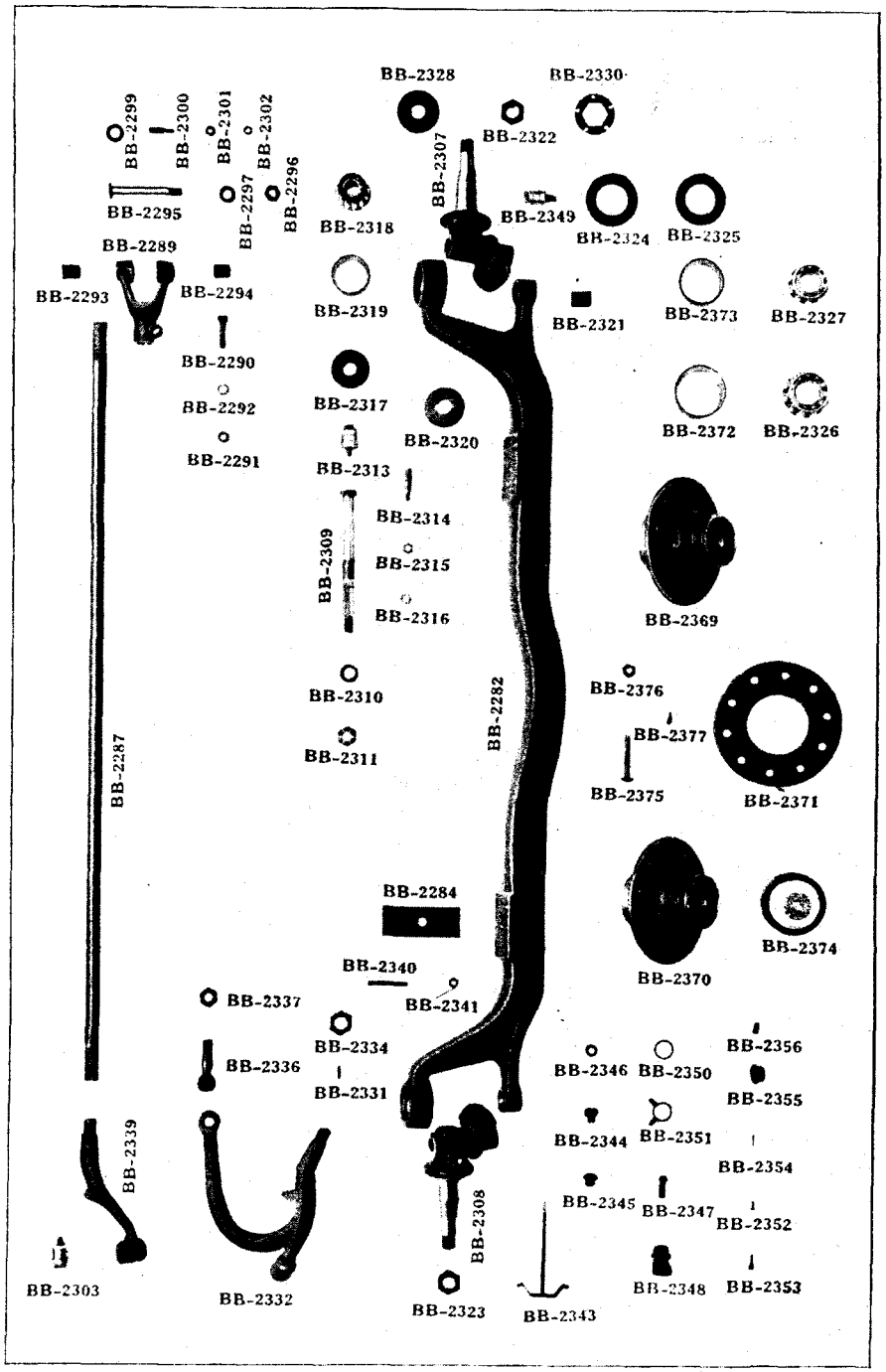
CODE WORD				
BAGAX	BB-2256	Screw on battery box, to hold cover..	.10	16695
CAGAX	BB-2257	Bolt to fasten battery box to running board	.05	19297
FAGAX	BB-2258	Bolt to fasten windstop to body.....	.05	11563
KAGAX	BB-2259	Flat washer ¼" on bolt to fasten windstop to body.....per doz. .25c—each	.05	
MAGAX	BB-2260	Bolt to fasten dust shield to body, ¼"x3" long, touring and seven-passenger	.05	11568
SAGAX	BB-2261	Bolt to fasten dust shield to running board	.05	19297
ZAGAX	BB-2262	Special washer on bolt to fasten dust shield to running board..... .....per doz. .25—each	.05	11436
CEGAX	BB-2263	Lock washer on bolt to fasten dust shield to running board..... .....per doz. .25—each	.05	11315
KEGAX	BB-2264	Screw, short, to fasten battery box to frame.....per doz. .25—each	.05	11556
MEGAX	BB-2265	Screw, long, to fasten battery box to frame.....per doz. .25—each	.05	11557
REGAX	BB-2266	Nut for screw to fasten battery box to frame.....per doz. .25—each	.05	10893
TEGAX	BB-2267	Lock washer for screw to fasten battery box to frame.per doz. .25—each	.05	11316
BIGAX	BB-2268	Hanger for rear end of windstop, all cars	.05	16354
DIGAX	BB-2269	Hanger for front end of windstop, all cars	.05	16353
KIGAX	BB-2270	Wind stop on control levers, all cars, except coupe	1.00	16349
MIGAX	BB-2271	Windstop on control levers, coupe...	1.00	16135
PIGAX	BB-2272	Cover for hole in dust shield at spring bolt, all cars.....	.05	16815
SIGAX	BB-2273	Screw for cover over hole in dust shield at spring bolt, all cars..... .....per doz. .25—each	.05	10559
BOGAX	BB-2274	Lock washer for screw for cover over dust shield, all cars..... .....per doz. .25—each	.05	11313
FOGAX	BB-2275	Fillister head screw to fasten dust shield to fender...per doz. .25—each	.05	10274
LOGAX	BB-2276	Round head screw to fasten dust shield to fender...per doz. .25—each	.05	10598
POGAX	BB-2277	Nut for screw to fasten dust shield to fender.....per doz. .25—each	.05	11653
SOGAX	BB-2278	Lock washer for screw to fasten dust shield to fender...per doz. .25—each	.05	11313
ZOGAX	BB-2279	Washer for nut for screw to fasten dust shield to fender..... .....per doz. .25—each	.05	11314

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FRONT AXLE

CODE WORD				
BAHAX	BB-2282	Front axle with yokes, and upper bearing mounting (STANDARD TREAD)	32.00	L-2158 3620
FAHAX	BB-2283	Front axle with yokes and upper bearing mounting (WIDE TREAD)	32.00	L-2192 3620
LAHAX	BB-2284	Spring seat, RIGHT or LEFT, for front axle	.60	L-1415
CEHAX	BB-2287	Parallel rod only (STANDARD TREAD)	3.00	L-1159
FEHAX	BB-2288	Parallel rod only (WIDE TREAD)	3.00	L-1173
KEHAX	BB-2289	Yoke to adjust parallel rod	2.00	L-1598
LEHAX	BB-2290	Clamping screw for yoke	.05	X-693
MEHAX	BB-2291	Nut for clamping screw for yoke	.05	X-356
PEHAX	BB-2292	Lock washer for clamping screw for yoke.....per doz. .25—each	.05	X-530
SEHAX	BB-2293	Upper bushing for parallel rod yoke	.40	L-1644
TEHAX	BB-2294	Lower bushing for parallel rod yoke	.40	L-1380
ZEHAX	BB-2295	Bolt for yoke for parallel rod	.60	L-1600
BIHAX	BB-2296	Slotted hex. nut for bolt for parallel rod yoke	.05	X-203
DIHAX	BB-2297	Washer for bolt for parallel rod yoke	.05	L-1347
FIHAX	BB-2298	Cotter pin for bolt for parallel rod yoke.....per doz. .25—each	.05	X-198
LIHAX	BB-2299	Dust cap, for bolt for parallel rod yoke	.05	L-1646
PIHAX	BB-2300	Binding key, for bolt for parallel rod yoke	.10	L-1602
SIHAX	BB-2301	Nut for binding key	.05	X-340
TIHAX	BB-2302	Lock washer for binding key.....per doz. .25—each	.05	X-528
BOHAX	BB-2303	Grease cup for bolt for parallel rod yoke	.35	17054
ZOHAX	BB-2307	Spindle, RIGHT only	6.00	L-2716
BUHAX	BB-2308	Spindle, LEFT only	7.00	L-2693
CUHAX	BB-2309	Spindle bolt	2.00	L-2694
DUHAX	BB-2310	Washer on lower end of spindle bolt.	.05	L-1391
FUHAX	BB-2311	Slotted hexagon nut on lower end of spindle bolt	.05	X-518
LUHAX	BB-2312	Cotter pin for nut on lower end of spindle bolt.....per doz. .25—each	.05	X-198
PUHAX	BB-2313	Grease cup for spindle bolt	.35	17054
RUHAX	BB-2314	Binding key for spindle bolt	.10	L-1311
SUHAX	BB-2315	Nut for spindle bolt binding key	.05	X-353

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FRONT AXLE

CODE WORD				
BALAX	BB-2316	Lock washer for spindle bolt binding key.....per doz. .25—each	.05	X-529
DALAX	BB-2317	Cap, upper, for upper bearing for front axle yoke.....	.50	L-2162
KALAX	BB-2318	Roller bearing upper complete for front axle yoke.....	3.85	3656
MALAX	BB-2319	Mounting for roller bearing, upper, for front axle.....	1.35	3620
RALAX	BB-2320	Cap, lower, for roller bearing upper, for front axle yoke.....	.05	L-5466
TALAX	BB-2321	Steel bushing, lower, for front axle yoke	.50	L-2165
BELAX	BB-2322	Nut for RIGHT front axle spindle..	.10	X-838
CELAX	BB-2323	Nut for LEFT front axle spindle....	.10	X-839
DELAX	BB-2324	Felt washer for inside bearing for front axle spindle.....	.15	X-407
KELAX	BB-2325	Felt washer retainer for inside bearing for front axle spindle.....	.15	L-2696
MELAX	BB-2326	Roller bearing, inside, complete for front axle spindle.....	5.00	415
RELAX	BB-2327	Roller bearing, outside, complete for front axle spindle.....	3.30	316
TELAX	BB-2328	Washer with dowel pins for outside bearing of front axle spindle.....	.25	L-2697 L-2698
BILAX	BB-2329	Cotter pin for dowel pin.....per doz. .25—each	.05	X-825
DILAX	BB-2330	Lock washer for steering spindle nut.	.15	L-5153
FILAX	BB-2331	Key for steering arm, RIGHT or LEFT	.05	X-654
LILAX	BB-2332	Steering arm, double only, for RIGHT spindle (STANDARD TREAD)..	6.00	L-2312
RILAX	BB-2333	Steering arm, double only, for RIGHT spindle (WIDE TREAD).....	6.00	L-2366
TILAX	BB-2334	Castle nut for spindle arm, RIGHT and LEFT	.20	L-1608
BOLAX	BB-2335	Cotter pin for spindle arm.....per doz. .25—each	.05	X-224
DOLAX	BB-2336	Pivot for RIGHT steering arm.....	.50	L-1352
FOLAX	BB-2337	Castle nut for pivot.....	.10	X-518
KOLAX	BB-2338	Cotter pin for castle nut for pivot...per doz. .25—each	.05	X-198
MOLAX	BB-2339	Steering arm for LEFT spindle (single, STANDARD and WIDE tread)	2.50	L-2309
ROLAX	BB-2340	Stop screw to limit travel of steering arm	.15	X-546
TOLAX	BB-2341	Nut for stop screw.....	.05	X-541

NOTE:—When ordering parts for the speedometer in the LEFT front spindle, specify whether for use with STANDARD or MILLIMETER wheel.

RULAX	BB-2343	Shaft and plate in LEFT steering knuckle for speedometer drive.....	.35	L-2867
TULAX	BB-2344	Drive gear in LEFT steering knuckle for speedometer	.85	L-2703

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CODE WORD				
BAMAX	BB-2345	Bushing for drive gear in LEFT steering knuckle for speedometer.....	.15	L-2704
DAMAX	BB-2346	Driven gear in LEFT steering knuckle for speedometer	.75	L-2705
KAMAX	BB-2347	Shaft for driven gear in LEFT steering knuckle for speedometer.....	.15	L-2707
MAMAX	BB-2348	Bearing for driven gear shaft in LEFT steering knuckle for speedometer	.95	L-2906
SAMAX	BB-2349	Grease cup for bearing for speedometer driven shaft.....	.30	17053
ZAMAX	BB-2350	Spacers for bearings for speedometer driven gear shaft.....	.05	L-2859
CEMAX	BB-2351	Wing washer for bearing for speedometer driven gear shaft.....	.05	X-836
FEMAX	BB-2352	Nut for clamp bolt for speedometer driven gear shaft bearing.....	.05	L-2880
LEMAX	BB-2353	Bolt for speedometer driven gear shaft bearing	.05	L-2718
PEMAX	BB-2354	Pin for speedometer driven gear.....	.05	X-900
REMAX	BB-2355	Cover for speedometer gear chamber.	.10	L-2695
SEMAX	BB-2356	Plug for speedometer gear chamber..	.05	X-361

FRONT WHEEL

BIMAX	BB-2357A	Front wheel, wood parts and felloe band only, RIGHT or LEFT.....	14.00	30274
MIMAX	BB-2358	Kelsey Universal Demountable spare rim only, with rings.....	5.60	B-465
RIMAX	BB-2359	Inside ring for Universal demountable spare rim	1.25	B-388
TIMAX	BB-2360	Outside locking ring for Universal demountable spare rim.....	1.25	B-475
BOMAX	BB-2361	Lock for outside locking ring for Universal demountable spare rim...	.15	1857
DOMAX	BB-2362	Clamping ring for holding Universal demountable spare rim on wheel...	.50	A-210
KOMAX	BB-2363	Bolt for Kelsey Universal demountable rim	.15	1649 1554
ROMAX	BB-2364	Nut and wedge assembled for Kelsey Universal demountable rim.....	.30	1556 1703 1706
ZOMAX	BB-2365	Leather washer for wedge for Universal demountable rim.....	.05	11427
CUMAX	BB-2366	Pin for wedge for Kelsey Universal demountable rim	.05	1859
PUMAX	BB-2369	Outside flange with bearing mountings for front wheel, RIGHT.....	9.80	N-358
SUMAX	BB-2370	Outside flange with bearing mountings for front wheel, LEFT.....	9.80	N-377

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CODE WORD				
BADEF	BB-2371	Inside flange for front wheel hub....	1.20	W-91306
CADEF	BB-2372	Mounting for inside bearing for front wheel	2.00	412
FADEF	BB-2373	Mounting for outside bearing for front wheel	1.50	312
LADEF	BB-2374	Hub cap for front wheel.....	1.20	16473
MADEF	BB-2375	Bolt for front wheel hub.....	.10	X-524
PADEF	BB-2376	Nut for bolt for front wheel hub.....	.05	X-394
RADEF	BB-2377	Oiler for front wheel hub.....	.30	X-639

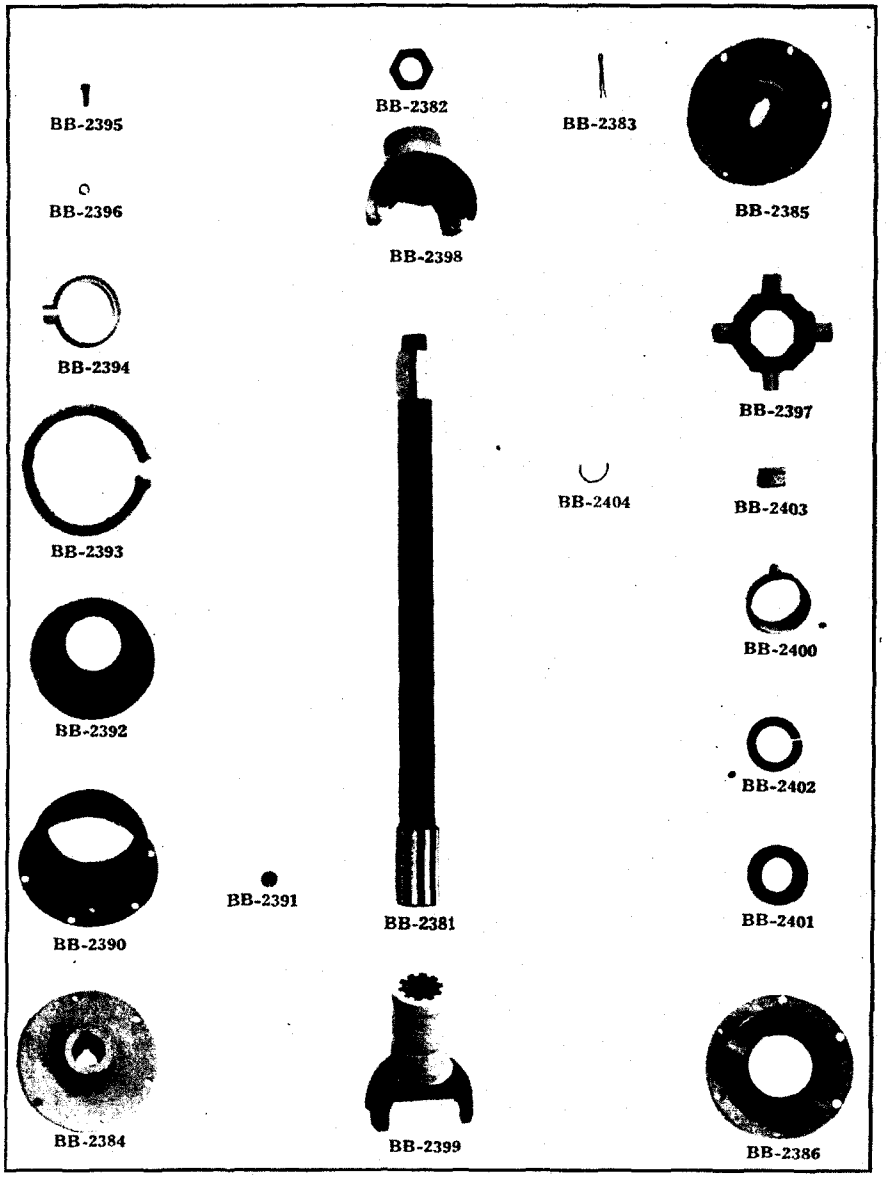
SPICER UNIVERSAL JOINT

CEDEF	BB-2378	Spicer universal joint with shaft, complete, assembled	28.00	16105
FEDEF	BB-2379	Joint only for front end of shaft, complete	10.50	431
LEDEF	BB-2380	Joint only for rear end of shaft, complete	10.50	428
PEDEF	BB-2381	Shaft only for universal joint.....	6.50	56–17
REDEF	BB-2382	Nut for shaft	.40	54–16
SEDEF	BB-2383	Cotter pin for nut for shaft.....	.05	52–5
TEDEF	BB-2384	Flange on transmission drive shaft for universal joint	2.00	76-SF
BIDEF	BB-2385	Flange on rear axle drive shaft for universal joint	2.00	77-SF
DIDEF	BB-2386	Yoke flange, either end.....	2.55	4–2–1
FIDEF	BB-2387	Bolt for attaching yoke flange.....	.10	53–5–17
KIDEF	BB-2388	Nut for flange bolt.....	.05	54–5
LIDEF	BB-2389	Lock washer for flange bolt.....	.05	55–5
MIDEF	BB-2390	Inside casing for joint with 5/8" hole..	.75	4–8–1
PIDEF	BB-2391	Oil hole plug for inside casing.....	.05	51–4
RIDEF	BB-2392	Outside casing for joint.....	.75	4–9–1
SIDEF	BB-2393	Packing in outside casing.....	.15	4–10–1
TIDEF	BB-2394	Clamping nut for outside casing for joint	.65	4–13–1
BODEF	BB-2395	Screw for clamping nut.....	.05	53-4-11F
CODEF	BB-2396	Lock washer for screw for clamping nut	.05	55–4
FODEF	BB-2397	Cross for yoke, either end.....	1.15	4–5–1
KODEF	BB-2398	Ball yoke on shaft for rear joint.....	2.80	4–4–1
LODEF	BB-2399	Sleeve yoke on shaft for front joint..	3.65	4–3–7
MODEF	BB-2400	Knurled dust cap for sleeve yoke....	.75	4–14–1
PODEF	BB-2401	Felt washer in dust cap for sleeve yoke	.15	4–16–1
RODEF	BB-2402	Flat split washer for retaining felt washer in dust cap.....	.10	4–15–1
TODEF	BB-2403	Steel bushing in yoke for cross.....	.25	4–6–1
ZODEF	BB-2404	Retainer for bushing yoke.....	.05	4–7–1

TORSION ARM

KUDEF	BB-2405	Torsion or strut arm, assembled with ends	7.00	16114
MUDEF	BB-2406	Support or hanger, for front end of torsion arm	1.60	9234
RUDEF	BB-2407	Spring on torsion arm hanger.....	.30	12469
SUDEF	BB-2408	Bolt to attach torsion arm hanger to cross member	.30	8019

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SPICER UNIVERSAL JOINT

CODE WORD				
BADEL	BB-2409	Check nut on bolt for torsion arm hanger	.10	6411
DADEL	BB-2410	Lock washer for bolt in bracket on cross member for torsion arm hanger.....per doz. .25—each	.05	11310
LADEL	BB-2411	Castle nut on support for front end of torsion arm	.10	9197
PADEL	BB-2412	Cotter pin for torsion arm hanger.....per doz. .25—each	.05	15175
SADEL	BB-2413	Grease cup, No. 00 for bolt for attaching torsion arm hanger	.35	17054
ZADEL	BB-2414	Grease cup, No. 000 for head for torsion arm	.30	17053
CEDEL	BB-2415	Washer for torsion arm spring.....per doz. .25—each	.05	9233
FEDEL	BB-2416	Clamp screw for bracket on rear end of torsion arm	.05	10033
LEDEL	BB-2417	Nut for torsion arm bracket clamp screw.....per doz. .25—each	.05	10893
PEDEL	BB-2418	Lock washer for torsion arm bracket clamp screw.....per doz. .25—each	.05	11316
SEDEL	BB-2419	Shaft for torsion arm in rear axle	3.00	T-4310
TEDEL	BB-2420	Castle nut for shaft for torsion arm in rear axle	.35	T-2296
BIDEL	BB-2421	Cotter pin for castle nut for torsion arm shaft.....per doz. .25—each	.05	X-224
DIDEL	BB-2422	Bushing for torsion arm shaft in differential housing	1.20	T-3151
KIDEL	BB-2423	Support on torsion arm for rear axle extension (2 used)	.50	16549
MIDEL	BB-2424	Screw for support for torsion arm	.10	10064
PIDEL	BB-2425	Flat washer for screw on support for torsion arm	.05	5238
SIDEL	BB-2426	Check nut on screw for support	.05	H-1700
TIDEL	BB-2427	Lock nut on screw for support	.05	8937
ZIDEL	BB-2428	Adjusting screw on support	.05	11564
BODEL	BB-2429	Check nut on screw (11564).....per doz. .25—each	.05	2984

REAR AXLE

NOTE:—When ordering rear axle complete, specify whether for STANDARD or WIDE TREAD. Price may be had upon application.

CUDEL	BB-2432	Rear axle housing with fixed parts, truss rod, differential cover and carrier, less brakes, STANDARD TREAD	110.00	
KUDEL	BB-2433	Rear axle housing with fixed parts, truss rod, differential cover and carrier, less brakes, WIDE TREAD	110.00	
PUDEL	BB-2434	Rear axle housing with fixed parts, truss rod, less differential covers and brakes, STANDARD TREAD	75.00	

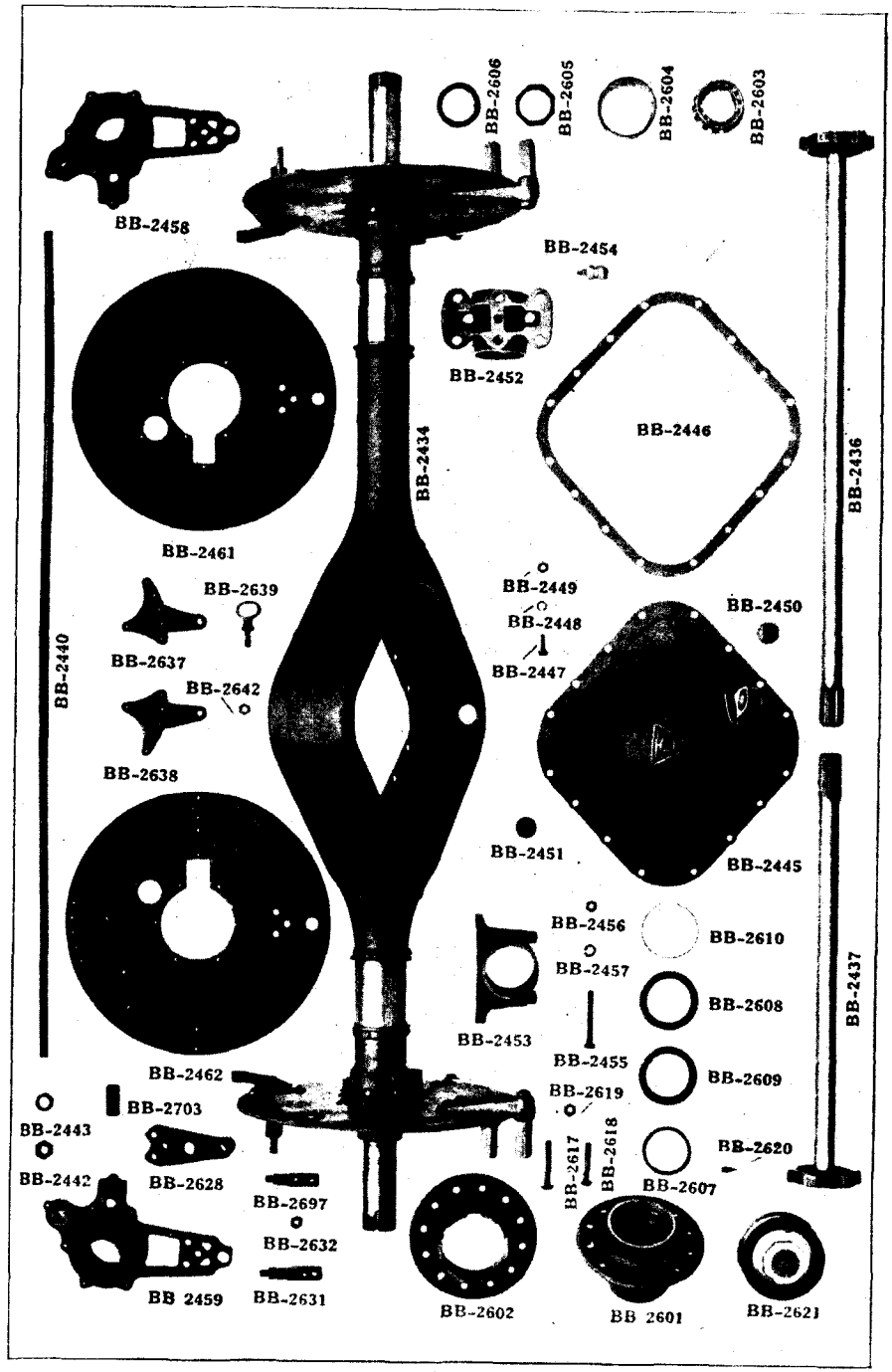
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CODE WORD				
BADEM	BB-2435	Rear axle housing with fixed parts, truss rod, less differential covers and brakes, WIDE TREAD	75.00	
FADEM	BB-2436	Rear axle shaft, RIGHT, STANDARD TREAD	14.00	T-4160
LADEM	BB-2437	Rear axle shaft, LEFT, STANDARD TREAD	14.00	T-4159
PADEM	BB-2438	Rear axle shaft, RIGHT, WIDE TREAD	14.00	T-4280
SADEM	BB-2439	Rear axle shaft, LEFT, WIDE TREAD	14.00	T-4279
ZADEM	BB-2440	Truss rod for rear axle housing, STANDARD TREAD	.75	T-4205
CEDEM	BB-2441	Truss rod for rear axle housing, WIDE TREAD	.90	T-4278
FEDEM	BB-2442	Slotted hexagon nut for truss rod	.10	X-1098
KEDEM	BB-2443	Washer for truss rod	.05	L-1391
LEDEM	BB-2444	Cotter pin for truss rod.....per doz. .25—each	.05	X-117
PEDEM	BB-2445	Cover for differential, rear	2.50	T-4128
REDEM	BB-2446	Gasket for differential rear cover rubber	.40	T-4129
SEDEM	BB-2447	Cap screw for cover, for rear end of differential	.05	X-542
ZEDEM	BB-2448	Lock washer for cap screw in rear cover, for differential.....per doz. .25—each	.05	X-529
DIDEM	BB-2449	Nut for cap screw in rear cover, for differential	.05	X-189
KIDEM	BB-2450	Plug for overflow hole in rear cover of differential	.30	T-1629
MIDEM	BB-2451	Plug for drain hole in rear axle housing	.10	X-433
RIDEM	BB-2452	Spring seat, RIGHT, complete with bolts, nuts and washers	3.00	T-1684
TIDEM	BB-2453	Spring seat, LEFT, complete with bolts, nuts and washers	3.00	T-1685
BODEM	BB-2454	Grease cup for rear axle spring seat	.35	17054
CODEM	BB-2455	Bolt for rear axle spring seat	.05	X-522
DODEM	BB-2456	Nut for bolt for rear axle spring seat	.05	X-356
FODEM	BB-2457	Lock washer for bolt for rear axle spring seat....per doz. .25—each	.05	X-530
LODEM	BB-2458	Brake support, RIGHT, on rear axle housing	4.00	R-1400
PODEM	BB-2459	Brake support, LEFT, on rear axle housing	4.00	R-1399
SODEM	BB-2460	Rivet for brake support.....per doz. 25—each	.05	X-487
ZODEM	BB-2461	Dust shield, RIGHT, for brake support on rear axle housing	1.50	R-1128
CUDEM	BB-2462	Dust shield, LEFT, for brake support on rear axle housing	1.50	R-1127
FUDEM	BB-2463	Rivet to attach dust shield on brake support.....per doz. .25—each	.05	X-539
LUDEM	BB-2464	Differential carrier or housing	30.00	T-4114
MUDEM	BB-2465	Screw for differential bearing cap, nickel steel	.40	X-986
PUDEM	BB-2466	Lock washer for screw for differential bearing cap.....per doz. .25—each	.05	X-532
SUDEM	BB-2467	Thimble dowel for differential bearing cap	.10	T-4175

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CODE WORD				
BADEP	BB-2468	Locking wire for screw for differential bearing cap, RIGHT and LEFT....	.05	T-3589
DADEP	BB-2469	Steady screw for bearing cap, in differential carrier	.05	X-717
KADEP	BB-2470	Lock nut for steady screw for bearing cap, for differential carrier.....	.05	X-340
MADEP	BB-2471	Gasket for differential carrier, paper.	.10	T-4167
PADEP	BB-2472	Bolt for differential carrier, short....	.10	X-848
RADEP	BB-2473	Bolt for differential carrier, medium..	.10	X-849
SADEP	BB-2474	Bolt for differential carrier, long.....	.15	X-850
TADEP	BB-2475	Nut for differential carrier.....	.05	X-544
ZADEP	BB-2476	Lock washer for bolt in differential carrier.....per doz. .25—each	.05	X-530
CEDEP	BB-2477	Bushing for torsion rod shaft in differential carrier	1.20	T-3151
FEDEP	BB-2478	Shaft for torsion rod in rear axle....	3.00	T-4310
KEDEP	BB-2479	Castle nut for torsion rod shaft in rear axle	.35	T-2296
MEDEP	BB-2480	Cotter pin for nut for torsion rod shaft.....per doz. .25—each	.05	X-224
REDEP	BB-2481	Cover with felt, for hole for adjusting pinion shaft rear bearing on differential carrier	.15	T-4136
ZEDEP	BB-2482	Felt for pinion rear end bearing adjustment hole cover.....	.05	T-4137
CIDEP	BB-2483	Rivet for felt on pinion rear end bearing adjustment hole cover..... .....per doz. .25—each	.05	X-334
KIDEP	BB-2484	Cap screw for pinion end bearing adjustment hole cover, ¼x28.....	.05	X-432
MIDEP	BB-2485	Lock washer for screw for pinion rear end bearing adjustment hole cover .....per doz. .25—each	.05	X-342
SIDEP	BB-2486	Peep hole plug in differential carrier.	.35	T-1567
TIDEP	BB-2487	Plug for oil pipe boss on differential carrier	.10	X-323
BODEP	BB-2488	Plug for filler hole in differential carrier	.30	T-1629
DODEP	BB-2489	Cap screw for differential carrier and extension	.10	X-848
KODEP	BB-2490	Lock washer for differential carrier and extension cap screw..... .....per doz. .25—each	.05	X-530
PODEP	BB-2491	Differential carrier extension.....	20.00	T-4124
RODEP	BB-2492	Gland nut for differential carrier extension oil pipe.....	.15	T-4312
TODEP	BB-2493	Soft rubber washer for differential carrier extension oil pipe..... .....per doz. .25—each	.05	T-4313
CUDEP	BB-2494	Gasket for elbow for differential carrier extension oil pipe.....	.05	T-4315
FUDEP	BB-2495	Cap screw for elbow for differential carrier extension oil pipe.....	.05	X-741
LUDEP	BB-2496	Lock washer for cap screw for differential carrier extension oil pipe.... .....per doz. .25—each	.05	X-529
RUDEP	BB-2497	Pipe and elbow brazed together for differential carrier extension oiler..	1.00	T-4458
TUDEP	BB-2497A	Cap screw for adj. hole cover, ¼x20.	.05	X-923

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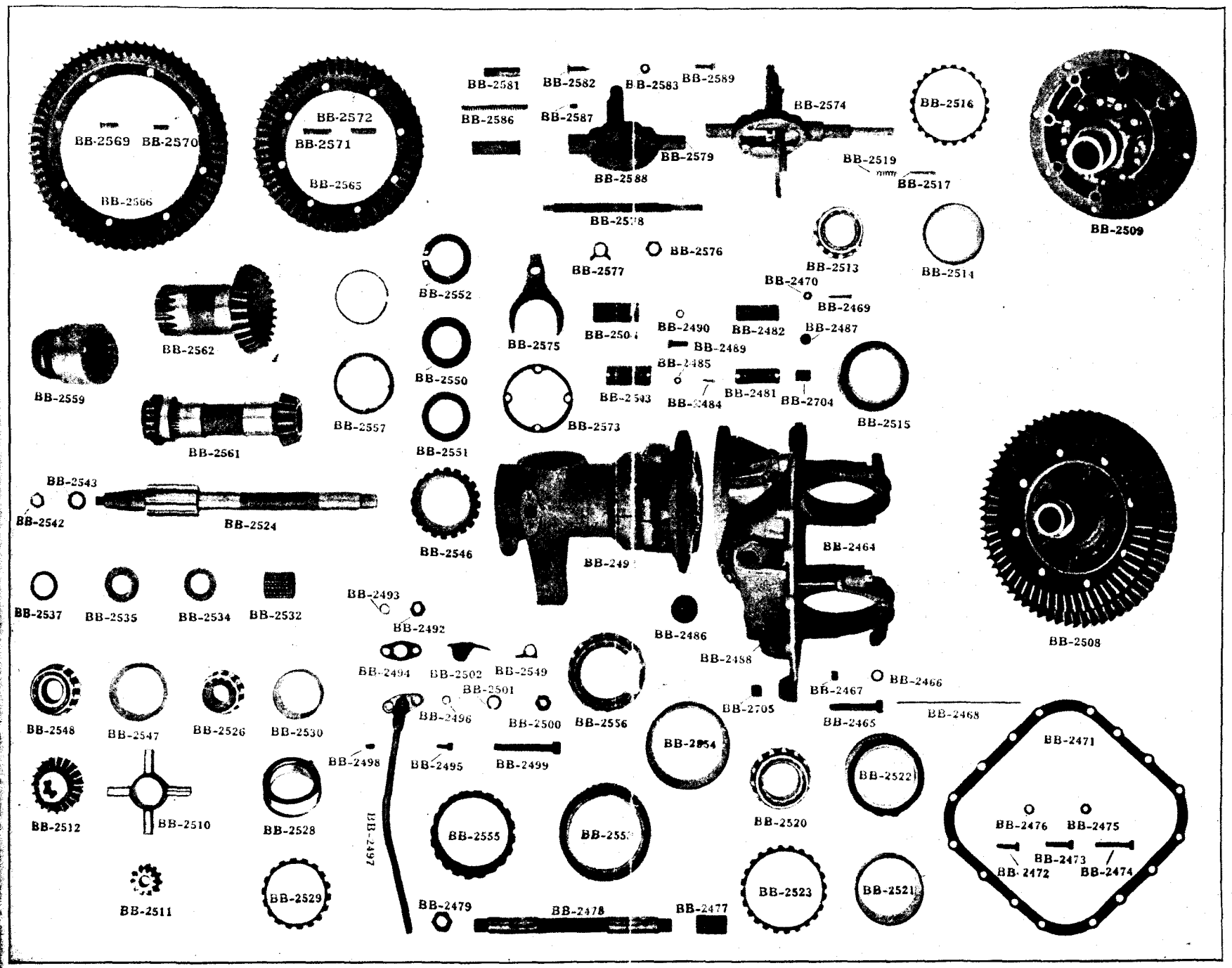
REAR AXLE HOUSING AND PARTS

CODE WORD				
BADES	BB-2498	Plug for oil pipe elbow on differential carrier extension.....	.05	X-361
DADES	BB-2499	Binding bolt for differential carrier extension, front and rear end.....	.30	X-575
KADES	BB-2500	Nut for binding bolt for differential carrier extension, front and rear end	.05	X-518
MADES	BB-2501	Lock washer for binding bolt for differential carrier extension, front and rear end.....per doz. .25—each	.05	X-533
SADES	BB-2502	Soft rubber oil retainer for high gear pinion bearing adjusting cup.....	.15	T-4515
ZADES	BB-2503	Cover with felt for hole for adjusting high gear pinion bearing on differential carrier extension.....	.20	T-4154
DEDES	BB-2504	Felt for adjusting hole cover.....	.05	T-4155
FEDES	BB-2505	Rivet for cover for felt.....per doz. .25—each	.05	X-334
LEDES	BB-2506	Screws for adjusting hole cover....	.05	X-432
MEDES	BB-2507	Lock washer for adjusting hole cover screws.....per doz. .25—each	.05	X-342
REDES	BB-2508	Differential complete with driving gears assembled, for rear axle.....	80.00	40016

NOTE:—When ordering above part, specify gear ratio of car on which it is to be applied.

DIDES	BB-2509	Gear mount (both halves) with cap screws and locking wire (not sold separately)	30.00	T-4173 T-4174
CIDES	BB-2509A	Cap screw for gear mount.....	.25	T-1635
LIDES	BB-2510	Spider for rear axle differential.....	5.00	T-1353
MIDES	BB-2511	Pinion for rear axle differential.....	2.50	T-1361
PIDES	BB-2512	Equalizing gear for rear axle differential	8.00	T-3259
SIDES	BB-2513	Roller bearing for RIGHT side of gear mount	5.70	456
ZIDES	BB-2514	Mounting for bearing on RIGHT side of gear mount.....	2.80	454
CODES	BB-2515	Adjusting nut with mounting, RIGHT, for gear mount bearing.....	4.50	T-3080 454
FODES	BB-2516	Locking ring for adjusting nut for gear mount bearing, RIGHT.....	1.25	T-3090
LODES	BB-2517	Pin for locking ring for gear mount bearing adjusting nut, RIGHT and LEFT	.10	T-2375
RODES	BB-2518	Cotter pin for locking ring for gear mount bearing adjusting nut.....per doz. .25—each	.05	X-467
ZODES	BB-2519	Spring for pin for gear mount bearing adjusting nut locking ring, RIGHT and LEFT.....	.05	T-2374
DUDES	BB-2520	Roller bearing for LEFT side of gear mount	7.85	559
KUDES	BB-2521	Mounting for bearing on LEFT side of gear mount.....	3.65	552
MUDES	BB-2522	Adjusting nut with mounting, LEFT, for gear mount bearing.....	5.65	T-4131 552
RUDES	BB-2523	Locking ring for adjusting nut for gear mount bearing, LEFT.....	1.50	T-3091
TUDES	BB-2524	Rear axle drive shaft, only.....	15.00	16200

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DIFFERENTIAL, CARRIER AND EXTENSION

CODE WORD				
BADEX	BB-2525	Rear axle drive shaft, only used with 4-1 gear	15.00	17072
DADEX	BB-2526	Bearing for pinion end of rear axle drive shaft	5.00	445
KADEX	BB-2527	Bearing for pinion end of rear axle drive shaft, 4-1 gear	5.00	446
MADEX	BB-2528	Adjusting nut with mounting for pinion end of rear axle drive shaft	4.00	T-4134 4320
RADEX	BB-2529	Ring for adjusting nut for pinion end of rear axle drive shaft	1.00	T-4135
TADEX	BB-2530	Mounting for bearing on pinion rear end of rear axle drive shaft	2.50	4320
BEDEX	BB-2531	Mounting for bearing on pinion rear end of rear axle drive shaft for 4-1 gears	2.50	4320
FEDEX	BB-2532	Bearing, Hyatt, on rear axle drive shaft, heavy duty rolls, forward and rear	2.50	16201
LEDEX	BB-2533	Bearing, Hyatt, on rear axle drive shaft for use with 4-1 gear, heavy duty rolls	2.50	17074
PEDEX	BB-2534	Thrust bearing complete for low gear pinion, rear	1.25	20116
SEDEX	BB-2535	Thrust bearing complete on rear axle drive shaft for low gear pinion, forward	1.00	20117
BIDEX	BB-2536	Thrust bearing complete on rear axle drive shaft for low gear pinion rear, used with 4-1 gear	1.00	20118
FIDEX	BB-2537	Washer on rear axle drive shaft for low gear pinion, forward (STANDARD)	.25	16209
MIDEX	BB-2538	Washer on rear axle drive shaft for for low gear pinion bearing, forward, for taking up lost motion in bearing (STANDARD plus .010).	.25	17442
TIDEX	BB-2539	Washer on rear axle drive shaft for for low gear pinion bearing, forward, for taking up lost motion in bearing, (STANDARD plus .020).	.25	17443
DODEX	BB-2540	Washer on rear axle drive shaft for low gear pinion forward, for taking up lost motion in bearing, (STANDARD plus .030)	.25	17444
MODEX	BB-2541	Washer on rear axle drive shaft for low gear pinion bearing, rear for use with 4-1 gear	.25	17075
SODEX	BB-2542	Castle nut for front end of rear axle drive shaft	.10	X-218
ZODEX	BB-2543	Washer for front end of rear axle drive shaft	.05	T-1203
CUDEX	BB-2544	Cotter pin for front end of rear axle drive shaft.....per doz. .25—each	.05	X-134
FUDEX	BB-2545	Key for front end of rear axle drive shaft	.05	8298
LUDEX	BB-2546	Adjusting nut with mounting for forward bearing on rear axle drive shaft	4.80	T-4132 4520
RUDEX	BB-2547	Mounting for bearing on front end of rear axle drive shaft	2.80	4520

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CODE WORD				
BADEZ	BB-2548	Bearing for front end of rear axle drive shaft	5.70	457
DADEZ	BB-2549	Locking key for adjusting nut for forward bearing on rear axle drive shaft	.05	T-4140
LADEZ	BB-2550	Dust felt for front end of rear axle drive shaft	.20	X-907
PADEZ	BB-2551	Retainer, inner, for dust felt, on front end of rear axle drive shaft	.10	T-4142
SADEZ	BB-2552	Retainer, outer, for dust felt, on front end of rear axle drive shaft	.10	T-4143
ZADEZ	BB-2553	Adjusting nut with mounting for high gear pinion rear bearing	7.80	T-4121 592
CEDEZ	BB-2554	Mounting for high gear pinion forward and rear bearing	4.80	592
FEDEZ	BB-2555	Adjusting ring for high gear pinion rear bearing	1.25	T-4122
LEDEZ	BB-2556	Roller bearing for high gear pinion forward and rear end	9.50	598
PEDEZ	BB-2557	Retaining and split ring for high gear pinion forward bearing	.55	T-4156 T-4157
ZEDEZ	BB-2559	Sliding clutch for high and low pinion with internal teeth	16.00	16211
CIDEZ	BB-2560	Sliding clutch for high and low pinion with internal teeth for 4-1 gear ratio	16.00	17396

NOTE:—When ordering driving gears or drive shaft pinions, the number of teeth and ratio on the gear and pinions must be stated, because the angle of the driving gear must correspond with the angle of the pinion.

ZIDEZ	BB-2561	Pinion for rear axle drive shaft, assembled with clutch with external teeth, retaining nut and locking wire, ratio 3.66 to 1, 15 teeth. Not sold separately	16.00	20322
KODEZ	BB-2562	Pinion for rear axle drive shaft (ratio 2.5 to 1) 26 teeth, used with 3.66 to 1 combination	16.00	16204
PODEZ	BB-2563	Pinion for rear axle drive shaft, 2.5 to 1, 26 teeth, used with 4 to 1 combination	16.00	17068
TODEZ	BB-2564	Pinion for rear axle drive shaft assembled with clutch with external teeth, retaining nut and locking wire, ratio 4.071 to 1, 14 teeth. Not sold separately	16.00	20321
FUDEZ	BB-2565	Driving gear on rear axle gear mount, ratio 3.66 to 1, 55 teeth, with 6 rivets X-843 and 2 dowels X-842	12.00	16203
LUDEZ	BB-2566	Driving gear on rear axle gear mount, ratio 2.5 to 1, 65 teeth. Used with 3.66 to 1 combination, with 6 rivets X-844 and 2 dowels X-841	12.00	16205
RUDEZ	BB-2567	Driving gear on rear axle gear mount, ratio 2.5 to 1, used with 4 to 1 combination, 65 teeth, with 6 rivets X-844 and 2 dowels X-841	12.00	17069

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CODE WORD				
BAFEF	BB-2568	Driving gear on rear axle gear mount, ratio 4.071 to 1, 57 teeth, with 6 rivets X-843 and 2 dowels X-842	12.00	17071
DAFEF	BB-2569	Rivet for high gear on rear axle gear mount, 6 per set....per set .25—each	.05	X-844
KAFEF	BB-2570	Dowel for high gear on rear axle gear mount, 2 used.....each	.05	X-841
MAFEF	BB-2571	Rivet for low gear on rear axle gear mount, 6 per set....per set .25—each	.05	X-843
RAFEF	BB-2572	Dowel for low gear on rear axle gear mount, 2 used	.05	X-842
TAFEF	BB-2573	Gasket for shifting shaft housing	.05	T-4463
ZAFEF	BB-2574	Shifting mechanism for rear axle, assembled with case, fork, spring, bushing and set screw, complete	10.00	40294
DEFEF	BB-2575	Shifting fork for sliding clutch	4.00	T-4126
FEFEF	BB-2576	Nut for shifting fork for sliding clutch	.05	X-823
LEFEF	BB-2577	Washer for sliding clutch shifting fork nut	.05	X-834
PEFEF	BB-2578	Shaft for shifting mechanism	1.00	T-4138
REFEF	BB-2579	Plug for sliding clutch shifting shaft rear bearing	.05	T-4161
BIFEF	BB-2581	Plunger for sliding clutch shifting shaft	.75	T-4163
DIFEF	BB-2582	Adjusting screw for plunger for sliding clutch shifting shaft, first type 1½" long	.10	T-4479
LIFEF	BB-2583	Nut, used with first type adjusting screw	.05	X-459
PIFEF	BB-2584	Adjusting screw for plunger for sliding clutch shifting shaft, 2nd type, ⅞" long	.10	T-4550
TIFEF	BB-2585	Lock washer for 2nd type adjusting screw.....per doz. .25—each	.05	X-532
BOFEF	BB-2586	Spring for plunger for sliding clutch shifting shaft	.15	17023
DOFEF	BB-2587	Guide screw for shifting shaft plunger for sliding clutch	.05	T-4165
KOFEF	BB-2588	Housing for sliding clutch shifting shaft with adjusting screw and bushing	4.00	40293
MOFEF	BB-2589	Screw for shifting shaft housing	.05	X-664
POFEF	BB-2590	Lock washer for shifting shaft housing screw	.05	X-529

REAR WHEEL

BUFEF	BB-2591A	Rear wheel, wood parts and felloe band only	16.00	30275
MUFEF	BB-2592	Kelsey Universal demountable spare rim only, with rings	5.60	B-465
RUFEF	BB-2593	Inside ring for Universal demountable spare rim	1.25	B-388

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CODE WORD				
BAHEF	BB-2594	Outside locking ring for Universal Demountable spare rim	1.25	B-475
DAHEF	BB-2595	Lock for outside locking ring for Universal Demountable spare rim	.15	1857
KAHEF	BB-2596	Clamping ring for holding Universal Demountable spare rim	.50	A-210
MAHEF	BB-2597	Bolt for Kelsey Universal Demountable spare rim	.15	1649
RAHEF	BB-2598	Nut and wedge assembled for Kelsey Universal demountable rim	.30	1554 1556 1703 1706
BEHEF	BB-2599	Leather washer for wedge for demountable rim	.05	11427
DEHEF	BB-2600	Pin for wedge for Kelsey Universal demountable rim	.05	1859
KEHEF	BB-2601	Inside flange with bearing mountings for rear wheel	12.00	W-875 3720
MEHEF	BB-2602	Outside flange for rear wheel	6.00	W-879
PEHEF	BB-2603	Bearing for rear wheel	4.35	375
REHEF	BB-2604	Mounting for bearing for rear wheel	2.00	3720
SEHEF	BB-2605	Bearing adjusting nut for rear wheel	.50	T-1576
TEHEF	BB-2606	Bearing adjusting washer for rear wheel	.20	T-1668
BIHEF	BB-2607	Dust felt for rear wheel inner bearing	.10	X-606
DIHEF	BB-2608	Inner retainer for dust felt for wheel	.10	T-2104
FIHEF	BB-2609	Outer retainer for dust felt for rear wheel inner bearing	.10	T-2105
LIHEF	BB-2610	Wire retainer for dust felt retainer	.10	T-693
MIHEF	BB-2611	Brake drum for rear wheel	6.00	R-1129
PIHEF	BB-2612	Cover, complete for peep hole in brake drum	.50	N-826
SIHEF	BB-2613	Cover only for peep hole in brake drum with finger	.25	R-1149 R-1147
ZIHEF	BB-2614	Lock bar for cover, assembled with bolt	.25	R-1146 R-1132
COHEF	BB-2615	Lock nut (large) for bolt	.05	X-544
DOHEF	BB-2616	Handle nut (small) for bolt	.05	X-340
FOHEF	BB-2617	Hub bolt for rear wheel	.10	X-791
KOHEF	BB-2618	Brake drum bolt for rear wheel	.10	X-649
LOHEF	BB-2619	Nut for hub and brake drum bolt	.05	X-394
MOHEF	BB-2620	Oiler for rear wheel hub	.30	X-630
POHEF	BB-2621	Hub cap for rear wheel	2.00	16474

EXTERNAL BRAKE BAND

FUHEF	BB-2624	External brake band, RIGHT, assembled with lining and end clips	7.20	40033
KUHEF	BB-2624A	External brake band, LEFT, assembled with lining and end clips	7.20	40035
LUHEF	BB-2625	End clip, upper, for external brake band	.30	R-1716
PUHEF	BB-2626	End clip, lower, for external brake band	.60	R-1718
SUHEF	BB-2627	Rivet for end clip on external brake band.....per doz. 25—each	.05	X-243

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CODE WORD				
BAKEF	BB-2628	Anchor for external brake band.....	.60	R-856
CAKEF	BB-2629	Rivet for anchor for external brake band.....per doz. .25—each	.05	X-487
FAKEF	BB-2630	Anchor bracket for external brake band	.90	R-1714
LAKEF	BB-2631	Pin for anchor bracket, for external brake band	.20	R-847
PAKEF	BB-2632	Nut for pin for anchor bracket..... .....per doz. .50—each	.05	X-443
SAKEF	BB-2633	Rivet for anchor bracket, for external brake band.per doz. .25—each	.05	X-243
ZAKEF	BB-2634	Adjusting stop screw in anchor bracket for external brake band.....	.15	R-651
CEKEF	BB-2635	Spring for pin, for anchor bracket for external brake band.....	.05	R-413
FEKEF	BB-2636	Cotter pin for adjusting stop screw, for external brake band..... .....per doz. .25—each	.05	X-209
MEKEF	BB-2637	Supporting bracket, RIGHT hand for external brake band.....	.50	R-692
REKEF	BB-2638	Supporting bracket, LEFT hand for external brake band.....	.50	R-691
TEKEF	BB-2639	Stud for supporting bracket for external brake band.....	.30	R-626
BIKEF	BB-2640	Rivet for supporting bracket for external brake band, 9/16" long..... .....per doz. .25—each	.05	X-404
FIKEF	BB-2641	Rivet for supporting bracket for external brake band, ½" long..... .....per doz. .25—each	.05	X-402
MIKEF	BB-2642	Nut for stud for supporting bracket for external brake band..... .....per doz. .50—each	.05	X-356
SIKEF	BB-2643	Lining with 28 rivets for external brake band, 2½x54".....	2.90	X-720 R-1018
ZIKEF	BB-2644	Rivet for lining for external brake band, 152.....per lb. .50—each	.05	X-720
COKEF	BB-2645	Eye bolt for external brake band....	1.00	R-678
DOKEF	BB-2646	Jam nut for eye bolt, for external brake band.....per doz. .50—each	.05	X-493
KOKEF	BB-2647	Stop nut for eye bolt, for external brake band	.05	R-675
MOKEF	BB-2648	Adjusting nut for eye bolt, for external brake band.....	.35	R-603
ROKEF	BB-2649	Lever, RIGHT side, on band to operate external brake band.....	1.50	R-640
TOKEF	BB-2650	Lever, LEFT side, on band to operate external brake band.....	1.50	R-639
BUKEF	BB-2651	Pin for lever on band to operate external brake band.....	.10	R-128
DUKEF	BB-2652	Cotter pin for pin for lever on band to operate external brake band.... .....per doz. .25—each	.05	X-114
LUKEF	BB-2653	Expanding spring for external brake band	.10	R-627
PUKEF	BB-2654	Washer for expanding spring for external brake band, upper..... .....per doz. .25—each	.05	R-628

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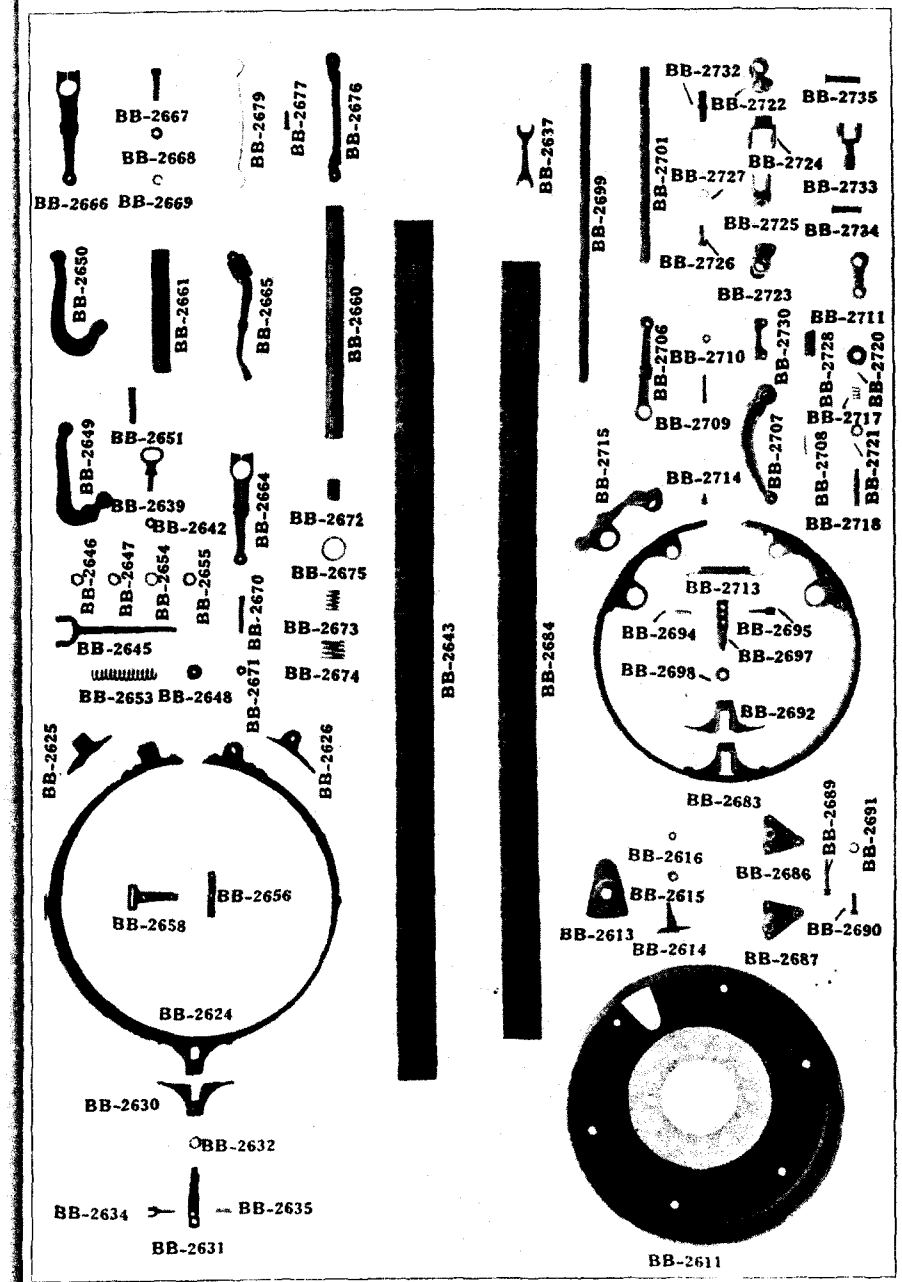
CODE WORD				
BALEF	BB-2655	Washer for expanding spring for external brake band, lower..... .....per doz. .25—each	.05	R-629
FALEF	BB-2656	Guide plate for steady bracket, for external brake band.....	.10	R-903
LALEF	BB-2657	Rivet for steady bracket for external brake band.....per doz. .25—each	.05	X-369
PALEF	BB-2658	Steady bracket for external brake band	.20	R-902
SALEF	BB-2659	Rivet for guide plate for steady bracket for external brake band..... .....per doz. .25—each	.05	X-402
BELEF	BB-2660	Rocker tube only, RIGHT, long, for external brake band, STANDARD TREAD	2.25	R-1824
FELEF	BB-2661	Rocker tube only, LEFT short, for external brake, STANDARD TREAD	1.75	R-1823
LELEF	BB-2662	Rocker tube, only, RIGHT, for external brake, WIDE TREAD.....	2.25	R-1890
PELEF	BB-2663	Rocker tube, only, LEFT, for external brake, WIDE TREAD.....	1.75	R-1891
SELEF	BB-2664	Inner arm for rocker tube, for external brake, RIGHT.....	1.00	R-1309
ZELEF	BB-2665	Inner arm for rocker tube, for external brake, LEFT.....	1.00	R-1869
CILEF	BB-2666	Outer arm for rocker tube for external brake	1.00	R-1310
FILEF	BB-2667	Clamp screw for arm for rocker tube, for external brake.....	.05	X-692
LILEF	BB-2668	Nut for clamp screw for rocker tube for external brake.....	.05	X-353
PILEF	BB-2669	Lock washer for clamp screw for rocker tube arm for external brake .....per doz. .25—each	.05	X-529
TILEF	BB-2670	Stop screw for arm for rocker tube..	.05	X-658
ZILEF	BB-2671	Check nut for stop screw for arm for rocker tube	.05	X-611
COLEF	BB-2672	Bushing in rocker tube for external brake shaft	.15	R-1037
FOLEF	BB-2673	Spacing spring for rocker tube, for external brake STANDARD TREAD, RIGHT	.05	R-738
MOLEF	BB-2674	Spacing spring for rocker tube, for external brake STANDARD TREAD, LEFT	.10	R-1874
SOLEF	BB-2675	Washer for rocker tube for external brake	.10	R-1875
ZOLEF	BB-2676	Link from rocker tube arm to operating lever, for external brake.....	.40	R-1038
CULEF	BB-2677	Pin for external brake lever link.....	.10	X-626
DULEF	BB-2678	Cotter pin for external brake lever link pin.....per doz. .25—each	.05	X-113
KULEF	BB-2679	Anti-rattling spring for external brake lever link	.10	R-1109
MULEF	BB-2680	Oil pipe for external brake rocker tube	.05	8140
PULEF	BB-2681	Cap for oil pipe for external brake rocker tube	.05	7367

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INTERNAL BRAKE BAND

CODE WORD				
DAMEF	BB-2683	Internal brake band, assembled, with lining, end clips and anchor bracket	6.50	40037
KAMEF	BB-2684	Lining with 23 rivets, for internal brake band, 2½x51"	2.60	X-720 R-1011
MAMEF	BB-2685	Rivet for internal brake band, 152.... .....per lb. .50—each	.05	X-720
RAMEF	BB-2686	Steady bracket for internal brake band, RIGHT hand upper, LEFT hand lower	.60	R-1143
ZAMEF	BB-2687	Steady bracket for internal brake band, LEFT hand upper, RIGHT hand lower	.60	R-1130
DEMEF	BB-2688	Rivet for steady bracket..... .....per doz. .25—each	.05	X-404
KEMEF	BB-2689	Adjusting stop screw for internal brake band	.20	R-1162
MEMEF	BB-2690	Locking screw for adjusting stop screw for internal brake band.....	.05	X-664
REMEF	BB-2691	Washer for locking screw, for adjusting stop screw.per doz. .25—each	.05	X-529
TEMEF	BB-2692	Anchor bracket for internal brake band	1.00	R-1712
BIMEF	BB-2693	Rivet for anchor bracket..... .....per doz. .25—each	.05	X-262
DIMEF	BB-2694	Spring for anchor bracket pin, for internal brake band.....	.05	R-413
KIMEF	BB-2695	Adjusting screw in anchor bracket...	.15	R-651
LIMEF	BB-2696	Cotter pin for adjusting screw..... .....per doz. .25—each	.05	X-209
PIMEF	BB-2697	Pin for anchor bracket for internal brake band	.20	R-832
SIMEF	BB-2698	Nut for anchor bracket pin.....	.05	X-443
TIMEF	BB-2699	Shaft for internal brake, RIGHT hand, STANDARD TREAD.....	2.75	R-1822
BOMEF	BB-2700	Shaft for internal brake, RIGHT hand, WIDE TREAD.....	2.75	R-1888
DOMEF	BB-2701	Shaft for internal brake, LEFT hand, STANDARD TREAD.....	1.75	R-1821
KOMEF	BB-2702	Shaft for internal brake, LEFT hand, WIDE TREAD.....	1.75	R-1889
MOMEF	BB-2703	Bushing in brake spider for shaft for internal brake	.15	R-1087
ROMEF	BB-2704	Bushing, in carrier for shaft for internal brake, RIGHT.....	.20	R-1387
TOMEF	BB-2705	Bushing, in carrier for shaft for internal brake, LEFT.....	.15	R-1873
BUMEF	BB-2706	Arm on outer end of brake shaft, RIGHT	1.00	R-499
DUMEF	BB-2707	Arm on outer end of brake shaft, LEFT	1.00	R-1871
KUMEF	BB-2708	Taper pin for operating lever, for internal brake band.....	.05	X-194
MUMEF	BB-2709	Stop screw for operating lever, for internal brake band.....	15	X-616
RUMEF	BB-2710	Nut for stop screw for operating lever, for internal brake band.....	.05	X-611

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EXTERNAL AND INTERNAL BRAKE BANDS

CODE WORD				
BAREF	BB-2711	Expansion lever for internal brake band	.50	R-131
DAREF	BB-2712	Taper pin for expansion lever for internal brake band	.05	X-194
KAREF	BB-2713	Contracting spring for internal brake band	.10	R-1168
MAREF	BB-2714	Stud for contracting spring, for internal brake band	.05	R-1091
RAREF	BB-2715	End clip for internal brake band	.75	R-1126
SAREF	BB-2716	Rivet for end clip, for internal brake band.....per doz. .25—each	.05	X-262
ZAREF	BB-2717	Spring for anti-rattler, for internal brake band	.05	R-1144
CEREF	BB-2718	Pin for anti-rattler, for internal brake	.05	R-1133
DEREF	BB-2719	Cotter pin for pin on anti-rattler for internal brake....per doz. .25—each	.05	X-467
KEREF	BB-2720	Washer, inner, for pin on anti-rattler for internal brake	.05	R-1145
MEREF	BB-2721	Washer, outer, for pin on anti-rattler, for internal brake	.05	R-628
REREF	BB-2722	Toggle bracket, outer, for toggle adjusting screw, RIGHT hand lower and LEFT hand upper	.75	R-1135
ZEREF	BB-2723	Toggle bracket, outer, for toggle adjusting screw, RIGHT hand upper and LEFT hand lower	.75	R-1134
DIREF	BB-2724	Toggle bracket, inner, wide fork, for toggle adjusting screw for internal brake band	.75	R-1137
LIREF	BB-2725	Toggle bracket, inner, narrow fork, for toggle adjusting screw, for internal brake band	.75	R-1136
RIREF	BB-2726	Clamping screw for toggle bracket, for internal brake band	.05	X-664
TIREF	BB-2727	Lock washer for clamping screw brake band	.05	X-529
BOREF	BB-2728	Pin for outer toggle bracket, for internal brake band	.15	X-666
DOREF	BB-2729	Cotter pin for pin for outer toggle bracket, for internal brake band.....per doz. .25—each	.05	X-134
LOREF	BB-2730	Stop lock to limit travel of toggles, on internal brake band	.15	R-1148
POREF	BB-2731	Rivet for stop lock to limit travel of toggles on internal brake band.....per doz. .25—each	.05	X-402
TOREF	BB-2732	Adjusting screw for toggle, for internal brake band	.25	R-1141
BUREF	BB-2733	Link for toggle, for internal brake band	.60	R-1140
DUREF	BB-2734	Pin, upper for link for toggle for internal brake band	.10	R-132
KUREF	BB-2735	Pin, lower for link for toggle for internal brake band	.15	X-665
MUREF	BB-2736	Cotter pin for toggle link pin for internal brake band.per doz. .25—each	.05	X-114

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TOP PARTS

CODE WORD				
BASEF	BB-2737	"Halo" top complete, with dust hood, side curtains, top rest irons, and all attachments, touring	90.00	45087
FASEF	BB-2738	"Halo" top complete, with dust hood, side curtains, top rest irons, and all attachments, seven-passenger	90.00	45088
MASEF	BB-2739	"Halo" top complete, with dust hood, side curtains, top rest irons, and all attachments, roadster	60.00	45089
SASEF	BB-2740	"Halo" top complete, with dust hood, side curtains, top rest irons, and all attachments, phaeton	85.00	45090
BESEF	BB-2741	Dust hood only, for top, touring	13.00	45091
CESEF	BB-2742	Dust hood only, for top, seven-passenger	13.00	45092
FESEF	BB-2743	Dust hood only, for top, phaeton	13.00	45093
KESEF	BB-2744	Dust hood only, for top, roadster	10.00	45094
LESEF	BB-2745	Complete set of side curtains, with straps, brackets and fasteners, touring	24.00	45095
RESEF	BB-2746	Complete set of side curtains, with straps, brackets and fasteners, seven-passenger	24.00	45096
ZESEF	BB-2747	Complete set of side curtains, with straps, brackets and fasteners, phaeton	24.00	45097
DISEF	BB-2748	Complete set of side curtains, with straps, brackets and fasteners, roadster	15.00	45098
LISEF	BB-2749	Front side curtain, RIGHT, touring	4.00	45099
MISEF	BB-2750	Front side curtain, RIGHT, seven-passenger	4.00	45100
RISEF	BB-2751	Front side curtain, RIGHT, phaeton	4.00	45101
SISEF	BB-2752	Front side curtain, LEFT, touring	4.00	45102
TISEF	BB-2753	Front side curtain, LEFT, seven-passenger	4.00	45103
BOSEF	BB-2754	Front side curtain, LEFT, phaeton	4.00	45104
COSEF	BB-2755	Front side curtain, RIGHT, roadster	4.00	45106
DOSEF	BB-2756	Front side curtain, LEFT, roadster	4.00	45107
FOSEF	BB-2757	Center side curtain, RIGHT, touring	4.00	45108
KOSEF	BB-2758	Center side curtain, RIGHT, seven-passenger	4.00	45109
MOSEF	BB-2759	Center side curtain, RIGHT, phaeton	4.00	45110
POSEF	BB-2760	Center side curtain, LEFT, touring	4.00	45111
ROSEF	BB-2761	Center side curtain, LEFT, seven-passenger	4.00	45112
TOSEF	BB-2762	Center side curtain, LEFT, phaeton	4.00	45113
ZOSEF	BB-2763	Rear side curtain, RIGHT, touring	4.00	45114
BUSEF	BB-2764	Rear side curtain, RIGHT, seven-passenger	4.00	45115
DUSEF	BB-2765	Rear side curtain, RIGHT, phaeton	4.00	45116
FUSEF	BB-2766	Rear side curtain, LEFT, touring	4.00	45117
KUSEF	BB-2767	Rear side curtain, LEFT, seven-passenger	4.00	45118
MUSEF	BB-2768	Rear side curtain, LEFT, phaeton	4.00	45119
PUSEF	BB-2769	Rear side curtain, RIGHT, roadster	3.50	45120
RUSEF	BB-2770	Rear side curtain, LEFT, roadster	3.50	45121
SUSEF	BB-2771	Top deck with side quarters for touring	28.00	45122

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CODE WORD				
BATEF	BB-2772	Top deck with side quarters for seven-passenger	28.00	45123
DATEF	BB-2773	Top deck with side quarters for phaeton	26.00	45124
KATEF	BB-2774	Top deck with side quarters, roadster	16.00	45125
LATEF	BB-2775	Side quarter only, RIGHT, touring	5.00	45126
MATEF	BB-2776	Side quarter only, RIGHT, seven-passenger	5.00	45127
RATEF	BB-2777	Side quarter only, LEFT, touring	5.00	45128
SATEF	BB-2778	Side quarter only, LEFT, seven-passenger	5.00	45129
ZATEF	BB-2779	Side quarter only, RIGHT, phaeton	5.00	45130
BETEF	BB-2780	Side quarter only, LEFT, phaeton	5.00	45131
CETEF	BB-2781	Side quarter only, RIGHT, roadster	3.00	45132
DETEF	BB-2782	Side quarter only, LEFT, roadster	3.00	45133
FETEF	BB-2783	Back stay, RIGHT, touring	4.00	45134
KETEF	BB-2784	Back stay, RIGHT, seven-passenger	4.00	45135
LETEF	BB-2785	Back stay, RIGHT, phaeton	4.00	45136
METEF	BB-2786	Back stay, RIGHT, roadster	3.75	45137
PETEF	BB-2787	Black stay, LEFT, touring	4.00	45138
RETEF	BB-2788	Back stay, LEFT, seven-passenger	4.00	45139
SETEF	BB-2789	Back stay, LEFT, phaeton	4.00	45140
TETEF	BB-2790	Back stay, LEFT, roadster	3.75	45105
ZETEF	BB-2791	Oval head screw for fastening back stay to anchor bracket on body	.05	14212
CITEF	BB-2792	Felt washer for screw 14212	.05	3983
DITEF	BB-2793	Back curtain, complete, touring	5.00	45141
FITEF	BB-2794	Back curtain, complete, seven-passenger	5.00	45142
LITEF	BB-2795	Back curtain, complete, phaeton	4.50	45143
MITEF	BB-2796	Back curtain, complete, roadster	4.50	45144
PITEF	BB-2797	Strap for back curtain, all open cars.	.10	13598
RITEF	BB-2798	Center strainer for bows, touring	.75	45145
SITEF	BB-2799	Center strainer for bows, seven-passenger	.75	45146
ZITEF	BB-2800	Center strainer for bows, phaeton	.75	45147
BOTEF	BB-2801	Strainer for bows, roadster	.50	45148
COTEF	BB-2802	Wire bracket with screws on bow No. 2 for curtains, all cars (2 used) ....each	.10	17186
KOTEF	BB-2803	Wire bracket with screws on bow No. 3 for curtains, all cars except roadster (2 used)	.10	17187
POTEF	BB-2804	Wire bracket with screws for rear bow for side curtains, all cars (2 used)	.10	17188
TOTEF	BB-2805	Bow, front or rear, only touring and seven-passenger	.50	16544
BUTEF	BB-2806	Bow, front or rear, only phaeton	.50	17052
CUTEF	BB-2807	Bow, front or rear, only roadster	.50	8889
DUTEF	BB-2808	Bow, center, for roadster	.40	14131
FUTEF	BB-2809	Bow, center, only (2 used), touring and seven-passenger	.50	16543
LUTEF	BB-2810	Bow, center, only (2 used), phaeton	.50	17051
MUTEF	BB-2811	Complete set of bow sockets (front and rear) assembled RIGHT side for all open cars except roadster	3.50	16776

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BAZEF	BB-2812	Complete set of bow sockets, assembled, LEFT side, all open cars except roadster	3.50	16777
CAZEF	BB-2812A	Bow socket No. 1, RIGHT, front, with separator, all open cars except roadster	1.00	16776A
DAZEF	BB-2812B	Bow socket No. 2, RIGHT, with brackets and separators, all open cars except roadster	1.00	16776B
FAZEF	BB-2812C	Bow socket No. 3 and 4, rear, RIGHT, with separators, all open cars except roadster	1.50	16776C
LAZEF	BB-2813A	Bow socket No. 1, LEFT, front, with separator, all open cars except roadster	1.00	16777A
MAZEF	BB-2813B	Bow socket No. 2, LEFT, with brackets and separators, all open cars except roadster	1.00	16777B
RAZEF	BB-2813C	Bow socket No. 3 and 4, rear, LEFT, with separators, all open cars except roadster	1.50	16777C
BEZEF	BB-2814A	Bow socket No. 1, RIGHT, front, with separator, roadster	1.00	17182A
CEZEF	BB-2814B	Bow socket No. 2 and 3, RIGHT, rear, with bracket and separators, roadster	1.50	17182B
DEZEF	BB-2814C	Bow socket No. 1, LEFT, front, with separators, roadster	1.00	17183A
FEZEF	BB-2814D	Bow sockets No. 2 and 3, LEFT, rear, with bracket and separators, roadster	1.50	17183B
LEZEF	BB-2815	Complete set of bow sockets, RIGHT side for roadster top	3.00	17182
PEZEF	BB-2816	Complete set of bow sockets, LEFT side, for roadster top	3.00	17183
SEZEF	BB-2817	Wing lock nut for bow socket	.20	14335
TEZEF	BB-2818	Large black thumb nut for rear bow socket	.10	8666
BIZEF	BB-2819	Lock clip for thumb nut for rear bow socket	.10	8667
DIZEF	BB-2820	Top strap complete, touring, seven-passenger, phaeton	.75	16826
KIZEF	BB-2821	Top strap, roadster	.75	17224
LIZEF	BB-2822	Loop and strap on front bow for top strap	.25	17120

BODY IRONS FOR TOP

BOZEF	BB-2823	Body iron, front, RIGHT, for top irons, touring and seven-passenger	$ 1.00	16883
DOZEF	BB-2824	Body iron, front, LEFT, for top irons, touring and seven-passenger	1.00	16884
KOZEF	BB-2825	Body iron, center, RIGHT and LEFT, for top irons, touring	1.00	16885
MOZEF	BB-2826	Body iron, rear, RIGHT, for top irons, touring and seven-passenger	1.00	16881
ROZEF	BB-2827	Body iron, rear, LEFT, for top iron, touring and seven-passenger	1.00	16882
TOZEF	BB-2828	Body iron center, RIGHT and LEFT, for top iron, seven-passenger	1.00	16943
BUZEF	BB-2829	Body iron front, RIGHT, for top iron, phaeton	1.00	17059
DUZEF	BB-2830	Body iron front, LEFT, for top iron, phaeton	1.00	17060
KUZEF	BB-2831	Body iron, center, for top irons, phaeton, RIGHT or LEFT	1.00	17061
MUZEF	BB-2832	Body iron, rear, RIGHT, for top iron, phaeton	1.00	17062
RUZEF	BB-2833	Body iron, rear, LEFT, for top iron, phaeton	1.00	17063

CODE WORD				
BAFEK	BB-2834	Body iron, front, for top irons, roadster	1.00	14345
DAFEK	BB-2835	Body iron, rear, LEFT, for top irons, roadster	1.00	17322
KAFEK	BB-2836	Body iron, rear, RIGHT, for top irons, roadster	1.00	17321

PROP SUPPORT FOR TOP

MAFEK	BB-2837	Top rest iron, RIGHT, complete, touring and seven-passenger	1.60	16740
RAFEK	BB-2838	Top rest iron, LEFT, complete, touring and seven-passenger	1.60	16741
TAFEK	BB-2839	Top rest iron, RIGHT, complete, phaeton	1.60	16742
BEFEK	BB-2840	Top rest iron, LEFT, complete, phaeton	1.60	16743
DEFEK	BB-2841	Top rest iron, RIGHT, complete, roadster	1.60	16744
CEFEK	BB-2841A	Drop iron only, for top rest, roadster, short	.25	101S
KEFEK	BB-2842	Top rest iron, LEFT, complete, roadster	1.60	16745
LEFEK	BB-2842A	Drop iron only, for top rest, phaeton, medium	.25	101M
MEFEK	BB-2843	Drop iron, only for top rest, long	.25	101L
PEFEK	BB-2844	Hex. nut for fastening drop iron to car	.05	801
SEFEK	BB-2845	Conical split washer for top rest iron	.15	901
TEFEK	BB-2846	Clamping bar with upper shoe and leather pad, for top rest iron	.50	201 402 1301
CIFEK	BB-2847	Lower shoe with leather pad and set screw for top rest iron, RIGHT	.40	302 1001 1201
KIFEK	BB-2848	Lower shoe with leather pad and set screw for top rest iron, LEFT	.40	303 1001 1201
PIFEK	BB-2849	Set screw for lower shoe	.05	1001
RIFEK	BB-2850	Ball plunger for top rest iron	.05	1401
SIFEK	BB-2851	Spring for ball plunger for top rest iron	.05	1501
ZIFEK	BB-2852	Wing nut for adjusting clamping bar for top rest iron	.15	602
COFEK	BB-2853	Hex. nut for locking clamping bar	.05	1101
DOFEK	BB-2854	Lock washer for hex. nut for clamping bar	.05	1102
KOFEK	BB-2855	Anchor bracket, either side, for top back stay	.50	13501

WINDSHIELD FOR TOURING, SEVEN PASSENGER AND PHAETON

NOTE:—When ordering windshield parts specify whether for black enamel or nickel shield.

KUFEK	BB-2856	Windshield complete, for touring, seven-passenger, black enamel	$30.00	16495
MUFEK	BB-2857	Windshield complete, for touring, seven-passenger, nickel	35.00	16495
RUFEK	BB-2858	Windshield complete, for phaeton, black enamel	30.00	16496

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CODE WORD				
BAFEL	BB-2859	Windshield complete, for phaeton, nickel	35.00	16496
DAFEL	BB-2860	Main support for windshield on all open cars, RIGHT, except roadster	3.00	16551
KAFEL	BB-2861	Main support for windshield on all open cars, LEFT, except roadster	3.00	16552
MAFEL	BB-2862	Arm between upper and lower frames, RIGHT, all open cars except roadster	2.00	16553
SAFEL	BB-2863	Arm between upper and lower frames, LEFT, all open cars except roadster	2.00	16554
BEFEL	BB-2864	Frame for glass, for windshield for touring and seven-passenger, upper	5.00	16555
DEFEL	BB-2865	Frame for glass, for windshield for touring and seven-passenger, lower	5.00	16556
KEFEL	BB-2866	Frame complete with glass upper, for touring car and seven-passenger	10.00	40233
MEFEL	BB-2867	Frame complete with glass, lower, for touring car and seven-passenger	10.00	40232
REFEL	BB-2868	Frame for glass, for windshield for phaeton, upper	5.00	17469
TEFEL	BB-2869	Frame for glass, for windshield for phaeton, lower	5.00	17470
BIFEL	BB-2870	Frame complete with glass for phaeton, upper	10.00	40231
DIFEL	BB-2871	Frame complete with glass for phaeton, lower	10.00	40230
KIFEL	BB-2872	Glass for windshield, upper and lower, for touring and seven-passenger, 10″ x 40″	5.00	16557
PIFEL	BB-2873	Glass for windshield, upper and lower, for phaeton, 10″ x 38″ long	5.00	17471
SIFEL	BB-2874	Cone for upper and lower joints (loose), all cars except roadster	.60	16558
ZIFEL	BB-2875	Cone for center joint (loose), all open cars except roadster	.60	16561
COFEL	BB-2876	Wing nut for upper and lower joints, all open cars except roadster	.40 .10	16564 16562
DOFEL	BB-2876A	Stud in upper and lower joints		
FOFEL	BB-2877	Wing nut for center joints, all open cars except roadster	.50 .10	16565 16563
KOFEL	BB-2877A	Stud for center joint		
LOFEL	BB-2878	Cap for frame end on windshield, all open cars except roadster	.25	16569
POFEL	BB-2879	Machine screw for cap .....per doz. .25—each	.05	11553
SOFEL	BB-2880	Set screw, LEFT hand, in center of wing nuts, all open cars except roadster	.10	11552
BUFEL	BB-2881	Washer for wing nuts on windshield joints, all open cars except roadster	.05	11428
DUFEL	BB-2882	Lock washer on windshield cone, all open cars except roadster	.05	11338
KUFEL	BB-2883	Nut on lower supports to fasten windshield to body, all open cars except roadster	.10	6773
PUFEL	BB-2884	Lock washer on lower supports, all open cars except roadster .....per doz. .25—each	.05	11320

Order Parts by serial part number and name in full.
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CODE WORD				
BAFEM	BB-2885	Rubber moulding between windshield and cowl, touring car and seven-passenger	1.00	16571
FAFEM	BB-2886	Rubber moulding between windshield and cowl, phaeton and roadster	1.00	17180
LAFEM	BB-2887	Reinforcement to fasten rubber moulding to body, touring and seven-passenger	.25	16746
RAFEM	BB-2888	Reinforcement to fasten rubber moulding to body, phaeton and roadster	.25	17181
TAFEM	BB-2889	Screw to fasten reinforcement to body.....per doz. .25—each	.05	11574
BEFEM	BB-2890	Screw to fasten reinforcement under windshield.....per doz. .25—each	.05	11571
DEFEM	BB-2891	Hexagon nut for screw for reinforcement.....per doz. .25—each	.05	10885
KEFEM	BB-2892	Lock washer for screw to fasten reinforcement to cowl.....per doz. .25—each	.05	11313
PEFEM	BB-2893	Handle on lower frame, all open cars	.10	647-S
REFEM	BB-2894	Telescoping screw for handle, all open cars	.05	867-S
TEFEM	BB-2895	Telescoping nipple for all open cars	.05	868-S
ZEFEM	BB-2895A	Set screw, R. H. thread in center of wing nut	.10	19239

ROADSTER WINDSHIELD

NOTE:—When ordering windshield parts specify whether for black enamel or nickel shield.

PIFEM	BB-2896	Roadster windshield, complete, assembled, black enamel	$35.00	16497
SIFEM	BB-2897	Roadster windshield, complete, assembled, nickel	40.00	16497
ZIFEM	BB-2898	Windshield frame complete with glass, hinge brackets and handle, less side arm	20.00	40228
DOFEM	BB-2899	Windshield frame only, less hinge and brackets	10.00	40227
KOFEM	BB-2900	Windshield side and upper channel only, with wood	5.00	6616
MOFEM	BB-2901	Windshield, lower channel only, with wood	2.00	6616½
ROFEM	BB-2902	Windshield frame corners, RIGHT, with screws	1.50	874-R
TOFEM	BB-2903	Windshield frame corners, LEFT, with screws	1.50	874-L
BUFEM	BB-2904	Glass only for windshield, 16" x 36"	6.00	6615
CUFEM	BB-2905	Rubber filler for windshield glass in frame.....per foot	.10	6613
FUFEM	BB-2906	Wood filler strip for windshield glass in frame.....per foot	.05	45149
LUFEM	BB-2907	Hinge bracket on frame for windshield support arm with screws to attach bracket to frame (3 per bracket)	3.00	873
SUFEM	BB-2908	Oval head machine screw to attach support arm to hinge bracket	.50	755

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CODE WORD				
BAFEP	BB-2909	Handle for windshield frame	.30	111
CAFEP	BB-2910	Screw for handle for windshield frame.....per doz. .25—each	.05	45150
ZAFEP	BB-2913	Support arm only, RIGHT	5.00	6794 / 6548
CEFEP	BB-2914	Support arm only, LEFT	5.00	6829 / 6550
FEFEP	BB-2915	Winged head clamping screw for support arm, RIGHT or LEFT	.50	737-S
LEFEP	BB-2916	Clamping ring for upper end of support arm, RIGHT or LEFT	.30	6620
REFEP	BB-2917	Anchor stud for support arm, RIGHT	2.00	6820 / -½RH
ZEFEP	BB-2918	Anchor stud for support arm, LEFT	2.00	6820LH
BIFEP	BB-2919	Hexagon nut for anchor stud	.10	6618
CIFEP	BB-2920	Lock washer for anchor stud.....per doz. .25—each	.05	6617
FIFEP	BB-2921	Hinge plate on support arm for anchor stud, RIGHT	.70	6549
LIFEP	BB-2922	Hinge plate on support arm for anchor stud, LEFT	.70	6551
PIFEP	BB-2923	Screw to attach hinge plate to side arm, RIGHT or LEFT	.05	45151
SIFEP	BB-2924	Winged head clamping screw for anchor stud, RIGHT or LEFT	.50	737-L
ZIFEP	BB-2925	Clamping ring in anchor stud for support arm, RIGHT or LEFT	.50	6621
COFEP	BB-2926	Stud for top strap on support arm, RIGHT or LEFT	.25	6619
FOFEP	BB-2927	Large oval head machine screw to attach hinge plate to anchor stud, RIGHT or LEFT	.40	755½
MOFEP	BB-2928	Rubber moulding between windshield and cowl	1.00	17180
ROFEP	BB-2929	Reinforcement to fasten rubber moulding to body	.25	17181
TOFEP	BB-2930	Screw to fasten reinforcement to body.....per doz. .25—each	.05	11574
BUFEP	BB-2931	Screw to fasten reinforcement under shield.....per doz. .25—each	.05	11571
DUFEP	BB-2932	Lock washer for reinforcement screw.....per doz. .25—each	.05	11313
KUFEP	BB-2933	Hexagon nut for reinforcement screw.....per doz. .25—each	.05	10885

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CADILLAC POWER TIRE PUMP

NOTE:—In ordering power pump parts, specify whether for use on Cadillac or Manzel pump. The Cadillac pump has three cylinders, the oil trap connected to the other two by means of a copper pipe. Manzel pump has two cylinders and their name plate on pump body. Parts and prices of Manzel pump may be had upon application.

CODE WORD				
TAFER	BB 2934	Air pump complete, less attachments..	$25.00	16113
BEFER	BB-2935	Cylinders with gauze for tire pump...	4.00	20814
DEFER	BB-2936	Gauze for cylinder.....	.10	16603
FEFER	BB-2937	Body for air Pressure valve, specify motor No.	.15	17534
LEFER	BB-2938	Cap for air pressure valve, specify motor No.	.20	17533
PEFER	BB-2939	Adjusting screw for air pressure....	.05	16593
REFER	BB-2940	Spring for relief valve.....	.05	16594
SEFER	BB-2941	Ball for relief valve 7/32".....	.05	17455
TEFER	BB-2942	Cap for cylinder, rear.....	.10	16597
ZEFER	BB-2943	Spring for check valve.....	.05	16595
BIFER	BB-2944	Ball ¼" for check valve.....	.05	H-75
CIFER	BB-2945	Nipple for cylinder outlet.....	.15	16596
DIFER	BB-2946	Body for oil trap, with bearing.....	3.00	40282
KIFER	BB-2947	Bearing for crank shaft, front.....	.40	16589
LIFER	BB-2948	Gasket for oil trap body..... .....per doz. .10—each	.05	16832
PIFER	BB-2949	Nipple for oil trap, outlet.....	.10	16598
RIFER	BB-2950	Nipple and tube for oil trap, inlet....	.60	20657
SIFER	BB-2951	Valve for shut off for oil trap body.	.10	17178
TIFER	BB-2952	Nut for cut off valve.per doz. .25—each	.05	11678
ZIFER	BB-2953	Pipe for pump to oil trap with union nuts	.25	20655
DOFER	BB-2954	Crank case with bearing.....	4.00	40226
FOFER	BB-2955	Bearing for crank shaft, rear.....	.40	16590
KOFER	BB-2956	Oil cup for air pump crank case.....	.15	17008
TOFER	BB-2958	Piston with rings for air pump.....	1.00	40229
BUFER	BB-2959	Piston ring	.25	16586
CUFER	BB-2960	Piston pin	.20	16588
DUFER	BB-2961	Connecting rod for air pump with cap, cap screws and wire.....	1.50	20334
LUFER	BB-2962	Screw to attach cap to connecting rod	.05	10236
PUFER	BB-2963	Crank shaft for pump.....	2.50	16608
RUFER	BB-2964	Driven gear on crank shaft.....	1.00	13958
SUFER	BB-2965	Nut for end of crank shaft.....	.05	6999
TUFER	BB-2966	Lock washer for end of crank shaft .....per doz. .25—each	.05	11317

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CODE WORD				
KAFES	BB-2967	Screw to attach cylinder to crank case.....per doz. .25—each	.05	10560
DAFES	BB-2968	Lock washer for screws to attach cylinder to crank case..... .....per doz. .25—each	.05	11313
LAFES	BB-2969	Guard, assembled with brackets for air pump gear.....	.35 .60	16139 14798
PAFES	BB-2970	Shifter for air pump.....	.05	14973
RAFES	BB-2971	Spring for air pump shifter.....	.15	14971
SAFES	BB-2972	Shaft for air pump shifter extension..	.05	14972
TAFES	BB-2973	Washer on shaft for air pump shifter	.40	13953
ZAFES	BB-2974	Bushing for air pump shifting shaft.	.05	13966
BEFES	BB-2975	Screw for gear shifter.....	.05	11315
CEFES	BB-2976	Washer for screw for gear shifter .....per doz. .25—each	1.00	20143
FEFES	BB-2977	Shifting gear on shifter shaft.....	.05	13951
KEFES	BB-2978	Guide pin for shifter gear.....	.35	17054
LEFES	BB-2979	Grease cup on air pump shifter shaft	.05	12802
MEFES	BB-2980	Cap for nipple on tire pump.....		
PEFES	BB-2981	Gasket in cap for nipple on tire pump .....per doz. .25—each	.05	12804
SEFES	BB-2982	Woodruff key No. 5 for gear on crank shaft.....per doz. .25—each	.05	11355
ZEFES	BB-2983	Air hose and gauge, complete assembled with connections.....	4.00 1.50	17944 16969
CIFES	BB-2984	Hose for power tire pump, 15' long..		
DIFES	BB-2985	Gauge complete with tee, for power tire pump	2.00	16970
KIFES	BB-2986	Hose clamp, for air line on power pump	.05	16966
MIFES	BB-2987	Hose connection No. 46 complete with nut washer and nipple.....	.35	16964
RIFES	BB-2988	Hose connection only, for power tire pump	.10	16968
TIFES	BB-2989	Retaining nut for hose connection on power tire pump hose.....	.05	16963
BOFES	BB-2990	Fibre washer in hose connection..... .....per doz. .25—each	.05 .15	16967 16965
DOFES	BB-2991	Nipple for hose connection.....		
FOFES	BB-2992	Screw to attach air pump to water pump cover	.05	10023
LOFES	BB-2993	Lock washer for screw 10023..... .....per doz. .25—each	.05	11316
POFES	BB-2994	Taper pin to attach air pump to water pump cover.....per doz. .25—each	.05	15046

SUNDRY PARTS USED ON ALL CARS

CUFES	BB-2995	Electric horn complete.....	12.00	4K
FUFES	BB-2996	Push button switch on door for electric horn	1.25	36K
LUFES	BB-2997	Fibre spacer for horn push button switch	.05	16928

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CODE WORD				
BAFET	BB-2999	Bracket for electric horn	.75	16961
KAFET	BB-3000	Screw to fasten horn to bracket	.05	8733
LAFET	BB-3001	Lock washer for screw to hold horn to bracket.....per doz. .25—each	.05	11316
SAFET	BB-3003	Speedometer head, only	40.00	16443
TAFET	BB-3004	Speedometer head, special kilometer head for all foreign cars when ordered	40.00	16344
CEFET	BB-3005	Bulb for speedometer light 3.5 volts, 2 C. P.), on instrument board	.25	16679
FEFET	BB-3006	Connector with nut for speedometer light bulb	.30	16756
LEFET	BB-3007	Speedometer shaft, with tube only, assembled, all cars except coupe	7.00	16444
PEFET	BB-3008	Speedometer shaft, with tube only, assembled for coupe	7.00	17265
SEFET	BB-3009	Strap with pad for holding speedometer shaft, all open cars	.15	13706
ZEFET	BB-3010	Clamp which holds speedometer head to instrument board, all open cars	.15	16804
CIFET	BB-3011	Clamp which holds speedometer head to instrument board, all closed cars	.15	17264
FIFET	BB-3012	Screw to fasten speedometer clamp to instrument board.....per doz. .25—each	.05	11585
MIFET	BB-3013	Lock washer for screw for fastening speedometer clamp to instrument board.....per doz. .25—each	.05	8634
SIFET	BB-3014	Spring for speedometer head clamp	.05	17262
BOFET	BB-3016	Holder for oil can on front of dash	.25	12273
COFET	BB-3017	Bushing on cowl for windshield	1.00	16362
DOFET	BB-3018	Screw on instrument board when clock is installed..per doz. .25—each	.05	11580
KOFET	BB-3019	Nut for screw used on instrument board when clock is installed .....per doz. .25—each	.05	10892
POFET	BB-3020	Wood screw, nickel plated, oval head, with washer to fasten toe and floor boards to body No. 12—1½" long .....per doz. .50—each	.05	
ZOFET	BB-3021	Washer, nickel plated, French No. 12, for floor board screw .....per doz. .25—each	.05	6562

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CODE WORD —

SUNDRY PARTS FOR TOURING CAR

FAFEX	BB-3022	Cushion, RIGHT, front, touring, less hinge	$20.00	45152
LAFEX	BB-3023	Cushion, LEFT, front, touring	19.00	45153
MAFEX	BB-3024	Cushion, rear, with straps, touring	35.00	45154
PAFEX	BB-3025	Retainer with leather for LEFT front cushion	1.50	16512
SAFEX	BB-3026	Retainer with leather for rear cushion	1.75	16511
TAFEX	BB-3027	Leather cover for dash	.75	45155
ZAFEX	BB-3028	Leather cowl panel RIGHT	1.25	45156
BEFEX	BB-3029	Leather cowl panel, LEFT	1.25	45157
CEFEX	BB-3030	Seat board, front RIGHT, touring	.25	16867
DEFEX	BB-3031	Seat board, front LEFT, touring	.25	16868
FEFEX	BB-3032	Seat board, rear, hinged, touring	1.00	45197
KEFEX	BB-3033	Hinge for seat board	.10	14384
LEFEX	BB-3034	Leather protector, front, heel board, touring	.50	45158
PEFEX	BB-3035	Leather protector, rear on heel board	.50	45159
REFEX	BB-3036	Front door, RIGHT, complete with hinges, lock, handle, switches and wires, touring	21.00	45160
ZEFEX	BB-3037	Front door, LEFT, complete with hinges, lock and handle, touring	16.00	45161
CIFEX	BB-3038	Rear door, RIGHT, complete with hinges, lock and handle, touring	16.00	45162
FIFEX	BB-3039	Rear door, LEFT, complete with hinges, lock and handle, touring	16.00	45163
LIFEX	BB-3040	Concealed hinge complete, assembled all doors, upper or lower	2.00	12911
PIFEX	BB-3041	Lock complete, assembled, less handle for RIGHT door, front or rear, touring	1.60	13245
TIFEX	BB-3042	Lock complete, assembled, less handle for LEFT door, front or rear, touring	1.60	13246
COFEX	BB-3043	Handle for door lock, RIGHT front door, only	.40	13811
FOFEX	BB-3044	Handle for door lock, all except RIGHT front door	.40	8849
LOFEX	BB-3045	Nut for door lock handle, touring	.15	8822
MOFEX	BB-3046	Plate for door lock handle, touring	.25	8850
POFEX	BB-3047	Strike plate for door lock, touring	.25	13417
ROFEX	BB-3048	Retainer for rubber bumper for door, touring	.10	5117
TOFEX	BB-3049	Rubber bumper for door	.05	5118
ZOFEX	BB-3050	Guard for door sill with screws, front, touring	.50	16689
CUFEX	BB-3051	Guard for door sill with screws, rear, touring	.40	16688
FUFEX	BB-3052	Cover plate for controller levers on body sill	.30	17046
LUFEX	BB-3053	Leather protector on back of front seat	5.00	45164
PUFEX	BB-3054	Foot board complete, front half with mat and binding, touring	2.25	40241
SUFEX	BB-3055	Foot board only, front half, touring	1.00	16713

Order Parts by serial part number and name in full.
Give number of motor.
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CODE WORD				
BAFEZ	BB-3056	Mat for front half of foot board, touring	.75	16714
DAFEZ	BB-3057	Binding with screws for foot board, front half	.50	16649
KAFEZ	BB-3058	Foot board complete, rear half with mat and binding, touring	2.00	40242
MAFEZ	BB-3059	Foot board only, rear half, touring	1.00	16711
PAFEZ	BB-3060	Mat for rear half of foot board, touring	.65	16712
SAFEZ	BB-3061	Binding with screws for foot board, rear half	.35	16649
ZAFEZ	BB-3062	Toe board, upper half, complete with mat and binding, touring	1.50	40239
CEFEZ	BB-3063	Toe board, only, upper half, touring	.75	17390
DEFEZ	BB-3064	Mat for toe board, upper half, touring	.50	17391
KEFEZ	BB-3065	Binding for upper half toe board, complete with screws	.30	16650 16649
MEFEZ	BB-3066	Toe board, lower half, with mat and binding, touring	1.50	40240
REFEZ	BB-3067	Toe board, only, lower half, touring	.75	16715
SEFEZ	BB-3068	Mat for toe board, lower half, touring	.50	16716
TEFEZ	BB-3069	Binding with screws for toe board, lower half	.30	16325 16649
BIFEZ	BB-3070	Handle for foot board	.50	16652
CIFEZ	BB-3071	Garnish moulding with clips for RIGHT front door, touring	1.00	40235
FIFEZ	BB-3072	Garnish moulding with clips for LEFT front door, touring	1.00	40236
LIFEZ	BB-3073	Garnish moulding with clips for RIGHT rear door, touring	1.00	40237
PIFEZ	BB-3074	Garnish moulding with clips for LEFT rear door, touring	1.00	40238
SIFEZ	BB-3075	Clip to fasten moulding to door	.10	16779
TIFEZ	BB-3076	Round head wood screw, for clips No. 6—3/8" blue..per doz. .25—each	.05	
BOFEZ	BB-3077	Oval head wood screw for clip No. 5—5/8" nickel..per doz. .25—each	.05	
DOFEZ	BB-3078	Cocoa mat for rear floor	6.00	16731
FOFEZ	BB-3079	Floor board for rear of body, assembled	1.50	40243
LOFEZ	BB-3080	Hinge for floor board	.10	14384
MOFEZ	BB-3081	Robe rail complete, assembled	3.00	14685
POFEZ	BB-3082	Oval head screw to fasten robe rail to back of front seat, upper	.10	12475
SOFEZ	BB-3083	Screw to fasten robe rail to back of front seat, No. 20 1" long	.05	
ZOFEZ	BB-3084	Instrument board on cowl	10.00	16801
BUFEZ	BB-3085	Screw to fasten instrument board to cowl..per doz. .25—each	.05	11561
DUFEZ	BB-3086	Nut for screw for instrument board, touring..per doz. .25—each	.05	10889
KUFEZ	BB-3087	Screw to fasten instrument board to cowl (2 used)	.05	10850
MUFEZ	BB-3088	Lock washer for screw 11561..per doz. .25—each	.05	11314
RUFEZ	BB-3089	Hinge complete for RIGHT front seat	1.50	16120
TUFEZ	BB-3090	Bracket for sliding seat	.35	16504

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CODE FORD				
BAHEK	BB-3091	Bracket for sliding seat, front	.20	16505
CAHEK	BB-3092	Bracket for sliding seat, rear	.15	16506
DAHEK	BB-3093	Pin for hinge for sliding seat..per doz. .25—each	.05	16690
KAHEK	BB-3094	Sleeve for hinge for sliding seat	.15	16687
LAHEK	BB-3095	Stop for sliding seat	.05	16691
MAHEK	BB-3096	French washer used on screw for stop..per doz. .25—each	.05	6562
RAHEK	BB-3097	Link for sliding seat hinge	.20	12856
SAHEK	BB-3098	Rod for sliding seat hinge	.35	16686
TAHEK	BB-3099	Foot rail complete, nickel plated	3.00	16179

SUNDRY PARTS FOR SEVEN PASSENGER

KIHEK	BB-3106	Cushion, RIGHT, front, less hinge	20.00	40165
LIHEK	BB-3107	Cushion, LEFT, front	19.00	40166
MIHEK	BB-3108	Cushion, rear with straps	35.00	40167
PIHEK	BB-3109	Seat board, front, RIGHT	.25	16867
RIHEK	BB-3110	Seat board, front, LEFT	.25	16868
SIHEK	BB-3111	Seat board, rear seat, hinged	1.00	45197
TIHEK	BB-3112	Hinge for seat board on rear seat	.10	14384
ZIHEK	BB-3113	Leather cover for dash	.50	45158
BOHEK	BB-3114	Leather protector on heel board, front	.50	45168
COHEK	BB-3115	Leather protector on heel board, rear	.50	45169
DOHEK	BB-3116	Leather cowl panel, RIGHT	1.25	45170
FOHEK	BB-3117	Leather cowl panel, LEFT	1.25	45171
KOHEK	BB-3118	Retainer with leather for LEFT front cushion	1.50	16512
MOHEK	BB-3119	Retainer with leather for rear cushion	1.75	16511
POHEK	BB-3120	Front door, RIGHT, complete with hinges, lock, handle, switches and connections	21.00	45172
TOHEK	BB-3121	Front door, LEFT, complete, with hinges, lock and handle	16.00	45173
BUHEK	BB-3122	Rear door, RIGHT, complete, with hinges, lock and handle	16.00	45174
DUHEK	BB-3123	Rear door, LEFT, complete with hinges, lock and handle	16.00	45175
KUHEK	BB-3124	Hinge complete, assembled for all doors, upper and lower	2.00	12911
MUHEK	BB-3125	Lock complete, assembled less handle for RIGHT front and rear door	1.60	13245
RUHEK	BB-3126	Lock complete, assembled less handle for LEFT front and rear door	1.60	13246
TUHEK	BB-3127	Handle for front door, RIGHT	.40	13811

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CODE WORD				
BAHEL	BB-3128	Handle for all doors except front, RIGHT	.40	8849
DAHEL	BB-3129	Nut for door lock	.15	8822
FAHEL	BB-3130	Plate for door lock	.25	8850
KAHEL	BB-3131	Strike plate for door lock	.25	13417
LAHEL	BB-3132	Retainer for rubber bumper for door.	.10	5117
MAHEL	BB-3133	Rubber bumper for door	.05	5118
PAHEL	BB-3134	Guard for door sill with screws, front	.50	16689
RAHEL	BB-3135	Guard for door sill with screws, rear.	.40	16688
SAHEL	BB-3136	Cover plate for controller lever on door sill	.30	17046
ZAHEL	BB-3137	Bolt for side light to cowl corner	.75	16433
BEHEL	BB-3138	Front foot board, front half, complete with mat, handle and binding	2.25	40241
DEHEL	BB-3139	Foot board only, front half	1.00	16713
FEHEL	BB-3140	Mat for foot board, front half	.75	16714
KEHEL	BB-3141	Binding for foot board, front half	.50	16649
MEHEL	BB-3142	Front foot board, rear half, complete, with mat and binding	2.00	40242
REHEL	BB-3143	Foot board only, rear half	1.00	16711
SEHEL	BB-3144	Mat for foot board, rear half	.65	16712
TEHEL	BB-3145	Binding for foot board, rear half	.35	16649
BIHEL	BB-3146	Toe board, upper half, complete with mat and binding	1.50	40239
DIHEL	BB-3147	Toe board only, upper half	.75	17390
FIHEL	BB-3148	Mat for toe board, upper	.50	17391
KIHEL	BB-3149	Binding for upper toe board	.30	16649 16650
MIHEL	BB-3150	Toe board, lower half, complete, with mat and binding	1.50	40240
RIHEL	BB-3151	Toe board only, lower half	.75	16715
SIHEL	BB-3152	Mat for toe board, lower	.50	16716
TIHEL	BB-3153	Binding for toe board, lower half	.30	16649 16325
BOHEL	BB-3154	Handle for foot board	.50	16652
COHEL	BB-3155	Garnish moulding, with clips for top of RIGHT front door	1.00	40235
FOHEL	BB-3156	Garnish moulding with clips for top of LEFT front door	1.00	40236
LOHEL	BB-3157	Garnish moulding with clips for top of RIGHT rear door	1.00	40237
POHEL	BB-3158	Garnish moulding with clips for top of LEFT rear door	1.00	40238
SOHEL	BB-3159	Clip to fasten moulding to door	.10	16779
TOHEL	BB-3160	Round head wood screw for clip, No. 6—⅜" blue.....per doz. .25—each	.05	
BUHEL	BB-3161	Oval head wood screw for clip, No. 5, ⅝" nickel.....per doz. .25—each	.05	
DUHEL	BB-3162	Rear board, with hinges for rear floor	1.50	45215
FUHEL	BB-3163	Hinge for rear floor board	.10	14384
KUHEL	BB-3164	Cocoa mat for rear floor	8.00	16732
LUHEL	BB-3165	Robe rail, complete assembled	3.00	14685
MUHEL	BB-3166	Oval head screw, upper to fasten robe rail	.10	12475
RUHEL	BB-3167	Oval head wood screw No. 20 1" lower to fasten robe rail	.05	

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CODE WORD				
BAHEM	BB-3168	Leather protector, for back of front seat	5.00	45176
DAHEM	BB-3169	Instrument board for cowl	10.00	16801
FAHEM	BB-3170	Screw to fasten instrument board to cowl.....per doz. .25—each	.05	11561
LAHEM	BB-3171	Nut for screw for instrument board .....per doz. .25—each	.05	10889
PAHEM	BB-3172	Screw to fasten instrument board to cowl, 2 used	.05	10850
SAHEM	BB-3173	Lock washer for screw 11561..... .....per doz. .25—each	.05	11314
ZAHEM	BB-3174	Auxiliary chair, RIGHT, complete, assembled with support only	25.00	16149
CEHEM	BB-3175	Auxiliary chair, LEFT, complete, assembled with support only	25.00	16150
FEHEM	BB-3176	Bracket on side of body for support, for auxiliary chair, RIGHT	3.00	16849
LEHEM	BB-3177	Bracket on side of body for support, for auxiliary chair, LEFT	3.00	16850
PEHEM	BB-3178	Steel ball for auxiliary chair 5/16"	.05	3854
REHEM	BB-3179	Special headless cap screw for attaching support to bracket on body	.10	11252
TEHEM	BB-3180	Screw for knuckle joint ⅜", 16x1¾" .....per doz. .25—each	.05	11570
BIHEM	BB-3181	Lock washer for screw for knuckle joint.....per doz. .25—each	.05	11316
DIHEM	BB-3182	Support for auxiliary chair, RIGHT.	2.50	17151
FIHEM	BB-3183	Support for auxiliary chair, LEFT.	2.50	17152
KIHEM	BB-3184	Plate complete with strap and knuckle for auxiliary chair, RIGHT	4.50	40273
MIHEM	BB-3185	Plate complete with strap and knuckle for auxiliary chair, LEFT	4.50	40283
RIHEM	BB-3186	Seat complete with upholstery and all fixed brackets, less plate, RIGHT	10.00	45212
TIHEM	BB-3187	Seat complete with upholstery and all fixed brackets, less plate, LEFT	10.00	45213
BOHEM	BB-3188	Back for auxiliary seat only, with upholstery	8.00	16769
DOHEM	BB-3189	Screw to fasten hinge to seat frame, 5/16, 18x1½"....per doz. .25—each	.05	10856
KOHEM	BB-3190	Screw to fasten hinge to seat frame, 5/16, 18x1⅝"....per doz. .25—each	.05	10857
MOHEM	BB-3191	Screw to fasten back to seat..... .....per doz. .25—each	.05	11582
ROHEM	BB-3192	Lock washer for screw for seat back.. .....per doz. .25—each	.05	11316
TOHEM	BB-3193	Hinge complete for RIGHT front seat	1.50	16120
ZOHEM	BB-3194	Link for sliding seat hinge	.20	12856
BUHEM	BB-3195	Bracket for sliding seat	.35	16504
CUHEM	BB-3196	Bracket for sliding seat, front	.20	16505
DUHEM	BB-3197	Bracket for sliding seat, rear	.15	16506
FUHEM	BB-3198	Pin for sliding seat hinge..... .....per doz. .25—each	.05	16690
LUHEM	BB-3199	Rod for sliding seat	.35	16686
MUHEM	BB-3200	Sleeve for sliding seat	.15	16687
PUHEM	BB-3201	Stop for sliding seat	.05	16691
RUHEM	BB-3202	French washer on screw for stop	.05	6562
SUHEM	BB-3203	Foot rail complete, nickel plated	3.00	16180

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SUNDRY PARTS FOR PHAETON

CODE WORD				
KEHEP	BB-3210	Cushion, RIGHT, front, less hinge...	$20.00	45177
LEHEP	BB-3211	Cushion for LEFT front seat.....	19.00	45178
MEHEP	BB-3212	Cushion, rear, complete, phaeton.....	35.00	45179
PEHEP	BB-3213	Seat board, front, RIGHT, phaeton..	.25	17380
REHEP	BB-3214	Seat board, front, LEFT, phaeton...	.25	17381
SEHEP	BB-3215	Seat board, rear, hinged, phaeton.....	1.00	45197
TEHEP	BB-3216	Retainer with leather for LEFT front cushion	1.50	17302
BIHEP	BB-3217	Retainer with leather for rear cushion	1.50	17301
CIHEP	BB-3218	Leather heel panel front, phaeton....	.50	45180
DIHEP	BB-3219	Leather heel panel, rear, phaeton.....	.50	45181
FIHEP	BB-3220	Front door, RIGHT, complete with hinges, lock, handle, switches and wires, phaeton	21.00	45182
MIHEP	BB-3221	Front door, LEFT, complete with hinges, lock and handle, phaeton....	16.00	45183
RIHEP	BB-3222	Rear door, RIGHT, complete with hinges, lock and handle, phaeton...	16.00	45184
TIHEP	BB-3223	Rear door, LEFT, complete with hinges, lock and handle, phaeton...	16.00	45185
BOHEP	BB-3224	Hinge complete, assembled, all doors, upper and lower, phaeton.....	2.00	12911
DOHEP	BB-3225	Lock complete, assembled, less handle for RIGHT door, front and rear, phaeton	1.60	13245
LOHEP	BB-3226	Lock complete, assembled, less handle, for LEFT door, front or rear, phaeton	1.60	13246
ROHEP	BB-3227	Handle for door lock, RIGHT front door	.40	13811
TOHEP	BB-3228	Handle for door lock, all except RIGHT front door.....	.40	8849
BUHEP	BB-3229	Nut for door lock handle.....	.15	8822
CUHEP	BB-3230	Plate for door lock handle.....	.25	8850
DUHEP	BB-3231	Strike plate for door lock.....	.25	13417
FUHEP	BB-3232	Retainer for rubber bumper for door	.10	5117
KUHEP	BB-3233	Rubber bumper for door.....	.05	5118
LUHEP	BB-3234	Guard for door sill with screws, front, phaeton	.50	16689
PUHEP	BB-3235	Guard for door sill with screws, rear, phaeton	.40	16688

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CODE WORD				
BAHER	BB-3236	Leather cover for dash, phaeton.....	.75	45186
CAHER	BB-3237	Leather cowl panel, RIGHT.....	1.25	45187
DAHER	BB-3238	Leather cowl panel, LEFT.....	1.25	45188
FAHER	BB-3239	Foot board complete, front half, with mat and binding, phaeton.....	2.25	40241
LAHER	BB-3240	Foot board only, front half.....	1.00	16713
MAHER	BB-3241	Mat for foot board, front half.....	.75	16714
PAHER	BB-3242	Binding with screws, for foot board, front half	.50	16649
SAHER	BB-3243	Foot board, rear half, complete with mat and binding, phaeton.....	2.00	40242
ZAHER	BB-3244	Foot board only, rear half.....	1.00	16711
BEHER	BB-3245	Mat for foot board, rear half, phaeton	.65	16712
DEHER	BB-3246	Binding with screws for foot board, rear half	.35	16649
KEHER	BB-3247	Toe board, upper half, complete, with mat and binding, phaeton.....	1.50	40239
MEHER	BB-3248	Toe board only, upper half.....	.75	17390
PEHER	BB-3249	Mat for toe board, upper half, phaeton	.50	17391
SEHER	BB-3250	Binding for toe board, upper, complete with screws.....	.30	16649 16650
ZEHER	BB-3251	Toe board, lower half, with mat and binding, phaeton	1.50	40240
CIHER	BB-3252	Toe board, only, lower half.....	.75	16715
DIHER	BB-3253	Mat for toe board, lower half, phaeton	.50	16716
KIHER	BB-3254	Binding with screws for toe board, lower half	.30	16649 16325
MIHER	BB-3255	Handle for foot board.....	.50	16652
PIHER	BB-3256	Cover plate for controller lever on door sill	.30	17046
SIHER	BB-3257	Garnish moulding with clips for top of RIGHT front door, phaeton....	1.00	40253
ZIHER	BB-3258	Garnish moulding with clips for top of RIGHT and LEFT rear door, phaeton	1.00	40254
DOHER	BB-3259	Garnish moulding with clips for top of LEFT front door, phaeton.....	1.00	40255
KOHER	BB-3260	Clip to fasten moulding to door.....	.10	16779
LOHER	BB-3261	Round head wood screw for clip, No. 6—3/8" blue..per doz. .25—each	.05	
POHER	BB-3262	Oval head wood screw for clip, No. 5—5/8" nickel....per doz. .25—each	.05	
SOHER	BB-3263	Cocoa mat for rear floor, phaeton...	6.00	17026
TOHER	BB-3264	Rear floor board, complete, assembled with hinge	1.50	45216
BUHER	BB-3265	Hinge for rear floor and seat board..	.10	14384
CUHER	BB-3266	Robe rail complete, phaeton.....	3.00	14685
DUHER	BB-3267	Oval head screw, upper, to fasten robe rail	.10	12475
KUHER	BB-3268	Oval head screw, No. 20 1", lower, to fasten robe rail.....	.05	
MUHER	BB-3269	Leather protector with screws for back of front seat, phaeton.....	4.00	45189
RUHER	BB-3270	Instrument board on cowl, only, phaeton	10.00	17177

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CODE WORD				
BAHES	BB-3271	Screw to fasten instrument board to cowl.....per doz. .25—each	.05	11561
DAHES	BB-3272	Screw to fasten instrument board to cowl.....per doz. .25—each	.05	10850
KAHES	BB-3273	Nut for screw for instrument board.. .....per doz. .25—each	.05	10889
MAHES	BB-3274	Lock washer for screw 11561..... .....per doz. .25—each	.05	11314
RAHES	BB-3275	Bracket for sliding seat.....	.35	16504
SAHES	BB-3276	Bracket for sliding seat, front.....	.20	16505
TAHES	BB-3277	Bracket for sliding seat, rear.....	.15	16506
ZAHES	BB-3278	Pin for sliding seat hinge..... .....per doz. .25—each	.05	16690
CEHES	BB-3279	Rod for sliding seat hinge.....	.35	16686
DEHES	BB-3280	Sleeve for sliding seat.....	.15	16687
FEHES	BB-3281	Stop for sliding seat.....	.05	16691
KEHES	BB-3282	Washer, French, used on screw for stop.....per doz. .25—each	.05	6562
MEHES	BB-3283	Link for sliding seat hinge.....	.20	12856
PEHES	BB-3284	Foot rail complete, nickel plated.....	3.00	16181

SUNDRY PARTS FOR ROADSTER

CIHES	BB-3285	Cushion, RIGHT, front, less hinge...	$20.00	45190
DIHES	BB-3286	Cushion, LEFT, front.....	19.00	45191
FIHES	BB-3287	Retainer with leather, for cushion, LEFT, roadster	1.50	17303
LIHES	BB-3288	Seat board, RIGHT.....	.25	17299
MIHES	BB-3289	Seat board, LEFT.....	.25	17300
PIHES	BB-3290	Door, RIGHT, complete with hinges, lock, handle, switches and wires....	21.00	45192
SIHES	BB-3291	Door, LEFT, complete with hinges, lock and handle.....	16.00	45193
ZIHES	BB-3292	Concealed hinge complete, assembled, for door, upper or lower.....	2.00	12911
COHES	BB-3293	Lock complete, assembled, less handle, for RIGHT door.....	1.60	13245
FOHES	BB-3294	Lock complete, assembled, less handle, for LEFT door.....	1.60	13246
LOHES	BB-3295	Handle for door lock, RIGHT only..	.40	13811
MOHES	BB-3296	Handle for door lock, LEFT.....	.40	8849
POHES	BB-3297	Nut for door lock handle.....	.15	8822
ROHES	BB-3298	Plate for door lock handle.....	.25	8850
SOHES	BB-3299	Strike plate for door lock.....	.25	13417
TOHES	BB-3300	Retainer for rubber bumper for door	.10	5117
ZOHES	BB-3301	Rubber bumper for door.....	.05	5118
BUHES	BB-3302	Guard for door sills, with screws...	.50	16689
CUHES	BB-3303	Cover plate for control lever on body sill	.30	17046
FUHES	BB-3304	Leather cover for dash.....	.75	45194
KUHES	BB-3305	Leather cowl panel, RIGHT.....	1.25	45195
LUHES	BB-3306	Leather cowl panel, LEFT.....	1.25	45196
MUHES	BB-3307	Front half foot board, complete with mat and binding.....	2.25	40241
RUHES	BB-3308	Foot board, only, front half.....	1.00	16713

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CODE WORD				
BAHET	BB-3309	Mat for foot board, front half.....	.75	16714
CAHET	BB-3310	Binding with screws for foot board, front half	.50	16649
FAHET	BB-3311	Foot board, rear half, complete, with mat and binding.....	2.00	40263
LAHET	BB-3312	Foot board, only, rear half.....	1.00	17372
MAHET	BB-3313	Mat for foot board, rear half.....	.65	17371
PAHET	BB-3314	Binding with screws for foot board, rear half	.35	16649
SAHET	BB-3315	Toe board, upper half, complete with mat and binding.....	1.50	40258
ZAHET	BB-3316	Toe board only, upper half.....	.75	17392
BEHET	BB-3317	Mat for toe board, upper half.....	.50	17393
CEHET	BB-3318	Binding for toe board, upper half complete with screws.....	.30	16649 / 16650
FEHET	BB-3319	Toe board, lower half, complete with mat and binding.....	1.50	40240
LEHET	BB-3320	Toe board only, lower half.....	.75	16715
MEHET	BB-3321	Mat for toe board, lower half.....	.50	16716
PEHET	BB-3322	Binding for toe board, lower half complete with screws.....	.30	16325 / 16649
SEHET	BB-3323	Handle for foot board.....	.50	16652
TEHET	BB-3324	Instrument board only, for roadster.	10.00	17177
ZEHET	BB-3325	Screw to fasten instrument board to cowl.....per doz. .25—each	.05	11561
CIHET	BB-3326	Nut for screw for instrument board .....per doz. .25—each	.05	10889
FIHET	BB-3327	Lock washer for screw 11561..... .....per doz. .25—each	.05	11314
LIHET	BB-3328	Screw to fasten instrument board to cowl, 2 used.....	.05	10850
PIHET	BB-3329	Garnish moulding, with clips for top of RIGHT door.....	1.00	40256
SIHET	BB-3330	Garnish moulding, with clips for top of LEFT door.....	1.00	40257
ZIHET	BB-3331	Clip to fasten moulding to door.....	.10	16779
BOHET	BB-3332	Round head wood screw for clip No. 6—⅜" blue.....per doz. .25—each	.05	
DOHET	BB-3333	Oval head wood screw for clip No. 5—⅝" nickel.....per doz. .25—each	.05	
KOHET	BB-3334	Machine glove fastener stud on cowl for fastening side curtains..... .....per doz. .50—each	.05	8672
POHET	BB-3335	Deck seat complete.....	60.00	16094
ROHET	BB-3336	Stop for deck, male half, when strap is used	.20	17278
TOHET	BB-3337	Stop for deck, female half, when strap is used	.25	17277
BUHET	BB-3338	Screw to fasten stop to deck, when strap is used.....per doz. .25—each	.05	10010
DUHET	BB-3339	Stop for deck, female half, when spring is used.....	.25	17351
KUHET	BB-3340	Stop for deck, male half, when spring is used.....	.20	17350
MUHET	BB-3341	Spring hold down screw, in deck lid, used in place of hold down strap .....per doz. .25—each	.05	17343

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CODE WORD				
BAHEX	BB-3342	Hold down screw for deck lid, when hold down screw and spring are used.....per doz. .25—each	.05	11587
FAHEX	BB-3343	Male deck stop washer, when screw and spring are used.....per doz. .25—each	.05	11440
MAHEX	BB-3344	Sleeve for deck lid, hold down screw, when screw and spring are used...	.20	17341
RAHEX	BB-3345	Deck lid sleeve cap, when screw and spring are used.....	.30	17355
TAHEX	BB-3346	Washer for deck lid cap sleeve.....per doz. .25—each	.05	16437
BEHEX	BB-3347	Screw to fasten deck stop to body, when screw and spring are used.....per doz. .25—each	.05	10007
FEHEX	BB-3348	Lock washer, on screw 10007.....per doz. .25—each	.05	11315
LEHEX	BB-3349	Flat washer, on screw 10007.....per doz. .25—each	.05	H-1675
PEHEX	BB-3350	Hand rail with bracket, on roadster deck seat, RIGHT.....	1.00	17353
SEHEX	BB-3351	Hand rail with bracket, on roadster deck seat, LEFT.....	1.00	17354

NOTE:—When ordering hinges specify kind of spring use, either wire, spiral or concentric strap spring.

KIHEX	BB-3352	Assembly hinge for deck, RIGHT hand, with wire spiral spring, roadster	4.00	16096
PIHEX	BB-3353	Assembly hinge for deck, LEFT hand, with wire spiral spring, roadster...	4.00	16097
SIHEX	BB-3354	Assembly hinge for deck, RIGHT hand, with concentric strap spring, roadster	4.00	16098
BOHEX	BB-3355	Assembly hinge for deck, LEFT hand, with concentric strap spring, roadster	4.00	16099
FOHEX	BB-3356	Back for roadster deck seat.....	10.00	17294
KOHEX	BB-3357	Screw 3/8—16 x 1½" round head machine, to fasten back to hinge, RIGHT and LEFT.....	.05	10676
POHEX	BB-3358	Lock washer 3/8", for screw 10676.....per doz. .25—each	.05	11316
SOHEX	BB-3359	Screw 5/16"—18 x 1¼" flat head machine to fasten hinge to deck.....per doz. .25—each	.05	10854
BUHEX	BB-3360	Screw 5/16"—18 x 1⅜" hexagon head, to fasten hinge to body.....	.05	10009
DUHEX	BB-3361	Washer, 5/16" lock, on screws 10009 and 10854.....per doz. .25—each	.05	11315
KUHEX	BB-3362	Cover for key hole.....	.40	17334
LUHEX	BB-3363	Key for deck lid.....	.20	17367
MUHEX	BB-3364	Lock for deck, complete.....	1.00	17225
PUHEX	BB-3365	Plate with screws for roadster deck lock	.20	17308
SUHEX	BB-3366	Lifting knob for deck seat.....	.20	13848

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CODE WORD				
BAHEZ	BB-3367	Lock washer for screw to fasten deck lid knob.....per doz. .25—each	.05	11313
DAHEZ	BB-3368	Screw to fasten knob to deck lid.....per doz. .25—each	.05	10570
KAHEZ	BB-3369	Washer for screw 10570.....per doz. .25—each	.05	11429
MAHEZ	BB-3370	Strap for roadster deck seat.....	1.00	17352
PAHEZ	BB-3371	Hinge complete for RIGHT front seat	1.50	16120
SAHEZ	BB-3372	Bracket for sliding seat on seat.....	.35	16504
TAHEZ	BB-3373	Bracket for sliding seat, front.....	.20	16505
ZAHEZ	BB-3374	Bracket for sliding seat, rear.....	.15	16506
BEHEZ	BB-3375	Rod for sliding seat.....	.35	16686
CEHEZ	BB-3376	Pin for sliding seat..per doz. .25—each	.05	16690
DEHEZ	BB-3377	Sleeve for sliding seat.....	.15	16687
FEHEZ	BB-3378	Stop for sliding seat.....	.05	16691
KEHEZ	BB-3379	Link for sliding seat hinge.....	.20	12856
LEHEZ	BB-3380	French washer used on screw for stop.....per doz. .25—each	.05	6562

SUNDRY PARTS FOR COUPE

BIHEZ	BB-3381	Carpet for floor coupe, blue.....$	9.00	
CIHEZ	BB-3382	Foot board, rear half with handle, coupe	1.50	
FIHEZ	BB-3383	Handle for foot board.....	.50	16652
KIHEZ	BB-3384	Foot board, front half, coupe.....	1.50	
LIHEZ	BB-3385	Toe board, lower half, with carpet, coupe	2.00	
PIHEZ	BB-3386	Toe board, upper half, with carpet coupe	2.00	
SIHEZ	BB-3387	Toe board, center, with carpet.....	2.00	
TIHEZ	BB-3388	Plate for instrument board, screw....	.10	17263
ZIHEZ	BB-3389	Instrument board, only, for coupe....	10.00	17137
BOHEZ	BB-3390	Flange for instrument board, screws.	.15	17047
COHEZ	BB-3391	Screw to fasten instrument board to body.....per doz. .25—each	.05	11575
FOHEZ	BB-3392	Nut for screw 11575.per doz. .25—each	.05	10892
KOHEZ	BB-3393	Lock washer for screw 11575.....per doz. .25—each	.05	11315
MOHEZ	BB-3394	Screw to fasten instrument board to cowl.....per doz. .25—each	.05	10006
ROHEZ	BB-3395	Flat washer for screw 10006.....per doz. .25—each	.05	8797
TOHEZ	BB-3396	Door sill guard with screws, RIGHT, coupe	.60	
BUHEZ	BB-3397	Door sill guard with screws, LEFT. coupe	.60	
DUHEZ	BB-3398	Rubber bumper, round, for top and bottom of door, coupe.....	.10	
KUHEZ	BB-3399	Rubber bumper, double, for front of door, coupe	.15	
MUHEZ	BB-3400	Retainer for round rubber bumper for top and bottom of door, coupe.....	.10	
RUHEZ	BB-3401	Retainer for double rubber bumper for front of door, coupe.....	.40	

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CODE WORD				
BALEK	BB-3402	Hinge upper, RIGHT and LEFT, complete for coupe door	2.50	17431
DALEK	BB-3403	Hinge center, RIGHT and LEFT, complete for coupe door	2.50	17431
KALEK	BB-3404	Hinge lower, RIGHT and LEFT, complete for coupe door	1.50	17430
MALEK	BB-3405	Latch lock, RIGHT, complete, less handle and inside lever, coupe	3.50	
RALEK	BB-3406	Latch lock, LEFT, complete, less handle and inside lever, coupe	3.50	
TALEK	BB-3407	Handle with plate, for door lock, coupe	2.50	
BELEK	BB-3408	Top lever handle for door lock	.30	
CELEK	BB-3409	Strike plate for door lock, coupe	.35	
DELEK	BB-3410	Pillar handle with screws, coupe	2.50	
FELEK	BB-3411	Screw for pillar handle, coupe	.10	
KELEK	BB-3412	Pillar lock, RIGHT, for locking door, coupe, specify lock number	2.50	
MELEK	BB-3413	Pillar lock, LEFT, for locking door, coupe, specify lock number	2.50	
RELEK	BB-3414	Key for pillar lock for locking door, coupe, specify lock number	.25	
TELEK	BB-3415	Cover with screws, for pillar lock for coupe door	.50	
BILEK	BB-3416	Door hand rail, covered	1.25	
DILEK	BB-3417	Spring assembled, with lever for top of window	.75	
KILEK	BB-3418	Cap of frame ends of windshield	.35	
LILEK	BB-3419	Upper glass for windshield	3.50	
MILEK	BB-3420	Thumb nut for windshield quadrant	.25	
RILEK	BB-3421	Lower glass for windshield	3.50	
SILEK	BB-3422	Glass for rain vision shield	4.00	
TILEK	BB-3423	Hinges complete for seat cushion	1.50	16120
BOLEK	BB-3424	Cushion complete for seat	50.00	
COLEK	BB-3425	Mechanical window lift, complete with pulleys and cables	12.00	
FOLEK	BB-3426	Spring for mechanical window lift	.30	
KOLEK	BB-3427	Channel bracket for window lift, 2nd type	1.00	
LOLEK	BB-3427A	Channel bracket window lift, 1st type	.50	
MOLEK	BB-3428	Lock, with cable and chain, for window lift, 2nd type	6.40	
POLEK	BB-3429	Lower bracket with idler pulley for mechanical window lift	1.00	
ROLEK	BB-3429A	Lock for window lift, 1st type	5.00	
SOLEK	BB-3430	Equalizing bar for window lift	2.00	
TOLEK	BB-3430A	Cable for window lift, 1st type	.60	
ZOLEK	BB-3431	Cable and chain for window lift, 2nd type	1.40	
BULEK	BB-3432	Glass channel for window lift, specify whether RIGHT or LEFT, nickel or japanned finish	2.00	
FULEK	BB-3433	Hand wheel for mechanical lift	1.25	
KULEK	BB-3434	Steel glass runs for upper part of window, padded	.50	
MULEK	BB-3435	Special hexagon nut for hand wheel	.10	
PULEK	BB-3436	Top fastener complete with hook and screws (3 used)	2.00	
SULEK	BB-3437	Pillar hinge for fallen pillars, RIGHT or LEFT	4.00	

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CODE WORD				
BALEL	BB-3438	Dowel and plate for top rail connection	.75	
DALEL	BB-3439	Equalizing joint for inside of top	1.00	
FALEL	BB-3440	Stud for joint on props	.40	
KALEL	BB-3441	Cap nut for joint studs	.10	
LALEL	BB-3442	Extra tire support for extra tire in deck	1.00	17146
PALEL	BB-3443	Reinforcement for extra tire bracket	.10	17148
RALEL	BB-3444	Screw to fasten bracket to floor	.05	10009
SALEL	BB-3445	Lock washer for screw 10009 ....per doz. .25 each	.05	11315
ZALEL	BB-3446	Strap for extra tire, long	.75	17116
BELEL	BB-3447	Strap for extra tire, short	.40	17118
CELEL	BB-3448	Clip for extra tire straps	.10	17120
DELEL	BB-3449	Concealed hinge for tail gate	1.75	
FELEL	BB-3450	Supporting hinge for tail gate	.15	
KELEL	BB-3451	Lock complete for tail gate	.40	
LELEL	BB-3452	Cover for lock for tail gate	.40	
MELEL	BB-3453	Key for lock for tail gate	.20	17203
PELEL	BB-3454	Auxiliary chair, complete, less cushion	5.00	16198
RELEL	BB-3455	Cushion complete for auxiliary seat	10.00	
SELEL	BB-3456	Guide for speedometer shaft, coupe only	.15	16230
ZELEL	BB-3457	Rubber bushing in mud pan for speedometer shaft	.10	12724
CILEL	BB-3458	Thumb screw for ventilator in cowl	.20	
DILEL	BB-3459	Reinforcement for side lamp, RIGHT	1.50	17093
FILEL	BB-3460	Reinforcement for side lamp, LEFT	1.50	17094

NOTE:—For starting switch for coupe door, see Starting Control list.

SUNDRY PARTS FOR INSIDE DRIVE LIMOUSINE

COLEL	BB-3461	Foot board complete with mat, binding and handle	$ 2.75	
FOLEL	BB-3462	Foot board, only	1.00	
KOLEL	BB-3463	Mat for foot board	1.00	
LOLEL	BB-3464	Binding with screws for foot board	.75	
MOLEL	BB-3465	Handle for foot board	.50	16652
POLEL	BB-3466	Toe board complete, lower half	1.50	
ROLEL	BB-3467	Toe board only, lower half	.75	
SOLEL	BB-3468	Mat for toe board, lower half	.50	
TOLEL	BB-3469	Binding with screws for toe board, lower half	.25	
BULEL	BB-3470	Toe board complete, upper half	1.75	
CULEL	BB-3471	Toe board only, upper half	.75	
DULEL	BB-3472	Mat for toe board, upper half	.60	
FULEL	BB-3473	Binding with screws for toe board, upper half	.40	
LULEL	BB-3474	Floor board rear with hinges for inside drive limousine	1.25	
PULEL	BB-3475	Hinges for floor board, for inside drive limousine	.10	

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CODE WORD				
BALEM	BB-3476	Carpet for floor of inside drive limousine	10.00	
DALEM	BB-3477	Carpet for heel board for rear seat	2.00	
FALEM	BB-3478	Cushion complete for rear seat	50.00	
KALEM	BB-3479	Cushion complete for driver's seat	25.00	
LALEM	BB-3480	Cover plate for control lever on body sill	.30	17046
PALEM	BB-3481	Screw to fasten instrument board to body.....per doz. .35—each	.05	11575
SALEM	BB-3482	Nut for screw 11575.per doz. .25—each	.05	10892
TALEM	BB-3483	Washer for screw..per doz. .25—each	.05	11315
BELEM	BB-3484	Screw to fasten instrument board to body and cowl	.05	10006
DELEM	BB-3485	Washer for screw..per doz. .25—each	.05	8797
KELEM	BB-3486	Instrument board only, for inside drive limousine	10.00	17091
MELEM	BB-3487	Hood for speedometer light	1.50	17124
PELEM	BB-3488	Hood for gauge and sight feed light	1.50	17138
RELEM	BB-3489	Spring assembled for top of window	.75	
SELEM	BB-3490	Mechanical window lift with pulleys and cables	12.00	
ZELEM	BB-3491	Hand wheel for mechanical lift	1.25	
BILEM	BB-3492	Special hexagon nut for hand wheel	.10	
DILEM	BB-3493	Spring for mechanical window lift	.30	
FILEM	BB-3494	Channel bracket for window lift, 1st type	.50	
KILEM	BB-3494A	Channel bracket for window lift, 2nd type	1.00	
LILEM	BB-3495	Lock complete for window lift, 1st type	5.00	
MILEM	BB-3495A	Lock with chain and cable for window lift, 2nd type	6.40	
PILEM	BB-3496	Lower bracket with idler pulley for mechanical window lift	1.00	
SILEM	BB-3497	Equalizing bar for window lift	2.00	
TILEM	BB-3497A	Cable for window lift, 1st type	.60	
ZILEM	BB-3498	Cable and chain for window lift, 2nd type	1.40	
BOLEM	BB-3499	Glass channel for window lift, nickel plated	2.00	
DOLEM	BB-3500	Steel glass runs for upper part of door window, padded	.50	
KOLEM	BB-3501	Sill guard with screws for door sill, RIGHT	.60	
MOLEM	BB-3502	Sill guard with screws for door sill, LEFT	.60	
ROLEM	BB-3503	Round rubber bumper for top or bottom of door	.10	
TOLEM	BB-3504	Retainer for round bumper	.10	
BULEM	BB-3505	Double rubber bumper for side of door (3 used)	.15	
DULEM	BB-3506	Retainer for double rubber bumper	.40	
KULEM	BB-3507	Latch door lock complete, less handle and inside lever, for RIGHT door	3.50	
MULEM	BB-3508	Door lock complete, less handle and inside lever for LEFT door	3.50	
RULEM	BB-3509	Handle with plate for door lock	2.50	
SULEM	BB-3510	Inside lever handle for door lock	.30	

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CODE WORD				
BALEP	BB-3511	Strike plate for door lock	.35	
CALEP	BB-3512	Pillar handle complete with screws	2.50	
DALEP	BB-3513	Pillar lock for locking door, RIGHT	2.50	
FALEP	BB-3514	Pillar lock for locking door, LEFT	2.50	
KALEP	BB-3515	Keyhole plate with cover and screws for door lock	.50	
MALEP	BB-3516	Key for door lock	.25	
PALEP	BB-3517	Door hand rail, covered	1.25	
RALEP	BB-3518	Extra tire bracket, single tire, under rear seat	.75	17147
TALEP	BB-3519	Strap leather, for extra tire bracket, long	.75	17117
BELEP	BB-3520	Strap leather, for extra tire bracket, short	.40	17119
DELEP	BB-3521	Reinforcement for extra tire bracket	.10	17148
FELEP	BB-3522	Screw to fasten bracket to floor	.05	10009
KELEP	BB-3523	Lock washer on screw 10009.....per doz. .25—each	.05	11315
LELEP	BB-3524	Clip for tire carrier strap	.10	17120
MELEP	BB-3525	Upper RIGHT and LEFT concealed door hinge	2.50	17431
RELEP	BB-3526	Center RIGHT and LEFT concealed door hinge	2.50	17431
BILEP	BB-3528	Lower RIGHT and LEFT supporting door hinge	1.50	17430
DILEP	BB-3529	Thumb screw for ventilator in cowl	.20	
FILEP	BB-3530	Cap for frame ends, windshield	.35	
KILEP	BB-3531	Upper glass for windshield	3.00	
LILEP	BB-3532	Lower glass for windshield	3.50	
MILEP	BB-3533	Glass for rain vision shield	3.50	
PILEP	BB-3534	Thumb nut for quadrant for windshield	.25	

SUNDRY PARTS FOR OPEN LIMOUSINE

FOLEP	BB-3535	Foot board, complete, with mat, binding and handle	$ 2.75	
LOLEP	BB-3536	Foot board, only	1.00	
MOLEP	BB-3537	Mat for foot board	1.00	
POLEP	BB-3538	Binding with screws for foot board	.75	
ROLEP	BB-3539	Handle for foot board	.50	16652
SOLEP	BB-3540	Toe board, lower half, complete, with mat and binding	1.50	
ZOLEP	BB-3541	Toe board only, lower half	.75	
BULEP	BB-3542	Mat for toe board, lower half	.50	
CULEP	BB-3543	Binding with screws for toe board, lower half	.25	
FULEP	BB-3544	Toe board, upper half complete with mat and binding	1.75	
LULEP	BB-3545	Toe board only, upper half	.75	
MULEP	BB-3546	Mat for toe board, upper half	.60	
PULEP	BB-3547	Binding with screws for toe board, upper half	.40	
SULEP	BB-3548	Cushion for rear seat	50.00	

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CODE WORD				
BALER	BB-3549	Front seat cushion complete	45.00	
CALER	BB-3550	Floor board, either half, with hinge, for rear compartment	.75	
FALER	BB-3551	Reinforcement for pillar light	.40	17338
KALER	BB-3552	Stud for pillar light bracket	.10	
LALER	BB-3553	Reinforcement for side lamp bracket, RIGHT	1.50	16896
PALER	BB-3554	Reinforcement for side lamp bracket, LEFT	1.50	16897
SALER	BB-3555	Hinge, upper, RIGHT and LEFT, complete for front door	2.00	12911
ZALER	BB-3556	Hinge lower, RIGHT and LEFT, complete, for front door	2.00	12911
CELER	BB-3557	Hinge upper, RIGHT, complete for rear door	1.50	17432
FELER	BB-3558	Hinge upper, LEFT, complete, for rear door	1.50	17433
LELER	BB-3559	Hinge lower, RIGHT, complete for rear door	1.50	17436
PELER	BB-3560	Hinge lower, LEFT, complete for rear door	1.50	17437
SELER	BB-3561	Hinge center, RIGHT, complete for rear door	1.50	17434
ZELER	BB-3562	Hinge center, LEFT, complete for rear door	1.50	17435
CILER	BB-3563	Lock complete, less handle, RIGHT front door	1.60	
FILER	BB-3564	Lock complete, less handle, LEFT front door	1.60	
LILER	BB-3565	Handle for RIGHT or LEFT front door lock	.40	
PILER	BB-3566	Nut for handle for front door lock	.15	
RILER	BB-3567	Strike plate for front door lock	.25	
SILER	BB-3568	Lock complete, less handle and inside lever for RIGHT rear door	3.50	
ZILER	BB-3569	Lock complete, less handle and inside lever for LEFT rear door	3.50	
COLER	BB-3570	Handle with plate for rear door lock, RIGHT and LEFT	2.50	
FOLER	BB-3571	Inside lever, handle, for rear door lock	.30	
LOLER	BB-3572	Strike plate for rear door lock	.35	
MOLER	BB-3573	Lock, RIGHT, for locking rear compartment, specify lock number	2.50	
ROLER	BB-3574	Lock, LEFT, for locking rear compartment, specify lock number	2.50	
TOLER	BB-3575	Key for latch for locking rear compartment, specify lock number	.25	
BULER	BB-3576	Cover with screws for lock, for rear compartment	.50	
DULER	BB-3577	Door sill guard, front, RIGHT, with screws	.50	
KULER	BB-3578	Door sill guard, front LEFT, with screws	.50	
MULER	BB-3579	Door sill guard, RIGHT, rear, with screws	.60	
RULER	BB-3580	Door sill guard, rear, LEFT, with screws	.60	

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CODE WORD				
BALES	BB-3581	Rubber bumper for front door	.05	
CALES	BB-3582	Rubber bumper, round, for top and bottom of rear door (3 used)	.10	
FALES	BB-3583	Rubber bumper, double, for front or rear door (3 used)	.15	
LALES	BB-3584	Retainer for rubber bumper for front door	.10	
PALES	BB-3585	Retainer for double rubber bumper for rear door	.40	
SALES	BB-3586	Retainer for round rubber bumper at top and bottom of rear door	.10	
ZALES	BB-3587	Robe rail complete with screws	4.00	
BELES	BB-3588	Pillar handle with screws, RIGHT and LEFT	2.50	
DELES	BB-3589	Spring assembled with lever for top of window	.75	
KELES	BB-3590	Storm curtain RIGHT hand	7.00	
LELES	BB-3591	Storm curtain LEFT hand	7.00	
MELES	BB-3592	Instrument board, only for open limousine	10.00	17058
RELES	BB-3593	Screw to fasten instrument board to cowl.....per doz. .25 each	.05	10006
TELES	BB-3594	Screw to fasten instrument board to body.....per doz. .25—each	.05	11576
BILES	BB-3595	Flat washer for screw No. 10006..... .....per doz. .25—each	.05	8797
DILES	BB-3596	Hood for speedometer light	1.50	17124
FILES	BB-3597	Hood for gauge and sight feed light	1.50	17138
KILES	BB-3598	Mechanical window lift complete with pulleys and cables	12.00	
MILES	BB-3599	Hand wheel for mechanical lift	1.25	
PILES	BB-3600	Special hexagon nut for mechanical lift	.10	
RILES	BB-3601	Spring for mechanical window lift	.30	
SILES	BB-3602	Channel bracket for window lift, 1st type	.50	
TILES	BB-3602.A	Channel bracket for mechanical window lift, 2nd type	1.00	
ZILES	BB-3603	Lock complete for window lift, 1st type	5.00	
BOLES	BB-3603.A	Lock with cable and chain for window lift, 2nd type	6.40	
COLES	BB-3604	Lower bracket with idler pulleys for mechanical window lift	1.00	
FOLES	BB-3605	Equalizing bar for window lift	2.00	
KOLES	BB-3605.A	Cable and chain for window lift, 2nd type	1.40	
LOLES	BB-3606	Cable for window lift, 1st type	.60	
MOLES	BB-3607	Nickel plated channel for glass for mechanical window	2.00	
ROLES	BB-3608	Steel glass runs for upper part of door window, padded	.50	
TOLES	BB-3609	Thumb nut for quadrant for upper half of windshield, RIGHT or LEFT	.25	
CULES	BB-3610	Cap for frame end on windsheild	.35	
DULES	BB-3611	Upper glass for windshield	4.00	
FULES	BB-3612	Lower glass for windshield	4.00	
KULES	BB-3613	Plate for control levers on body sill	.30	17046
LULES	BB-3614	Auxiliary chair, RIGHT, complete	37.50	16166
MULES	BB-3615	Auxiliary chair, LEFT, complete	37.50	16167
PULES	BB-3616	Thumb screw for ventilator in cowl	.20	

Order Parts by serial part number and name in full.
Give number of motor.
Read Instructions before ordering.
The telegraph code key-word for this book is FOREDEEM.

TOOL EQUIPMENT

CODE WORD				
KALET	BB-3619	Large bag for tools only	2.00	13595
LALET	BB-3620	Wrench for spark plug cap	.40	30221
MALET	BB-3621	Wrench for spark plug, Williams No. 707	.50	17140
RALET	BB-3622	Cold chisel, 6 inch x ½ inch	.40	3921
SALET	BB-3623	File and handle, 6″	.20	3922
TALET	BB-3624	Can of rivets, burrs, taper and cotter pins, Woodruff keys, and set screws	.80	45241
BELET	BB-3625	Spool of copper wire	.15	3926
CELET	BB-3626	Double end wrench, No. 29	.40	3932
DELET	BB-3627	Double end wrench, No. 1025	.30	3933
FELET	BB-3628	Monkey wrench, 11″	1.75	3936
KELET	BB-3629	Hexagonal punch, 3/32″ point, 5″ long	.10	6754
LELET	BB-3630	Wrench extension	.20	7786
MELET	BB-3631	Wrench for eccentric bushing on steering wheel	.20	13590
RELET	BB-3632	Wrench double end ⅞″ opening	.40	13591
TELET	BB-3633	Wrench double end ⅜″ x ½″ jaws	.30	13593
ZELET	BB-3634	Hammer, 12 oz.	.75	13594
BILET	BB-3635	Wrench, socket, for ⅜″ and ⅝″ nuts	.50	13596
CILET	BB-3636	Handle, socket, wrench, ⅜″ x ⅝″ nuts	.10	13597
DILET	BB-3637	Wrench, adjusting internal brake	.30	13778
FILET	BB-3638	Wrench for gland nut on pump body	.20	16016
KILET	BB-3639	Lever, thick end for adjusting rear axle	.15	16342
MILET	BB-3640	Lever, thin end for adjusting rear axle	.15	16343
RILET	BB-3641	Gauge for testing spark plug cap	.35	11001
SILET	BB-3642	Spark plug	1.00	19865
TILET	BB-3642A	Gasket for spark plug ....per doz. $1.00—each	.10	8819
ZILET	BB-3643	Set screw wrench, special hexagon	.20	17184
DOLET	BB-3645	Small tool bag, only for door pocket	.30	12330
FOLET	BB-3646	Screw driver, 3/16″ round, 3″ blade	.30	3923
KOLET	BB-3647	Bicycle wrench, 4 inch	.40	3929
LOLET	BB-3648	Auto screw driver, 5/16″ square, 3″	.40	6753
MOLET	BB-3648A	Wooden box for spark plug	.10	17129
POLET	BB-3649	Pliers	.70	30520
ROLET	BB-3650	Oil gun	1.00	3938
SOLET	BB-3651	Oil can	.25	3944
TOLET	BB-3652	Tire repair kit	.50	6752
ZOLET	BB-3653	Auto jack	3.50	19874
BULET	BB-3654	Adjusting bar, for high speed pinion	.35	17271
CULET	BB-3655	5″ link section of fan belt	.25	14738
DULET	BB-3656	Brace and socket wrench for Kelsey Universal demountable rim	.80	14903
KULET	BB-3657	Wrench, hub cap	.75	14955
LULET	BB-3658	Tire tool (tongs) Kelsey Universal demountable rim	.50	16052
PULET	BB-3659	Starting crank	1.50	17962
RULET	BB-3660	Wrench, spanner, rear axle	.75	16341
SULET	BB-3661	Hose and gauge assembled complete for power pump	4.00	17944
ZULET	BB-3662	Extension filler pipe for gasoline tank	2.50	16199
LULET	BB-3663	Handle for auto jack	.25	9979½

Be sure to put your name and motor number on parts returned and PREPAY CHARGES.
Read Instructions before ordering.
The telegraph code key-word for this book is FOREDEEM.

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Parts and prices for the 134 inch wheel base chassis, may be had upon application.

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Miscellaneous
1922

Index of all Cadillac Models using Delco Equipment

1910 CADILLAC MODEL

Delco System No. 142

No. 2004	COIL BOX
No. 1018	IGNITION SWITCH
No. 5661	IGNITION RELAY

1911 CADILLAC MODEL

Delco System No. 4411

No. 5001	DRY CELL DISTRIBUTOR
No. 5661	IGNITION RELAY
No. 2022	IGNITION COIL
No. 1007	IGNITION SWITCH
No. 1009	IGNITION SWITCH

1912 CADILLAC MODEL

Delco System No. 1

No. 1	MOTOR GENERATOR
No. 5401	BATTERY BOX
No. 5001	DRY CELL DISTRIBUTOR
No. 2022	IGNITION COIL
No. 1018	IGNITION SWITCH
No. 5661	IGNITION RELAY
No. 5049	GENERATOR DISTRIBUTOR
No. 2045	IGNITION COIL
No. 10678	RESISTANCE UNIT
No. 1991	STARTING SWITCH
No. 5442	CLUTCH MAGNET

1913 CADILLAC MODEL

Delco System No. 4

No. 4	MOTOR GENERATOR
No. 5404	BATTERY BOX
No. 5440	CLUTC HMAGNET
No. 10686	RESISTANCE UNIT
No. 1978	IGNITION SWITCH
No. 5055	GENERATOR DISTRIBUTOR
No. 2093	IGNITION COIL
No. 5059	DRY CELL DISTRIBUTOR
No. 2092	IGNITION COIL
No. 6051	AMMETER
No. 5677	IGNITION RELAY
No. 1979	IGNITION SWITCH
No. 10131	TERMINAL BOARD

Index of all Cadillac Models using Delco Equipment

1910 CADILLAC MODEL

Delco System No. 142

No. 2004	COIL BOX
No. 1018	IGNITION SWITCH
No. 5661	IGNITION RELAY

1911 CADILLAC MODEL

Delco System No. 4411

No. 5001	DRY CELL DISTRIBUTOR
No. 5661	IGNITION RELAY
No. 2022	IGNITION COIL
No. 1007	IGNITION SWITCH
No. 1009	IGNITION SWITCH

1912 CADILLAC MODEL

Delco System No. 1

No. 1	MOTOR GENERATOR
No. 5401	BATTERY BOX
No. 5001	DRY CELL DISTRIBUTOR
No. 2022	IGNITION COIL
No. 1018	IGNITION SWITCH
No. 5661	IGNITION RELAY
No. 5049	GENERATOR DISTRIBUTOR
No. 2045	IGNITION COIL
No. 10678	RESISTANCE UNIT
No. 1991	STARTING SWITCH
No. 5442	CLUTCH MAGNET

1913 CADILLAC MODEL

Delco System No. 4

No. 4	MOTOR GENERATOR
No. 5404	BATTERY BOX
No. 5440	CLUTC HMAGNET
No. 10686	RESISTANCE UNIT
No. 1978	IGNITION SWITCH
No. 5055	GENERATOR DISTRIBUTOR
No. 2093	IGNITION COIL
No. 5059	DRY CELL DISTRIBUTOR
No. 2092	IGNITION COIL
No. 6051	AMMETER
No. 5677	IGNITION RELAY
No. 1979	IGNITION SWITCH
No. 10131	TERMINAL BOARD

1914 CADILLAC MODEL

Delco System No. 27

No. 24	MOTOR GENERATOR
No. 5506	APPARATUS BOX
No. 5105	DISTRIBUTOR
No. 2104	IGNITION COIL
No. 1035	COMBINATION SWITCH
No. 1042	COMBINATION SWITCH
No. 5447	CLUTCH MAGNET
No. 5692	CIRCUIT BREAKER

51 MODEL—1915 CADILLAC

Delco System No. 69

No. 44	MOTOR GENERATOR
No. 10726	MOTOR CLUTCH
No. 2115	IGNITION COIL
No. 1045	COMBINATION SWITCH
No. 5696	CIRCUIT BREAKER
No. 5308	AUTO HORN
No. 5695	CIRCUIT BREAKER

53 MODEL—1916 CADILLAC

Delco System No. 98

No. 78	MOTOR GENERATOR
No. 5150	AUTOMATIC DISTRIBUTOR
No. 11973	MOTOR CLUTCH
No. 2115	IGNITION COIL
No. 1062	COMBINATION SWITCH
No. 1069	COMBINATION SWITCH
No. 5705	CIRCUIT BREAKER
No. 5310	AUTO HORN
No. 1061	AUTO HORN SWITCH

55 MODEL—1917 CADILLAC

Delco System No. 130

No. 98	MOTOR GENERATOR
No. 12677	MOTOR CLUTCH
No. 5150	DISTRIBUTOR
No. 2115	IGNITION COIL
No. 1077	COMBINATION SWITCH
No. 5705	CIRCUIT BREAKER
No. 5311	AUTO HORN
No. 1061	AUTO HORN SWITCH

57 MODEL—1918 CADILLAC

Delco System No. 177

No. 98	MOTOR GENERATOR
No. 12677	MOTOR CLUTCH
No. 5166	DISTRIBUTOR
No. 2115	IGNITION COIL
No. 1099	COMBINATION SWITCH
No. 5705	CIRCUIT BREAKER
No. 5312	AUTO HORN

57 MODEL—1919 CADILLAC

Delco System No. 177

No. 98	MOTOR GENERATOR
No. 12677	MOTOR CLUTCH
No. 5166	DISTRIBUTOR
No. 2115	IGNITION COIL
No. 1099	COMBINATION SWITCH
No. 5742	CIRCUIT BREAKER
No. 5312	HORN (EXTRA)

59 MODEL—1920 AND 1921 CADILLAC

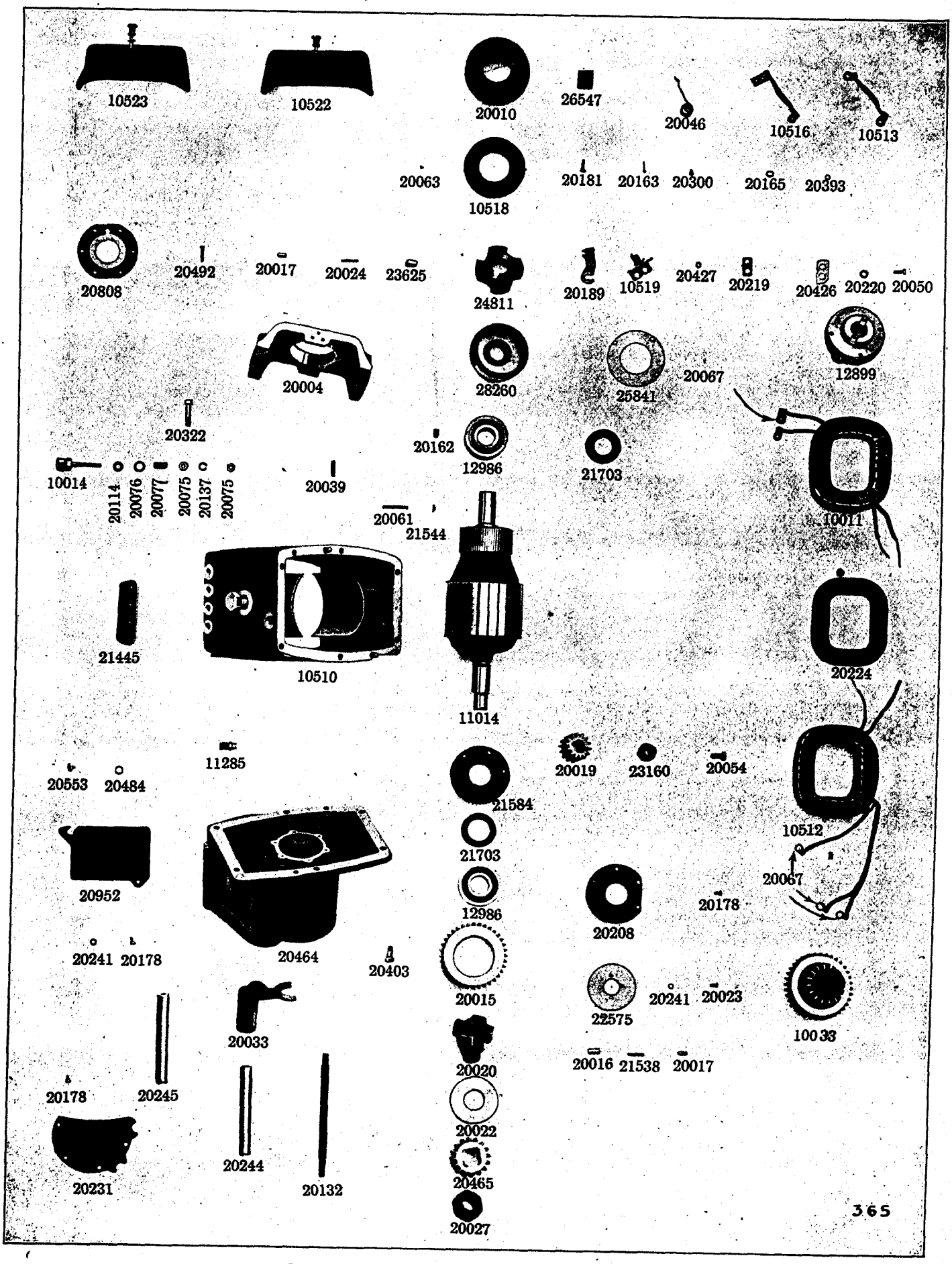
Delco System No. 291

No. 162	MOTOR GENERATOR
No. 1150	COMBINATION SWITCH
No. 2115	IGNITION COIL
No. 5206	DISTRIBUTOR
No. 5742	CIRCUIT BREAKER
No. 12677	MOTOR CLUTCH

Chart Showing Cadillac Models and the Delco Apparatus Used on Each Model

Cadillac Models	Year Used	Delco System	Motor Generator	Ignition Switch	Combination Switch	Ignition Coils and Boxes	Distributor	Apparatus Boxes	Ignition Relays	Circuit Breakers	Motor Clutch	Resistance Units	Clutch Magnet	Battery Box	Starting Switch	Auto Horns	Horn Switch	Terminal Boards
1910	1910	IGN 142		1018		2004			5661									
1911	1911	IGN 4411		1007* 1009		2022	5001		5661									
1912	1912	1	1	1018		2022 2045	5001 5049		5661			10678*	5442	5401	1991			
1913	1913	4	4	1978 1979		2093 2092	5055 5059		5677			10686	5440	5404				10131
1914	1914	27	24		1035* 1042*	2104	5105	5506		5692			5447					
51	1915	69	44		1045	2115				5696 5695	10724					5308		
53	1916	98	78*		1062* 1069	2115	5150*			5705*	11973					5310	1061	
55	1917	130	98		1077	2115	5150*			5705*	12677					5311	1061	
57	1918	177	98		1099*	2115	5166			5705*	12677					5312		
57	1919	177	98		1099*	2115	5166			5742	12677					5312		
59	1920 1921	291	162		1150	2115	5206			5742	12677							

*Refer to the note under the piece of apparatus in the catalog to determine the correct part to order.



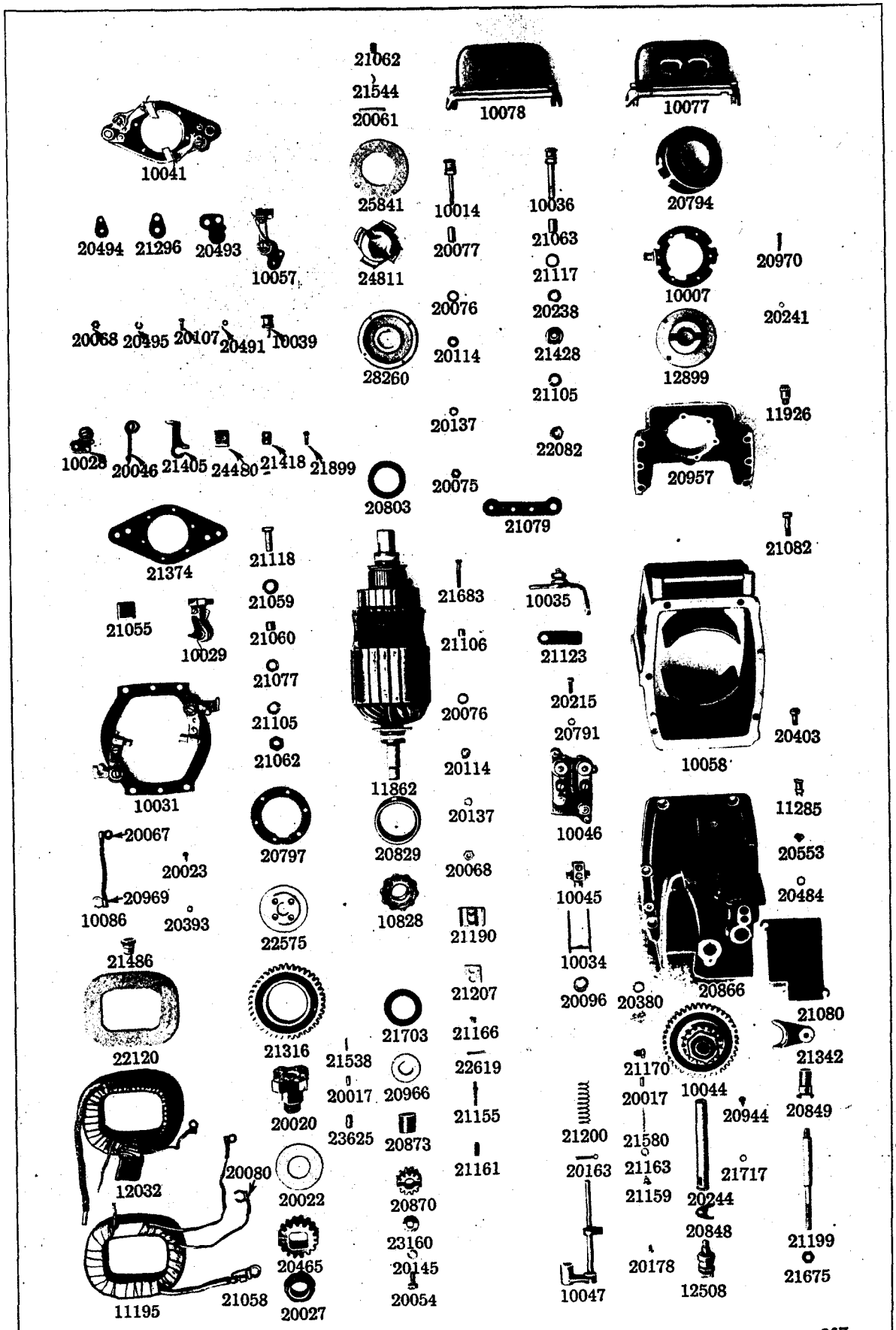
No. 1 MOTOR GENERATOR

No. 1 MOTOR GENERATOR

Piece Number	NAME OF PART	Quantity Required
1	**MOTOR GENERATOR COMPLETE**	1
10510	**Generator Frame Assembly**	1
	(Includes the next 2 Items)	
20041	Pole Piece Screw (Not shown in Illustration)	2
20039	Dowel Pin for Pole Piece	4
10011	**Upper Field Coil Assembly Complete**	1
	(Includes the next Item)	
20067	Terminal Clip for Spring Terminal Assembly 10014	2
10512	**Lower Field Coil Assembly Complete**	1
	(Includes the next Item)	
20067	Terminal Clip for Spring Terminal Assembly 10014	3
10513	**Brush Connector Lead Assembly Complete**	1
	(Includes the next 2 Items)	
22517	Sleeving for Lead Assembly 10513 (Not shown in Illustration)	1
20067	Clip for Lead Assembly 10513 (Not shown in Illustration)	2
10014	**Spring Terminal Assembly for connecting Generator**	4
21445	Insulator for Spring Terminal Assembly 10014 (Outer)	1
20077	Insulating Bushing for Spring Terminal Assembly 10014	4
20076	Insulating Washer for Spring Terminal Assembly 10014 (Inner)	4
20114	Plain Washer for Spring Terminal Assembly 10014	4
20075	Nut for retaining Spring Terminal Assembly 10014	8
20137	Lock Washer for Nut 20075	4
20224	Shield for Field Coil Assemblies 10011 and 10512	2
20004	Frame for Driving Clutch End of Generator	1
12986	**Ball Bearing Assembly for Frame 20004**	1
21703	Oil Retainer (Felt) (For Ball Bearing Assembly 12986 (Inner)	1
20208	Retainer for Ball Bearing Assembly 12986 (Inner)	1
20492	Screw for retaining Retainer 20208 and Bearing Retainer Assembly 10518	6
10518	**Bearing Retainer Assembly for Ball Bearing Assembly 12986 (Outer)**	1
20062	Stud for Retainer Assembly 10518 (Not shown in Illustration)	1
10519	**Generator Brush Bracket Assembly Complete**	2
	(Includes the next 2 Items)	
20187	Stud for holding Generator Brush Arm Assembly 13516 (Not shown in Illustration)	1
20188	Stop Stud for Generator Brush Arm Assembly 13516 (Not shown in Illustration)	1
20050	Screw for attaching Generator Brush Bracket Assembly 10519	4
20220	Plain Washer for Screw 20054	4
20219	Insulator for Generator Brush Bracket Assembly 10519 (Upper)	2
20426	Insulator for Generator Brush Bracket Assembly 10519 (Lower)	2
20427	Insulating Bushing for Screw 20050	4
20189	Generator Brush Arm	2
26547	Brush for Brush Arm 20189	1
20181	Screw for attaching Brush 26547	2
21418	Lock Plate for Screw 20181 (Not shown in Illustration)	1
10516	**Generator Brush Lead Assembly Complete**	2
	(Includes the next 3 Items)	
22517	Sleeving for Lead Assembly 10516 (Not shown in Illustration)	1
20067	Clip for Spring Terminal End of Lead Assembly 10516 (Not shown in Illustration)	1
20180	Clip for Brush Arm End of Lead Assembly 10516 (Not shown in Illustration)	1
11014	**Armature Assembly for Motor Generator**	1
20046	Spring for Generator Brush Arm 20189	2
20163	Cotter Pin for retaining Generator Brush Arm 20189	2
20065	Screw for retaining Cover 20010 (Not shown in Illustration)	1
20010	Cover for Generator Clutch Assembly 12899	1
20162	Clamp Screw for retaining Clutch Assembly 12899 (Not shown in Illustration)	1
21544	Key for Generator Clutch Assembly 12899	1
13671	**Generator Clutch Assembly Complete (Not shown in Illustrated)**	1
	(Includes the next 8 Items)	
22262	Cam for Generator Clutch Assembly 13671 (Not shown in Illustration)	1
28260	Shell for Generator Clutch Assembly 13671	1
23625	Roll for Cam 22262	4
20024	Spring for Plunger 20017	4
20017	Plunger for Roll 24625	4
25841	Retainer for Roll 23625	1
20063	Screw for retaining Retainer 25841	4
20061	Pin for retaining Clutch	1
20464	Housing for Pinion End for Generator	1
21584	Retainer for Ball Bearing Assembly 12986 (Outer) (Pinion End)	1
20178	Screw for retaining Retainer 21584	6
20241	Lock Washer for Screw 20178	6
11285	**Oiler Assembly for Housing 20464**	1
10522	**Cover Assembly Complete (Upper)**	1
	(Includes the next 4 Items)	
10521	**Screw Assembly (Not shown in Illustration)**	1
20056	Nut for Screw Assembly 10521 Not shown in Illustration)	1

No. 1 MOTOR GENERATOR (Continued)

Piece Number	NAME OF PART	Quantity Required
20211	Lock Washer for Nut 20056 (Not shown in Illustration)	1
20059	Pin for Nut 20056 (Not shown in Illustration)	1
10523	**Cover Assembly Complete (Lower)** (Includes the next 4 Items)	1
10521	**Screw Assembly (Not shown in Illustration)**	1
20056	Nut for Screw Assembly 10521 (Not shown in Illustration)	1
20211	Lock Washer for Nut 20056 (Not shownin Illustration)	1
20059	Pin for Nut 20056 (Not shown in Illustration)	1
20484	Spring Washer for Screw 20553	2
20553	Screw for attaching Cover 20952	2
20952	Cover for End Housing Assembly 10520 (Top	1
20178	Screw for attaching Cover 20231	4
20241	Lock Washer for Screw 20178	4
20231	Cover for End Housing Assembly 10520 (End)	1
20245	Shaft for Shifting Yoke 20033	1
20244	Shaft for Motor Clutch	1
20132	**Shifting Rod for Motor Clutch**	1
20033	Shifting Yoke for Shifting Rod 20132	1
23160	Clamp Washer for Motor Pinion 20019	1
20054	Clamp Screw for retaining Motor Pinion 20019	1
20145	Lock Washer for Clamp Screw 20054 (Not shown in Illustration)	1
20019	Motor Pinion for Armature Shaft	1
20403	Screw for attaching End Housing 20464	6
20775	Sleeve for Armature Shaft (Pinion Shaft) (Not shown in Illustration)	1
12986	**Ball Bearing Assembly for Pinion End of Armature Shaft**	1
21703	Oil Retainer (Felt) for Ball Bearing Assembly 12986	2
21584	Retainer for Ball Bearing Assembly (Outer) (Pinion End)	1
20322	Screw for attaching End Frame 20004	4
20042	Dowel Pin for End Frame 20004 (Not shown in Illustration)	2
20039	Dowel Pin for End Housing 20464	2
20178	Screw for attaching Retainer 21584	6
20241	Lock Washer for Screw 20178	6
20300	Screw for attaching Generator Brush Lead Assembly 10516 to Generator Brush Bracket	4
20165	Plain Washer for Screw 20300	4
20393	Lock Washer for Screw 20300	4
12809	**Motor Clutch Assembly Complete (Old Style before Cadillac No. 65800)** (Includes the next 11 Items)	1
20232	Pinion for Motor Clutch Assembly 12809 (Not shown in Illustration)	1
20020	Cam for Motor Clutch Assembly 12809	1
20027	Clamp Nut for Motor Clutch Assembly 12809	1
20015	Gear for Motor Clutch Assembly 12809	1
20022	Retainer for Roll 23625 (Inner)	1
22575	Retainer for Roll 23625 (Outer)	1
20017	Plunger for Roll 23625	4
21538	Spring for Plunger 20017	4
23625	Roll for Cam 20020	4
20023	Screw for Retainer 20022 and 22575	4
20393	Lock Washer for Screw 20023	4
10033	**Motor Clutch Assembly Complete (After Cadillac Motor No. 65800)** (Includes the next 11 Items)	1
20465	Pinion for Motor CLlutch Assembly 10033	1
20020	Cam for Motor Clutch Assembly 10033	1
20027	Clamp Nut for Motor Clutch Assembly 10033	1
20015	Gear for Motor Clutch Assembly 10033	1
20022	Retainer for Roll 23625 (Inner)	1
22575	Retainer for Roll 23625 (Outer)	1
21538	Spring for Plunger 20017	4
20017	Plunger for Roll 23625	4
23625	Roll for Cam 20020	4
20023	Screw for Retainers 20022 and 22575	4
20241	Lock Washer for Screw 20023	4



No. 4 MOTOR GENERATOR

No. 4 MOTOR GENERATOR

Piece Number	NAME OF PART	Quantity Required
4	**MOTOR GENERATOR**	1
10058	**Generator Frame Assembly** (Includes the next 2 Items)	1
20041	Screw for Pole Piece (Not shown in Illustration)	2
20039	Dowel Pin for Pole Piece (Not shown in Illustration)	4
10079	**Field Coil Assembly Complete** (Includes the next 10 Items)	1
21486	Insulating Bushing for Series Lead	1
20080	Terminal Clip for Spring Terminal Assembly 10036	1
20067	Terminal Clip for Spring Terminal Assembles 10014 and 10037	2
21058	Terminal Clip for Spring Terminal Assembly 10080	1
21681	Terminal Clip for attaching Series Lead to Switch Cover Assembly 10046	1
22285	Binding Strip for Field Coil Assembly 10079 (Not shown in Illustration)	2
22284	Insulating Binding Strip for Field Coil Assembly 10079 (Outer) (Not shown in Illustration)	2
22283	Insulating Binding Strip for Field Coil Assembly 10079 (Inner) (Not shown in Illustration)	2
10029	**Motor Brush Arm Assembly Complete** (Includes the next 9 Items)	2
21051	Arm for Motor Brush Arm Assembly 10029 (Right Hand) (Not shown in Illustration)	1
21052	Arm for Motor Brush Arm Assembly 10029 (Left Hand) (Not shown in Illustration)	1
20970	Bolt for connecting Arm 21051 and 21052 (Not shown in Illustration)	1
21055	Brush for Motor Brush Arm Assembly 10029	1
21068	Hub for Arms 21051 and 21052 (Not shown in Illustration)	1
20495	Lock Washer for Nut 20068	1
20068	Nut for Bolt 20970	1
21124	Spring for Motor Brush Arm Assembly 10029 (Outer) (Not shown in Illustration)	1
21258	Stud for Arms 21051 and 21052 (Not shown in Illustration)	1
10028	**Motor Brush Connector Assembly Complete**	2
21413	Spring for Motor Brush Arm Assembly 10029 (Inner)	2
21077	Plain Washer for Screw 21118	2
20791	Lock Washer for Screw 21118	2
21118	Screw for retaining Motor Brush Arm Assembly 10029	2
21057	Plate for mounting Motor Brush Arm Assembly 10029 (Not shown in Illustration)	1
21407	Stud for Plate 21057 for holding Motor Brush Arm Assembly 10029 (Not shown in Illustration)	2
20125	Insulating Washer for Stud 21407 (Outer) (Not shown in Illustration)	2
20076	Insulating Washer for Stud 21407 (Inner) (Not shown in Illustration)	2
20114	Plain Washer for Nut 20075 (Not shown in Illustration)	2
20137	Lock Washer for Nut 20075 (Not shown in Illustration)	2
20075	Nut for retaining Stud 21407 (Not shown in Illustration)	2
21078	Insulating Bushing for Stud 21407 (Not shown in Illustration)	2
21428	Plain Washer for retaining Spring 21413 (Not shown in Illustration)	2
10014	**Spring Terminal Assembly for connecting Generator (No. 1-2-3 Terminal from Left Side of Generator**	3
10036	**Spring Terminal Assembly for connecting Generator (No. 4 Terminal from Left Side of Generator)**	1
10035	**Motor Terminal Assembly Complete** (Includes the next 2 Items)	1
21087	Strap for connecting Motor Terminal to Spring Terminal Assembly 10036 (Not shown in Illustration)	1
21372	Stud for Strap 21987 (Not shown in Illustration)	1
20079	Washer for Stud 21062	1
21062	Nut for Stud 21372	1
21105	Lock Washer for Nut 21062	1
21106	Insulating Bushing for Screw 21683	1
20077	Insulating Bushing for Spring Terminal Assembly 10014	3
21063	Insulating Bushing for Spring Terminal Assembly 10036	1
21059	Insulating Collar for Screw 21073	1
21079	Insulator for Spring Terminal Assemblies 10014 and 10036	1
21073	Screw for retaining Brush Terminal (Not shown in Illustration)	1
21123	Insulator for Strap 21087	1
20075	Nut for Spring Terminal Assemblies 10014 and 10036 and Screw 21683	7
20039	Dowel Pin for locating Pole Piece (Not shown in Illustration)	2
21683	Screw for retaining Strap 21087	1
21060	Insulating Washer for Screw 21073 (Not shown in Illustration)	1
22120	Shield for Field Coil Assembly 10079	2
20114	Plain Washer for Screw 21683 and Spring Terminal Assembly 10014	4
20137	Lock Washer for Screw 21683 and Spring Terminal Assembly 10014	4
20076	Insulating Washer for Screw 21683 and Spring Terminal Assembly 10014	4
21117	Insulating Washer for Spring Terminal Assembly 10036	2
20238	Plain Washer for Spring Terminal Assembly 10036	2

No. 4 MOTOR GENERATOR (Continued)

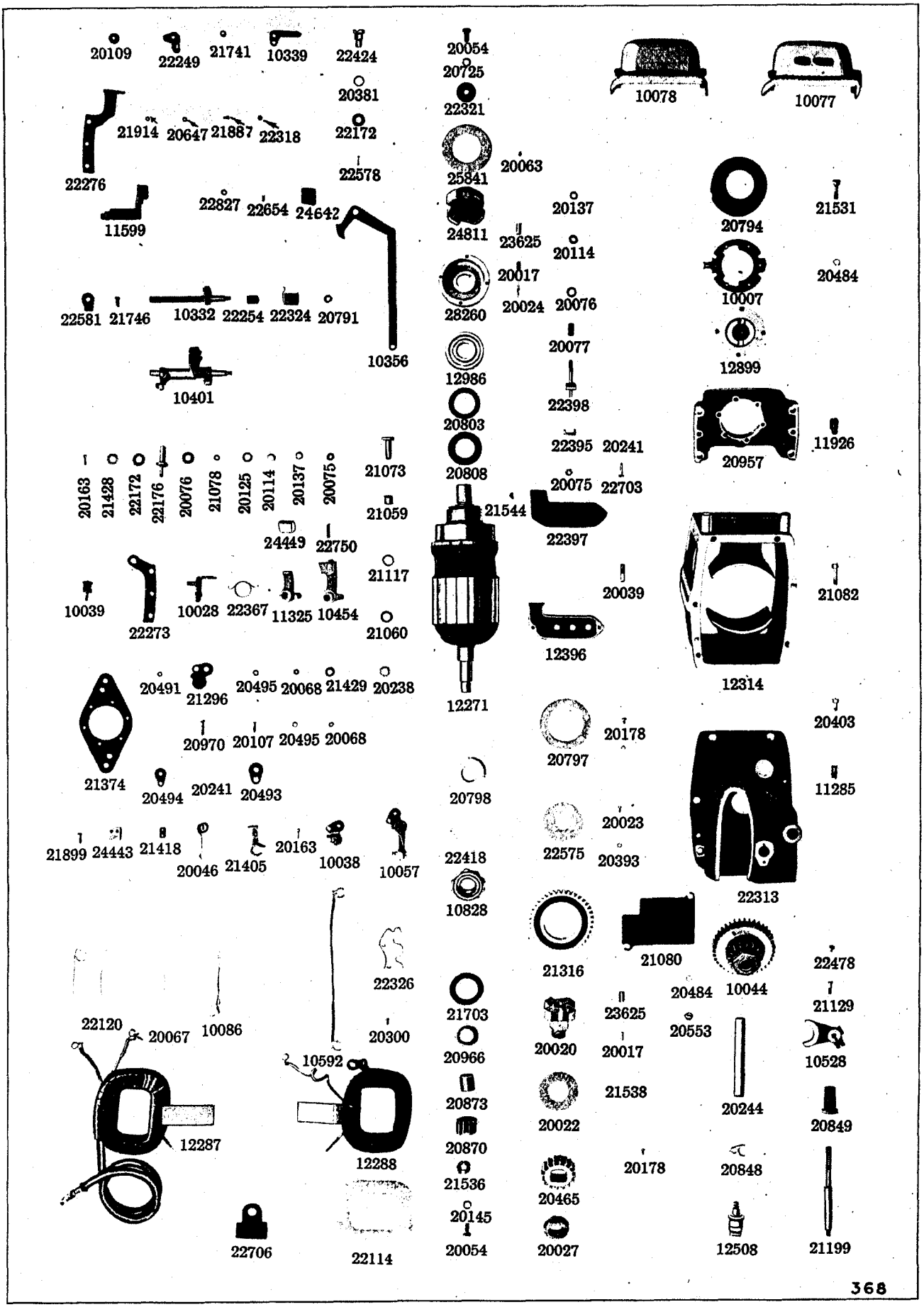
Piece Number	NAME OF PART	Quantity Required
22082	Clamp Nut for Spring Terminal Assembly 10036	1
11862	**Armature Assembly for Motor Generator**	1
21405	Generator Brush Arm	1
24480	Brush for Arm 21405	1
21418	Plate for Arm 21405	2
21899	Screw for attaching Brush 24480	2
22826	Lock Plate for Screw 21899 (Not shown in Illustration)	1
10038	**Generator Brush Holder Plate Assembly Complete (Not shown in Illustration)** (Includes the next Item)	2
12422	Stud for Plate Assembly 10038 (Not shown in Illustration)	1
10039	**Spring Terminal Assembly for Generator Brush Holder Assembly 10041**	2
21374	Holder for Generator Brush Holder Plate Assembly 10038	2
21296	Insulator for Plate 21209	2
23623	Insulator for Holder 21374 (Not shown in Illustration)	2
20494	Plate for Generator Brush Holder Assembly 10041 (Outer)	2
20495	Lock Washer for Nut 20068	4
20068	Nut for retaining Generator Brush Spring Terminal Assembly 10039 and Screw 20107	4
20107	Screw for retaining Plate 20494	2
20491	Insulating Bushing for Generator Brush Spring Terminal Assembly 10039 and Screw 20107	4
10007	**Bearing Retainer Assembly Complete** (Includes the next 5 Items)	1
10201	**Bearing Retainer Assembly (Not shown in Illustration)** (Includes the next Item)	1
20062	Stud for Retainer Assembly 10201 (Not shown in Illustration)	1
20802	Spring Nut for Bearing Retainer Assembly 10007 (Not shown in Illustration)	1
20801	Screw for Spring Nut 20802 (Not shown in Illustration)	1
20307	Spring for Screw 20801 (Not shown in Illustration)	1
20957	End Frame for Generator	1
12989	**Ball Bearing Assembly for Armature Shaft (Not shown in Illustration)**	1
22736	Shim for Ball Bearing Assembly 12989 (Not shown in Illustration)	2
20970	Screw for retaining Bearing Retainer Assembly 10007	6
20241	Lock Washer for Screw 20970	6
21704	Pipe Plug for Oil Hole in End Frame 20957 (Not shown in Illustration)	1
12899	**Generator Clutch Assembly Complete** (Includes the next 8 Items)	1
24811	Cam for Generator Clutch Assembly 12899	1
28260	Shell for Generator Clutch Assembly 12899	1
23625	Roll for Cam 24811	4
20024	Spring for Plunger 20017 (Not shown in Illustration)	4
20017	Plunger for Roll 23625	4
25841	Retainer for Roll 23625	1
20063	Screw for retaining Retainer 25841 (Not shown in Illustration)	4
20061	Pin for Shell 28260	1
20794	Cover for Generator Clutch Assembly 12899	1
20966	Collar for retaining Ball Bearing Assembly 12989 (Pinion End of Armature Shaft)	1
21544	Key for Generator Clutch Assembly 12899	1
20163	Cotter Pin for Motor Brush Arm Assembly 10029	2
20061	Pin for Set Screw 20162	1
20870	Motor Pinion for Armature Shaft	1
20808	Retainer for Ball Bearing Assembly 12989 (Commutator End) (Inner) (Not shown in Illustration)	1
21703	Oil Retainer (Felt) for Ball Bearing Assembly 12989 (Outer, Both Ends of Armature Shaft)	2
20803	Oil Retainer (Felt) for Ball Bearing Assembly 12989 (Inner, Both Ends of Armature Shaft)	2
20054	Screw for retaining Motor Pinion 20870	1
20162	Set Screw for Commutator End of Armature Shaft (Not shown in Illustration)	1
20873	Sleeve for retaining Collar 20966 (Pinion End of Armature Shaft)	1
20046	Spring for Motor Brush Arm Assembly 10029	2
23160	Clamp Washer for Screw 20054 (Pinion End of Armature Shaft)	1
20725	Lock Washer for Screw 20054	1
20798	Washer for retaining Ball Bearing Assembly 12989 (Pinion End of Armature Shaft, Inner) (Not shown in Illustration)	1
22735	Washer (Shim) for Armature Shaft (Not shown in Illustration)	1
10034	**Switch Latch Arm Assembly for Switch Contact Block Assembly 10045**	1
22620	Block for Operating Switch Cover Assembly 10046 (Not shown in Illustration)	1
21173	Roll for Block 22620 (Not shown in Illustration)	2
21174	Screw for retaining Roll 21173 (Not shown in Illustration)	2
10044	**Motor Clutch Assembly Complete** (Includes the next 11 Items)	1
20465	Pinion for Motor Clutch Assembly 10044	1
20020	Cam for Motor Clutch Assembly 10044	1
20027	Clamp Nut for Motor Clutch Assembly 10044	1
21316	Gear for Motor Clutch Assembly 10044	1
20022	Retainer for Roll 23625 (Inner)	1
22575	Retainer for Roll 23625 (Outer)	1
21538	Spring for Plunger 20017	4

No. 4 MOTOR GENERATOR (Continued)

Piece Number	NAME OF PART	Quantity Required
20017	Plunger for Roll 23625	4
23625	Roll for Cam 20020	4
20023	Screw for Retainers 22575 and 20022	4
20393	Lock Washer for Screw 20023	4
10046	**Switch Cover Assembly Complete** (Includes the next 29 Items)	1
10049	**Generator Switch Common Conductor Assembly (Large)**	1
10050	**Switch Conductor Assembly (Generator) (Small)**	1
10051	**Switch Conductor Assembly (Motor) (Medium)**	1
10040	**Insulator Assembly for Terminal Plate Assembly 10052 and Plate 21188** (Includes the next 3 Items)	1
21368	Insulator for Insulator Assembly 10040	1
21176	Separator for Insulator 21368	1
22009	Screw for Insulator Assembly 10040	2
10158	**Spring Terminal Assembly for connecting Switch Cover Assembly 10046**	1
10052	**Switch Terminal Plate Assembly for Top Cover 21151** (Includes the next 3 Items)	1
10162	**Spacing Terminal Assembly for Switch Terminal Plate Assembly 10052**	1
21189	Plate for Switch Terminal Plate Assembly	1
20137	Lock Washer for Spring Terminal Assembly 10162	1
21106	Insulating Bushing for Screw 21530	1
21158	Insulating Bushing for Spring Terminal Assembly 10158 and Switch Conductor Assemblies 10040 and 10051	3
21156	Insulating Bushing for Screw 21169	1
21150	Cover for Switch Cover Assembly 10046	1
20347	Nut for Rod 21183	1
21456	Nut for Switch Conductor Assembly 10051 (Thin)	1
21062	Nut for Switch Conductor Assemblies 10051 and 10049	2
21455	Insulating Plate for Switch Conductor Assemblies 10051 and 10049 (Inner)	1
21188	Clamp Plate for Conductor Assembly 10051 and Screw 21169	2
21183	Rod for Switch Conductor Assemblies 10050 and 10051 and Generator Switch Common Conductor Assembly 10049	2
20076	Insulating Washer for Screw 21530 and 21169	2
20114	Plain Washer for Screws 21530 and 21169	2
20791	Lock Washer for Screws 21530 and 21169	2
21165	Insulating Washer for Spring Terminal Assembly 10158 (Outer)	1
20146	Lock Washer for Spring Terminal Assembly 10158 and Nut 21062	3
20393	Lock Washer for Nut 20347	2
21454	Insulating Washer for Spring Terminal Assembly 10158 (Inner)	1
21168	Plain Washer for Spring Terminal Assembly 10158	1
21169	Screw for retaining Clamp Plate 21188	1
21530	Screw for retaining Switch Terminal Plate Assembly 10052	1
21895	Insulating Bushing for Switch Conductor Assemblies 10050 and 10051 and Generator Switch Common Conductor Assembly 10049	4
21896	Insulating Bushing between Switch Conductor Assemblies 10051 and 10050	1
21190	Switch Contact Plate for Switch Conductor Assemblies 10050 and 10051 and Generator Switch Common Conductor Assembly 10049	1
20866	End Housing for Generator	1
20849	Bushing in End Housing 20866 for Shift Rod 21199	1
20944	Screw for connecting Shift Rod 21199	1
21717	Lock Washer for Screw 20944	1
12989	**Ball Bearing Assembly for Armature Shaft (Not shown in Illustration)**	1
22736	Shim for Ball Bearing Assembly 12989 (Not shown in Illustration)	2
20178	Screw for retaining Retainer 20797	6
20797	Retainer for Ball Bearing Assembly 12989	1
20241	Lock Washer for Screw 20178	6
21704	Pipe Plug for Oil Hole in End Housing 20866 (Not shown in Illustration)	1
10047	**Switch Rod Operating Assembly Complete** (Includes the next Items)	1
21162	Pin for retaining Arms to Rod (Not shown in Illustration)	2
20244	Shaft for Motor Clutch Assembly 10044	1
21544	Key for Shaft 20244	1
21704	Pipe Plug for Shaft 20244 (Not shown in Illustration)	1
21166	Insulating Bushing for Switch Contact Plate 21190	2
20848	Clip for Shaft 20244	1
21080	Cover for End Housing Rod Assembly 10054 (Bottom)	1
20096	Cup for Spring 21200	1
21207	Insulator for Switch Contact Plate 21190	1
21675	Nut for Shift Rod 21199	1
21162	Pin for Arm 21178 (Not shown in Illustration)	1
21201	Pin for locating Switch Cover Assembly 10046 (Not shown in Illustration)	2
20163	Cotter Pin for retaining Cup 20096	1
20017	Plunger for Switch Latch Arm Assembly 10034	1
21199	Shift Rod for Motor Clutch Assembly 10044	1

No. 4 MOTOR GENERATOR (Continued)

Piece Number	NAME OF PART	Quantity Required
21147	Screw for attaching Switch Cover Assembly 10046 (Outer) (Not shown in Illustration)	1
20215	Screw for attaching Switch Cover Assembly 10046 (Inner)	1
22618	Screw for Switch Contact Plate 21190 (Not shown in Illustration)	2
22619	Cotter Pin for Screw	1
21159	Screw for retaining Plunger 20017	1
21170	Screw for attaching Switch Latch Arm Assembly 10034	2
20178	Screw for attaching Clip 20848	1
20553	Screw for attaching Cover 21080	2
21161	Spring for Switch Contact Plate 21190	2
21200	Spring for Switch Operating Rod Assembly 10047	1
21580	Spring for Plunger 20017	1
20791	Lock Washer for Screws 21147 and 20215	2
20380	Lock Washer for Screw 21170	2
21105	Lock Washer for Nut 21675	1
20484	Spring Washer for Screw 20553	2
20142	Lock Washer for Screw 20178 (Not shown in Illustration)	1
21163	Lock Washer for Screw 21159 (Not shown in Illustration)	1
21342	Yoke for Shift Rod 21199	1
10077	**Lower Generator End Cover Assembly Complete** (Includes the next 5 Items)	1
20737	Plate for Screen 20736 (Not shown in Illustration)	1
20736	Screen for Cover Assembly (Not shown in Illustration)	1
21673	Rivet retaining Plate 20737 and Screen 20736 (Not shown in Illustration)	1
21531	Screw for attaching Lower Generator End Cover Assembly 10077 (Not shown in Illustration)	2
20484	Spring Washer for Screw 21531 (Not shown in Illustration)	2
10078	**Upper Generator End Cover Assembly Complete** (Includes the next 2 Items)	1
21531	Screw for attaching Upper Generator Cover Assembly 10078 (Not shown in Illustration)	2
20484	Spring Washer for Screw 21531 (Not shown in Illustration)	2
20403	Screw for attaching Generator End Housing	5
10086	**Brush Connector Lead Assembly** (Includes the next 3 Items)	1
22386	Clip for Brush End of Lead Assembly 10086 (Not shown in Illustration)	1
20067	Clip for Field Coil End of Lead Assembly 10086	1
22451	Insulator for Lead Assembly 10086 (Not shown in Illustration)	1
21082	Screw for attaching Generator End Frame	4
11285	**Oiler Assembly for Ball Bearing Assembly 12989 (Commutator End)**	1
11926	**Oiler Assembly for Ball Bearing Assembly 12989 (Pinion End)**	1
12508	**Grease Cup Assembly in End Housing 20866 for Motor Clutch 10044**	1
21370	Terminal Clip for connecting Series Lead to Switch Cover Assembly 10046 (Not shown in Illustration)	1
21699	Terminal Clip for Motor Terminal (Not shown in Illustration)	1
20969	Terminal Clip for Spring Terminal Assembly 10014, 10080, 10037, 10036 and 10158 (Not shown in Illustration)	5
21315	Terminal Clip for connecting Switch Conductor Assembly 10051 and Generator Switch Common Conductor Assembly 10049 (Not shown in Illustration)	2



No. 24 MOTOR GENERATOR

No. 24 MOTOR GENERATOR

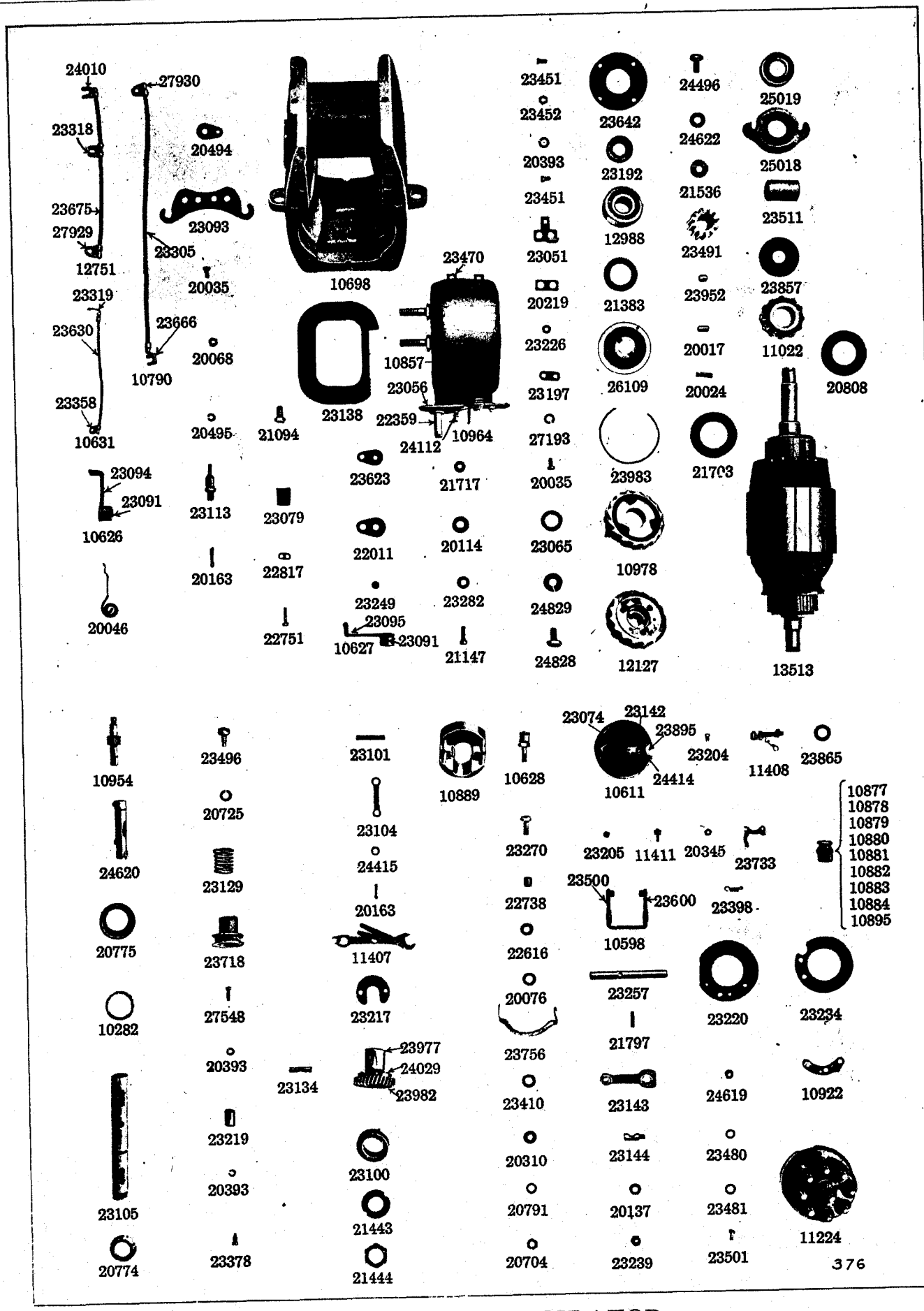
Piece Number	NAME OF PART	Quantity Required
24	**MOTOR GENERATOR COMPLETE**	1
12314	**Generator Frame Assembly** (Includes the next 2 Items)	1
20041	Screw for Pole Piece (Not shown in Illustration)	2
20039	Dowel Pin for Pole Piece (Not shown in Illustration)	4
10384	**Field Coil Assembly Complete (Not shown in Illustration)** (Includes the next 6 Items)	1
22289	Terminal Clip for Series Lead (Not shown in Illustration)	1
20300	Screw for Terminal Clip 22289 (Not shown in Illustration)	2
22283	Insulating Strip for Field Coil Assembly 10384 (Inner) (Not shown in Illustration)	2
22284	Insulating Strip for Field Coil Assembly 10384 (Outer) (Not shown in Illustration)	2
22285	Binding Strip for Field Coil Assembly	2
20067	Terminal Clip for Terminal Stud 22398	3
10356	**Brush Switch Link and Lever Assembly Complete** (Includes the next 3 Items)	1
22240	Link for connecting Shift Rod 21199 (Not shown in Illustration)	1
14253	**Lever Assembly (Not shown in Illustration)**	1
12396	**Terminal Block Assembly for Motor Generator**	1
22273	Motor Brush Stud Plate	1
22176	Stud for holding Lower Motor Brush Arm	1
10028	**Motor Brush Connector Assembly Complete**	1
20114	Plain Washer for Stud 22176	1
21078	Insulating Washer for Stud 22176	1
20076	Insulting Wsher for Stud 22176 (Inner)	1
20125	Insulating Washer for Stud 22176 (Outer)	1
20137	Lock Washer for Nut 20075	1
20075	Nut for attaching Stud 22176	1
10332	**Brush Arm Shaft Assembly** (Includes the next 2 Items)	1
22256	Spring Stud for Arm Shaft Assembly 10332 (Not shown in Illustration)	1
21162	Taper Pin for attaching Arm to Shaft (Not shown in Illustration)	1
11599	**Motor Brush Switch Arm Assembly** (Includes the next 4 Items)	1
22256	Spring Stud for Arm Assembly 11599 (Not shown in Illustration)	1
21173	Roll for Stud 22243	1
22243	Stud for attaching Roll 21173 to Arm Assembly 11599 (Not shown in Illustration)	1
22247	Contact for Motor Brush Switch Arm Assembly 11599 (Not shown in Illustration)	1
24642	Brush for Motor Brush Switch Arm Assembly 11599	2
22654	Screw for attaching Brush 24642	1
22827	Lock Plate for Screw 22654	1
22581	Collar for Shaft 22250	1
21746	Screw for retaining Collar 22581	1
22254	Sleeve for Shaft 22250	1
22324	Spring for Brush Arm Shaft Assembly 10332	1
22424	Screw for attaching Brush Switch Link and Lever Assembly 10356	1
20381	Lock Washer for Screw 22424	1
22578	Cotter Pin for Screw 22424	1
22398	Terminal Stud for connecting Motor Generator	3
20075	Nut for Terminal Stud 22398	9
20077	Insulating Bushing for Terminal Stud 22398	3
22395	Clip for Terminal Stud 22398	3
20076	Insulating Washer for Nut 20075	3
20114	Plain Washer for Nut 20075	3
20137	Lock Washer for Nut 20075	6
21073	Screw for attaching Field Coil Assembly 10384 (Lower)	1
21059	Collar for Screw 21073	1
21060	Insulating Bushing for Screw 21073	1
21117	Insulating Washer for Screw 21073	1
20238	Plain Washer for Screw 21073	1
22114	Insulator for Field Coil Assembly 10384 (Lower)	1
22120	Insulator for Field Coil Assembly 10384 (Upper)	1
20065	Screw for Shaft 22250 (Not shown in Illustration)	1
20345	Lock Washer for Screw 20065	1
22172	Plain Washer for under Cotter Pin 22578	1
10086	**Brush Connector Lead Assembly Complete** (Includes the next 3 Items)	1
22386	Clip for Brush End for Lead Assembly 10086 (Not shown in Illustration)	1
20067	Clip for Brush Plate End of Lead Assembly 10086 (Not shown in Illustration)	1
22451	Insulator for Lead Assembly 10086 (Not shown in Illustration)	1
11325	**Lower Motor Brush Arm Assembly** (Includes the next Item)	1
22084	Spring Stud for Brush Arm Assembly 11325 (Not shown in Illustration)	1
24449	Brush for Lower Motor Brush Arm Assembly 11325	2
22750	Screw for attaching Brush 24449	1
22827	Lock Plate for Screw 22750	1

No. 24 MOTOR GENERATOR (Continued)

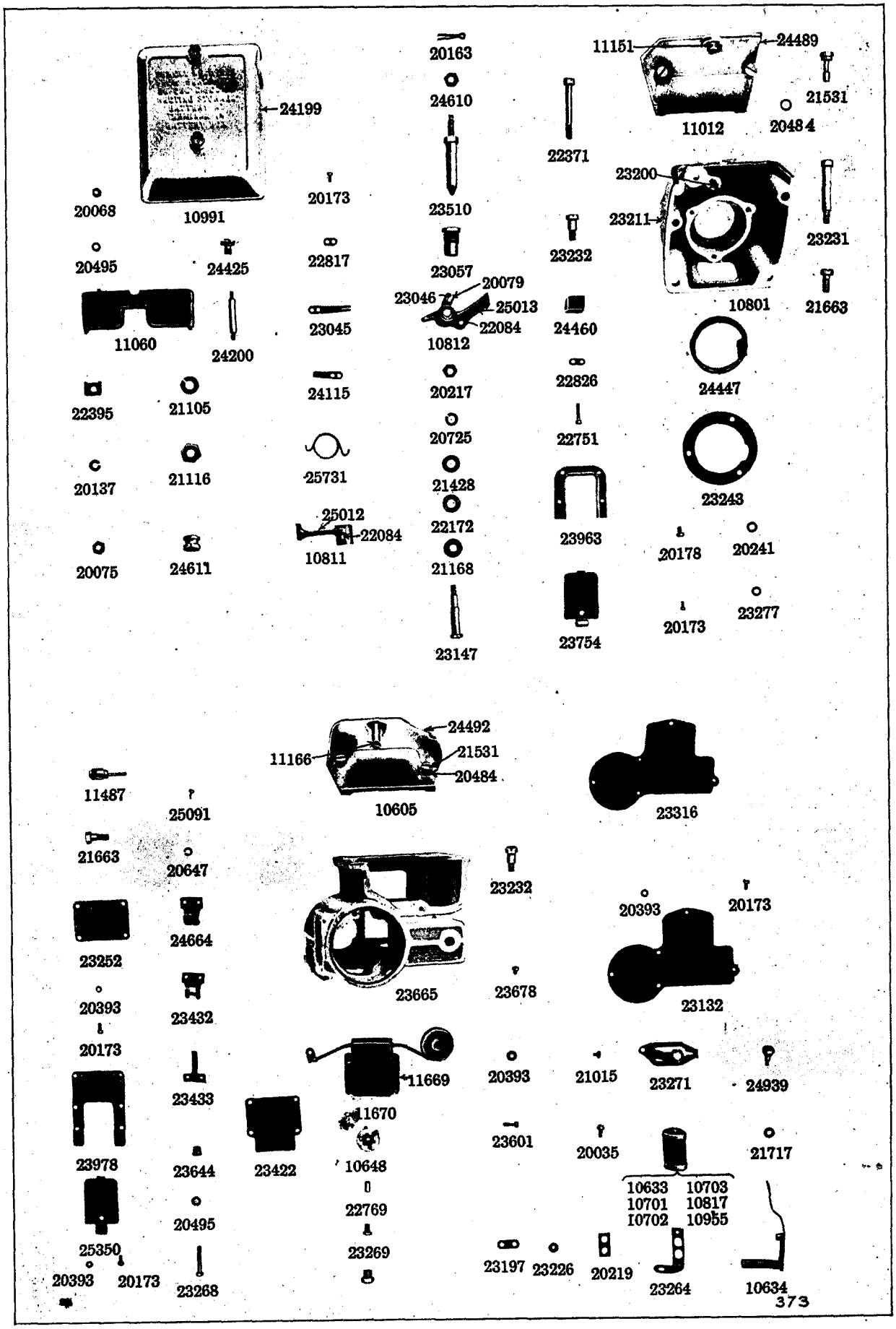
Piece Number	NAME OF PART	Quantity Required
22542	Stud for End of Shaft 22250 (Not shown in Illustration)	1
20791	Lock Washer for Stud 22542	1
21428	Plain Washer for retaining Lower Motor Brush Arm Assembly 11325	1
22570	Wedge for Field Coil Assembly 10384 (Not shown in Illustration)	2
22367	Spring for Lower Motor Brush Arm Assembly 11325	1
22172	Spring Washer under Cotter Pin 20163	1
20163	Cotter Pin retaining Plain Washer 21428	1
20039	Dowel Pin for locating Pole Piece	1
12271	**Armature Assembly for Motor Generator**	1
10038	**Generator Brush Holder Plate Assembly Complete** (Includes the next Item)	2
21422	Stud for Plate Assembly 10038 (Not shown in Illustration)	1
10039	**Generator Brush Spring Terminal Assembly for Generator Brush Holder Assembly 10038**	2
21374	Holder for Generator Brush Holder Plate Assembly 10038	1
21296	Insulator for Plate 21209	2
23623	Insulator for Holder 21374 (Not shown in Illustration)	2
20494	Plate for Generator Brush Holder Assembly 10038 (Outer)	2
20495	Lock Washer for Nut 20068	4
20068	Nut for retaining Generator Brush Spring Terminal Assembly 10039 and Screw 20107	4
20107	Screw for retaining Plate 20494	2
20491	Insulating Bushing for Generator Brush Spring Terminal Assembly 10039 Screw 20107	4
10007	**Bearing Retainer Assembly Complete for Ball Bearing Assembly 12986** (Includes the next 5 Items)	1
10201	**Bearing Retainer Assembly (Not shown in Illustration)**	1
20062	Stud for Retainer Assembly 10201 (Not shown in Illustration)	1
20802	Spring Nut for Bearing Retainer Assembly 10007 (Not shown in Illustration)	1
20801	Screw for Spring Nut 20802 (Not shown in Illustration)	1
20307	Spring for Screw 20801 (Not shown in Illustration)	1
20957	End Frame for Generator	1
12986	**Ball Bearing Assembly for Commutator End of Armature Shaft**	1
20970	Screw for retaining Bearing Retainer Assembly 10007	6
20241	Lock Washer for Screw 20970	6
21704	Pipe Plug for Oil Hole in End Frame 20957 (Not shown in Illustration)	1
10592	**Generator Brush Connector Lead Assembly Complete** (Includes the next 2 Items)	1
22386	Clip for Lead Assembly 10592 (Not shown in Illustration)	2
23089	Sleeving for Lead Assembly 10592 (Not shown in Illustration)	1
22326	Insulating Guard Plate for Lead Assembly 10592	1
10382	**Generator Clutch Assembly Complete (Smooth Type) (Not shown in Illustration)** (Includes the next 8 Items) (When ordering a Complete Clutch always order the New Style "Ratchet Type" No. 11348)	1
24811	Cam for Generator Clutch Assembly 10382 (Not shown in Illustration)	1
22286	Shell for Generator Clutch Assembly 10382 (Not shown in Illustration)	1
20878	Retainer for Roll 23625 (Not shown in Illustration)	1
23625	Roll for Cam 24811	1
20024	Spring for Plunger 20017	1
20017	Plunger for Roll 23625	1
21477	Screw for retaining Retainer 20878 (Not shown in Illustration)	1
22321	Plain Washer for Generator Clutch Assembly (Not shown in Illustration)	1
11348	**Generator Clutch Assembly Complete (Ratchet Type)** (Includes the next 8 Items)	1
24811	Cam for Generator Clutch Assembly 11348	1
24812	Shell for Generator Clutch Assembly 11348 (Not shown in Illustration)	4
23625	Roll for Cam 24811	4
20024	Spring for Plunger 20017	4
20017	Plunger for Roll 23625	1
25841	Retainer for Roll 23625	4
20063	Screw for retaining Retainer 25841	1
22321	Clamp Washer for Clutch Assembly	1
20054	Clamp Screw for Generator Clutch Assembly 11348	1
20725	Lock Washer for Clamp Screw 20054	1
21544	Key for Generator Clutch Assembly 12899	2
21703	Oil Retainer (Felt) for Ball Bearing Assembly 12986	1
20808	Retainer for Ball Bearing Assembly 12986 (Inner)	1
20798	Washer for retaining Ball Bearing Assembly 12986 (Outer)	1
10828	**Inner Race and Balls Assembly for Pinion End of Armature Shaft**	2
20803	Oil Retainer (Felt) for Inner Race and Balls Assembly 10828	1
20966	Washer for retaining Inner Race and Balls Assembly 10828 (Outer)	1
20873	Sleeve on Armature Shaft for retaining Washer 20966	1
20870	Motor Pinion for Armature Shaft	1
21536	Clamp Washer for Motor Pinion 20870	1
20054	Clamp Screw for Motor Pinion 20870	1
20725	Lock Washer for Clamp Screw 20054	1
21405	Generator Brush Arm	1

No. 24 MOTOR GENERATOR (Continued)

Piece Number	NAME OF PART	Quantity Required
24443	Brush for Arm 21405	1
21418	Plate for Arm 21405	1
21899	Screw for attaching Brush24443	2
22826	Lock Plate for Screw 21899 (Not shown in Illustration)	1
20163	Cotter Pin for retaining Generator Brush Arm 21405	2
20794	Cover for Generator Clutch Assembly 11348	1
20046	**Spring for Generator Brush Arm 21405**	1
22313	End Housing for Generator	1
22418	Outer Race for Inner Race and Balls Assembly 10828	1
20797	Retainer for Outer Race 22418 (Inner)	1
20178	Screw for retaining Retainer 20797	6
20241	Lock Washer for Screw 20178	6
20849	Bushing in End Housing 22313 for Shift Rod 21199	1
21704	Pipe Plug for Oil Hole in End Housing 22313 (Not shown in Illustration)	2
10339	**Contact Spring Assembly for Generator**	1
10039	**Spring Terminal Assembly for attaching Contact Spring Assembly 10339**	1
22276	Bracket for mounting Contact Assembly 10339	1
22249	Insulator under Contact Spring Assembly 10339	1
21741	Insulating Bushing for Spring Terminal Assembly 10039	1
21429	Insulating Washer for Spring Terminal Assembly 10039	1
20109	Plain Washer for Spring Terminal Assembly 10039	1
20495	Lock Washer for Nut 20068	1
20068	Nut for attaching Spring Terminal Assembly 10039	1
21887	Screw for retaining Bracket 22276	1
20647	Lock Washer for Screw 21887	1
21914	Plain Washer for Screw 21887	1
22318	Insulating Bushing for Screw 21887	1
20244	Shaft for Motor Clutch	1
21544	Key for Shaft 20244	1
21704	Pipe Plug for Shaft 20244 (Not shown in Illustration)	1
10528	**Generator Shifting Yoke Assembly Complete** (Includes the next 2 Items)	1
22883	Stud for attaching Link to Shift Rod (Not shown in Illustration)	1
20390	Pin for retaining Stud 22883 (Not shown in Illustration)	1
10078	**Upper Generator End Cover Assembly Complete** (Includes the next 2 Items)	1
21531	Screw for attaching Upper Generator End Cover Assembly 10078	2
20484	Spring Washer for Screw 21531	2
10077	**Lower Generator End Cover Assembly Complete** (Includes the next 5 Items)	1
20737	Plate for retaining Screen 20736 (Not shown in Illustration)	1
20736	Screen for Cover Assembly 10077 (Not shown in Illustration)	1
21673	Rivet for retaining Plate 20737 and Screen 20736 (Not shown in Illustration)	1
21531	Screw for attaching Lower Generator End Cover Assembly 10077	2
20484	Spring Washer for Screw 21531	2
20039	Dowel Pin for Generator End Frame 20957 and End Housing 22313	4
21082	Screw for attaching Generator End Frame 20957	4
20403	Screw for attaching End Housing 22313	5
20848	Clip for Shaft 20244	1
20178	Screw for retaining Clip 20848	1
20142	Lock Washer for Screw 20178	1
21199	Shift Rod for Generator Shifting Yoke and Motor Brush Switch Arm	1
20722	Plain Washer for Stud 22883	1
20163	Cotter Pin for Stud 22883	1
21080	Cover for nd Housing 22313	1
20553	Screw for attaching Cover 21080	2
20484	Spring Washer for Screw 20553	2
21129	Clamp Screw for Yoke 22307	1
22706	Terminal Clip for Battery Lead	1
22622	Ferrule for Terminal Clip 22706 (Not shown in Illustration)	1
22397	Conduit Cover (On Top of Generator)	1
22703	Screw for attaching Conduit Cover 22397	1
12508	**Grease Cup Assembly in End Housing 22313 for Motor Clutch**	1
11285	**Oil Cup Assembly for Ball Bearing Assembly 12986**	1
11926	**Oil Cup Assembly for Inner Race and Balls Assembly 10828**	1
22452	Terminal Clip for Terminal 22398 (Not shown in Illustration)	3
10044	**Motor Clutch Assembly Complete** (Includes the next 11 Items)	1
20465	Pinion for Motor Clutch Assembly 10044	1
20020	Cam for Motor Clutch Assembly 10044	1
20027	Clamp Nut for Motor Clutch Assembly 10044	1
21316	Gear for Motor Clutch Assembly 10044	1
20022	Retainer for Roll 23625 (Inner)	1
22575	Retainer for Roll 23625 (Outer)	1
21538	Spring for Plunger 20017	4
20017	Plunger for Roll 23625	4
23625	Roll for Cam 20020	4
20023	Screw for retainers 22575 and 20022	4
20393	Lock Washer for Screw 20023	4



No. 44 MOTOR GENERATOR



No. 44 MOTOR GENERATOR

No. 44 MOTOR GENERATOR

Piece Number	NAME OF PART	Quantity Required
44	**MOTOR GENERATOR**	1
10698	**Generator Frame Assembly**	1
	(Includes the next 5 Items)	
24228	Screw for Binding Generator Frame (Upper) (Not shown in Illustration)	1
24126	Screw for Binding Generator (Lower) (Not shown in Illustration)	4
24494	Lock Washer for Screw 24126 (Not shown in Illustration)	4
21147	Dowel Screw for Pole Piece (Not shown in Illustration)	1
21717	Lock Washer for Screw 21147 (Not shown in Illustration)	1
10964	**Field Coil Assembly Complete**	1
	(Includes the next 17 Items)	
14279	**Field Coil Assembly (Not shown in Illustration)**	1
	(Includes the next Item)	
10660	**Motor Brush Plate Assembly (Not shown in Illustration)**	1
	(Includes the next 3 Items)	
24112	Spring Stud for Brush Plate Assembly 10660	1
22359	Stud for holding Series Motor Brush Arm Assembly 11189	1
22007	Plain Washer for Stud 22359 (Not shown in Illustration)	1
22520	Rivet for retaining Motor Brush Plate Assembly 10660 (Not shown in Illustration)	3
23051	Clip for Spring 23045	1
23197	Lock Plate for Screw 20035	1
20219	Insulator for Clip 23051	2
23226	Insulating Bushing for Screw 20035	2
20035	Screw for retaining Clip 23051	2
23451	Screw for retaining Lead Assembly 12790	1
23452	Nut for Screw 23451	1
20393	Lock Washer for Nut 23452	1
23451	Screw for retaining Terminal Clip on Field Coil Assembly 10964	2
23452	Nut for Screw 23451	2
20393	Lock Washer for Nut 23452	2
10811	**Series Motor Brush Arm Assembly**	1
	(Includes the next 3 Items)	
22084	Spring Stud for Brush Arm Assembly 10811	1
25017	Insulating Bushing for Stud 25016 (Not shown in Illustration)	1
25016	Stud for Screw 24621 (Not shown in Illustration)	1
24460	Brush for Brush Arm Assembly 10811	1
22751	Screw for attaching Brush 24012	2
22826	Lock Plate for Screw 22751	1
11060	**Terminal Block Assembly**	1
20137	Lock Washer for Nut 20075	1
20068	Nut for attaching Stud 23655	1
23655	Stud for attaching Clip 22395	1
20495	Lock Washer for Nut 20068	1
22395	Clip for Stud 23655	1
20075	Nut for attaching Clip 22395	1
21428	Plain Washer for Series Motor Brush Arm Assembly 10811	2
22172	Spring Washer for retaining Series Motor Brush Arm Assembly 10811	1
20163	Cotter Pin for retaining Spring Washer 22172	1
25731	Spring for Series Motor Brush Arm Assembly 10811	1
23138	Insulator for Field Coil Assembly 10964	2
27193	Insulating Washer for Screw 21147 (Not shown in Illustration)	8
20114	Plain Washer for Screw 21147	2
21717	Lock Washer for Screw 21147	2
21147	Screw for attaching Motor Brush Plate Assembly 10660	2
23282	Insulating Bushing for Screw 21147 (Not shown in Illustration)	2
21116	Nut for Terminal Stud under Terminal Block Assembly 11060 (Small)	2
21105	Lock Washer for Nut 24611	2
24611	Nut for Terminal Stud under Terminal Block Assembly 11060 (Large)	2
22570	Wedge for Field Coil Assembly 10964 (Not shown in Illustration)	7
10889	**Governor Ring Assembly for Distributor Shaft**	1
	(Includes the next 2 Items)	
23448	Clip for Governor Ring Assembly 10889 (Not shown in Illustration)	1
24198	Screw for attaching Clip 23448 (Not shown in Illustration)	2
10954	**Distributor Cam Adjustment Assembly Complete**	1
	(Includes the next 3 Items)	
23874	Cam for Cam Adjustment Assembly 10954 (Not shown in Illustration)	1
23468	Pin for Cam 23874 (Not shown in Illustration)	1
23117	Screw for Distributor Cam Adjustment Assembly 10954 (Not shown in Illustration)	1
10922	**Distributor Segment Assembly for mounting Contact Arm Assembly 11408**	1
	(Includes the next 3 Items)	
24070	Stud for mounting Stop 23733 (Not shown in Illustration)	1
24071	Stud for mounting Contact Arm Assembly 11408 (Not shown in Illustration)	1
24073	Stud for connecting Current Regulator Bracket	1
11408	**Contact Arm Assembly for Distributor**	1
	(Includes the next 3 Items. Do not count Old Style Parts)	

No. 44 MOTOR GENERATOR (Continued)

Piece Number	NAME OF PART	Quantity Required
11379	**Connector Assembly for Contact Arm Assembly 11408 (Not shown in Illustration)**	1
21801	Hub for Contact Arm Assembly 11408 (Not shown in Illustration)	1
24069	Terminal Wire (Old Style) (Not shown in Illustration	1
24947	Screw for attaching Hub 24069 (Not shown in Illustration)	2
10282	**Retainer and Balls Assembly for Distributor Shaft Assembly 10699**	2
11061	**Pinion and Hub Assembly for Distributor Shaft (Not shown in Illustration)** (Includes the next 3 Items)	1
27548	Screw for attaching Pinion to Hub	2
20393	Lock Washer for Screw 27548	2
24029	Dowel Pin for Pinion and Hub Assembly 11061	1
23217	Retainer Plate for Pinion and Hub Assembly 11061	1
21836	Screw for retaining Stop 23733 (Not shown in Illustration)	1
23733	Stop for Contact Arm Assembly 11408	1
23480	Plain Washer for Screw 23501	2
23481	Insulating Bushing for Screw 23501	2
20035	Screw for attaching Distributor Segment Assembly 10922	2
20345	Lock Washer for Screw 21836	1
23100	Advance Ring on Shaft 23105 for Hand Advance	1
23220	Mounting Plate for Shaft 23105	1
23134	Pin for Advance Ring 23100	1
21443	Clamp Nut for Shaft 23105	1
21444	Lock Nut for Clamp Nut 21443	1
23218	Clamp for Pin 23134	1
23378	Screw for retaining Clamp 23218	1
20393	Lock Washer for Screw 23378	1
11094	**Distributor Shaft and Cone Assembly (Not shown in Illustration)** (Includes the next 2 Items)	1
23105	Shaft for Distributor	1
27222	Cone for Shaft 23105 (Not shown in Illustration)	2
23234	Insulating Washer for Distributor Segment Assembly 10922	1
23129	Spring for Collar 23718 on Shaft 23105	1
23718	Collar for Automatic Advance on Shaft 23105	1
23101	Pin for retaining Collar 23718 and Governor Ring Assembly 10889	2
24415	Plain Washer for Pin 23101	4
20163	Cotter Pin for retaining Pin 23101	4
23104	Advance Arm for connecting Collar 23718 to Governor Ring Assembly 10889	2
23496	Screw for retaining Governor Ring Assembly 10889	2
24493	Lock Washer for Screw 23496	2
23098	Shaft for Distributor Cam Adjustment Assembly 10954	1
20775	Cup for Retainer and Balls Assembly 10282	2
23398	Spring for Contact Arm Assembly 11408	1
12988	**Ball Bearing Assembly for Distributor End of Armature Shaft**	1
10634	**Current Regulator Contact Arm Assembly** (Includes the next 3 Items)	1
23262	Roll for Contact Arm Assembly 10634 (Not shown in Illustration)	1
23263	Stud for Contact Arm Assembly 10634 (Not shown in Illustration)	1
24247	Rivet for Contact Arm Assembly 10634 (Not shown in Illustration)	2
10631	**Resistance Unit Connector Lead Assembly Complete** (Includes the next 2 Items)	1
23319	Clip for Resistance Unit End of Lead Assembly 10631	1
23358	Clip for Field Coil End of Lead Assembly 10631	1
10611	**Distributor Rotor Assembly Complete** (Includes the next 4 Items)	1
23074	Connector for Distributor Rotor Assembly 10611	1
23142	Screw for connecting Connector 23074	1
23895	Brush for Distributor Rotor Assembly 10611	1
24414	Spring for Brush 23895	1
10633 10701 10702 10703 10817 10955	**Current Regulator Resistance Unit Assembly** **(One to be used. Order by number stamped on Current Regulator Resistance Unit Assembly)**	1
10648	**Resistance Unit Assembly for Distributor**	1
10598	**Advance Yoke Assembly**	1
23257	Shaft for Advance	1
23144	Clamp Screw for Advance Lever 23143	1
23239	Nut for Clamp Screw 23144	1
20137	Lock Washer for Nut 23239	1
23143	Advance Lever for Advance Lever Shaft 23257	1
11868	**Spring Terminal Assembly for connecting Distributor**	1
12411	**Contact Screw Assembly for Contact Arm Assembly 11408 (Not shown in Illustration)**	1
23665	End Frame for Generator	1
21383	Washer (Felt) for Ball Bearing Assembly 12988	2

No. 44 MOTOR GENERATOR (Continued)

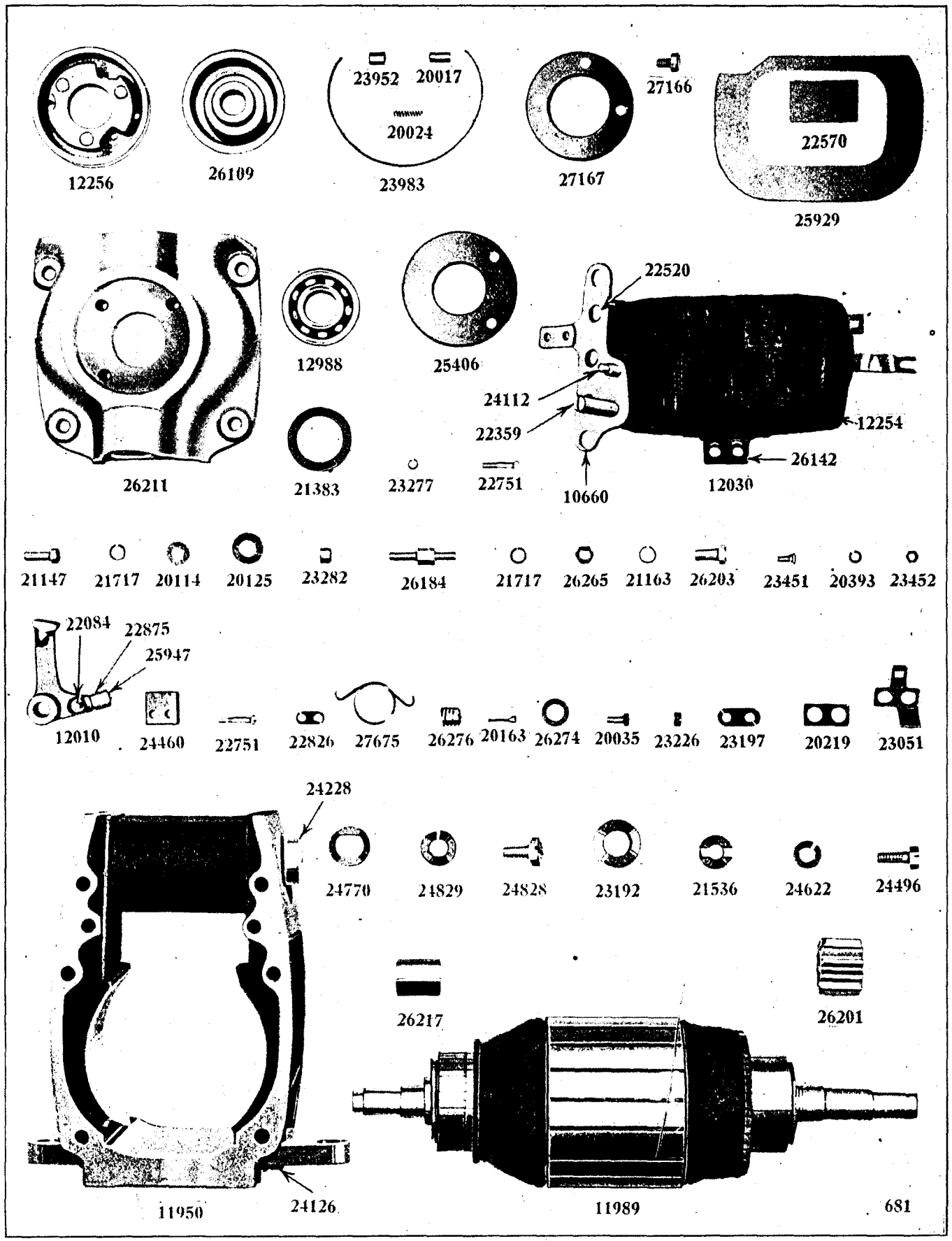
Piece Number	NAME OF PART	Quantity Required
23642	Retainer for Ball Bearing Assembly 12988 (Inner)	1
21094	Screw for retaining Retainer 23642	4
23271	Bracket for Current Regulator Resistance Unit Assembly 10703 ,etc. (Upper)	1
23678	Screw for attaching Bracket 23271	1
20373	Lock Washer for Screw 23678	3
23268	Screw for retaining Stud 23270	1
23269	Insulating Bushing for Stud 23270	1
22769	Insulating Bushing for Resistance Unit Assembly 10648	1
20495	Lock Washer for Nut 23644	1
23644	Nut for retaining Resistance Unit Assembly 10648	1
23270	Bushing for Resistance Unit Assembly 10648	1
24664	Clip for attaching Distributor Head Assembly 12568 (Single)	1
20647	Lock Washer for Screws 21015 and 21531	5
25091	Screw for attaching Clips 24664, 23433 and 23432	4
23433	Clip for attaching Distributor Head Assembly 12568 (Long Tongue Clip)	1
23432	Clip for attaching Distributor Head Assembly 12568 (With Clip 23433)	1
21797	Screw for attaching Advance Yoke Assembly 10598	1
21015	Screw for retaining Bracket 23271	1
23978	Guide Plate for Cover Plate 25350	1
25350	Cover Plate for End Frame 23665	1
23264	Bracket for Current Regulator Resistance Unit Assembly 10703, etc. (Lower)	1
20219	Insulator for Bracket 23264	2
23197	Lock Plate for Screw 20035	1
23226	Insulating Bushing for Screw 20035	2
24939	Screw for attaching Current Regulator Resistance Unit Assembly 10703, etc.	2
21717	Lock Washer for Screw 24939	2
20173	Screw for attaching Guide Plate 23978	6
20393	Lock Washer for Screw 20173	6
20035	Screw for attaching Distributor Segment Assembly 10922	1
20495	Lock Washer for Screw 20035	1
22616	Plain Washer for Screw 23205 and Spring Terminal Assembly 10628	2
20076	Insulating Washer for Screw 23205 and Spring Terminal Assembly 10628 (Outer)	2
22738	Insulating Bushing for Screw 23205 and Spring Terminal Assembly 10628	2
23410	Insulating Washer for Screw 23205 and Spring Terminal Assembly 10628 (Inner)	2
23756	Connector for connecting Spring Terminal Assembly 10628 and Screw 23205	1
20704	Nut for Screw 23205 and Spring Terminal Assembly 10628	2
20791	Lock Washer for Nut 20704	2
20310	Plain Washer for Nut 20704	2
23205	Screw for Contact Screw Assembly 12411	1
12127	**Generator Clutch Assembly Complete** (Includes the next 6 Items)	1
10978	**Spiral Gear and Cam Assembly for Generator Clutch Assembly 12127**	1
26109	Shell for Generator Clutch Assembly 12127	1
23952	Roll for Spiral Gear and Cam Assembly 10978	3
20017	Plunger for Roll 23952	3
20024	Spring for Plunger 20017	3
23983	Binding Spring for Generator Clutch Assembly 12127	1
14898	**Ball Bearing Assembly for Pinion End of Armature Shaft**	1
13513	**Armature Assembly for Motor Generator**	1
21703	Oil Retainer (Felt) for Inner Race and Balls Assembly 14898	2
20808	Retainer for Oil Retainer 21703 (Inner)	1
24622	Lock Washer for Clamp Screw 24496	1
24496	Clamp Screw for Motor Pinion 23491	1
21536	Clamp Washer for Motor Pinion 23491	1
24829	Lock Washer for Clamp Screw 24828 (Clutch End)	1
23065	Clamp Washer for Generator Clutch Assembly 12127	1
24828	Clamp Screw for retaining Generator Clutch Assembly 12127	1
23192	Spacing Collar on Armature Shaft next to Generator Clutch Assembly 12127	1
23511	Spacing Sleeve on Armature Shaft for retaining Washer 23857	1
23491	Motor Pinion for Armature Shaft	1
23857	Washer for retaining Inner Race and Balls Assembly 14898	1
10801	**Motor End Frame Assembly** (Includes the next Item)	1
23200	Spring Stud for End Frame Assembly 10801	1
10812	**Grounded Motor Brush Arm Assembly** (Includes the next 3 Items)	1
22084	Spring Stud for Brush Arm Assembly 10812	1
23046	Roll for Brush Arm Assembly 10812	1
20079	Plain Washer for Roll 23046	1
24460	Brush for Grounded Motor Brush Arm Assembly 10812	1
22751	Screw for attaching Brush 24460	2
22826	Lock Plate for Screw 22751	1
23045	Spring for Generator Switch on Grounded Motor Brush Arm Assembly 10812	1
20173	Screw for attaching Spring 23045	2

No. 44 MOTOR GENERATOR (Continued)

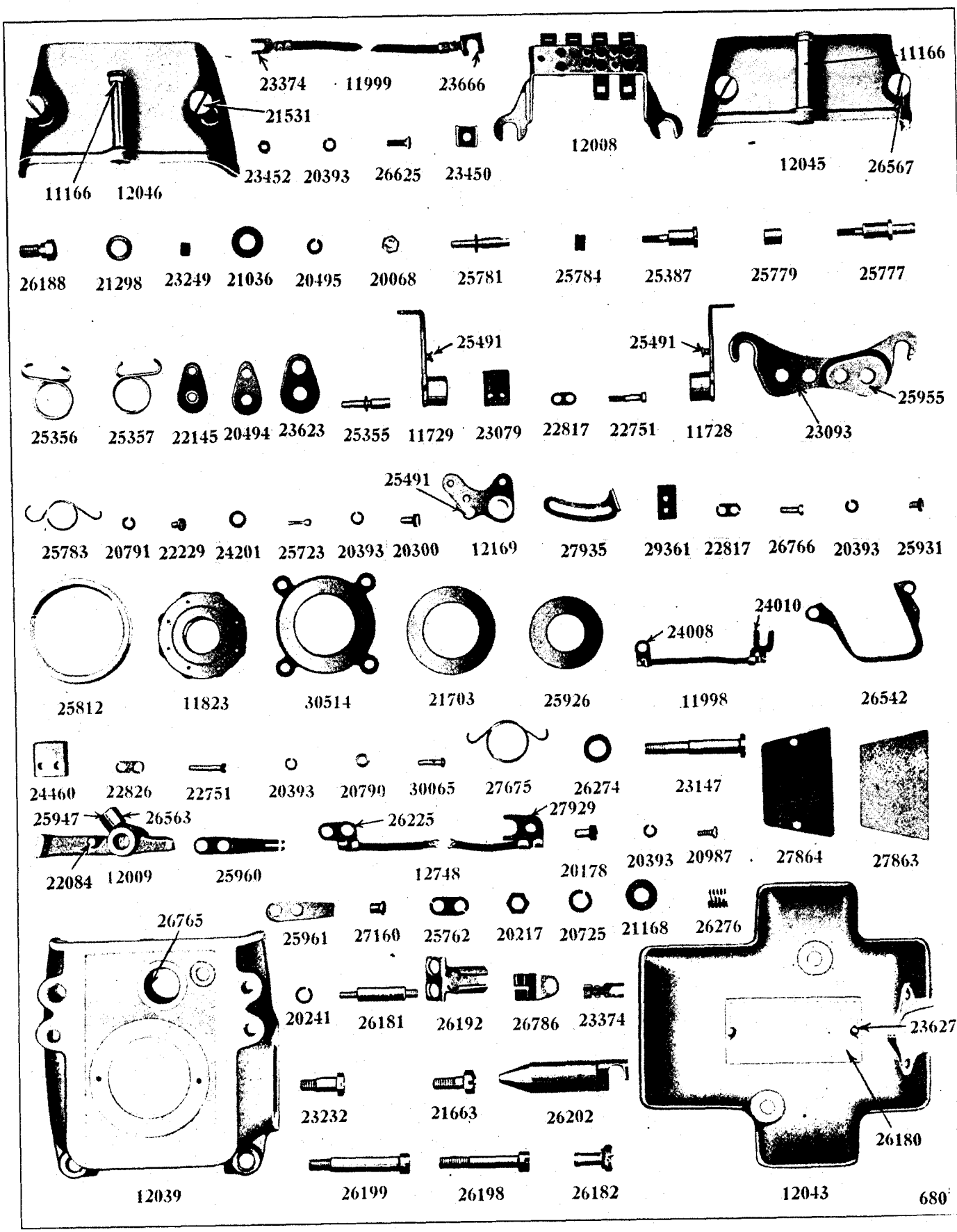
Piece Number	NAME OF PART	Quantity Required
22817	Lock Plate for Screw 20173	1
24115	Plate for Spring 23045	1
24621	Screw for Adjusting Grounded Motor Brush Arm Assembly 10812	1
24619	Nut for Screw 24621	1
21717	Lock Washer for Nut 24619	1
23147	Stud for Holding Grounded Motor Brush Arm Assembly 10812	1
20217	Nut for Stud 23147	1
20725	Lock Washer for Nut 20217	1
21168	Plain Washer for retaining Grounded Motor Brush Arm Assembly 10812 (Outer)	1
21428	Plain Washer for retaining Grounded Brush Arm Assembly 10812 (Inner)	1
22172	Spring Washer for retaining Grounded Motor Brush Arm Assembly 10812	1
25731	Spring for Grounded Motor Brush Arm Assembly 10812	1
23243	Retainer for Ball Bearing Assembly 14898	3
20241	Lock Washer for Screw 20178	3
20178	Screw for retaining Retainer 23243	1
23057	Bushing for Rod 23510	1
23754	Cover Slide for Motor End Frame Assembly 10801	1
23963	Guide for Cover Slide 23754 (Outer)	1
23964	Guide for Cover Slide 23754 (Inner) (Not shown in Illustration)	4
20173	Screw for Guides 23963 and 23964	4
23277	Lock Washer for Screw 20173	1
24111	Felt Plug for Oil Hole (Not shown in Illustration)	1
10626	**Generator Brush Arm Assembly (Left)**	1
23079	Brush for Generator Brush Arm Assembly 10626	2
22751	Screw for attaching Brush 23709	1
22817	Lock Plate for Screw 22751	1
10627	**Generator Brush Arm Assembly (Right)** (Include sthe next Item)	1
23079	Brush for Generator Brush Arm Assembly 10627	3
22751	Screw for attaching Brush 23079	1
22817	Lock Plate for Screw 22751	1
12790	**Ground Connector Lead Assembly Complete** (Includes the next 2 Items)	1
23666	Clip for Generator Switch End of Lead Assembly 12790	1
27930	Clip for Brush Plate End of Lead Assembly 12790	1
12751	**Outside Terminal Connector Lead Assembly Complete** (Includes the next 3 Items)	1
27929	Clip for Brush Plate End of Lead Assembly 12751	1
23318	Clip for Field Coil (Center of Lead Assembly 12751)	1
24010	Clip for Spring Terminal End of LeadAssembly 12751	2
20046	Spring for Generator Brush Arm Assemblies 10626 and 10627	2
20163	Cotter Pin for retaining Spring 20046	1
23093	Generator Brush Holder Bracket	2
20494	Plate for Stud 23113 (Inner)	4
23623	Insulator for Stud 23113	2
23113	Stud for Holding Generator Brush Arm Assemblies 10626 and 10627	4
23249	Insulating Bushing for Stud 23113 and Screw 20035	2
20068	Nut for Stud 23113	2
20495	Lock Washer for Nut 20068	2
22011	Plate for Stud 23113 (Outer)	2
20035	Screw for retaining Plates 22011 and 20494	1
10991	**Generator Top Cover Assembly Complete** (Includes the next Item)	2
24425	Clamp Nut for Top Cover Assembly 10991	1
11012	**Motor End Top Cover Assembly Complete** (Includes the next 3 Items)	2
20484	Spring Washer for Screw 21531	2
21531	Screw for attaching Top Cover Assembly 11012	1
11151	**Oiler Assembly for Motor End Top Cover Assembly 11012**	1
10605	**Generator End Top Cover Assembly Complete** (Includes the next 3 Items)	2
21531	Screw for attaching Top Cover Assembly 10605	2
20484	Spring Washer for Screw 21531	1
14043	**Oiler Assembly for Generator End Top Cover Assembly 10605**	1
11383	**Flange and Washer Assembly Complete (Not shown in Illustration)** (Includes the next Item)	1
25019	Felt Washer for Flange Assembly 11383	1
23510	Brush Lifting Rod	2
24610	Nut for Rod 23510	1
25307	Cotter Pin for retaining Nut 24610	1
11487	**Distributor Bearing Oiler Assembly**	1
23108	Screw for attaching Generator Brush Holder Bracket 23093	1
21663	Screw for attaching Motor End Frame Assembly 10801 (Short) (Plain)	1
23232	Screw for attaching Motor End Frame Assembly 10801 (Short) (Dowel)	1
23231	Screw for attaching Motor End Frame Assembly 10801 (Long) (Dowel)	1
22371	Screw for attaching Motor End Frame Assembly 10801 (Long) (Plain)	1

No. 44 MOTOR GENERATOR (Continued)

Piece Number	NAME OF PART	Quantity Required
21663	Screw for attaching Generator End Frame 23665 (Plain)	2
23232	Screw for attaching Generator End Frame 23665 (Dowel)	2
23132	Bottom Plate for Generator End Frame 23665	1
23316	Gasket for Bottom Plate 23132	1
20393	Lock Washer for Screw 20173	5
20173	Screw for attaching Bottom Plate 23132 and Name Plate 23252	9
23252	Name Plate for Generator End Frame 23665	1
20393	Lock Washer for Screw 20173	4
24200	Stud for attaching Nut 24425 (On Generator Top Cover Assembly 10991)	2
23204	Screw for attaching Condenser Assembly 11670 to Screw 23205	1
20345	Lock Washer for Screw 23204	1
23422	Gasket for Condenser Assembly 10861	1
24527	Insulator for Resistance Unit Guard (Not shown in Illustration)	1
10861	**Condenser Assembly Complete** (Includes the next Item)	1
23601	Screw for attaching Condenser Assembly 10861	4
12568	**Distributor Head Assembly Complete (Not shown in Illustration)** (Includes the next 2 Items. Do not count Old Style Parts)	1
21425	Plunger (Old Style) for Distributor Head Assembly 12568 (Approximately ⅛/ Diameter) (Not shown in Illustration)	1
27608	Plunger for Distributor Head Assembly 12568 (Approximately ¼" Diameter) (Not shown in Illustration)	1
21424	Spring (Old Style) for Plunger 21425 (Approximately ⅛" Diameter) (Not shown in Illustration)	1
27607	Spring for Plunger 27608 (Approximately ¼" Diameter) (Not shown in Illustration)	1
10697	**Motor Terminal Clip Assembly Complete (Not shown in Illustration)** (Includes the next 5 Items)	1
23654	Terminal Clip for Motor Terminal Assembly 10697 (Not shown in Illustration)	1
22395	Clip for Terminal Clip 23654 (Not shown in Illustration)	1
23656	Stud for attaching Clip 22395 to Terminal Clip 23654 (Not shown in Illustration)	1
20137	Lock Washer for Nut 20075	1
20075	Nut for Stud 23656	1
24453	Terminal Clip for connecting Generator Brush Arm Assemblies 10626 and 10627 (Not shown in Illustration)	2
23365	Fibre Ferrule for Terminal Clip 24453 (Not shown in Illustration)	2
23360	Terminal Clip for Spring Terminal Assembly 10628 (Not shown in Illustration)	1
23365	Fibre Ferrule for Terminal Clip 23360 (Not shown in Illustration)	1
25092	Insulator for Series Lead on Generator Top Cover Assembly 10991 (Not shown in Illustration)	1
23865	Rubber Washer for High Tension Terminal Assemblies	9
11407	**Wrench for Distributor**	1
10877	**High Tension Terminal Assembly for Distributor Head Assembly 12568 (Blank)**	1
10878	**High Tension Terminal Assembly for Distributor Head Assembly 12568 (1)**	1
10879	**High Tension Terminal Assembly for Distributor Head Assembly 12568 (2)**	1
10880	**High Tension Terminal Assembly for Distributor Head Assembly 12568 (3)**	1
10881	**High Tension Terminal Assembly for Distributor Head Assembly 12568 (4)**	1
10882	**High Tension Terminal Assembly for Distributor Head Assembly 12568 (5)**	1
10883	**High Tension Terminal Assembly for Distributor Head Assembly 12568 (6)**	1
10884	**High Tension Terminal Assembly for Distributor Head Assembly 12568 (7)**	1
10885	**High Tension Terminal Assembly for Distributor Head Assembly 12568 (8)**	1



No. 78 MOTOR GENERATOR



No. 78 MOTOR GENERATOR

No. 78 MOTOR GENERATOR

Note: No. 78 Motor Generator superseded by No. 98 Motor Generator, when ordering a complete new unit, order No. 98.

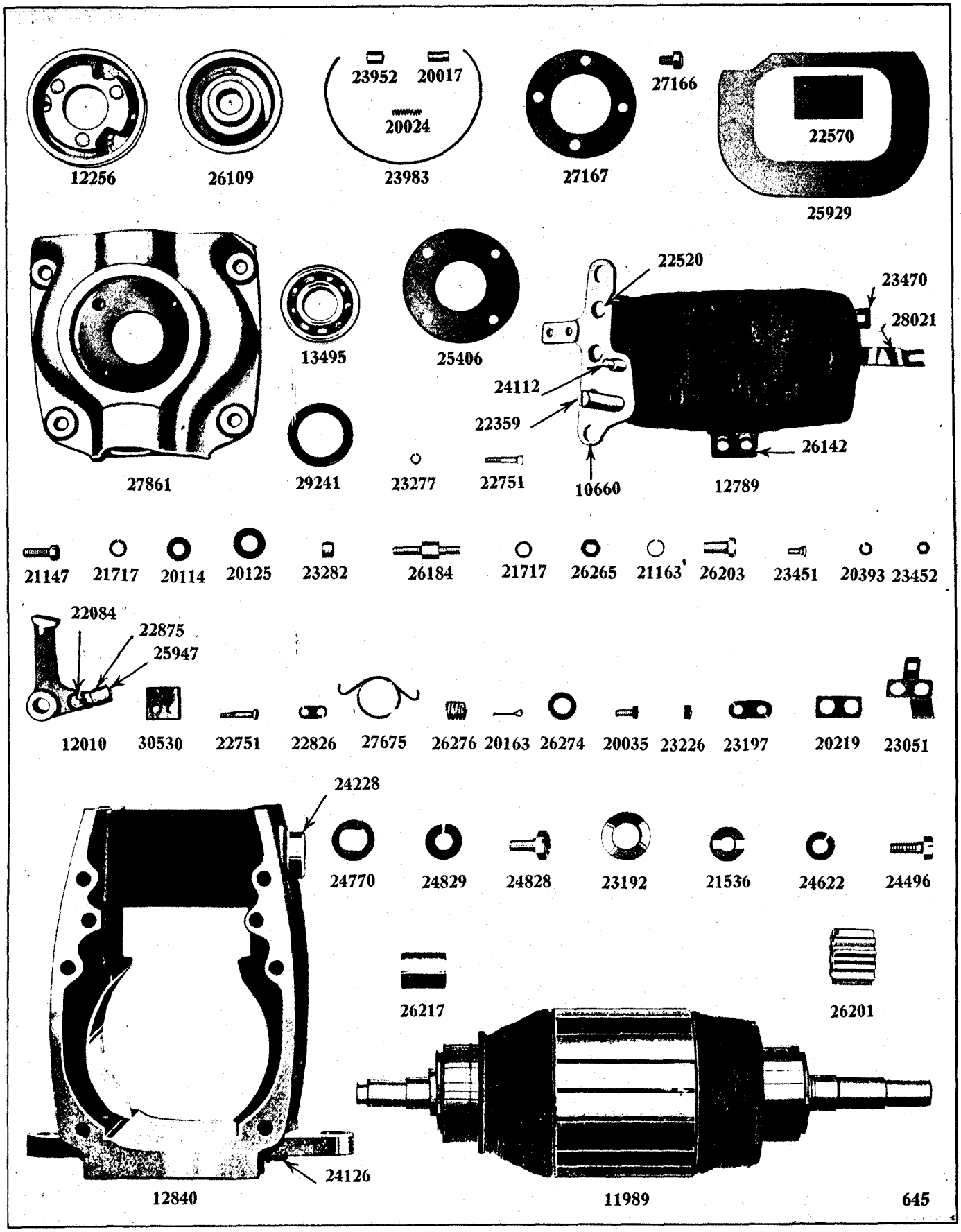
Piece Number	NAME OF PART	Quantity Required
78	**MOTOR GENERATOR COMPLETE**	1
11950	**Generator Frame Assembly** (Includes the next 3 Items)	1
24228	Screw for binding Generator Frame (Upper)	1
24126	Screw for binding Generator Frame (Lower)	2
24494	Lock Washer for Screw 24126 (Not shown in Illustration)	2
12254	**Field Coil and Motor Brush Plate Assembly** (Includes the next 7 Items)	1
10660	**Motor Brush Plate Assembly** (Includes the next 3 Items)	1
24112	Spring Stud for Brush Plate Assembly 10660	1
22359	Stud for holding Series Motor Brush Arm Assembly 12010	1
22007	Washer for Stud 22359 (Not shown in Illustration)	1
22520	Rivet for retaining Motor Brush Plate Assembly 10660	3
26185	Clip on Field Coil Assembly for Terminal Plate (Not shown in Illustration)	1
26142	Strap for Motor Terminal Clip 26192	1
23051	Clip on Motor Brush Plate Assembly 10660 for Generator Switch	1
23197	Lock Plate for Screw 20035	1
20219	Insulator for Clip 23051	2
23226	Insulating Bushing for Screw 20035	2
20035	Screw for retaining Clip 23051	2
23451	Screw on Clip 23051 for retaining Lead Assembly 11999	1
23452	Nut for Screw 23451	1
20393	Lock Washer for Nut 23452	1
23451	Screw for retaining Terminal Clip on Field Coil Assembly 12254	1
23452	Nut for Screw 23451	1
20393	Lock Washer for Nut 23452	1
26203	Screw for attaching Motor Terminal Clip 26192	2
21163	Lock Washer for Screw 26203	2
12010	**Series Motor Brush Arm Assembly** (Includes the next 3 Items)	1
22084	Spring Stud for Brush Arm Assembly 12010	1
22875	Roll for Brush Arm Assembly 12010	1
25947	Plain Washer for retaining Roll 22875	1
24460	Brush for Series Motor Brush Arm Assembly 12010	1
22751	Screw for attaching Brush 24460	2
22826	Lock Plate for Screw 22751	1
26276	Spring for Series Motor Brush Arm Assembly 12010 (Inner)	1
26274	Plain Washer for retaining Series Motor Brush Arm Assembly 12010	1
20163	Cotter Pin for retaining Series Motor Brush Arm Assembly 12010	1
27675	Spring for Series Motor Brush Arm Assembly 12010 (Outer)	1
25929	Insulator for Field Coil Assembly 12254	2
20125	Insulating Washer for Screw 21147	4
20114	Plain Washer for Screw 21147	2
21717	Lock Washer for Screw 21147	2
21147	Screw for attaching Motor Brush Plate Assembly 10660	2
23282	Insulating Bushing for Screw 21147	2
22570	Wedge for Field Coil Assembly 12254	7
26184	Dowel Stud for connecting Ground Lead (On Side of Frame)	1
21717	Lock Washer for Nut 26285	2
26265	Nut for Dowel Stud 26184	1
26211	End Frame for Generator	1
12988	**Ball Bearing Assembly for Generator Clutch End of Armature Shaft**	1
25406	Retainer for Ball Bearing Assembly 12988 (Inner)	1
22751	Screw for attaching Retainer 25406	4
23277	Lock Washer for Screw 22751	4
24111	Felt Plug for Oil Hole in End Frame 26211	1
21383	Oil Retainer (Felt) for Ball Bearing Assembly 12988	2
12035	**Generator Clutch Assembly Complete (Old Style before Serial No. 352610)** (Includes the next 6 Items)	1
12034	**Generator Clutch Shell and Cam Assembly**	1
26109	**Shell for Generator Clutch Assembly 12035** (Inner)	1
23952	Roll for Generator Clutch Shell and Cam Assembly 12034	3
20024	Spring for Plunger 20017	3
20017	Plunger for Roll 23952	3
23983	Binding Spring for Generator Clutch Assembly 12035	1
12257	**Generator Clutch Assembly Complete** (Includes the next 8 Items)	1
12256	**Generator Clutch Shell and Cam Assembly**	1
26109	Shell for Generator Clutch Shell and Cam Assembly 12256 (Inner)	1
23952	Roll for Generator Clutch Shell and Cam Assembly 12256	3
20017	Plunger for Roll 23952	3
20024	Spring for Plunger 20017	3

No. 78 MOTOR GENERATOR (Continued)

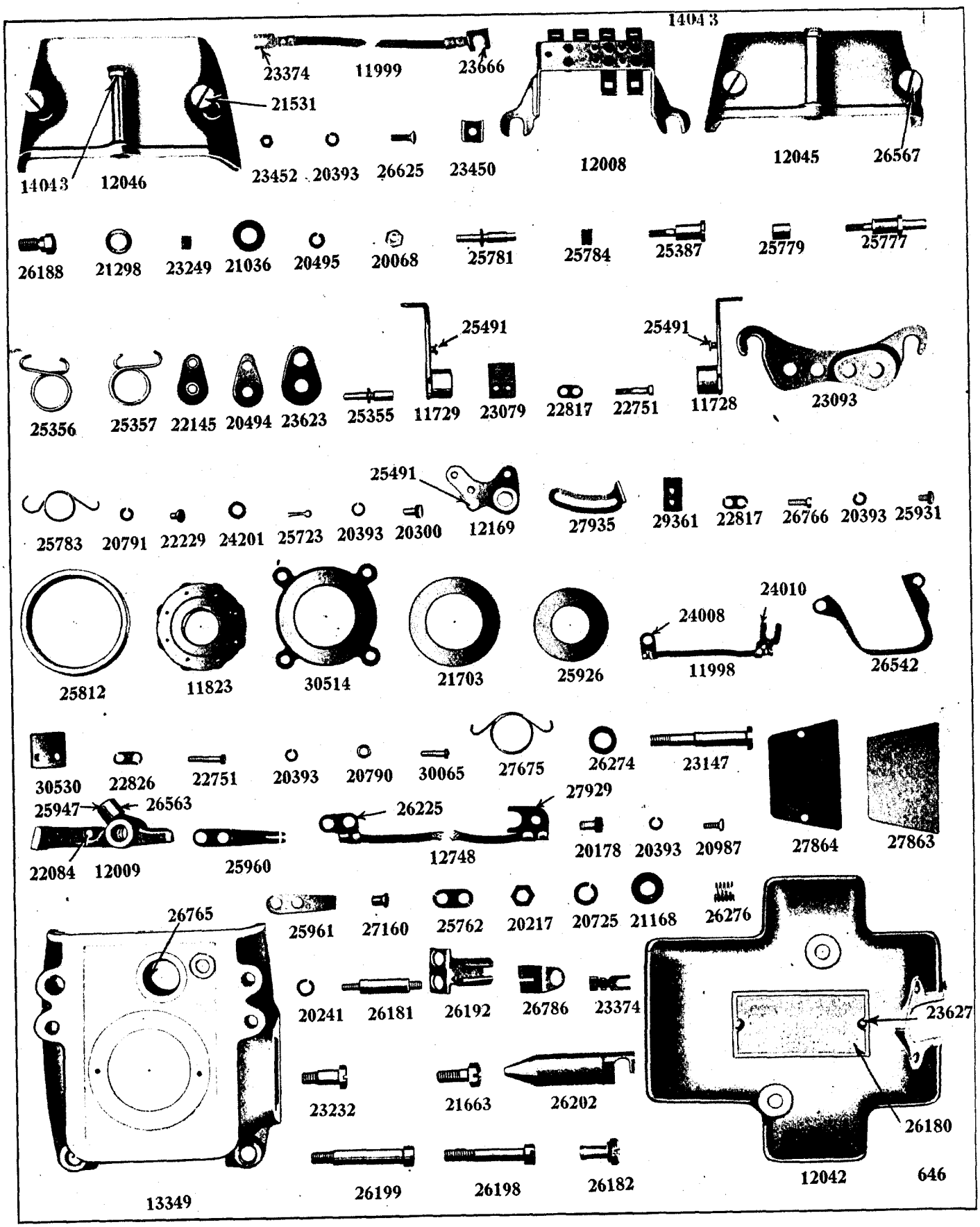
Piece Number	NAME OF PART	Quantity Required
23983	Binding Spring for Generator Clutch Assemby 12257	1
27167	Coupling for Generator Clutch Assembly 12257	1
27166	Screw for attaching Coupling 27167	1
11823	**Inner Race and Balls Assembly for Pinion End of Armature Shaft**	1
11989	**Armature Assembly for Motor Generator**	1
21703	Oil Retainer (Felt) for Inner Race and Balls Assembly 11823	2
20808	Retainer for Oil Retainer 21703 (Inner) (Not shown in Illustration)	1
24622	Lock Washer for Clamp Screw 24496	1
24496	Clamp Screw for Motor Pinion 26201	1
21536	Clamp Washer for Motor Pinion 26201	1
24829	Lock Washer for Clamp Screw 24828	1
24770	Clamp Washer for Generator Clutch Assembly 12257	1
24828	Clamp Screw for Generator	1
23192	Spacing Collar for Generator Clutch Assembly 12257	1
26217	Spacing Sleeve on Armature Shaft next to Washer 25926 (Pinion End)	1
26201	Motor Pinion for Armature Shaft	1
25926	Washer for retaining Inner Race and Balls Assembly 11823 (Outer)	1
12039	**Motor End Frame Assembly** (Includes the next 2 Items)	
23200	Spring Stud for End Frame Assembly 12039 (Not shown in Illustration)	1
26765	Bushing for Rod 26202	1
12009	**Grounded Motor Brush Arm Assembly** (Includes the next 3 Items)	
22084	Spring Stud for Brush Arm Assembly 12009	1
26563	Roll for Brush Arm Assembly 12009	1
25947	Plain Washer for retaining Roll 26563	1
24460	Brush for Grounded Motor Brush Arm Assembly 12009	1
22751	Screw for attaching Brush 24460	2
22826	Lock Plate for Screw 22751	1
25960	Spring on Grounded Motor Brush Arm Assembly 12009 for Generator Switch	1
25961	Plate for Spring 25960	1
25762	Insulating Plate for Spring 25960	3
27160	Insulating Bushing for Screw 22654	2
21899	Screw for attaching Spring 25960	2
12748	**Generator Brush Bracket to Switch Arm Lead Assembly Complete** (Includes the next 2 Items)	1
27929	Clip for Brush Bracket End of Lead Assembly 12748	1
26225	Clip for Switch Arm End of Lead Assembly 12748	1
20790	Plain Washer for Screw 22654	2
20393	Lock Washer for Screw 22654	2
23147	Stud for holding Grounded Motor Brush Arm Assembly 12009	1
20217	Nut for Stud 23147	1
20725	Lock Washer for Nut 20217	1
21168	Plain Washer for Grounded Motor Brush Arm Assembly 12009 (Outer)	1
26276	Spring for Grounded Motor Brush Arm Assembly 12009 (Inner)	1
26274	Plain Washer for Grounded Motor Brush Arm Assembly 12009 (Inner)	1
27675	Spring for Grounded Motor Brush Arm Assembly 12009 (Outer)	1
30514	Retainer for Outer Race 25812	1
26193	Retainer for Outer Race 25812 (Old Style) before Serial No. 386208	1
20241	Lock Washer for Screw 20178	4
20178	Screw for attaching Retainer 30514	4
25812	Outer Race for Inner Race and Balls Assembly 11823	1
24111	Felt Plug for Oil Hole in End Frame Assembly 12039	1
11728	**Generator Brush Arm Assembly (Right)** (Includes the next Item)	1
25491	Spring Stud for Brush Arm Assembly 11728	1
23079	Brush for Generator Brush Arm Assembly 11728	2
22751	Screw for attaching Brush 23079	1
22817	Lock Plate for Screw 22751	1
11729	**Generator Brush Arm Assembly (Left)** (Includes the next Item)	1
25491	Spring Stud for Brush Arm Assembly 11729	1
23079	Brush for Generator Brush Arm Assembly 11729	2
22751	Screw for attaching Brush 23079	1
22817	Lock Plate for Screw 22751	1
11815	**Third Generator Brush Arm Assembly (Old Style) (Straight)**	1
12169	**Third Generator Brush Arm Assembly (Radial)** (Includes the next Item)	1
25491	Spring Stud for Brush Arm Assembly 12169	1
25782	Extension Brush Arm for Third Generator Brush Arm Assembly 11815 (Old Style) (Straight)	1
27935	Extension Brush Arm for Third Generator Brush Arm Assembly 12169	1
29361	Third Brush for Extension Brush Arm 27935	1
22817	Lock Plate for Screw 26766	1
26766	Screw for attaching Third Brush 29361	2
25931	Screw for attaching Extension Brush Arm Assembly 12169	2

No. 78 MOTOR GENERATOR (Continued)

Piece Number	NAME OF PART	Quantity Required
20393	Lock Washer for Screw 25931	2
20810	Plain Washer for Screw 25931	2
11998	**Third Generator Brush to Field Coil Lead Assembly Complete** (Includes the next 2 Items)	1
24010	Clip for Field Coil End of Lead Assembly 11998	1
24008	Clip for Third Brush End of Lead Assembly 11998	1
25356	Spring for Generator Brush Arm Assembly 11729	1
25357	Spring for Generator Brush Arm Assembly 11728	1
25783	Spring for Third Generator Brush Arm Assembly 12169	1
23093	Generator Brush Holder Bracket	1
20494	Plate for Studs 14547, 25777, 25355 and 25387 (Inner)	2
22145	Plate for Studs 14547, 25777, and 25387 (Outer)	2
25955	Plate for Studs 25355 and 25387 next to Bracket 23093	2
23623	Insulator for Studs 14547 and 25777	2
25355	Stop Stud for Generator Brush Arm Assembly 11728	1
25387	Stud for holding Generator Brush Arm Assembly 11728	1
23249	Insulating Bushing for Studs 25777 and 14547	2
20068	Nut for Studs 14547, 25777, 25355 and 25387	4
20495	Lock Washer for Nut 20068	4
25777	Stud for holding Third Generator Brush Arm Assembly 12169 and Generator Brush Arm Assembly 11729	1
14547	**Stop Assembly Stud for Generator Brush Arm Assembly 11729**	1
25784	Insulating Sleeve for Stop Stud 14547	1
25779	Insulating Bushing for Third Generator Brush Arm Assembly 12169	1
21036	Insulating Washer for Third Generator Brush Arm Assembly 12169 (Inner)	1
21298	Insulating Washer for Third Generator Brush Arm Assembly 12169 (Outer)	1
25723	Cotter Pin for retaining Third Generator Brush Arm Assembly 12169	1
24201	Plain Washer under Cotter Pin 25723	1
20300	Screw for attaching Third Generator Brush to Field Coil Lead Assembly 11998	1
20393	Lock Washer for Screw 20300	1
12008	**Terminal Bracket Assembly**	1
11999	**Motor Brush Plate to Terminal Bracket Lead Assembly Complete** (Includes the next 2 Items)	1
23666	Clip for Motor Brush Plate End of Lead Assembly 11999	1
23374	Clip for Terminal Bracket End of Lead Assembly 11999	1
26625	Screw for attaching Clip 23450	6
20393	Lock Washer for Nut 23452	6
23452	Nut for Screw 26625	6
23450	Clip for Terminal Bracket Assembly 12008	6
12043	**Generator Top Cover Assembly Complete** (Includes the next 3 Items)	1
26180	Name Plate for Generator Top Cover Assembly 12043	1
23627	Rivet for attaching Name Plate 26180	2
26182	Screw for attaching Generator Top Cover Assembly 12043	2
12045	**Motor End Top Cover Assembly Complete** (Includes the next 3 Items)	1
20484	Spring Washer for Screw 26567	2
26567	Screw for attaching Cover Assembly 12045	2
14043	**Bearing Oiler Assembly for Motor End Top Cover Assembly 12045**	1
12046	**Generator End Top Cover Assembly Complete** (Includes the next 3 Items)	1
21531	Screw for attaching Cover Assembly 12046	2
20484	Spring Washer for Screw 21531	2
14043	**Bearing Oiler Assembly for Generator End Top Cover Assembly 12046**	1
26202	Rod for Lifting Motor Brush Arms	1
26188	Screw for attaching Generator Brush Holder Bracket 23093	2
21663	Screw for attaching Motor End Frame Assembly 12039 (Short, Plain)	1
23232	Screw for attaching Motor End Frame Assembly 12039 (Short, Dowel)	1
26199	Screw, for attaching Motor End Frame Assembly 12039 (Long, Dowel)	1
26198	Screw for attaching Motor End Frame Assembly 12039 (Long, Plain)	1
21663	Screw for attaching Generator End Frame 26211 (Plain)	2
23232	Screw for attaching Generator End Frame 26211 (Dowel)	2
26181	Stud for Screw 26182	2
26542	Guard for Motor Terminal Clip 26192	1
20791	Lock Washer for Screw 22229	1
22229	Screw for attaching Guard 26542	1
26826	Insulating Plate for Terminal Clip 26192	1
23374	Terminal Clip for connecting Terminal Bracket Assembly 12044	4
26786	Terminal Clip used with Motor Terminal Clip 26192	1
26192	Motor Terminal Clip	1



No. 98 MOTOR GENERATOR



No. 98 MOTOR GENERATOR

No. 98 MOTOR GENERATOR

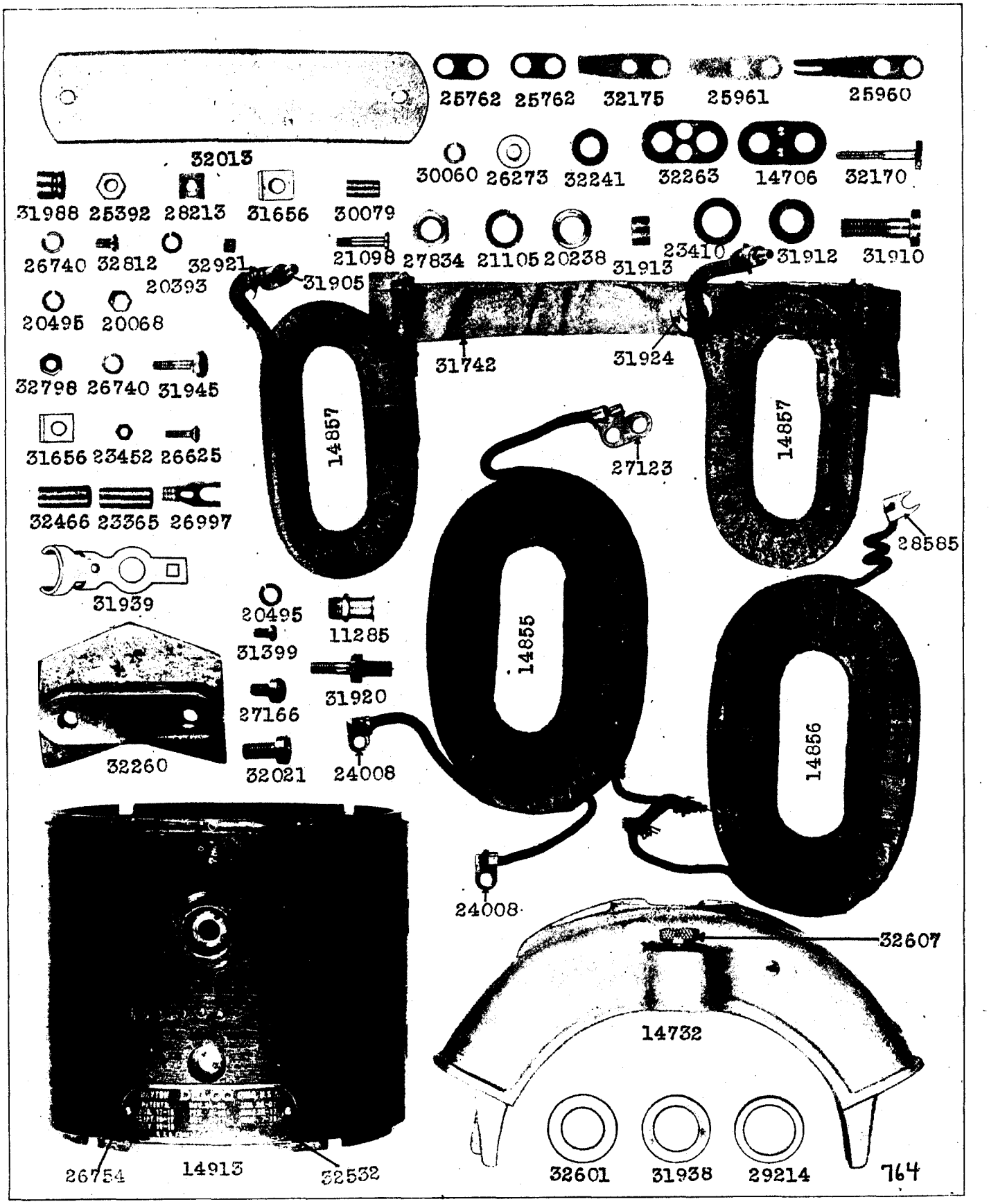
Piece Number	NAME OF PART	Quantity Required
98	**MOTOR GENERATOR COMPLETE**	1
12840	**Generator Frame Assembly**	1
	(Includes the next 3 Items)	
24228	Screw for Binding Generator Frame (Upper)	1
24126	Screw for Binding Generator Frame (Lower)	2
24494	Lock Washer for Screw 24126	2
13076	**Field Coil Assembly**	1
	(Includes the next 7 Items)	
26142	Strap for Motor Terminal Clip 26192	1
23470	Clip on Field Coil Assembly for Third Brush	1
28021	Clip on Field Coil Assembly for Terminal Plate	1
10660	**Motor Brush Plate Assembly**	1
	(Includes the next 2 Items)	
24112	Spring Stud for Motor Brush Plate Assembly 10660	1
22359	Stud for Holding Series Motor Brush Arm Assembly	1
22520	Rivet for retaining Motor Brush Plate Assembly	3
23051	Clip on Motor Brush Plate Assembly 10660 for Generator Switch	1
23197	Lock Plate for Screw 20035	1
20219	Insulator for Clip 23051	2
23226	Insulating Bushing for Screw 20035	2
20035	Screw for retaining Clip 23051	2
23451	Screw for Clip 23051 for retaining Lead Assembly 11999	1
23452	Nut for Screw 23451	1
20393	Lock Washer for Nut 23452	1
26203	Screw for retaining Motor Terminal Clip 26192	2
21163	Lock Washer for Screw 26203	2
12010	**Series Motor Brush Arm Assembly**	1
	(Includes the next 3 Items)	
22084	Spring Stud for Brush Arm Assembly 12010	1
22875	Roll for Brush Arm Assembly 12010	1
25947	Plain Washer for retaining Roll 22875	1
30530	Brush for Series Motor Brush Arm Assembly 12010	1
22751	Screw for attaching Brush 24460	2
22826	Lock Plate for Screw 22751	1
26276	Spring for Series Motor Brush Arm Assembly 12010 (Inner)	1
26274	Plain Washer for retaining Series Motor Brush Arm Assembly 12010	1
20163	Cotter Pin for retaining Series Motor Brush Arm Assembly 12010	1
27675	Spring for Series Motor Brush Arm Assembly 12010 (Outer)	1
25929	Insulator for Field Coil Assembly 12849	2
20125	Insulating Washer for Screw 21147	4
20114	Plain Washer for Screw 21147	2
21717	Lock Washer for Screw 21147	2
21147	Screw for attaching Motor Brush Plate Assembly 10660	2
23282	Insulating Bushing for Screw 21147	2
22570	Wedge for Field Coil Assembly 12849	7
26184	Dowel Stud for connecting Ground Lead (On Side of Frame)	1
21717	Lock Washer for Nut 26265	2
26265	Nut for Dowel 26184	1
27861	End Frame for Generator	1
12988	**Ball Bearing Assembly for Clutch End of Armature Shaft**	1
25406	Retainer for Ball Bearing Assembly 12988 (Inner)	1
22751	Screw for Retainer 25406	4
23277	Lock Washer for Screw 22751	4
24111	Felt Plug for Oil Hole in End Frame 27861 (Not shown in Illustration)	1
21383	Oil Retainer (Felt) for Ball Bearing Assembly 13495	2
12257	**Generator Clutch Assembly Complete**	1
	(Includes the next 8 Items)	
12256	**Generator Clutch Shell and Cam Assembly**	1
26109	Shell for Generator Clutch Shell and Cam Assembly 12256 (Inner)	1
23952	Roll for Generator Clutch Shell and Cam Assembly 12256	3
20017	Plunger for Roll 23952	3
20024	Spring for Plunger 20017	3
23983	Binding Spring for Generator Clutch Assembly 12257	1
27167	Coupling for Generator Clutch Assembly 12257	1
27166	Screw for attaching Coupling 27167	2
11989	**Armature Assembly for Motor Generator**	1
24829	Lock Washer for Clamp Screw 24828	1
24770	Clamp Washer for Generator Clutch Assembly 12257	1
24828	Clamp Screw for Generator Clutch Assembly 12257	1
23192	Spacing Collar on Armature Shaft next to Generator Clutch Assembly 12257	1
13349	**Motor End Frame Assembly**	1
	(Includes the next 2 Items)	
23200	Spring Stud for Motor End Frame Assembly 13349 (Not shown in Illustration)	1
26765	Bushing for Rod 26202	1

No. 98 MOTOR GENERATOR (Continued)

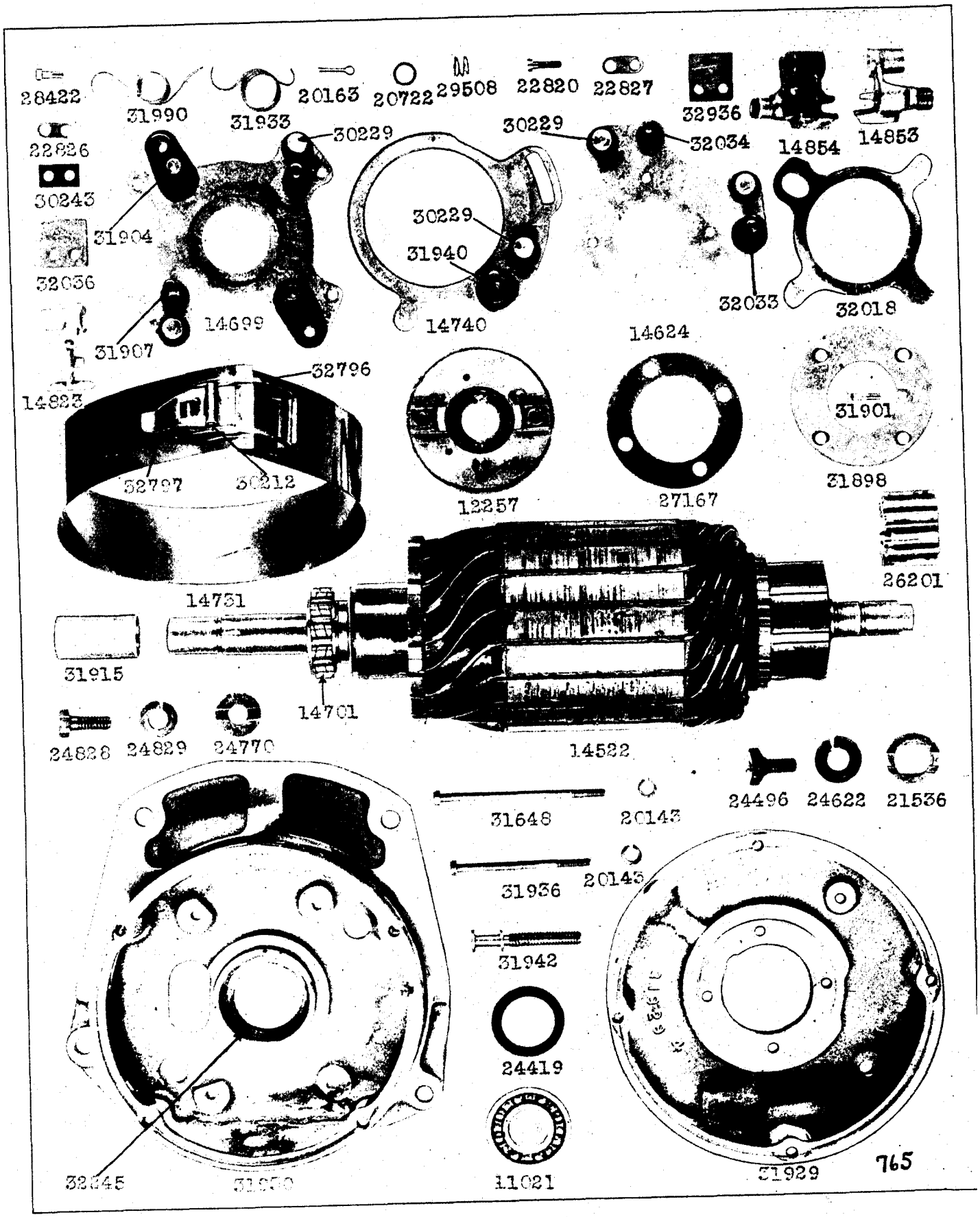
Piece Number	NAME OF PART	Quantity Required
27147	Retainer for Outer Race 25812 (Old Style before Serial No. 9809528) (Not shown in Illustration)	1
30514	Retainer for Outer Race 25812	1
20241	Lock Washer for Screw 20178	1
20178	Screw for retaining Retainer 30514	4
24111	Felt Plug Oil Hole in Motor End Frame Assembly 13349 (Not shown in Illustration)	4
15499	**Ball Bearing Assembly (Pinion End of Armature Shaft)**	1
	Note: When it is necessary to replace either an Old Style Outer Race or Inner Race and Rolls on the Old Style **Roller** Bearing on this Generator an entire new **Ball** Bearing Assembly must be ordered.	
	(Includes the next 2 Items)	
15526	**Inner Race and Balls Assembly for Ball Bearing Assembly 15499**	1
24447	Outer Race for Inner Race and Balls Assembly 15526	1
21703	Oil Retainer (Felt) for Inner Race Balls Assembly 15526	2
12009	**Grounded Motor Brush Arm Assembly**	1
	(Includes the next 3 Items)	
22084	Spring Stud for Grounded Motor Brush Arm Assembly 12009	1
26563	Roll for Brush Arm Assembly 12009	1
25947	Plain Washer for retaining Roll 26563	1
30530	Brush for Grounded Motor Brush Arm Assembly 12009	1
22751	Screw for attaching Brush 30530	1
22826	Lock Plate for Screw 22751	2
25960	Spring on Grounded Motor Brush Arm Assembly 12009 for Generator Switch	1
25961	Plate for Spring 25960	1
25762	Insulating Plate for Spring 25960	3
27160	Insulating Bushing for Screw 21899	2
21899	Screw for attaching Spring 25960	2
12748	**Generator Brush Brackets to Switch Arm Lead Assembly Complete**	1
	(Includes the next 2 Items)	
27929	Clip for Brush Bracket End of Lead Assembly 12748	1
26225	Clip for Switch Arm End of Lead Assembly 12748	1
20790	Plain Washer for Screw 30065	2
20393	Lock Washer for Screw 30065	2
23147	Stud for Holding Grounded Motor Brush Arm Assembly 12009	1
20217	Nut for Stud 23147	1
20725	Lock Washer for Nut 20217	1
21168	Plain Washer for Grounded Motor Brush Arm Assembly 12009 (Outer)	1
26276	Spring for Grounded Motor Brush Arm Assembly 12009 (Inner)	1
26274	Plain Washer Grounded Motor Brush Arm Assembly 12009 (Inner)	1
27675	Spring for Grounded Motor Brush Arm Assembly 12009 (Outer)	1
11728	**Generator Brush Arm Assembly (Right)**	1
	(Includes the next Item)	
25491	Spring Stud for Brush Arm Assembly 11728	1
23079	Brush for Generator Brush Arm Assembly 11728	1
22751	Screw for attaching Brush 23079	2
22817	Lock Plate for Screw 22751	1
11729	**Generator Brush Arm Assembly (Left)**	1
	(Includes the next Item)	
25491	Spring Stud for Brush Arm Assembly 11729	1
23079	Brush for Generator Brush Arm Assembly 11729	1
22751	Screw for attaching Brush 23079	2
22817	Lock Plate for Screw 22751	1
12169	**Third Generator Brush Arm Assembly (Radial)**	1
	(Includes the next Item)	
25491	Spring Stud for Brush Arm Assembly 12169	1
27935	Extension Brush Arm for Third Generator Brush Arm Assembly 12169	1
29361	Third Brush for Third Generator Brush Arm Assembly 12169	1
22817	Lock Plate for Screw 26766	2
26766	Screw for attaching Third Brush 29361	2
25931	Screw for attaching Extension Brush Arm 27935	2
20393	Lock Washer for Screw 25931	2
20810	Plain Washer for Screw 25931 (Not shown in Illustration)	2
11998	**Third Generator Brush to Field Coil Lead Assembly Complete**	1
	(Includes the next 2 Items)	
24010	Clip for Field Coil End of Lead Assembly 11998	1
24008	Clip for Third Brush End of Lead Assembly 11998	1
25356	Spring for Generator Brush Arm Assembly 11729	1
25357	Spring for Generator Brush Arm Assembly 11728	1
25783	Spring for Third Generator Brush Arm Assembly 12169	1
23093	Bracket for Brush Arms	1
20494	Plate for Studs 14547, 25777, 25355 and 25387 (Inner)	2
22145	Plate for Studs 14547, 25777, 25355 and 25387 (Outer)	2
25955	Plate for Studs 25355 and 25387 next to Bracket 23093 (Not shown in Illustration)	2
23623	Insulator for Studs 14547 and 25777	2
25355	Stop Stud for Generator Brush Arm Assembly 11728	1
25387	Stud for holding Generator Brush Arm Assembly 11728	1

No. 98 MOTOR GENERATOR (Continued)

Piece Number	NAME OF PART	Quantity Required
23249	Insulating Bushing for Studs 25777 and 14547	2
20068	Nut for Studs 14547, 25777, 25355 and 25387	4
20495	Lock Washer for Nut 20068	4
25777	Stud for holding Third Generator Brush Arm Assembly 12169 and Generator Brush Arm Assembly 11729	1
14547	**Stop Stud Assembly for Third Brush Arm Assembly 12169**	1
25784	Insulating Sleeve for Stop Stud 14547	1
25779	Insulating Bushing for Third Generator Brush Arm Assembly 12169	1
21036	Insulating Washer for Third Generator Brush Arm Assembly 12169 (Inner	1
21298	Insulating Washer for Third Generator Brush Arm Assembly 12169 (Outer)	1
25723	Cotter Pin for retaining Third Generator Brush Arm Assembly 12169	1
24201	Plain Washer under Cotter Pin 25723	1
20300	Screw for attaching Third Generator Brush to Field Coil Lead Assembly 11998	1
20393	Lock Washer for Screw 20300	1
12008	**Terminal Bracket Assembly**	1
11999	**Motor Brush Plate to Terminal Bracket Lead Assembly Complete** (Includes the next 2 Items)	1
23666	Clip for Motor Brush Plate End of Lead Assembly 11999	1
23374	Clip for Terminal Bracket End of Lead Assembly 11999	1
26625	Screw for attaching Clip 23450	6
20393	Lock Washer for Nut 23452	6
23452	Nut for Screw 26625	6
23450	Clip for Terminal Bracket Assembly 12008	6
12043	**Generator Top Cover Assembly Complete** (Includes the next 3 Items)	1
26180	Name Plate for Top Cover Assembly 12043	1
23627	Rivet for attaching Name Plate 26180	2
26182	Screw for attaching Generator Top Cover Assembly 12043	2
12045	**Motor End Top Cover Assembly Complete** (Includes the next 4 Items)	1
20484	Spring Washer for Screw 26567 (Not shown in Illustration)	2
26567	Screw for attaching Cover Assembly 12045	2
14043	**Bearing Oiler Assembly for Motor End Top Cover Assembly 12045**	1
30639	Wick for Oiler Assembly 14043 (Not shown in Illustration)	1
12046	**Generator End Top Cover Assembly Complete** (Includes the next 4 Items)	1
21531	Screw for attaching Cover Assembly 12046	2
20484	Spring Washer for Screw 21531 (Not shown in Illustration)	2
14043	**Oiler Assembly for Generator End Top Cover Assembly 12046**	1
30639	Wick for Oiler Assembly 14043 (Not shown in Illustration)	1
26202	Rod for Grounded and Series Motor Brush Arm Assembly 12009 and 12010	1
26188	Screw for attaching Generator Brush Holder Bracket Assembly 12845	2
21663	Screw for attaching Motor End Frame Assembly 13349 (Short) (Plain)	1
33529	Screw for attaching Motor End Frame Asembly 13349 (Short) (Dowel)	1
26199	Screw for attaching Motor End Frame Assembly 13349 (Long) (Dowel)	1
26198	Screw for attaching Motor End Fram Assembly 13349 (Long) (Plain)	1
21663	Screw for attaching Generator End Frame 27861 (Plain)	2
33529	Screw for attaching Generator End Frame 27861 (Dowel)	2
26181	Stud for Screw 26182	2
26542	Guard for Motor Terminal Clip 26192	1
20791	Lock Washer for Screw 22229	1
22229	Screw for attaching Guard 26542	1
33530	Cover for Motor End Frame (Side)	1
27864	Gasket for Cover 33530	1
27863	Cover End Frame Assemblies (Bottom)	2
27864	Gasket for Cover 33530	2
20987	Screw for attaching Cover 33530	4
33215	Screw for attaching Cover 33530	2
32817	Lock Washer for Screws 20987 and 33215	6
20808	Retainer for Oil Retainer 21703 (Inner) (Not shown in Illustration)	1
25926	Washer for retaining Inner Race and Rolls Assembly 11823 (Outer)	1
26217	Spacing Sleeve on Armature Shaft for retaining Washer 25926 (Pinion End)	1
26201	Motor Pinion for Armature Shaft	1
21536	Clamp Washer for Motor Pinion 26201	1
24622	Lock Washer for Clamp Screw 24496	1
24496	Clamp Screw for Motor Pinion 26201	1
26826	Insulating Plate for Motor Terminal Clip 26192 (Not shown in Illustration)	1
23374	Terminal Clip for connecting Terminal Bracket Assembly 12008	4
26786	Terminal Clip used with Motor Terminal Clip 26192	1
26192	Motor Terminal Clip	1



No. 162 MOTOR GENERATOR



No. 162 MOTOR GENERATOR

No. 162 MOTOR GENERATOR

Piece Number	NAME OF PART	Quantity Required
162	**MOTOR GENERATOR COMPLETE**	1
31932	**Frame for Motor Generator**	1
32532	Name Plate for Motor Generator	1
32821	Pin for attaching Name Plate	2
32260	Pole Piece for Frame	4
32021	Screw for attaching Pole Piece	7
31920	Stud Screw for attaching Pole Piece	1
14857	**Motor Field Coil Assembly** (Includes next Item)	2
31905	Stud for connecting Motor Field Coil	1
31924	Connector for Connecting Motor Field Coil	1
31742	Insulator for Connector 31924	1
32445	Insulator between Motor Field Coil and Pole Piece	4
14856	**Generator Field Coil Assembly (On same side as Generator Switch** (Includes the next 3 Items)	1
27123	Clip for connecting Coils to Generator Switch	1
24008	Clip for connecting Field Coil to Brush Plate	1
28585	Clip for connecting Field Coil to Brush Plate	1
14855	**Generator Field Coil Assembly (Opposite Field Coil Assembly 14856** (Includes the next Item)	1
24008	Clip for connecting Field Coil to Brush Plate	1
31910	Motor Terminal Stud	1
31912	Insulating Washer for Terminal Stud 31910 (Outside)	1
23410	Insulating Washer for Terminal Stud 31910 (Inside)	1
20238	Plain Washer for Terminal Stud 31910	1
31913	Insulating Bushing for Terminal Stud 31910	1
21105	Lock Washer for Nut 27834	2
27834	Nut for Terminal Stud	2
31929	End Frame for Generator end of Armature Shaft	1
11021	**Ball Bearing Assembly**	1
15386	**Third Brush Arm Plate Assembly** (Includes the next 7 Items)	1
31940	Stud for Third Brush Arm	1
32147	Insulating Bushing for Stud 31940	1
29240	Insulating Washer for Stud 31940	2
20238	Plain Washer for Stud 31940	1
33526	Stud for Third Brush Arm Spring 30241	1
30241	Bushing for Stud 33526	1
30227	Insulating Washer for Stud 33526	3
14624	**Generator Brush Arm Plate Assembly** (Includes the next 8 Items)	1
32033	Stud for Generator Brush Arm (Grounded)	1
32034	Stud for Generator Brush Arm (Insulated)	1
32147	Insulating Bushing for Stud 32034	1
29240	Insulating Washer for Stud 32034	2
30238	Plain Washer for Stud 32034	1
30229	Stud for Generator Brush Arm Spring	2
30241	Insulating Bushing for Stud 30229	2
30227	Insulating Washer for Stud 30229	2
24419	Felt Washer for Ball Bearing Assembly 11021	1
33294	Retainer for Ball Bearing	1
31898	Retainer for Ball Bearing Assembly 11021	1
31901	Screw for attaching Retainer 31898	4
31945	Screw for locking Third Brush Plate	1
20165	Plain Washer for Screw 31945	1
26740	Lock Washer for Screw 31945	1
32798	Nut for Screw 31945	1
31942	Screw for adjusting Brushes (Old Style)	1
14823	**Generator and Third Brush Arm Assembly (Old Style used before Serial No. 162-21351)**	3
33220	Stop for Brush Arm (Old Style)	3
22826	Lock Plate for Screw 22820	3
22820	Screw for attaching Brush (Before Serial No. 162-21351)	6
29508	Tension Spring for Generator Brush Arm (Small)	3
20722	Plain Washer for retaining Springs 29508	3
20163	Cotter Pin for retaining Springs 29508	3
15319	**Generator Brush Arm Assembly** (Includes next 2 Items)	2
33353	Hub for Generator Brush Arm Assembly	1
31990	Spring for Generator Brush Arm Assembly	1

No. 162 MOTOR GENERATOR (Continued)

Piece Number	NAME OF PART	Quantity Required
15411	**Thermostat and Third Brush Arm Assembly** (Includes next 5 Items)	1
33353	Hub for Third Brush Arm Assembly	1
31990	Spring for Third Brush Assembly	1
15166	**Thermostat Resistance Assembly**	1
25091	Screw for attaching Resistance Assembly	2
20647	Lock Washer for Screw 25091	2
33362	Brush for Generator and Third Brush Arm Assembly	3
33355	Screw for attaching Brush 33362	6
33354	Stop Plate for Brush 33362	3
33357	Plate for Brush 33362	3
25091	Screw for attaching Lead to Thermostat and Third Brush Arm Assembly	1
20647	Lock Washer for Screw 25091	1
31930	Motor End Frame	1
14701	**Inner Race and Rolls Assembly for Drive End of Armature Shaft**	1
32245	Outer Race for Inner Race and Rolls Assembly 14701	1
32170	Generator Switch Terminal Stud	2
32920	Lock Plate for Switch Terminal Stud	1
32263	Insulator for Stud 32170 (Next to end Frame)	1
30079	Insulating Bushing for Stud 32170	2
32241	Insulating Washer for Stud 32170	2
26273	Plain Washer for Stud 32170	2
28213	Nut for Stud 32170	2
31656	Clip for Stud 32170	2
30060	Lock Washer for Stud 32170	2
25392	Nut for connecting Generator Lead to Stud 32170	2
14706	**Insulator Assembly for separating Studs 32170**	1
14699	**Motor Brush Plate Assembly** (Includes the next 9 Items)	1
31907	Stud for Motor Brush Arms (Grounded)	2
31904	Stud for Motor Brush Arm (Insulated)	2
30229	Spring Stud for Grounded Motor Brush Arm Spring	2
30241	Insulating Bushing for Stud 30229	2
30227	Insulating Washer for Stud 30229	2
30140	Insulating Bushing for Stud 31904	2
32017	Insulator for Stud 31904	4
31991	Plate for retaining Insulated Brush Arm Studs 31904	2
29499	Plate for retaining Insulated Brush Arm Studs 31904	2
14852	**Motor Brush Arm Assembly (Insulated)**	2
15209	**Motor Brush Arm Assembly (Grounded)**	1
14854	**Motor Brush Arm Assembly (For Generator Switch)**	1
32936	Brush for Motor Brush Arms	4
22820	Screw for attaching Brushes 32936	8
22827	Lock Plate for Screw 22820	4
31933	Brush Arm Springs (For Grounded Motor Brush Arm)	2
32255	Brush Arm Springs for Insulated Brush Arms	2
29508	Tension Spring for Motor Brush Arm	4
20722	Plain Washer for Spring 29508	4
20163	Cotter Pin retaining Tension Springs 29508	4
14522	**Armature Assembly**	1
32601	Spacing Washer for Armature Shaft (Drive end)	1
32528	Washer for Armature Shaft	1
32529	Washer for Armature Shaft	1
32530	Fibre Plug for End Housing	1
31938	Spacing Washer for Armature Shaft (For Roller Bearing (Inner)	1
29214	Washer for Armature Shaft (Next to Generator Clutch)	1
29886	Washer for Armature Shaft (For Roller Bearing Outer)	1
31915	Sleeve for Armature Shaft (Next to Pinion)	1
26201	Pinion for Armature Shaft	1
21536	Clamp Washer for Pinion	1
24496	Screw for retaining Pinion	1
24622	Lock Washer for Screw 24496	1
20068	Nut for attaching Field Coil Stud	2
20495	Lock Washer for Nut 20068	2
31988	Bushing for Insulating Field Coil Stud on Motor Brush Plate	2
32018	Lifting Plate for Motor Brushes	1
20492	Screw for attaching Plate 32018	4
20495	Lock Washer for Screws 20492	4
31648	Screw for attaching Motor End Frame	4
20143	Lock Washer for Screws 31648 and 31946	8
31936	Screw for attaching Generator End Frame	4
26740	Lock Washer for Screw 31936	4
12257	**Generator Clutch Assembly** (Includes the next 8 Items)	1
12256	**Generator Clutch Shell and Cam Assembly**	1
26109	Shell for Clutch Shell and Cam Assembly 12256	1
23952	Roll for Clutch Shell and Cam Assembly	3

No. 162 MOTOR GENERATOR (Continued)

Piece Number	NAME OF PART	Quantity Required
20017	Plunger for Roll	3
20024	Spring for Plunger	3
23983	Binding Spring for Generator Clutch Assembly	1
27167	Coupling for Generator Clutch Assembly	1
27166	Screw for attaching Coupling 27167	3
11285	**Oiler Assembly for Drive end of Generator**	1
24770	Clamp Washer for Generator Clutch	1
24828	Screw for retaining Generator Clutch	1
24829	Lock Washer for Screw 24828	1
31399	Screw for attaching Brush connecting Lead	1
20495	Lock Washer for Screw 31399	2
25762	Insulated Plate for Generator Switch Arm (Short)	1
32175	Insulator for Switch Arm (Long) (Old Style)	1
25960	Contact for Generator Switch	1
25961	Support Plate for Switch Contact	2
32257	Bushing for Screw 26068 (Old Style)	1
32169	Locking Plate for Screw 26068 (Old Style)	2
26068	Screw for attaching Switch Contacts (Old Style)	2
32921	Bushing for Screw 21098	2
21098	Screw for attaching Switch Contacts	2
20790	Plain Washer for Screw 21098	2
20393	Lock Washer for Screw 21098	1
14732	**Top Cover Assembly** (Includes the next 2 Items)	1
32289	Insulator for Top Cover	2
24315	Rivet for attaching Insulator 32289	1
32051	Nut for attaching Top Cover Assembly (Old Style) (Used with Cover without Non-loseable Screw)	1
20137	Lock Washer for Nut 32051	1
27041	Plain Washer for Nut 32051	1
32607	Nut for attaching Top Cover Assembly (Used with Cover with Non-losable Screws)	1
32608	Plain Washer for Nut 32607	1
14731	Cover Band Assembly (Includes next 3 Items)	1
32796	Clamp Spring for Cover Band	1
32797	Latch for Cover Band	1
30212	Pin for attaching Latch	1
32013	Cover Strap for Generator (Lower)	2
32812	Screw for attaching Strap 32013	2
26740	Lock Washer for Screw 32812	1
31939	Motor Terminal Clip	3
26997	Generator Terminal Clip (Open)	3
23365	Fibre Ferrule for Clip 26997	1
21656	Clamp Clip for connecting Motor Generator	1
23553	Screw for Clamp Clip 31656	1
23277	Lock Washer for Nut 23452	1
23452	Nut for Screw 23553	1

No. 1007 IGNITION SWITCH

Note: No. 1007 Ignition Switch superseded by No. 1009 Ignition Switch. When ordering a Complete new unit, order No. 1009)

(Not Illustrated)

Piece Number	NAME OF PART	Quantity Required
1007	**IGNITION SWITCH COMPLETE**	1
12094	**Cover Assembly Complete**	1
	(Includes the next 6 Items)	
26477	Cover for Cover Assembly 12094	1
26478	Push Button for Cover 26477	1
24916	Stud for Push Button 26478	1
24593	Spring for Stud 24916	1
23578	Name Plate for Cover 26477	1
25197	Rivet for Name Plate 23578	2
14106	**Frame Assembly (Service)**	1
	(Includes the next 7 Items)	
25251	Stud for mounting, Switch (Short)	1
24657	Stud for mounting Switch (Long)	1
25187	Spring Stud for Frame Assembly 14106	1
25277	Stud for Retaining Cam 25276	1
25276	Cam for Locking Switch	1
24956	Nut for retaining Screw 25370	4
25193	Dowel Pin for retaining Stud 24657	1
24285	Nut for Frame Assembly 14106	4
24809	Plain Washer for Nut 24285	3
11529	**Locking Plate Assembly**	1
	(Includes the next Item)	
25349	Spring Stud for Locking Plate Assembly 11529	1
24590	Spring for Locking Plate Assembly 11529	1
11405	**Key for locking Ignition Switch 1007**	1
24808	Screw for retaining Cover Assembly 12094	4
11253	**Spring Terminal Assembly (Battery and Magneto)**	2
	(Includes the next 3 Items)	
11437	**Spring Terminal Assembly for Spring Terminal Assembly 11253**	1
24833	Terminal Post for Spring Terminal Assembly 11253	1
25191	Dowel Pin for Spring Terminal Assembly 11253	1
11359	**Spring Terminal Assembly (Center)**	1
	(Includes the next 3 Items)	
11437	**Spring Terminal Assembly for Spring Terminal Assembly 11359**	1
14004	**Terminal Post for Spring Terminal Assembly 11359**	1
24614	Dowel Pin for Spring Terminal Assembly 11359	1
11614	**Contact Assembly for Push Button (Long)**	1
11314	**Contact Assembly (Long Contact for Battery)**	1
11315	**Contact Assembly (Short Contact for Battery)**	1
11375	**Contact Assembly (Outer Contact for Magneto)**	1
11357	**Contact Assembly (Inner Contact for Magneto)**	1
25370	Screw for retaining Contact Assemblies 11314, 11315, 11357 and 11375	4
25375	Screw for retaining Contact Assembly 11614	2
24803	Insulating Bushing for Screw 25375	2
24804	Insulating Bushing for Screw 25370	4
24656	Insulating Bushing for Lever Assembly 11155	2
11155	**Lever Assembly**	1
25162	Plate for retaining Lever Assembly 11155	1
24867	Screw for retaining Plate 25162 (Large)	1
24957	Screw for retaining Plate 25162 (Small)	1
25255	Plain Washer for Screw 24957	1
24598	Connector for Contact Assemblies 11614 and 11315	1
24592	Separator between Contact Assemblies 11314 and 11357 and Frame Assembly 11534 (Short)	2
24837	Insulator for Contact Assembly 11614	3
24658	Insulator for Contact Assemblies 11314 and 11315	5
24838	Insulator between Contact Assemblies 11357 and 11375 (Long)	1
24897	Insulating Washer for Screws 25370 and 25375	6
24954	Insulating Plate for Ignition Switch Assembly 1007	1
24971	Bushing for retaining Screw 25375	2
24591	Separator between Contact Assemblies 11314 and 11357 and Frame Assembly 14106	2
24959	Stop Screw for Locking Plate Assembly 11529	1

No. 1009 IGNITION SWITCH

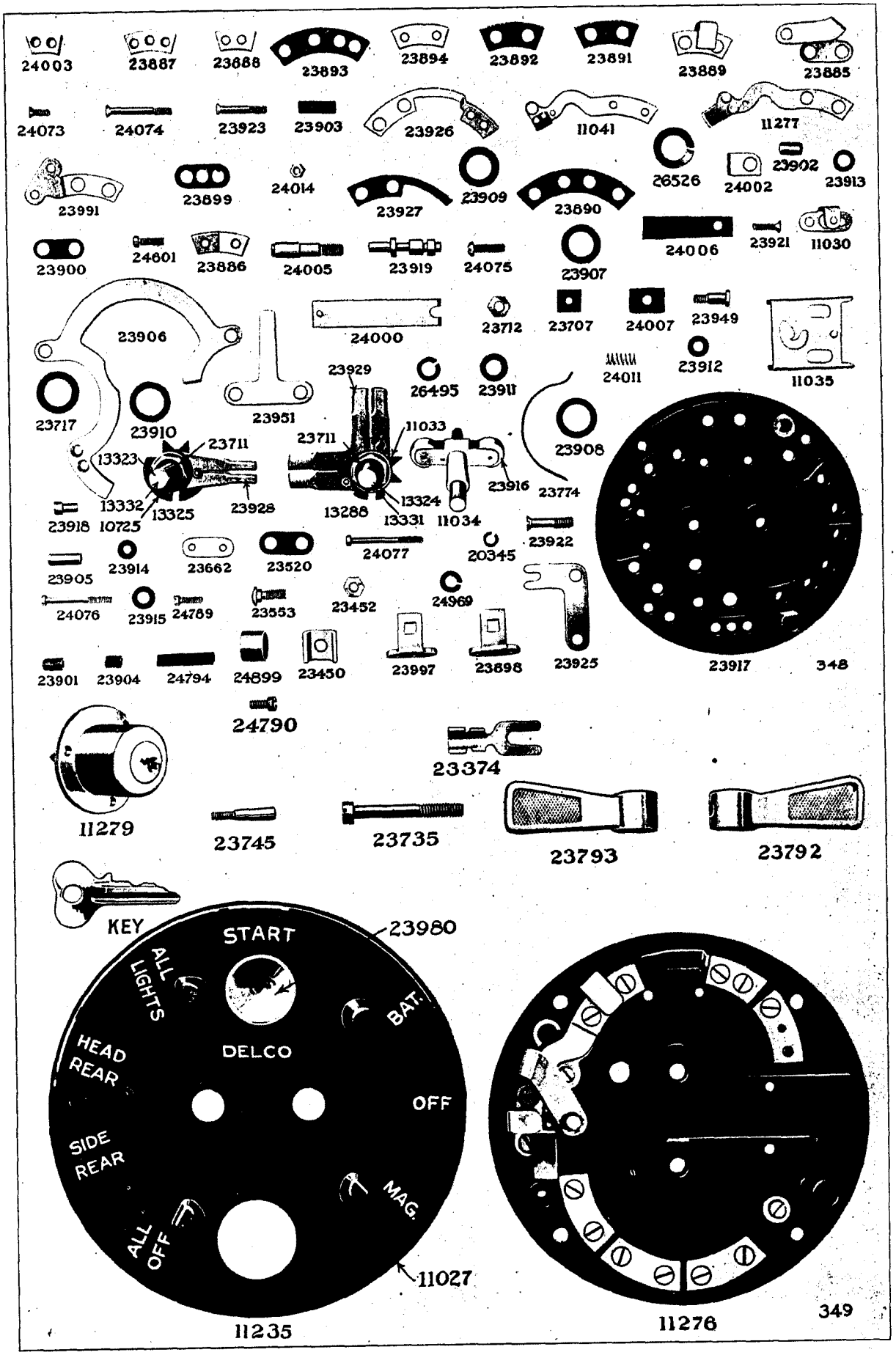
(Not Illustrated)

Piece Number	NAME OF PART	Quantity Required
1009	**IGNITION SWITCH COMPLETE**	1
11506	**Cover Assembly Complete**	1
	(Includes the next 6 Items)	
26477	Cover for Cover Assembly 11506	1
28166	Push Button for Cover 26477	1
25200	Stud for Push Button 28166	1
24593	Spring for Stud 25200	1
23576	Name Plate for Cover 26477	2
14107	**Frame Assembly (Service)**	1
	(Includes the next 7 Items)	
24786	Stud for mounting Switch (Short)	1
24759	Stud for mounting Switch (Long)	1
25193	Pin for retaining Stud 24759	1
25187	Spring Stud for Frame Assembly 14107	1
25277	Stud for retaining Cam 25276	1
25276	Cam for Locking Switch	1
24956	Nut for retaining Screw 25370	4
24285	Nut for Frame Assembly 14107	3
24809	Plain Washer for Nut 24285	2
11529	**Locking Plate Assembly**	1
	(Includes the next Item)	
25349	Spring Stud for Locking Plate Assembly 11529	1
24590	Spring for Locking Plate Assembly 11529	1
11405	**Key for locking Ignition Switch 1009**	1
24808	Screw for retaining Cover Assembly 11506	4
11394	**Terminal Asssembly (Center)**	1
11437	**Spring Terminal Assembly for Spring Terminal Assembly 11394**	1
	(Includes the next 3 Items)	
25120	Terminal Post for Spring Terminal Assembly 11394	1
24614	Dowel Pin for Spring Terminal Assembly 11394	1
11253	**Terminal Assembly (Magneto and Battery)**	2
	(Includes the next 3 Items)	
11437	**Spring Terminal Assembly for Spring Terminal Assembly 11253**	1
24833	Terminal Post for Spring Terminal Assembly 11253	1
25191	Dowel Pin for Spring Terminal Assembly 11253	1
11504	**Contact Assembly (Short Contact for Push Button)**	1
11614	**Contact Assembly (Long Contact for Push Button)**	1
11592	**Contact Assembly (Center Contact for Battery)**	1
11315	**Contact Assembly (Outer Contact for Battery)**	1
11314	**Contact Assembly (Inner Contact for Battery)**	1
11357	**Contact Assembly (Inner Contact for Magneto)**	1
11375	**Contact Assembly (Outer Contact for Magneto)**	1
25370	Screw for retaining Contact Assemblies 11357, 11375, 11314, 11315 and 11592	4
24968	Insulating Bushing on Screw 25370 for Contact Assemblies 11375 and 11357	2
24805	Insulating Bushing on Screw 25370 for Contact Assemblies 11314, 11315 and 11592	2
24971	Bushing for retaining Screw 24810	2
24605	Insulating Bushing for Screw 24810	2
24810	Screw for retaining Contact Assemblies 11504 and 11614	2
11307	**Spring Terminal Assembly for Frame Assembly 14107**	1
24954	Insulating Plate for Ignition Switch 1009	1
25162	Plate for retaining Lever Assembly 11305	1
24867	Screw for retaining Plate 25162 (Large)	1
24957	Screw for retaining Plate 25162 (Small)	1
25255	Plain Washer for Screw 24957	1
24959	Stop Screw for Locking Plate Assembly 11529	1
24656	Insulating Bushing for Lever Assembly 11305	2
24598	Connector (Wide)	1
24807	Connector (Narrow)	1
24837	Insulator (Thick)	3
24658	Insulator (Thin)	6
24838	Insulator for Contact Assembly 11375 (Long)	1
24603	Insulator for Contact Assembly 11504 (Long)	1
24591	Separator for Contact Assemblies 11314 and 11357	2
24897	Insulating Washer for Screws 25370 and 24810	6
11305	**Lever Assembly**	1

No. 1018 IGNITION SWITCH

(Not Illustrated)

Piece Number	NAME OF PART	Quantity Required
1018	**IGNITION SWITCH COMPLETE**	1
11542	**Cover Assembly Complete**	1
	(Includes the next 6 Items)	
25231	Cover for Cover Assembly 11542	1
24644	Push Button for Cover Assembly 11542	1
24916	Stud for Push Button 24644	1
24593	Spring for Stud 24916	1
23580	Name Plate for Cover 25231	1
24304	Rivet for Name Plate 23580	2
14107	**Frame Assembly (Service)**	1
	(Includes the next 7 Items)	
24786	Stud for mounting Switch (Short)	1
24759	Stud for mounting Switch (Long)	1
25193	Pin for retaining Stud 24759	1
25187	Spring Stud for Frame Assembly 14107	1
25277	Stud for retaining Cam 25276	1
25276	Cam for locking Switch	1
24956	Nut for retaining Screw 25370	4
24285	Nut for Frame Assembly 14107	3
24809	Plain Washer for Nut 24285	2
11529	**Locking Plate Assembly**	1
	(Includes the next Item)	
25349	Spring Stud for Locking Plate Assembly 11529	1
24590	Spring for Locking Plate Assembly 11529	1
11405	**Key Assembly for locking Ignition Switch 1018**	1
11359	**Terminal Assembly (Short Contact for Push Button)**	1
	(Includes the next 3 Items)	
11437	**Spring Terminal Assembly for Spring Terminal Assembly 11359**	1
14004	**Terminal Post for Spring Terminal Assembly 11359**	1
24614	Dowel Pin for Spring Terminal Assembly 11359	1
11614	**Contact Spring Assembly (Long Contact for Push Button)**	1
24808	Screw for retaining Cover Assembly 11542	4
24837	Insulator between Terminal Assembly 11359 and Contact Spring Assembly 11614	2
24598	Connector for Contact Spring Assembly 11614 and Contact Spring Assembly 11315	1
24897	Plain Washer for Screw 25375	1
24658	Insulating Plate for Screw 25375	1
24971	Bushing for retaining Screw 25375	2
25375	Screw for retaining Contact Spring Assembly 11614	1
11253	**Spring Terminal Assembly (Outer)**	2
	(Includes the next 3 Items)	
11437	**Spring Terminal Assembly for Spring Terminal Assembly 11253**	1
24833	Terminal Post for Spring Terminal Assembly 11253	1
25191	Dowel Pin for Spring Terminal Assembly 11253	1
11252	**Spring Terminal Assembly (Inner)**	1
	(Includes the next 3 Items)	
11437	**Spring Terminal Assembly for Spring Terminal Assembly 11252**	1
25378	Terminal Post for Spring Terminal Assembly 11252	1
25191	Dowel Pin for Spring Terminal Assembly 11252	1
11307	**Spring Terminal Assembly for Frame Assembly 14107**	1
11315	**Contact Spring Assembly for Battery and Magneto (Short)**	2
11314	**Contact Spring Assembly for Battery and Magneto (Long)**	2
25370	Screw for retaining Contact Spring Assemblies 11314 and 11315	4
24805	Insulating Bushing for Screw 25370	4
25162	Plate for retaining Lever Assembly 11260	1
24867	Screw for retaining Plate 25162 (Large)	1
24957	Screw for retaining Plate 25162 (Small)	1
24656	Insulating Bushing for Lever Assembly 11260	2
25255	Plain Washer for Screw 24957	1
24591	Separator for Contact Spring Assembly 11314 (Long)	1
24592	Separator for Contact Spring Assembly 11314 (Short)	1
24959	Stop Screw for Locking Plate Assembly 11529	1
24803	Insulating Bushing for Screw 25375	2
25084	Insulating Plate for Ignition Switch 1018	1
24897	Plain Washer for Screw 25370	4
11260	**Lever Assembly**	1



No. 1035 COMBINATION SWITCH

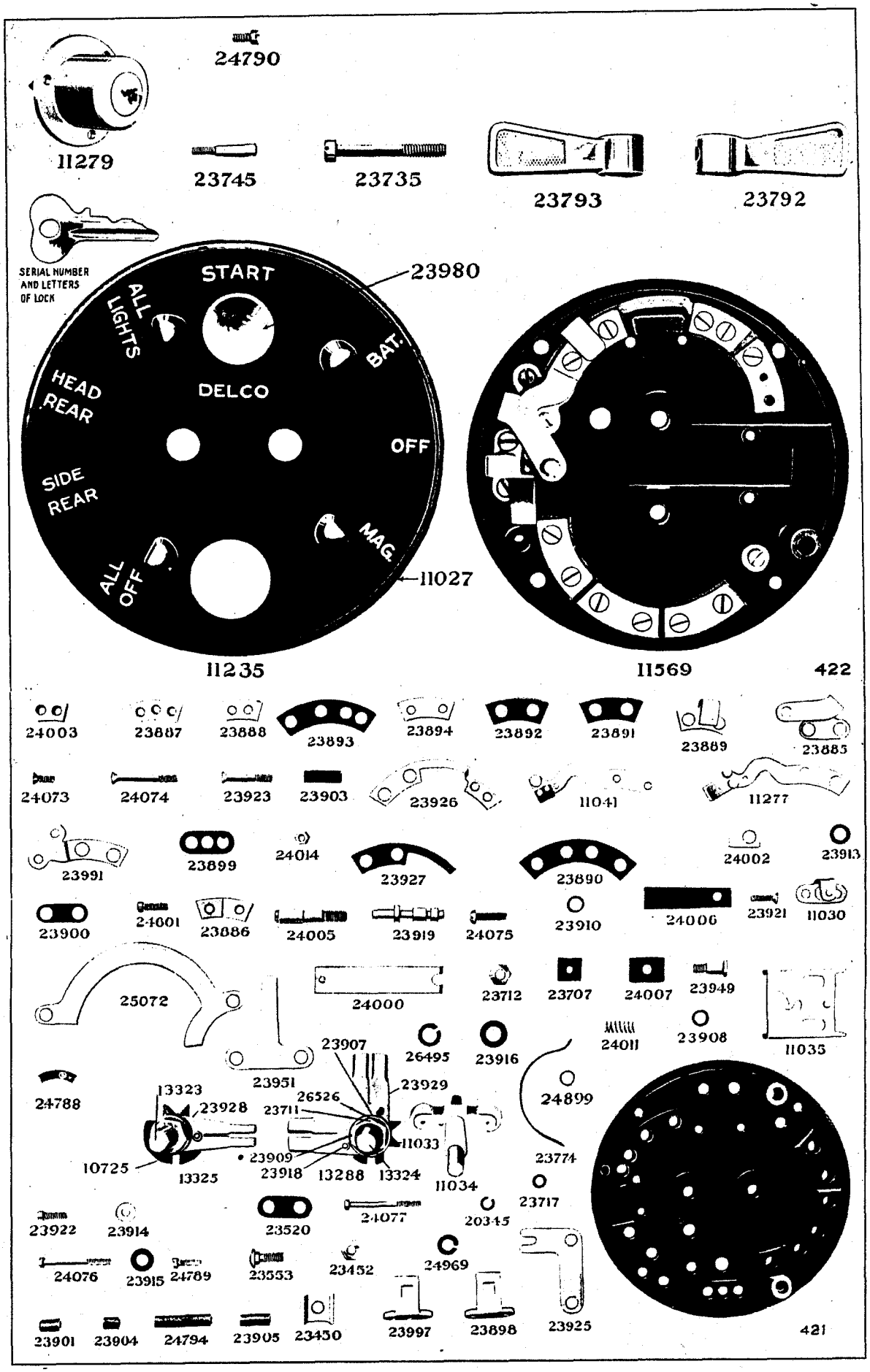
No. 1035 COMBINATION SWITCH

(No. 1035 Combination Switch is superseded by No. 1040 Combination Switch. When ordering a complete new Switch order No. 1040.)

Piece Number	NAME OF PART	Quantity Required
1035	**COMBINATION SWITCH COMPLETE**	1
11235	**Housing Assembly Complete** (Includes the next 3 Items)	1
11027	**Housing Assembly**	1
23980	Push Button for Housing Assembly 11235	1
23979	Screw Stud for Push Button 23980 (Not shown in Illustration)	1
11279	**Lock Assembly for locking Switch** (Includes the next Item)	2
29958	Key for Lock Assembly 11279 (Give Series No. of Lock)	8
23374	Terminal Clip for connecting Switch	1
23917	Mounting Plate for Switch	7
23898	Terminal Post for Terminals 1, 2, 3, 4, 6,7 and 8	8
23553	Screw for retaining Clip 23450	8
23452	Nut for Screw 23553	8
24969	Lock Washer for Nut 23452	1
23450	Clip for retaining Terminal Clip 23374	1
23997	Terminal Post for Terminal Post No. 5	1
23991	Connector for Terminal No. 8 and Contact Spring Assembly 11277	1
23662	Plate for Blank Terminal	1
11041	**Contact Spring Assembly (Upper Contact Arm) for Starting Button**	1
11277	**Contact Spring Assembly (Lower Contact Arm) for Starting Button**	1
23926	Plate for connecting Terminals No. 5 and 6	1
23885	Bracket for supporting Plunger 23919	1
11030	**Contact Bracket Assembly for Starting Button**	1
23919	Plunger Stud for operating Contact Spring Assemblies 11041 and 11277	1
23894	Contact Plate for connecting Terminals No. 2, 3 and 6	1
23886	Plate for connecting Terminal No. 1	1
23887	Plate for connecting Plate 23888 and Plate 23906	1
23888	Plate for connecting Terminal No. 5	1
23889	Plate for connecting Plate 23926 and Terminal No. 6	1
23927	Insulating Plate under Plate 23926	1
23890	Insulating Plate for Contact Plate 23894 for Terminals No. 2 and 3	2
23891	Insulating Plate for Plates 23886 and 23894	2
23892	Insulating Plate for Contact Spring Assembly 11041 (Thin)	1
23893	Insulating Plate for Plates 23887 and 23888	1
23900	Insulator for Connector 23991	10
23520	Insulating Plate for Terminal Post No. 1, 2, 3, 4, 6, 7, 8	1
23899	Insulating Plate for Terminal Post No. 5	1
23901	Insulating Bushing for Screw 24077	2
23902	Insulating Bushing for Screw 23921	10
23903	Insulating Bushing for Screw 23923	1
23904	Insulating Bushing for Screw 23789	2
23905	Insulating Bushing for Screw 23922	1
23912	Plain Washer for Screw 23789	1
23911	Insulating Washer for Screw 23789	10
23923	Screw for retaining Terminals 1, 2, 3, 5, and 6	2
24601	Screw for retaining Terminal No. 8	1
23922	Screw for retaining Terminal No. 1 (Short Screw)	1
24789	Screw for retaining Terminal No. 4 (Short Screw)	2
23921	Screw for retaining Terminal No. 7	1
15454	**Brush Assembly Complete (For Lighting)** (Includes the next 14 Items)	1
13324	**Stud Assembly** (Includes the next Item)	1
23747	Pin for Stud Assembly 13324 (Not shown in Illustration)	2
23929	Contact Arm for Brush Assembly 15454	1
11033	**Stop Disc Assembly** (Includes the next Item)	1
23946	Stud for Stop Disc Assembly 11033 (Not shown in Illustration)	1
23918	Insulating Bushing for Stop Disc Assembly 11033	1
24899	Insulating Bushing for Stud Assembly 13324	1
23717	Plain Washer for Stop Disc Assembly 11033	1
23910	Insulating Washer for Stop Disc Assembly 11033	1
23711	Nut for Clamping Brush Assembly 15454	1
26526	Lock Washer for Nut 23711	1
23909	Plain Washer for Nut 23711	1
23907	Insulating Washer for Nut 23711	2
23908	Plain Washer between Contact Arms 23929	

No. 1035 COMBINATION SWITCH (Continued)

Piece Number	NAME OF PART	Quantity Required
15453	**Brush Assembly Complete (For Ignition)** (Includes the next 14 Items)	1
13323	**Stud Assembly** (Includes the next Item)	1
23747	Pin for Stud Assembly 13323 (Not shown in Illustration)	1
23928	Contact Arm for Brush Assembly 15453	2
10725	**Stop Disc Assembly** (Includes the next Item)	1
23946	Stud for Stop Disc Assembly 10725 (Not shown in Illustration)	1
23918	Insulating Bushing for Stop Disc Assembly 10725	1
24899	Insulating Bushing for Stud Assembly 13332	1
23717	Plain Washer for Stop Disc Assembly 10725	1
23910	Insulating Washer for Stop Disc Assembly 10725	1
23711	Nut for clamping Brush Assembly 13323	1
26526	Lock Washer for Nut 23711	1
23909	Plain Washer for Nut 23711	1
23907	Insulating Washer for Nut 23711	2
23908	Plain Washer for Contact Arms 23928	2
24005	Screw for retaining Brush Assemblies 15454 and 15453	2
23712	Nut for Screw 24005	2
20495	Lock Washer for Nut 23712	1
11034	**Roller Arm Assembly**	1
24002	Contact Plate for Contact Spring Assembly 11277	1
23906	Upper Contact Plate for Brush Assemblies 15453 and 15454	1
23925	Plate for retaining Spring 23951	1
11035	**Tumbler Assembly (Sliding Plate for Locking Switch)** (Includes the next Item)	1
23938	Pin for Tumbler Assembly 11035 (Not shown in Illustration)	1
24000	Slide (For Locking Plunger 23919)	2
23774	Tension Spring for Roller Arm Assembly 11034	1
23951	Spring for operating Plunger 23919	1
24006	Insulator Plate for Spring 23951	1
24007	Insulator Plate for Tension Spring 23774	1
24003	Spacing Plate between Plates 23906 and 23887	1
24011	Spring for Tumbler Assembly 11035	1
24014	Nut for Screw 24077	1
23707	Nut for Screw 24075	1
24794	Insulating Bushing for Screw 24076	1
23901	Insulating Bushing for Screw 24601	4
24969	Lock Washer for Screw 23735	1
20345	Lock Washer for Nut 24014	2
23915	Insulating Washer for Plates 23906 and 24007	1
23916	Insulating Washer for Roller Arm Assembly 11034	1
23913	Insulating Washer for Screw 24077	2
23914	Plain Washer for Screws 24076 and 24077	2
23793	Lever for operating Brush Assembly 15453	2
23745	Screw for retaining Lever 23793	3
24790	Screw for retaining Lock Assembly 11279	2
23949	Screw for retaining Tumbler Assembly 11035	1
24077	Screw for retaining Plates 23906 and 24002	1
24074	Screw for connecting Plate 23906 and Blank Terminal (Long Screw)	1
24076	Screw for retaining Terminal No. 4 (Long Screw)	1
24073	Screw for retaining Plate 23906 (Short)	1
24075	Screw for retaining Tension Spring 23774	4
23735	Screw for retaining Housing Assembly 11235	



No. 1042 COMBINATION SWITCH

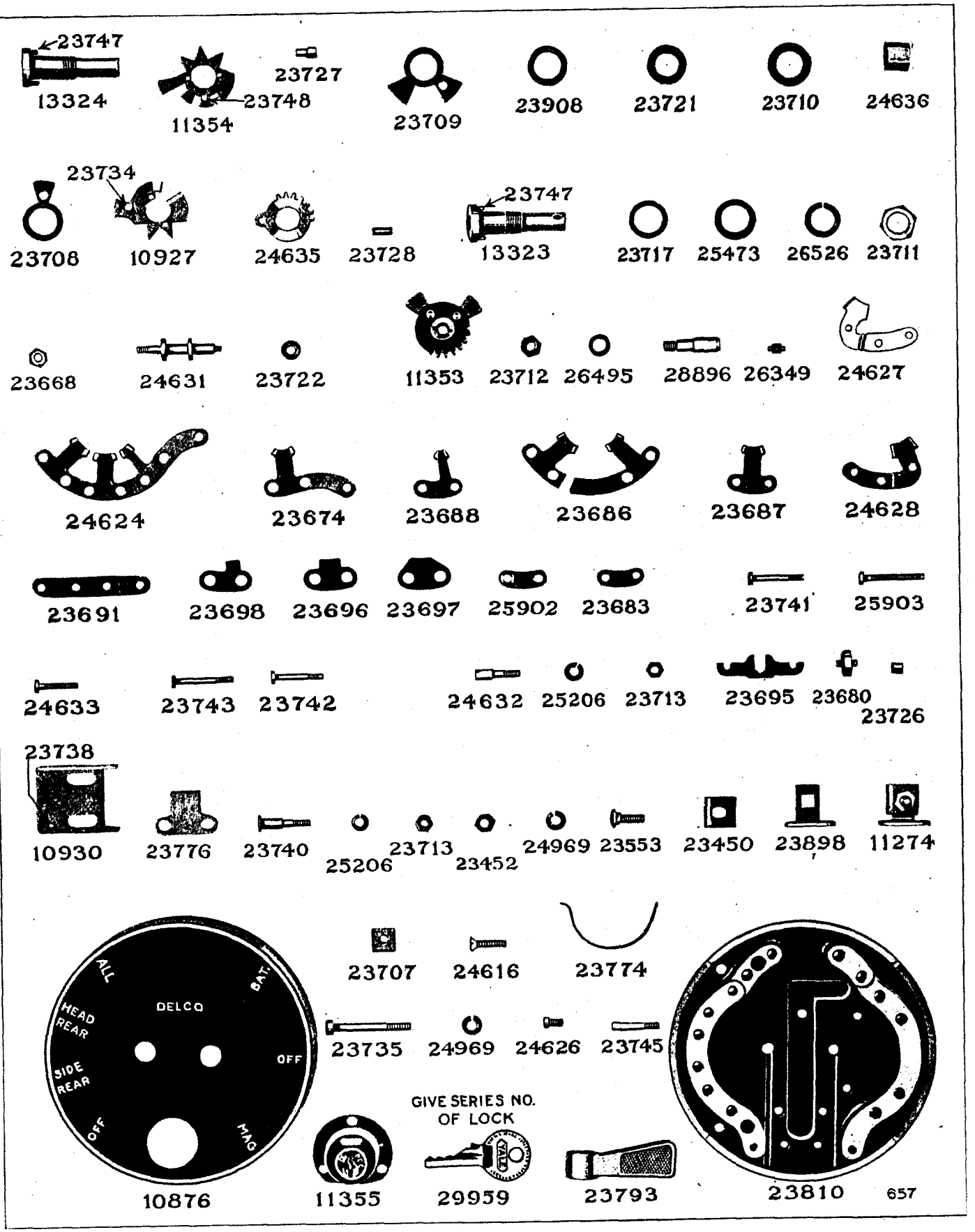
No. 1042 COMBINATION SWITCH

(No. 1042 Combination Switch is superseded by No. 1040 Combination Switch. When ordering a complete new switch order No. 1040.

Piece Number	NAME OF PART	Quantity Required
1042	**COMBINATION SWITCH COMPLETE**	1
11235	**Housing Assembly Complete** (Includes the next 3 Items)	1
11027	**Housing Assembly for Housing Assembly 11235**	1
23980	Push Button for Housing Assembly 11235	1
23979	Screw Stud for Push Button 23980 (Not shown in Illustration)	1
24952	Mounting Plate for Mounting Assembly 11569	8
23898	Terminal Post for Terminals 1, 2, 3, 4, 6, 7, 8 and 9	9
23553	Screw for retaining Clip 23450	9
23452	Nut for Screw 23553	9
20393	Lock Washer for Nut 23452	9
23450	Clip for retaining Terminal Clips to Combination Switch	1
23997	Terminal Post for Terminal Post No. 5	1
23991	Connector for Terminal No. 8 and Contact Spring Assembly 11277	1
11041	**Contact Spring Assembly (Upper Contact Arm for Starting Button)**	1
11277	**Contact Spring Assembly (Lower Contact Arm for Starting Button)**	1
23926	Plate connecting Terminals Nos 5 and 6	1
23885	Bracket for supporting Plunger Stud 23919	1
11030	**Contact Bracket Assembly for Starting Button**	1
23919	Plunger Stud for operating Contact Spring Assemblies 11041 and 11277	3
23894	Plate for connecting Terminals Nos. 2, 3, and 6	1
23886	Plate for connecting Terminal No. 1	1
23887	Plate for connecting Plates 23888 and 23926	1
23888	Plate for connecting Terminal No. 5	1
23889	Plate for connecting Plate 23926 and Terminal No. 6	1
23927	Insulating Plate under Plate 23926	2
23890	Insulating Plate for Plate 23894 and Terminals Nos. 2 and 3	2
23891	Insulating Plate for Plates 23886 and 23894 and Contact Spring Assembly 11041 (Thick)	2
23892	Insulating Plate for Contact Spring Assembly 11041 (Thin)	1
23893	Insulating Plate for Plates 23887 and 23888	1
23900	Insulating Plate for Connector 23991	10
23520	Insulating Plate for Terminal Post No. 1, 2, 3, 4, 6, 7, 8, 9	1
23899	Insulating Plate for Terminal Post No. 5	3
23901	Insulating Bushing for Screws 24077 and 24601	2
23902	Insulating Bushing for Screw 23921 (Not shown in Illustration)	10
23903	Insulating Bushing for Screw 23923	1
23904	Insulating Bushing for Screw 23789	2
23905	Insulating Bushing for Screw 23922	1
23912	Plain Washer for Screw 24789 (Not shown in Illustration)	1
23911	Insulating Washer for Screw 24789 (Not shown in Illustration)	10
23923	Screw for retaining Terminals Nos. 1, 2, 3, 6, and 5	2
24601	Screw for retaining Terminal No. 8	1
23922	Screw for retaining Terminal No. 1 (Short Screw)	1
24789	Screw for retaining Terminal No. 4 (Short Screw)	2
23921	Screw for retaining Terminal No. 7	1
15454	**Brush Assembly Complete (For Lighting)** (Includes the next 14 Items)	1
13324	**Stud Assembly** (Includes the next Item)	1
23747	Pin for Stud Assembly 13324 (Not shown in Illustration)	2
23929	Contact Arm for Brush Assembly 15454 (Includes the next Item)	1
11033	**Stop Disc Assembly** (Includes the next Item)	1
23946	Stud for Stop Disc Assembly 11033 (Not shown in Illustration)	1
23918	Insulating Bushing for Stop Disc Assembly 11033	1
24899	Insulating Bushing for Stud Assembly 13324	1
23717	Plain Washer for Stop Disc Assembly 11033	1
23910	Insulating Washer for Stop Disc Assembly 11033	1
23711	Nut for clamping Brush Assembly 13288	1
26526	Lock Washer for Nut 23711	1
23909	Plain Washer for Nut 23711	1
23907	Insulating Washer for Nut 23711	2
23908	Plain Washer for Contact Arm 23929	1
15453	**Brush Assembly Complete (For Ignition)** (Includes the next 14 Items)	1
13323	**Stud Assembly** (Includes the next Item)	1
23747	Pin for Stud Assembly 13323 (Not shown in Illustration)	2
23928	Contact Arm for Brush Assembly 15453	

No. 1042 COMBINATION SWITCH (Continued)

Piece Number	NAME OF PART	Quantity Required
10725	**Stop Disc Assembly** (Includes the next Item)	1
23946	Stud for Stop Disc Assembly 10725 (Not shown in Illustration)	1
23918	Insulating Bushing for Stop Disc Assembly 10725	1
24899	Insulating Bushnig for Stud Assembly 13323 (Not shown in Illustration)	1
23717	Plain Washer for Stop Disc Assembly 10725	1
23910	Insulating Washer for Stop Disc Assembly 10725	1
23711	Nut for clamping Brush Assembly 15453	1
26526	Lock Washer for Nut 23711	1
23909	Plain Washer for Nut 23711	1
23908	Plain Washer for Contact Arm 13928	2
23907	Insulating Washer for Nut 23711	1
24005	Screw for retaining Brush Assemblies 15453 and 15454	2
23712	Nut for Screw 24005	2
20495	Lock Washer for Nut 23712	2
23913	Insulating Washer for Screw 24077	1
23914	Plain Washer for Screws 24076 and 24077	1
23793	Lever for operating Brush Assembly 15453	2
23745	Screw for retaining Lever 23793	2
24788	Segment for Terminal No. 5 (Upper)	1
11279	**Lock Assembly for connecting Switch** (Includes the next Item)	1
29958	Key for Lock Assembly 11279 (Give Series No. of Lock)	2
24790	Screw for retaining Lock ssembly 11279	3
24077	Screw for retaining Plate 24002 and Segment 24788	1
24074	Screw for retaining Terminal No. 9 (Long Screw)	1
24076	Screw for retaining Terminal No. 4 (Long Screw)	1
24073	Screw for retaining Plate 25072 (Short Screw)	1
24075	Screw for retaining Spring 23774	1
23735	Screw for retaining Housing Assembly 11235	4
11034	**Roller Arm Assembly**	1
24002	Contact Plate for Contact Spring Assembly 11277	1
25072	Upper Contact Plate for Brush Assembly 13288	1
23925	Plate for retaining Spring 23951	1
11035	**Tumbler Assembly for Locking Switch** (Includes the next Item)	1
23938	Pin for Tumbler Assembly 11035 (Not shown in Illustration)	1
24000	Slide (For locking Push Button)	1
23774	Tension Spring for Roller Arm Assembly 11034	2
23951	Spring for operating Plunger Stud 23919	1
24006	Insulating Plate for Spring 23774	1
24007	Insulating Plate for Tension Spring 23774	1
24003	Spacing Plate between Plate 23887 and Segment 24788	1
24011	Spring for Tumbler Assembly 11035	1
24014	Nut for Screw 24077	1
23707	Nut for Screw 24075	1
24794	Insulating Bushing for Screw 24076	1
20393	Lock Washer for Screw 23735	2
20345	Lock Washer for Nut 24014	1
23916	Insulating Washer for Roller Arm Assembly 11034	1
23915	Insulating Washer for Plates 25072 and 24007	2
23949	Screw for retaining Tumbler Assembly 11035	2



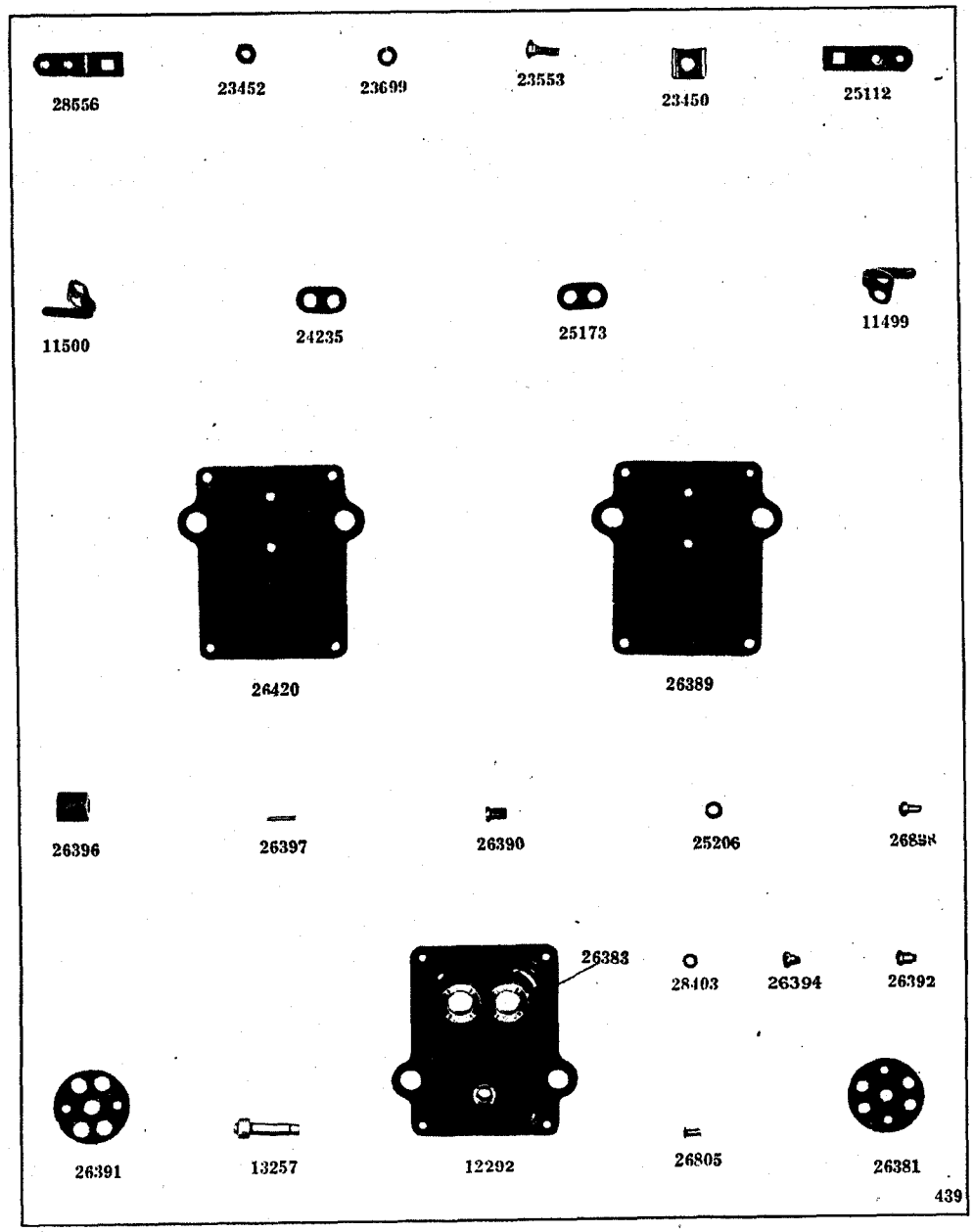
No. 1045 COMBINATION SWITCH

No. 1045 COMBINATION SWITCH

Piece Number	NAME OF PART	Quantity Required
1045	**COMBINATION SWITCH COMPLETE**	1
10876	**Housing Assembly**	1
10930	**Tumbler Assembly for locking Switch** (Includes the next Item)	1
23738	Stud for Tumbler Assembly 10930	2
23740	Screw for retaining Tumbler Assembly 10930	1
23776	Spring for retaining Tumbler Assembly 10930	5
23713	Nut for Screws 23740, 24632 and Stud 24631	5
25206	Lock Washer for Nut 23713	2
24632	Stop Screw for Blade Assemblies 13326 and 13327	1
11353	**Gear Wheel Assembly**	3
23668	Nut for retaining Gear Wheel Assembly 11353 and Screw 23742	1
23722	Plain Washer for Nut 23668	1
23695	Retainer for Roller 23680	2
23680	Roller for Blade Assemblies 13326 and 13327	1
24631	Stud for Retainer 23695	1
11355	**Lock Assembly** (Includes the next Item)	2
29959	Key for Lock Assembly 11355 (Give Series No. of Lock)	3
24626	Screw for retaining Lock Assembly 11355	4
23735	Screw for retaining Housing Assembly 10876	4
20393	Lock Washer for Screw 23735	2
23793	Lever for operating Blade Assemblies 13326 and 13327	2
23745	Screw for retaining Lever 23793	2
28896	Stud for retaining Blade Assemblies 13326 and 13327	2
23712	Nut for Stud 28896	2
20495	Lock Washer for Nut 23712	8
23898	Terminal Post for Terminal Post	8
23553	Screw for retaining Clip 23450	8
23452	Nut for Screw 23553	8
20393	Lock Washer for Nut 23452	8
23450	Clip for retaining Terminal Clip 23774	10
23743	Screw for retaining Terminals Nos. 1, 2, 3, 5 and 6	10
23726	Insulating Bushing for Screw 23743	1
23691	Plate under Terminal No. 4	2
23742	Screw for retaining Plate 23691	1
24616	Screw for retaining Spring 23774	2
23774	Spring for Retainer 23695	1
23707	Nut for Screw 24616	1
23683	Plate for retaining Screw 23741	2
23741	Screw for retaining Terminal No. 4	2
25903	Screw for retaining Brush 24628	1
24628	Brush for Terminal No. 7	1
24627	Brush for Terminal No. 8	1
26349	Insulating Stud for Brushes 24627 and 24628	1
23810	Mounting Plate for Terminal Post	
23686	Brush for Terminals Nos. 5 and 6 (Upper for Terminal No. 5 and Lower for Terminal No. 6)	1
23674	Brush for Terminal No. 5 (Lower)	1
23687	Brush for Terminals Nos. 2, 3 and 6 (Upper)	3
23688	Brush for Terminal No. 1 (Upper)	1
24624	Brush for Terminals Nos. 1, 2 and 3 (Lower)	1
23698	Insulating Plate for Terminal No. 1	1
23697	Insulating Plate for Terminal No. 6 (Lower)	4
23696	Insulating Plate for Terminals Nos. 2, 3 and 5	2
25902	Spacing Plate for Brush 24628	2
24633	Screw for retaining Brush 24627	1
13326	**Blade Assembly Complete (For Ignition)** (Includes the next 13 Items)	1
13323	**Stud Assembly** (Includes the next Item)	1
23747	Pin for Stud Assembly 13323	1
10927	**Stop Disc Assembly** (Includes the next Item)	1
23734	Stud for Stop Disc Assembly 10927	1
24635	Gear for Blade Assembly 13326	1
23711	Nut for Clamping Blade Assembly 13326	1
26526	Lock Washer for Nut 23711	1
23708	Blade for Blade Assembly 13326	2
23710	Insulating Washer for Blade 23708	2
23717	Plain Washer for Stop Disc Assembly 10927 (Thick)	2
25473	Plain Washer for Gear 24635 (Thin)	

No. 1045 COMBINATION SWITCH (Continued)

Piece Number	NAME OF PART	Quantity Required
24636	Insulating Bushing for Stud Assembly 13323	1
23728	Insulating Bushing for Stop Disc Assembly 10927	1
13327	**Blade Assembly Complete (For Lighting)** (Includes the next 14 Items)	1
13324	**Stud Assembly** (Includes the next Item)	1
23747	Pin for Stud Assembly 13324	1
11354	**Stop Wheel Assembly** (Includes the next Item)	1
23748	Stud for Stop Wheel Assembly 11354	1
23727	Insulating Bushing for Stop Wheel Assembly 11354	1
23737	Insulating Bushing for Stud Assembly 13324 (Not shown in Illustration)	1
23711	Nut for Clamping Blade Assembly 13327	1
26526	Lock Washer for Nut 23711	1
23721	Plain Washer for Nut 23711 (Thick)	1
23710	Insulating Washer for Blade 23709	2
23717	Plain Washer for Stop Wheel Assembly 11354 (Thick)	2
25473	Plain Washer for Stop Wheel Assembly 11354 (Thin)	2
23709	Blade for Blade Assembly 13327	1
23908	Plain Washer for Nut 23711 (Thin)	1
23375	Terminal Clip for connecting Switch (Large) (Not shown in Illustration)	2
23374	Terminal Clip for connecting Switch (Small) (Not shown in Illustration)	6



No. 1061 AUTO HORN SWITCH

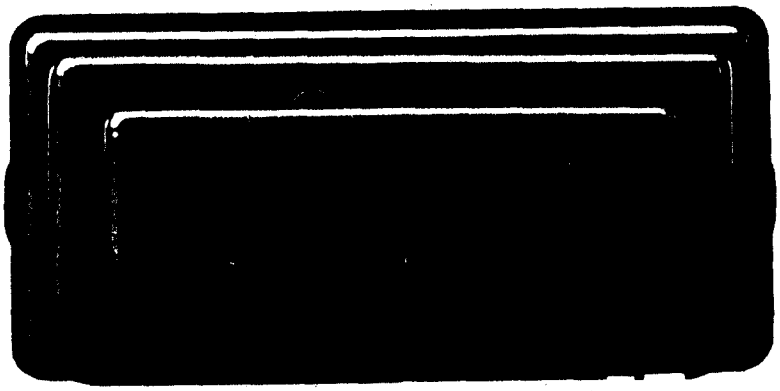
No. 1061 AUTO HORN SWITCH

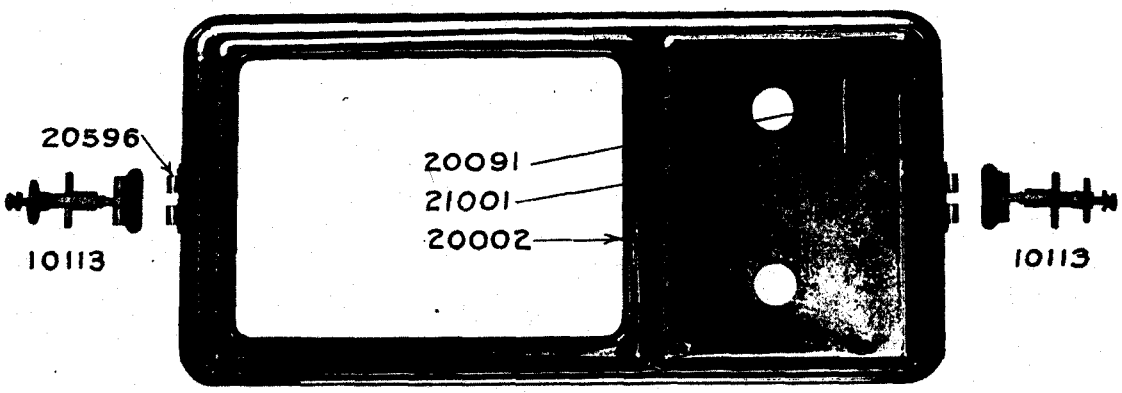
Piece Number	NAME OF PART	Quantity Required
1061	**AUTO HORN SWITCH COMPLETE**	1
14110	**Cover Assembly Complete (Service)** (Includes the next 6 Items)	1
12292	**Cover Assembly** (Includes the next 2 Items)	2
	Bushing for Plunger Assembly 13257 (Not shown in Illustration)	2
26963	Hub for Cover Assembly 14110	1
26383	**Plunger Assembly**	1
13257	Cap for Plunger Assembly 13257	1
26396	Pin for retaining Cap 26396	4
26397	Screw for retaining Cover Assembly 12292	4
26898	Lock Washer for Screw 26898	1
25206		
12077	**Base Assembly Complete** (Includes the next 25 Items)	1
	Base for Base Assembly 12077	1
26420	Insulator for Base 26393	1
26389	Insulator (Thick) (Round)	1
26391	Insulator (Thin) (Round)	1
26381	Stud Stop for Contact Spring Assembly 11500	2
26390	Screw for attaching Terminal Assembly 12076	2
26394	Screw for attaching Terminal Assembly 13095	1
26392		
12076	**Terminal Assembly Complete (Crooked Terminal)** (Includes the next 5 Items)	1
	Terminal for Terminal Assembly 12076	1
28556	Clip for retaining Terminal Clip 23374	1
23450	Screw for retaining Clip 23450	1
23553	Nut for Screw 23553	1
23452	Lock Washer for Nut 23452	1
23699		
11507	**Terminal Assembly Complete (Straight Terminal)** (Includes the next 5 Items)	1
	Terminal for Terminal Assembly 11507	1
25112	Clip for retaining Terminal Clip 23374	1
23450	Screw for retaining Clip 23450	1
23553	Nut for Screw 23553	1
23452	Lock Washer for Nut 23452	1
23699	Insulator for Contact Spring Assembly 11499 (Lower)	1
24235	Insulator for Contact Spring Assembly 11499 (Upper)	1
25173	**Contact Spring Assembly (Lower Contact)**	1
11500	**Contact Spring Assembly (Upper Contact)**	2
11499	Rivet for retaining Insulators 26391 and 26381	2
26805	Washer for Rivet 26805 (Not shown in Illustration)	2
28403	Terminal Clip for connecting Switch	
23374		

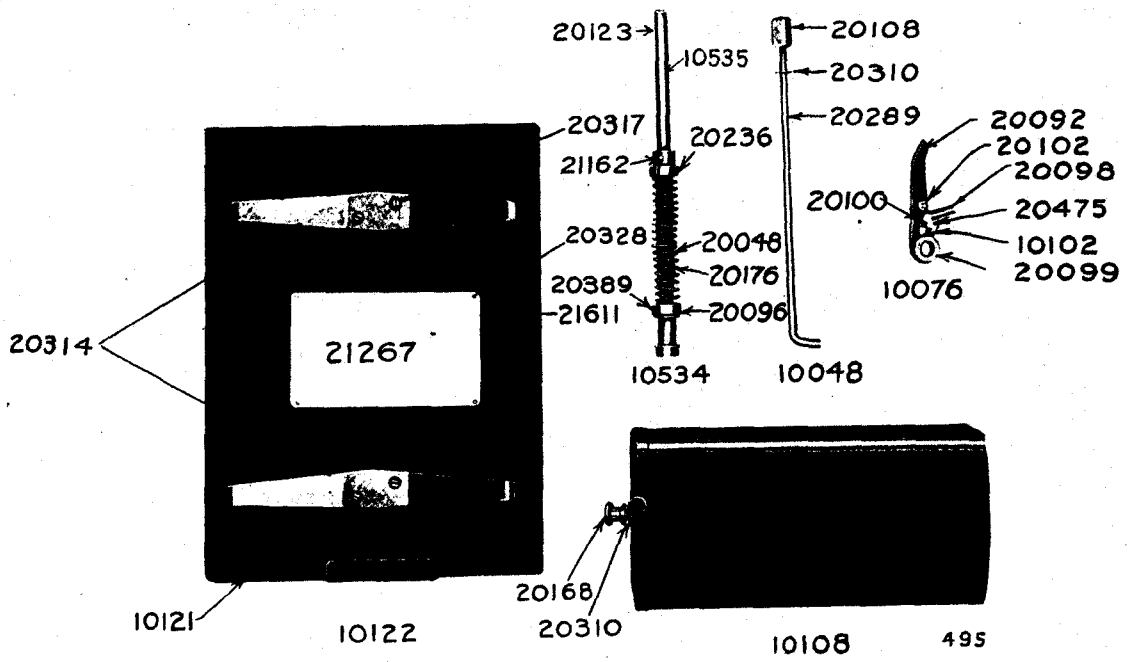


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No. 1062 COMBINATION SWITCH





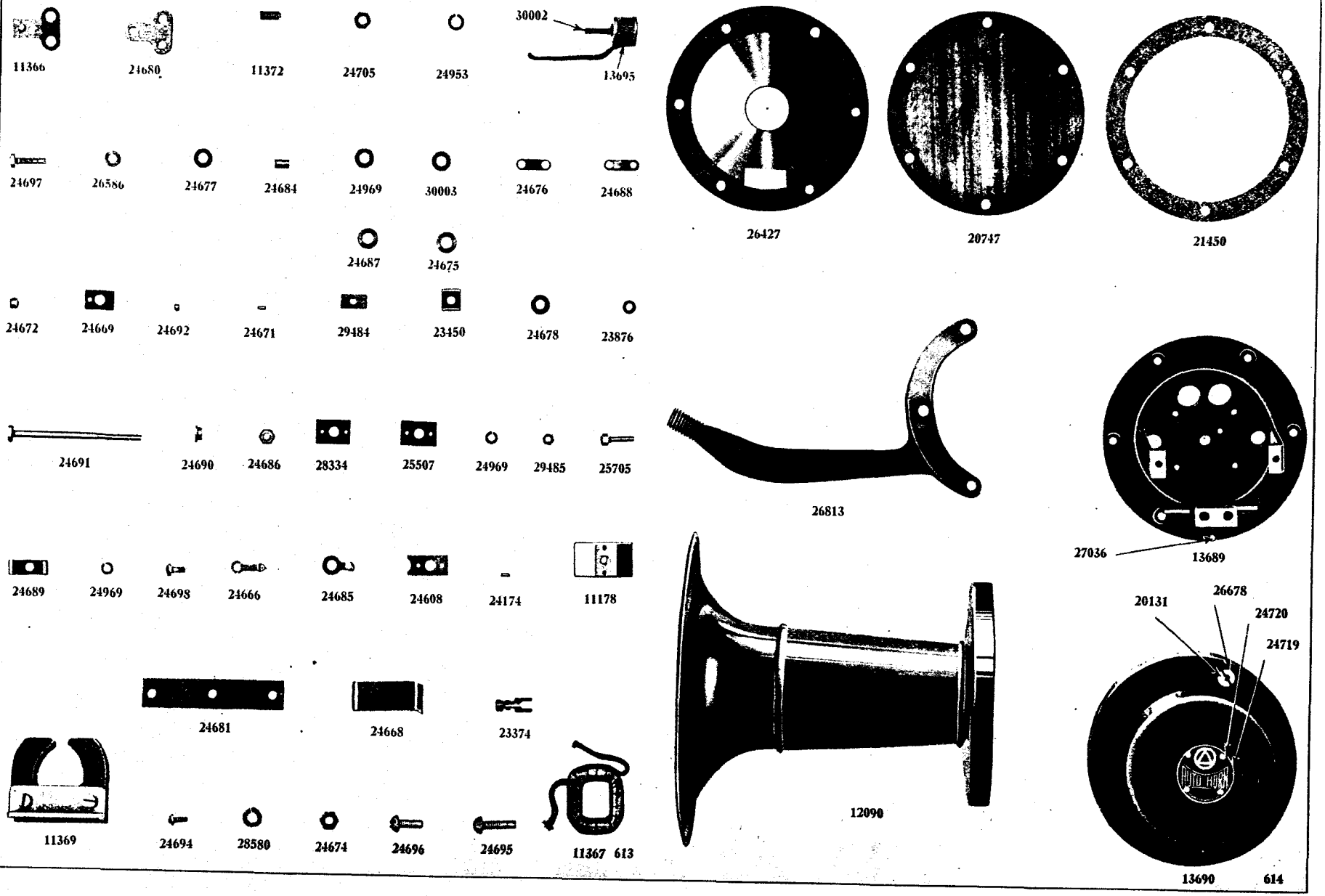


No. 5401 BATTERY BOX

No. 5312 AUTO HORN

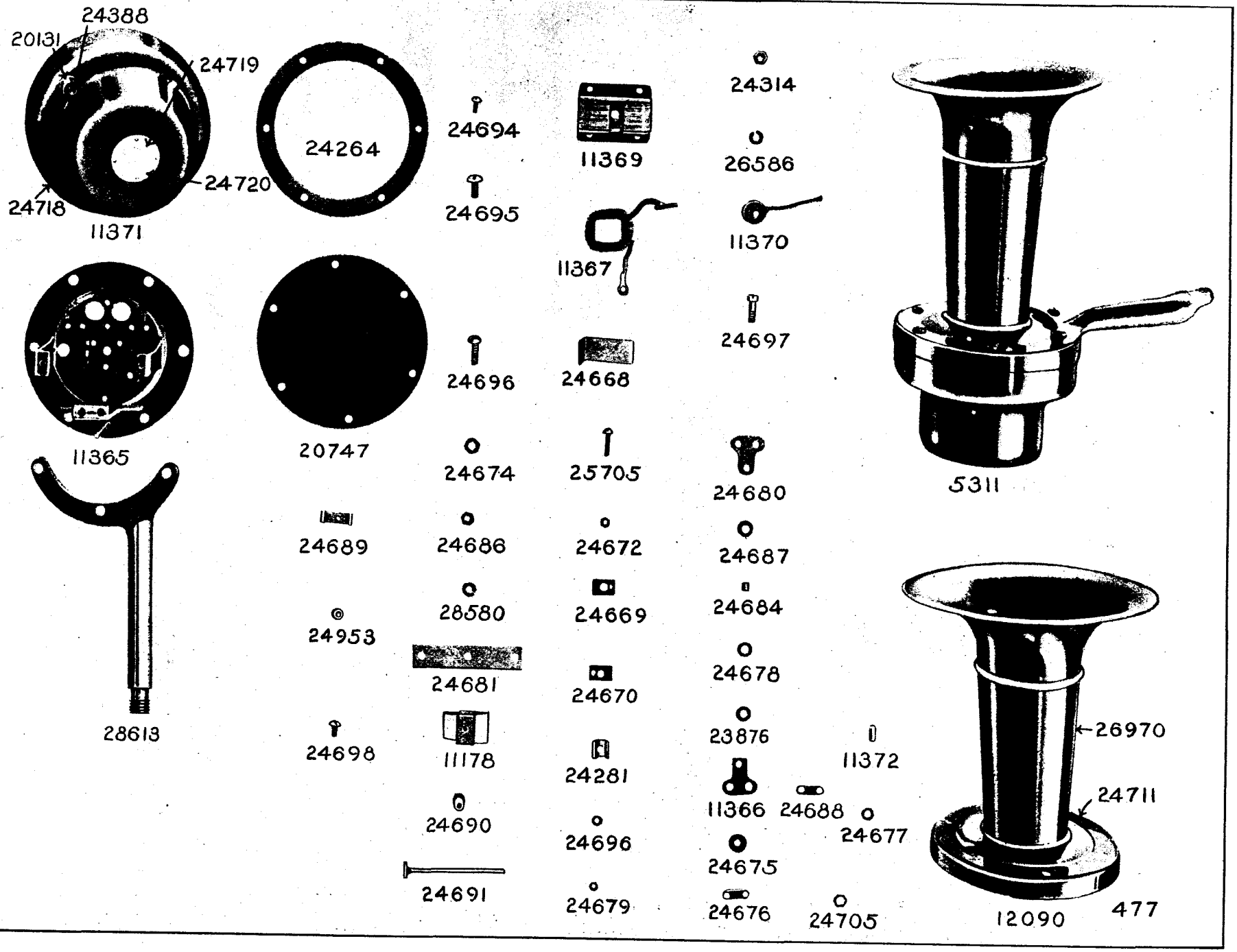
Piece Number	NAME OF PART	Quantity Required
5312	**AUTO HORN ASSEMBLY**	1
13690	**Shell Assembly Complete**	1
	(Includes the next 5 Items)	
24719	Name Plate for Shell Assembly 13690	1
26838	Rivet for attaching Name Plate 24719	4
26678	Thumb Nut for retaining Shell Assembly 13690	1
20131	Lock Washer for Thumb Nut 26678	1
24389	Plain Washer for retaining Thumb Nut 26678 (Not shown in Illustration)	1
12090	**Horn Assembly Complete (Front)**	1
28613	Bracket for connecting Auto Horn	1
26427	Protector for Diaphragm	1
11367	**Coil Assembly for Horn**	1
13689	**Housing Assembly for Horn**	1
	(Includes the next Item)	
27036	Stud for retaining Shell Assembly 13690	1
12140	**Contact Spring Assembly (Lower Contact)**	1
11369	**Core Assembly for Coil Assembly 11367**	1
11372	**Contact Screw Assembly**	1
24705	Nut for Contact Screw Assembly 11372	1
24953	Lock Washer for Nut 24705	1
11178	**Armature Assembly Complete**	1
	(Includes the next Item)	
24174	Pin for Armature 24158	2
13695	**Resistance Coil Assembly for Horn**	1
29777	Screw for Resistance Coil Assembly 13695	1
24969	Lock Washer for Screw 29777	1
30003	Plain Washer for Screw 29777	1
26586	Lock Washer for Nuts 24686 and Screw 24697	3
24666	Clip connecting Coil Assembly 11367 to Screw 25705 and Resistance Coil Assembly 13695	4
24668	Retainer for Coil Assembly 11367	1
24669	Insulator for Terminal Base 29484 and Clip 24666	4
29484	Terminal Base for retaining Terminal Clip 23374	2
24671	Pin for Terminal Base 29484	2
24672	Bushing for Screw 25705	1
25705	Screw for retaining Terminal Clamp 24281 and Clip 24666	1
23450	Terminal Clamp for retaining Terminal Clip 23374	2
29485	Nut for retaining Screw 25705 and Resistance Coil 13695	2
24969	Lock Washer for Nut 29485 and Screws 25705 and 24698	6
28580	Lock Washer for Nut 24674	6
24674	Nut for Screws 24695 and 24696	6
24695	Screw for retaining Horn Assembly 12090 (Short)	3
24696	Screw for retaining Horn Assembly 12090 (Long)	3
24675	Plain Washer for Contact Spring Assembly 11366 (Thin)	2
24687	Spacing Washer for Contact Spring Assembly 11365 (Thick)	2
24678	Plain Washer for Contact Spring Assembly 11366 (Thick)	2
24677	Insulating Washer for Contact Spring Assembly 11366	2
24680	Terminal Plate for retaining Contact	1
24697	Screw for retaining Plate 24680 and Contact Spring Assembly 11366	2
24688	Block for retaining Screw 24697	1
24676	Insulating Plate for Block 24688	2
24681	Spring Plate for operating Armature Assembly 11178	6
28334	Insulator for Stop Plate 24608 (Lower)	1
25507	Insulator for Stop Plate 24608 (Upper)	1
24608	Stop Plate for operating Contact Spring Assembly 11366	1
24684	Insulator Bushing for Screw 24697	2
24685	Clip for connecting Coil Assembly 11367 and Contact Spring Assembly 11366	1
24686	Nut for Tapper 24691	1
24691	Tapper for operating Diaphragm 20747	1
20747	Diaphragm for Horn Assembly 12090	1
21450	Insulating Ring for Diaphragm 20747 (Narrow)	1
24264	Insulating Ring for Diaphragm 20747 (Wide) (Not shown in Illustration)	1
24689	Clip for retaining Spring Plate 24681	2
24690	Bushing for Tapper 24691	1
24692	Bushing for Terminal Base 24670	1
23876	Plain Washer for Screw 25705	1
24694	Screw for retaining Core Assembly 11369	4
24698	Screw for retaining Spring Plate 24681	2
23374	Terminal Clip for connecting Auto Horn 5312	1

No. 5312 AUTO HORN



No. 5311 AUTO HORN

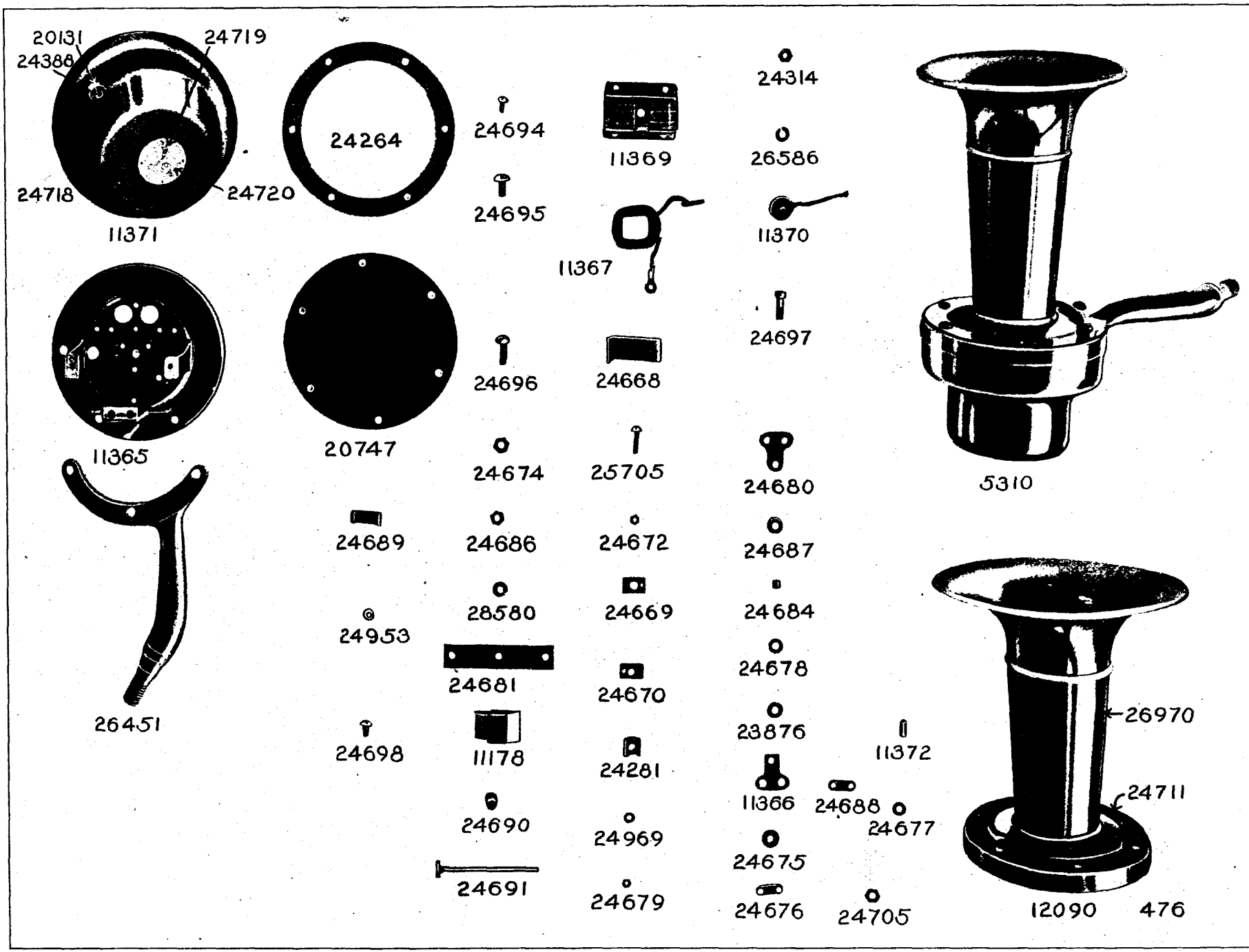
Piece Number	NAME OF PART	Quantity Required
5311	**AUTO HORN COMPLETE**	1
11371	**Shell Assembly Complete**	1
	(Includes the next 5 Items)	
24719	Name Plate for Shell Assembly 11371	1
26838	Rivet for Name Plate 24719 (Not shown in Illustration)	4
26678	Thumb Nut for Shell Assembly 11371 (Not shown in Illustration)	1
20131	Lock Washer for Thumb Nut 26678 (Not shown in Illustration)	1
24389	Plain Washer for retaining Thumb Nut 26678	1
12090	**Horn Assembly Complete (Front)**	1
28613	Bracket for connecting Horn Assembly	1
26427	Protector for Diaphragm 20747 (Not shown in Illustration)	1
11367	**Coil Assembly**	1
24668	Retainer for Coil Assembly 11367	1
13689	**Housing Assembly**	1
	(Includes the next Item)	
27036	Stud for retaining Shell Assembly 11371 (Not shown in Illustration)	1
11366	**Contact Spring Assembly (Lower Contact)**	1
12140	**Core Assembly for Coil Assembly 11367**	4
24694	Screw for retaining Core Assembly 12140	1
11372	**Contact Screw Assembly (Upper Contact)**	1
24705	Nut for Contact Screw Assembly 11372	1
24953	Lock Washer for Nut 24705	1
11178	**Armature Assembly Complete**	1
	(Includes the next Item)	
24174	Pin for Armature Assembly 11178 (Not shown in Illustration)	1
11370	**Resistance Coil Assembly**	1
24314	Nut for retaining Resistance Coil Assembly 11370	4
26586	Lock Washer for Nuts 24314, 24686 and Screw 24697	1
24666	Clip for connecting Coil Assembly 11367 and Screw 25705 (Not shown in Illustration)	2
24669	Insulator for Terminal Base 24670 and Clip 24666	1
29484	Terminal Base for retaining Terminal Clip 23374 (Not shown in Illustration)	1
24671	Pin for Terminal Base 29484 (Not shown in Illustration)	1
24672	Bushing for Screw 25705	1
25705	Screw for retaining Terminal Clamp 24281 and Clip 24666	1
23450	Terminal Clamp for retaining Terminal Clip 23374 (Not shown in Illustration)	1
29485	Nut for Screw 25705 (Not shown in Illustration)	4
24969	Lock Washer for Nut 29485 and Screws 25705 and 24698 (Not shown in Illustration)	6
28580	Lock Washer for Nut 24674	6
24674	Nut for Screws 24695 and 24696	3
24695	Screw for retaining Horn Assembly 12090 (Short)	3
24696	Screw for retaining Horn Assembly 12090 (Long)	1
24675	Plain Washer for Contact Spring Assembly 11366 (Thin)	2
24687	Spacing Washer for Contact Spring Assembly 11366 (Thick)	2
24678	Plain Washer for Contact Spring Assembly 11366 (Thick)	2
24677	Insulating Washer for Contact Spring Assembly 11366	1
24680	Terminal Plate for retaining Contact and Nut Assembly 13494	2
24697	Screw for retaining Terminal Plate 24698 and Contact Spring Assembly 11366	1
24688	Plate for retaining Screw 24697	2
24676	Insulating Plate for Plate 24688	1
27036	Stud for retaining Shell Assembly 11371 (Not shown in Illustration)	6
24681	Spring Plate for operating Armature Assembly 11178	1
28334	Insulator for Stop Plate 24608 (Lower) (Not shown in Illustration)	1
25507	Insulator for Stop Plate 24608 (Upper) (Not shown in Illustration)	1
24608	Stop Plate for operating Contact Spring Assembly 11366 (Not shown in Illustration)	2
24684	Insulating Bushing for Screw 24697	1
24685	Clip for connecting Coil Assembly 11367 and Spring Terminal Assembly 11366 (Not shown in Illustration)	1
24686	Nut for Tapper 24691	1
24691	Tapper for operating Diaphragm 20747	1
20747	Diaphragm for Horn Assembly 12090 next to Housing Assembly 13689	1
21450	Insulating Ring for Diaphragm 20747 (Narrow) (Not shown in Illustration)	1
24264	Insulating Ring for Diaphragm 20747 (Wide)	2
24689	Clip for retaining Spring Plate 24681	1
24690	Bushing for Tapper 24691	1
24692	Bushing for Terminal Base 24670 (Not shown in Illustration)	1
23876	Plain Washer for Screw 25705	2
24698	Screw for retaining Spring Terminal 24681	1
23374	Terminal Clip for connecting Auto Horn 5311 (Not shown in Illustration)	


24388
20131
24719
24720
24718
11371
24264
24694
24695
11369
24314
26586
11370
11367
24697
24696
24668
11365
20747
24674
25705
24680
5311
24689
24686
24672
24687
24953
28580
24669
24684
24681
24670
24678
28613
24698
11178
24281
23876
11372
24690
11366
24688
24677
24696
24675
24691
24679
24676
24705
26970
24711
12090
477

No. 5310 AUTO HORN

Piece Number	NAME OF PART	Quantity Required
5310	**AUTO HORN COMPLETE**	1
11371	**Shell Assembly Complete** (Includes the next 5 Items)	1
24719	Name Plate for Shell Assembly 11371	1
26838	Rivet for Name Plate 24719 (Not shown in Illustration)	1
26678	Thumb Nut for Shell Assembly 11371	4
20131	Lock Washer for Thumb Nut 26678	1
24389	Plain Washer for retaining Thumb Nut 26678 (Not shown in Illustration)	1
12090	**Horn Assembly Complete (Front)**	1
26451	Bracket for connecting Auto Horn	1
26427	Projector for Diaphragm 20747 (Not shown in Illustration)	1
11367	**Coil Assembly**	1
13689	**Housing Assembly** (Includes the next Item)	1
27036	Stud for retaining Shell Assembly 11371 (Not shown in Illustration)	1
11366	**Contact Spring Assembly (Lower Contact)**	1
12140	**Core Assembly for Coil Assembly 11367**	1
11372	**Contact Screw Assembly (Upper Contact)**	1
24705	Nut for Contact Screw Assembly 11372	1
24953	Lock Washer for Nut 24705	1
11178	**Armature Assembly Complete** (Includes the next Item)	1
24174	Pin for Armature Assembly 11178 (Not shown in Illustration)	2
11370	**Resistance Coil Assembly**	1
24314	Nut for retaining Resistance Assembly 11370	1
26586	Lock Washer for Nuts 24314, 24686 and Screw 24697	4
24666	Clip for connecting Coil Assembly 11367 and Screw 25705 (Not shown in Illustration)	1
24668	Retainer for Coil Assembly 11367	1
24669	Insulator for Terminal Base 24670 and Clip 24666	2
29484	Terminal Base for retaining Terminal Clip 23374 (Not shown in Illustration)	1
24671	Pin for Terminal Base 29484 (Not shown in Illustration)	1
24672	Bushing for Screw 25705	1
25705	Screw for retaining Clamp 24281 and Clip 24666	1
23450	Terminal Clamp for retaining Terminal Clip 23374 (Not shown in Illustration)	1
29485	Nut for Screw 25705 (Not shown in Illustration)	1
20393	Lock Washer for Nut 29485 and Screws 25705 and 24698	4
28580	Lock Washer for Nut 24674	6
24674	Nut for Screws 24695 and 24696	6
24695	Screw for retaining Horn Assembly 12090 (Short)	3
24696	Screw for retaining Horn Assembly 12090 (Long)	3
24675	Plain Washer for Contact Spring Assembly (Thin)	1
24687	Spacing Washer for Contact Spring Assembly 11366 (Thick)	2
24678	Plain Washer for Contact Spring Assembly 11366 (Thick)	2
24677	Insulating Washer for Contact Spring Assembly 11366	2
24680	Terminal Plate for retaining Contact Nut Assembly 13494	1
24697	Screw for retaining Terminal Plate 24680 and Contact Spring Assembly 11366	2
24688	Block for retaining Screw 24697	1
24676	Insulating Plate for Block 24688	2
27036	Stud for retaining Shell Assembly 11371 (Not shown in Illustration)	1
24681	Spring Plate for operating Armature Assembly 11178	6
28334	Insulator for Stop Plate 24608 (Lower) (Not shown in Illustration)	1
25507	Insulator for Stop Plate 24608 (Upper) (Not shown in Illustration)	1
24608	Stop Plate for operating Contact Spring Assembly 11366 (Not shown in Illustration)	1
24684	Insulating Bushing for Screw 24697	2
24685	Clip for connecting Coil Assembly 11367 and Contact Spring Assembly 11366 (Not shown in Illustration)	1
24686	Nut for Tapper 24691	1
24691	Tapper for operating Diaphragm 20747	1
20747	Diaphragm for Horn Assembly 12090 between Horn Assembly 12090 and Housing Assembly 11365	1
21450	Insulating Ring for Diaphragm 20747 (Narrow) (Not shown in Illustration)	1
24264	Insulating Ring for Diaphragm 20747 (Wide)	1
24689	Clip for retaining Spring Plate 24681	2
24690	Bushing for Tapper 24691	1
24692	Bushing for Terminal Base 24670 (Not shown in Illustration)	1
23876	Plain Washer for Screw 25705	1
24694	Screw for retaining Core Assembly 11369	4
24698	Screw for retaining Spring Plate 24681	2
23374	Terminal Clip for connecting Horn 5310 (Not shown in Illustration)	1

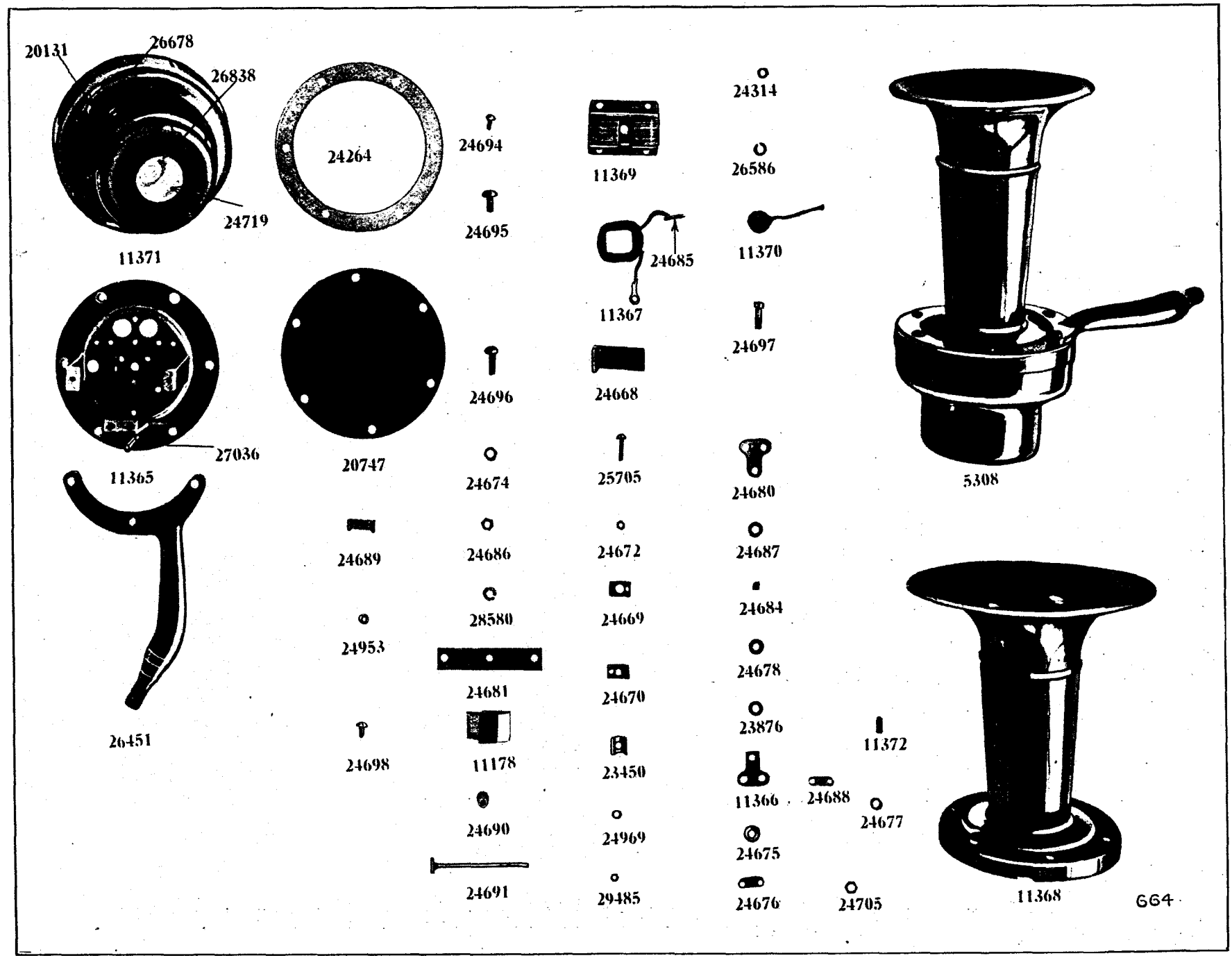
No. 5310 AUTO HORN



No. 5308 AUTO HORN

Piece Number	NAME OF PART	Quantity Required
5308	**AUTO HORN COMPLETE**	1
11371	**Shell Assembly Complete** (Includes the next 5 Items)	1
24719	Name Plate for Shell Assembly 11371	1
26838	Rivet for Name Plate 24719	4
26678	Thumb Nut for Shell Assembly 11371	1
20131	Lock Nut for Thumb Nut 26678	1
24389	Plain Washer for retaining Thumb Nut 26678 (Not shown in Illustration)	1
11368	**Horn Assembly Complete (Front)**	1
26451	Bracket for connecting Auto Horn Assembly	1
11367	**Coil Assembly**	1
13689	**Housing Assembly** (Includes the next Item)	1
27036	Stud for retaining Shell Assembly 11371	1
11366	**Contact Spring Assembly (Lower Contact)**	1
12140	**Core Assembly for Coil Assembly 11367**	1
11372	**Contact Screw Assembly (Upper Contact)**	1
24705	Nut for Contact Screw Assembly 11372	1
24953	Lock Washer for Nut 24705	1
11178	**Armature Assembly Complete** (Includes the next Item)	1
24174	Pin for Armature Assembly 11178 (Not shown in Illustration)	1
11370	**Resistance Coil Assembly**	1
24314	Nut for retaining Resistance Coil Assembly 11370	1
26586	Lock Washer for Nuts 24314 and 24686 and Screw 24697	4
24666	Clip for connecting Coil Assembly 11367 and Screw 25705 (Not shown in Illustration)	1
24668	Retainer for Coil Assembly 11367	1
24669	Insulator for Terminal Base 24670 and Clip 24666	2
29484	Terminal Base for retaining Terminal Clip 23374 (Not shown in Illustration)	1
24671	Pin for Terminal Base 29484 (Not shown in Illustration)	1
24672	Bushing for Screw 25705	1
25705	Screw for retaining Terminal Clamp 23450 and Clip 24666	1
23450	Terminal Clamp for retaining Terminal Clip 23374	1
29485	Nut for Screw 25705	1
20393	Lock Washer for Nut 29485 and Screws 25705 and 24698	4
28580	Lock Washer for Nut 24674	7
24674	Nut for Screws 24695 and 24696	6
24695	Screw for retaining Horn Assembly 11368 (Short)	3
24696	Screw for retaining Horn Assembly 11368 (Long)	3
24675	Plain Washer for Contact Spring Assembly 11366 (Thin)	1
24687	Spacing Washer for Contact Spring Assembly 11366 (Thick)	2
24678	Plain Washer for Contact Spring Assembly 11366 (Thick)	2
24677	Insulating Washer for Contact Spring Assembly 11366	2
24680	Terminal Plate for retaining Contact and Nut Assembly 13494	1
24697	Screw for retaining Terminal Plate 24680 and Contact Spring Assembly 11366	2
24688	Block for retaining Screw 24697	1
24676	Insulating Plate for Block 24688	2
27036	Stud for retaining Shell Assembly 11371	1
24681	Spring Plate for Operating Armature Assembly 11178	6
28334	Insulator for Stop Plate 24608 (Lower)	1
25507	Insulator for Stop Plate 24608 (Upper) (Not shown in Illustration)	1
24608	Stop Plate for Operating Contact Spring Assembly 11366 (Not shown in Illustration)	1
24684	Insulating Bushing for Screw 24697	2
24685	Clip for connecting Coil Assembly 11367 and Spring Terminal Assembly 11366	1
24686	Nut for Tapper 24691	1
24691	Tapper for Operating Diaphragm 20747	1
20747	Diaphragm for Horn Assembly 11368 between Horn Assembly 11368 and Housing Assembly 11365	1
21450	Insulating Ring for Diaphragm 20747 (Narrow) (Not shown in Illustration)	1
24264	Insulating Ring for Diaphragm 20747 (Wide)	1
24689	Clip for retaining Spring Plate 24681	2
24690	Bushing for Tapper 24691	1
24692	Bushing for Terminal Base 24670 (Not shown in Illustration)	1
23876	Plain Washer for Screw 25705	1
24694	Screw for retaining Core Assembly 12140	4
24698	Screw for retaining Spring Plate 24681	2
23374	Terminal Clip for connecting Auto Horn 5308 (Not shown in Illustration)	1

No. 5308 AUTO HORN

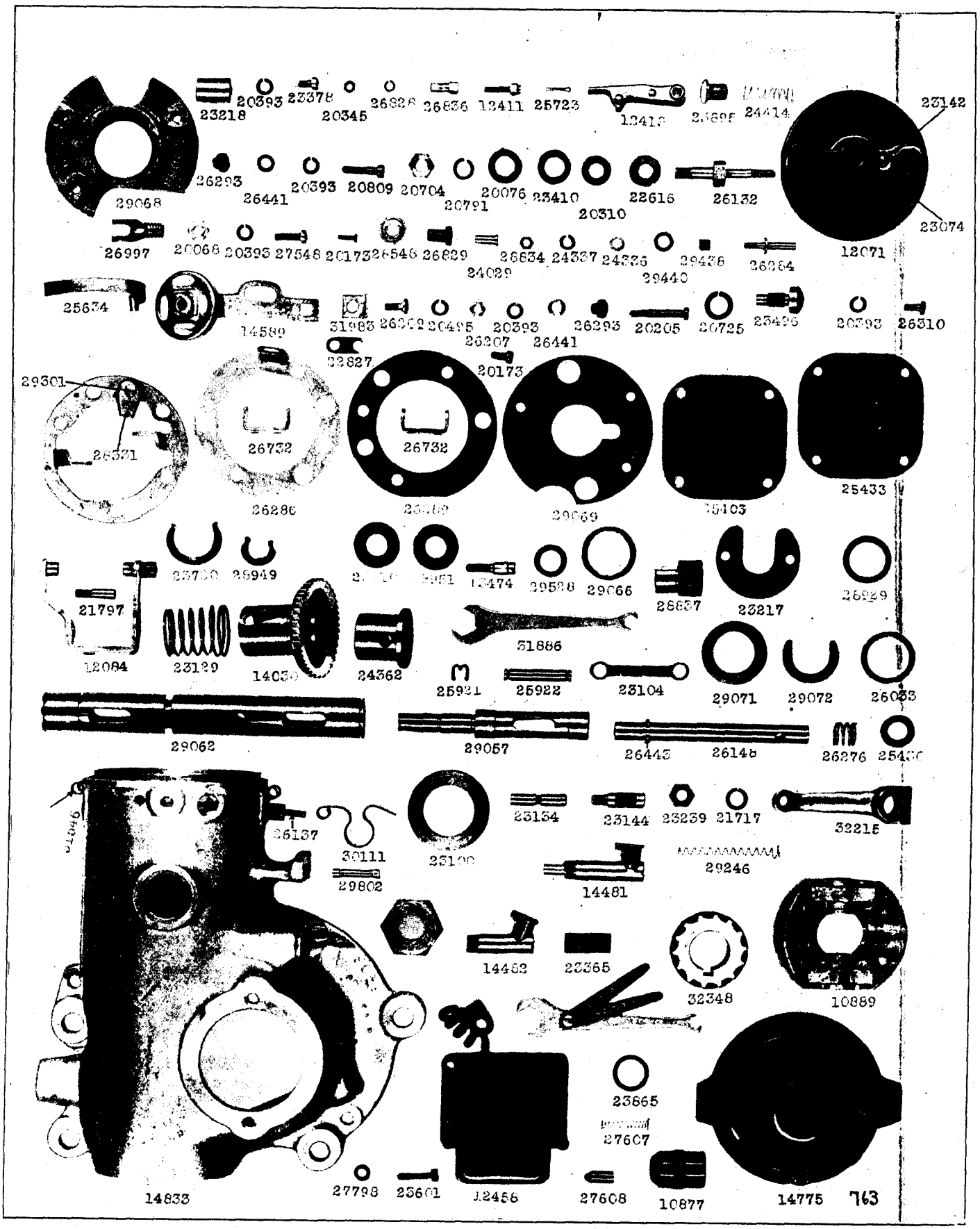


No. 5206 DISTRIBUTOR (Continued)

Piece Number	NAME OF PART	Quantity Required
26209	Screw for retaining Clip 31983	1
20393	Lock Washer for Nut 26207	1
31983	Clip for retaining Terminal Clip 26997	1
26207	Nut for Screw 26209	1
12458	**Condenser Assembly Complete**	1
	(Includes the next 2 Items)	1
23601	Screw for attaching Condenser Assembly 12458	4
27798	Bushing for Screw 23601	4
12084	**Advance Yoke Assembly for Distributor**	1
26148	Shaft for Advance	1
32215	Advance Lever for Shaft 26148	1
26443	Clip for retaining Spring 26276	1
23144	Screw for Advance Lever 32215	1
23239	Nut for Screw 23144	1
21717	Lock Washer for Nut 23239	1
20205	Screw for attaching Plate Assembly 13514 (Long)	2
20393	Lock Washer for Screw 20205	2
26293	Insulating Bushing for Screw 20205	2
26441	Plain Washer for Screw 20205	2
29072	Clip for retaining Bearing (Lower)	1
26033	Plain Washer above Clip 29072	1
12413	**Contact Arm Assembly for Distributor**	2
25723	Cotter Pin for retaining Contact Arm Assembly	2
25634	Spring for Contact Arm Assembly 12413	2
28548	Plain Washer for Nut 26208	1
26132	Stud for mounting Resistance Unit	1
22616	Plain Washer for Stud 26132 (Outer)	1
20068	Nut for retaining Resistance Unit	1
20495	Lock Washer for Nut 26208	1
20076	Insulating Washer for Stud 26132 (Outer)	1
22738	Insulating Bushing for Stud 26132 (Not shown in Illustration)	1
23410	Insulating Washer for Nut 20704	1
20310	Plain Washer for Nut 20704	1
20791	Lock Washer for Nut 20704	1
20704	Nut for Stud 26132 (Inner)	1
28837	Cam for operating Contact Arm Assembly	1
13474	**Screw Assembly for retaining Cam 28837**	1
21797	Screw for Advance Yoke Assembly 12084	1
25430	Felt Washer for Advance Shaft 26148	1
26276	Spring for Advance Shaft 26148	1
26829	Insulating Bushing for Resistance Unit	1
14482	**Oiler Assembly for Distributor (Upper)**	1
14481	**Oiler Assembly for Distributor (Lower)**	1
29074	Wick for Oiler Assembly 14481 (Not shown in Illustration)	1
29246	Spring for Wick 29074	1
12071	**Distributor Rotor Assembly Complete**	1
	(Includes the next 4 Items)	1
23074	Connector for Distributor Rotor Assembly 12071 (Old Style)	1
26803	Screw for retaining Connector 23074 (Old Style)	1
23895	Brush for Rotor Assembly 12071	1
24414	Spring for Brush 23895	1
25405	Cover Plate for Housing Assembly (Lower)	1
25433	Gasket for Cover Plate 25405	1
26310	Screw for attaching Cover Plate 25405	4
20393	Lock Washer for Screw 26310	4
26997	Terminal Clip for connecting Distributor	1
23365	Fibre Ferrule for Terminal Clip	1
10877	**High Tension Terminal Assembly No. Blank**	1
10878	**High Tension Terminal Assembly No. 1**	1
10879	**High Tension Terminal Assembly No. 2**	1
10880	**High Tension Terminal Assembly No. 3**	1
10881	**High Tension Terminal Assembly No. 4**	1
10882	**High Tension Terminal Assembly No. 5**	1
10883	**High Tension Terminal Assembly No. 6**	1
10884	**High Tension Terminal Assembly No. 7**	1
10885	**High Tension Terminal Assembly No. 8**	1
23865	Rubber Washer for High Tension Terminal Assemblies	9
14775	**Distributor Head Assembly Complete**	1
	(Includes the next 2 Items)	
27608	Plunger for Distributor Head Assembly 14775	1
27607	Spring for Plunger 27608	1
12741	**Distributor Wrench Assembly (With Gauge)**	1
31886	Distributor Wrench (Plain)	1
32348	Spiral Gear for Driving Spiral Gear 26151	1

No. 5206 DISTRIBUTOR

Piece Number	NAME OF PART	Quantity Required
5206	**DISTRIBUTOR**	1
14833	**Distributor Housing Assembly**	1
	(Includes the next 9 Items)	
31546	Clip for retaining Clamp 30111	1
30111	Clamp for retaining Distributor Head	1
29802	Pin for retaining Clamp 30111	1
25049	Rivet for retaining Clip 31546 (Not shown in Illustration)	3
26137	Stud for resistance Unit Guide	1
32532	Name Plate for Distributor (Not shown in Illustration)	1
32821	Pin for retaining Name Plate 32532 (Not shown in Illustration)	2
12075	**Breather Nut Assembly Complete**	1
32957	Bearing for Distributor Housing	1
26732	Stop for Advance Yoke Assembly	1
20173	Screw for retaining Stop 26732	2
22827	Lock Plate for Screw 20173	1
13511	**Inner Shaft and Bearing Assembly Complete**	1
	(Includes the next 3 Items)	
13342	**Ball Bearing Assembly for Distributor (Upper) (Not shown in Illustration)**	1
29057	Inner Shaft for Distributor	1
29066	Plain Washer for Ball Bearing Assembly 13342	1
30298	Plain Washer for Ball Bearing Assembly 13342 (Used when necessary instead of 29066)	1
28929	Washer (Felt) for Ball Bearing Assembly 13342 (Upper)	1
29528	Spacing Washer under Cam 28837 (When necessary)	1
28951	Collar retaining Washer 29066	1
28949	Clip retaining Collar 28951	1
29069	Retainer for Ball Bearing Assembly 13342 (Upper)	1
29068	Plate under Retainer 29069	1
26289	Insulator for Plate 26286	1
26286	Connector Plate for Contact Plate Assembly 13514	1
13514	**Distributor Contact Plate and Oil SpoutAssembly Complete**	1
	(Includes the next 2 Items)	
28331	Oil Spout for Contact Plate Assembly 13514	1
29301	Rivet for Oil Spout 28331	1
26284	Stud for Mounting Contact Arm Assemblies	2
29438	Insulating Bushing for Stud 26284	2
29440	Insulating Washer for Stud 26284 (Upper)	2
24336	Plain Washer for Stud 26284	2
24337	Lock Washer for Nut 28834	2
28834	Nut for attaching Stud 26284	2
12411	**Contact Screw Assembly**	2
26828	Nut for Contact Screw Assembly (Small)	2
20345	Lock Washer for Nut 26836	2
26836	Nut for Contact Screw Assembly (Large)	2
20809	Screw for attaching Plate Assembly 13514 (Short)	1
20393	Lock Washer for Screw 20809	1
26441	Plain Washer for Screw 20809	1
26293	Insulating Bushing for Screw 20809	1
29062	Outer Shaft for Distributor	1
33466	Washer for end of Distributor Shaft (When necessary)	1
29072	Clip for retaining Washer 29066	1
26033	Plain Washer for Spring 23129 (Upper)	1
23129	Spring for Outer Shaft 29062	1
24362	Advance Collar for Outer Shaft 29062	1
25922	Pin for Advance Collar 24362 and Governor Ring Assembly 10889	2
25921	Clip for retaining Pin 25922	4
23104	Advance Arm for Advance Collar 24362	2
10889	**Governor Ring Assembly for Distributor**	1
23496	Screw for attaching Governor Ring Assembly 10889	2
24493	Lock Washer for Screw 23496	2
14030	**Distributor Shaft Pinion and Hub Assembly**	1
	(Includes the next 3 Items)	
27548	Screw for attaching Plate 23217	2
20393	Lock Washer for Screw 27548	2
24029	Dowel Pin for Distributor Shaft Pinion and Hub Assembly 14030	1
23217	Plate for Distributor Shaft Pinion and Hub Assembly 14030	1
23100	Advance Ring for Outer Shaft 29062	1
23134	Pin for retaining Advance Ring 23100	1
23218	Clamp for Pin 23134	1
23378	Screw for Clamp 23218	1
20393	Lock Washer for Screw 23378	1
23720	Clip for retaining Washer 29071	1
29071	Plain Washer above Lower Distributor Shaft Bearing	1
14589	**Resistance Unit Assembly for Distributor**	1



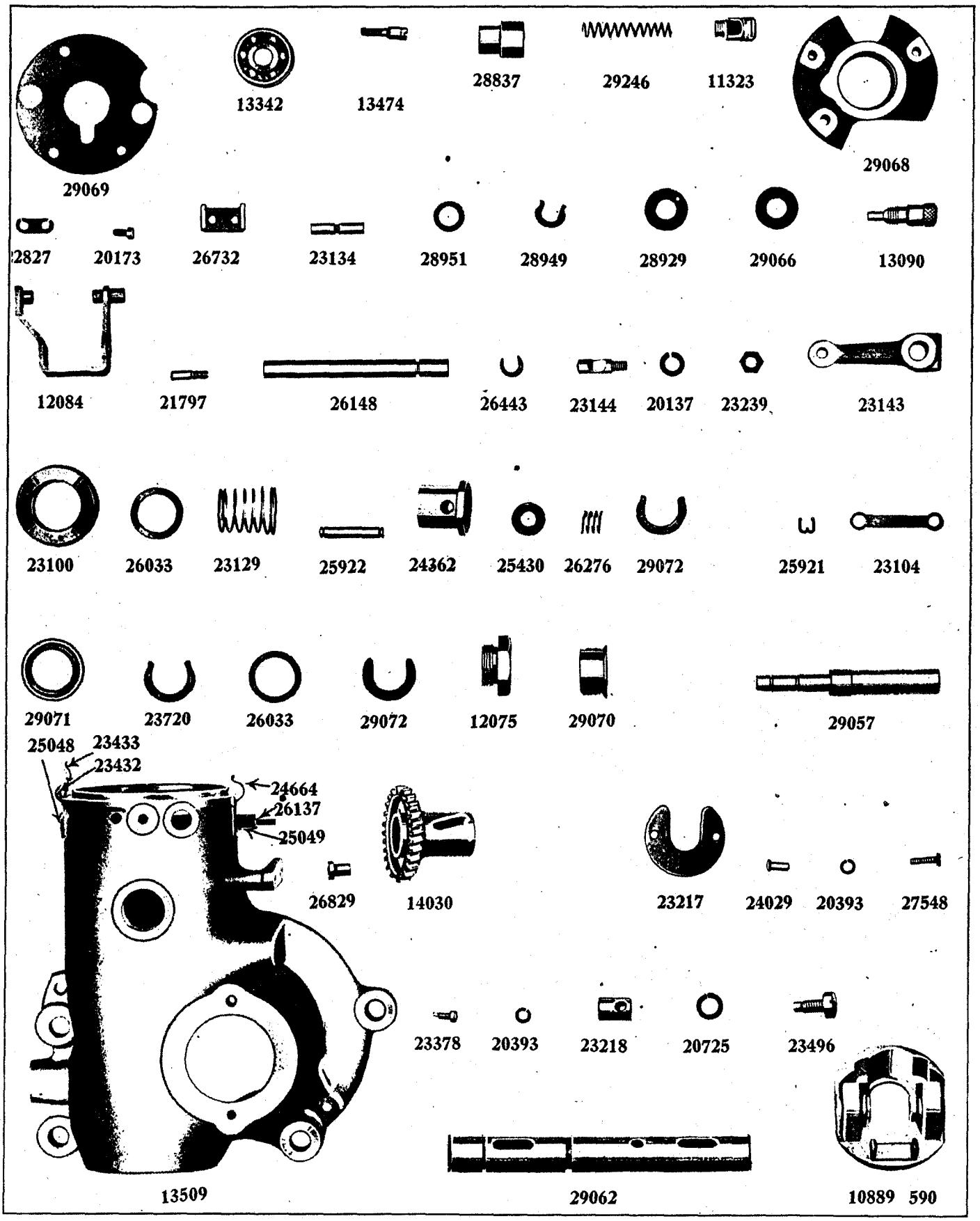
No. 5206 DISTRIBUTOR

No. 5166 DISTRIBUTOR (Continued)

Piece Number	NAME OF PART	Quantity Required
26207	Nut for Screw 26209	1
12458	**Condenser Assembly Complete** (Includes the next 2 Items)	1
23601	Screw for attaching Condenser Assembly 12458	4
27798	Bushing for Screw 23601	4
12084	**Advance Yoke Assembly for Distributor**	1
26148	Shaft for Advance	1
23143	Advance Lever for Shaft 26148	1
26443	Clip for retaining Spring 26276	1
23144	Screw for Advance Lever 23143	1
23239	Nut for Screw 23144	1
21717	Lock Washer for Nut 23239	1
20205	Screw for attaching Plate Assembly (Long)	2
20393	Lock Washer for Screw 20205	2
26293	Insulating Bushing for Screw 20205	2
26441	Plain Washer for Screw 20205	2
29072	Clip for retaining Bearing 29070 (Lower)	1
26033	Plain Washer above Clip 29072	1
12413	**Contact Arm Assembly for Distributor**	2
25723	Cotter Pin for retaining Contact Arm Assembly	2
25634	Spring for Contact Arm Assembly 12413	2
28548	Plain Washer for Nut 26208	1
26132	Stud for Mounting Resistance Unit	1
22616	Plain Washer for Stud 26132 (Outer)	1
20068	Nut for retaining Resistance Unit	1
20495	Lock Washer for Nut 26208	1
20076	Insulating Washer for Stud 26132 (Outer)	1
22738	Insulating Bushing for Stud 26132	1
23410	Insulating Washer for Nut 20704	1
20310	Plain Washer for Nut 20704	1
20791	Lock Washer for Nut 20704	1
20704	Nut for Stud 26132 (Inner)	1
28837	Cam for operating Contact Arm Assembly	1
13474	**Screw Assembly for retaining Cam 28837**	1
21797	Screw for Advance Yoke Assembly 12084	1
25430	Felt Washer for Advance Shaft 26148	1
26276	Spring for Advance Shaft 28148	1
26829	Insulating Bushing for Resistance Unit	1
13090	**Oiler Assembly for Distributor (Upper)**	1
11323	**Oiler Assembly for Distributor (Lower)**	1
29074	Wick for Oiler Assembly 11323 (Not shown in Illustration)	1
29246	Spring for Wick 29074	1
12071	**Distributor Rotor Assembly Complete** (Includes the next 4 Items)	1
23074	Connector for Distributor Rotor Assembly 12071 (Old Style)	1
26803	Screw for retaining Connector 23074 (Old Style)	1
23895	Brush for Rotor Assembly 12071	1
24414	Spring for Brush 23895	1
25405	Cover Plate for Housing Assembly 14219 (Lower)	1
25433	Gasket for Cover Plate 25405	1
26310	Screw for attaching Cover Plate 25405	4
20393	Lock Washer for Screw 26310	4
23374	Terminal Clip for connecting Distributor (Not shown in Illustration)	1
10877	**High Tension Terminal Assembly No. Blank**	1
10878	**High Tension Terminal Assembly No. 1**	1
10879	**High Tension Terminal Assembly No. 2**	1
10880	**High Tension Terminal Assembly No. 3**	1
10881	**High Tension Terminal Assembly No. 4**	1
10882	**High Tension Terminal Assembly No. 5**	1
10883	**High Tension Terminal Assembly No. 6**	1
10884	**High Tension Terminal Assembly No. 7**	1
10885	**High Tension Terminal Assembly No. 8**	1
23865	Rubber Washer for High Tension Terminal Assemblies	9
12568	**Distributor Head Assembly Complete** (Includes the next 2 Items)	1
27608	Plunger for Distributor Head Assembly 12568	1
27607	Spring for Plunger 27608	1
12741	**Distributor Wrench Assembly (With Gauge) (Not shown in Illustration)**	1
31886	Distributor Wrench (Plain) (Not shown in Illustration)	1
26795	Spiral Gear for Driving Spiral Gear 26151 (Not shown in Illustration)	1

No. 5166 DISTRIBUTOR

Piece Number	NAME OF PART	Quantity Required
5166	**DISTRIBUTOR**	1
14219	**Distributor Housing Assembly** (Includes the next 9 Items)	1
23433	Clip for retaining Distributor Head (Long Tongue)	1
23432	Clip for retaining Distributor Head (Used with Clip 23433)	1
24664	Clip for retaining Distributor Head (Single)	1
25048	Rivet for retaining Clips 23432 and 23433	2
25049	Rivet for retaining Clip 24664	2
26137	Stud for retaining Clip 24664	1
32232	Name Plate for Housing 29149 (Not shown in Illustration)	1
32821	Pin for retaining Name Plate 32232 (Not shown in Illustration)	2
32957	Bearing for Distributor Housing	1
12075	**Breather Nut Assembly Complete**	1
26732	Stop for Advance Yoke Assembly 12084	1
20173	Screw for retaining Stop 26732	2
22827	Lock Plate for Screw 20173	1
13511	**Inner Shaft and Bearing Assembly Complete** (Includes the next 3 Items)	1
13342	**Ball Bearing Assembly for Distributor (Upper)**	1
29057	Inner Shaft for Distributor	1
29066	Plain Washer for Ball Bearing Assembly 13342	1
30298	Plain Washer for Ball Bearing Assembly 13342 (Used when necessary instead of 29066) (Not shown in Illustration)	1
28929	Washer (Felt) for Ball Bearing Assembly 13342 (Upper)	1
29528	Spacing Washer under Cam 28837 (Not shown in Illustration) (When necessary)	1
28951	Collar retaining Washer 29006	1
28949	Clip retaining Collar 28951	1
29069	Retainer for Ball Bearing Assembly 13342 (Upper)	1
29068	Plate under Retainer 29069	1
26289	Insulator for Plate 26286	1
26286	Connector Plate for Contact Plate Assembly 13514	1
13514	**Distributor Contact Plate and Oil Spout Assembly Complete** (Includes the next 2 Items)	1
28331	Oil Spout for Contact Plate Assembly 13514	1
29301	Rivet for Oil Spout 28331	1
26284	Stud for mounting Contact Arm Assemblies	2
29438	Insulating Bushing for Stud 26284	2
29440	Insulating Washer for Stud 26284 (Upper)	2
24336	Plain Washer for Stud 26284	2
24337	Lock Washer for Nut 28834	2
28834	Nut for attaching Stud 26284	2
12411	**Contact Screw Assembly**	2
26828	Nut for Contact Screw Assembly (Small)	2
20345	Lock Washer for Nut 26836	2
26836	Nut for Contact Screw Assembly (Large)	2
20809	Screw for attaching Plate Assembly 13514 (Short)	1
20393	Lock Washer for Screw 20809	1
26441	Plain Washer for Screw 20809	1
26293	Insulating Bushing for Screw 20809	1
29062	Outer Shaft for Distributor	1
29072	Clip for retaining Washer 29066	1
26033	Plain Washer for Spring 23129 (Upper)	1
23129	Spring for Outer Shaft 29062	1
24362	Advance Collar for Outer Shaft 29062	1
25922	Pin for Advance Collar 24362 and Governor Ring Assembly 10889	2
25921	Clip for retaining Pin 25922	4
23104	Advance Arm for Advance Collar 24362	2
10889	**Governor Ring Assembly for Distributor**	1
23496	Screw for attaching Governor Ring Assembly 10889	2
20725	Lock Washer for Screw 23496	2
14030	**Distributor Shaft Pinion and Hub Assembly** (Includes the next 3 Items)	1
27548	Screw for attaching Plate 23217	2
20393	Lock Washer for Screw 27548	2
24029	Dowel Pin for Distributor Shaft Pinion and Hub Assembly 14030	1
23217	Plate for Distributor Shaft Pinion and Hub Assembly 14030	1
23100	Advance Ring for Outer Shaft 29062	1
23134	Pin for retaining Advance Ring 23100	1
23218	Clamp for Pin 23134	1
23378	Screw for Clamp 23218	1
20393	Lock Washer for Screw 23378	1
23720	Clip for retaining Washer 29071	1
29071	Plain Washer above Bearing 29070	1
12013	**Resistance Unit Assembly for Distributor**	1
26209	Screw for retaining Clip 26153	1
20393	Lock Washer for Nut 26207	1
26153	Clip for retaining Terminal Clip 23374	1



No. 5166 DISTRIBUTOR

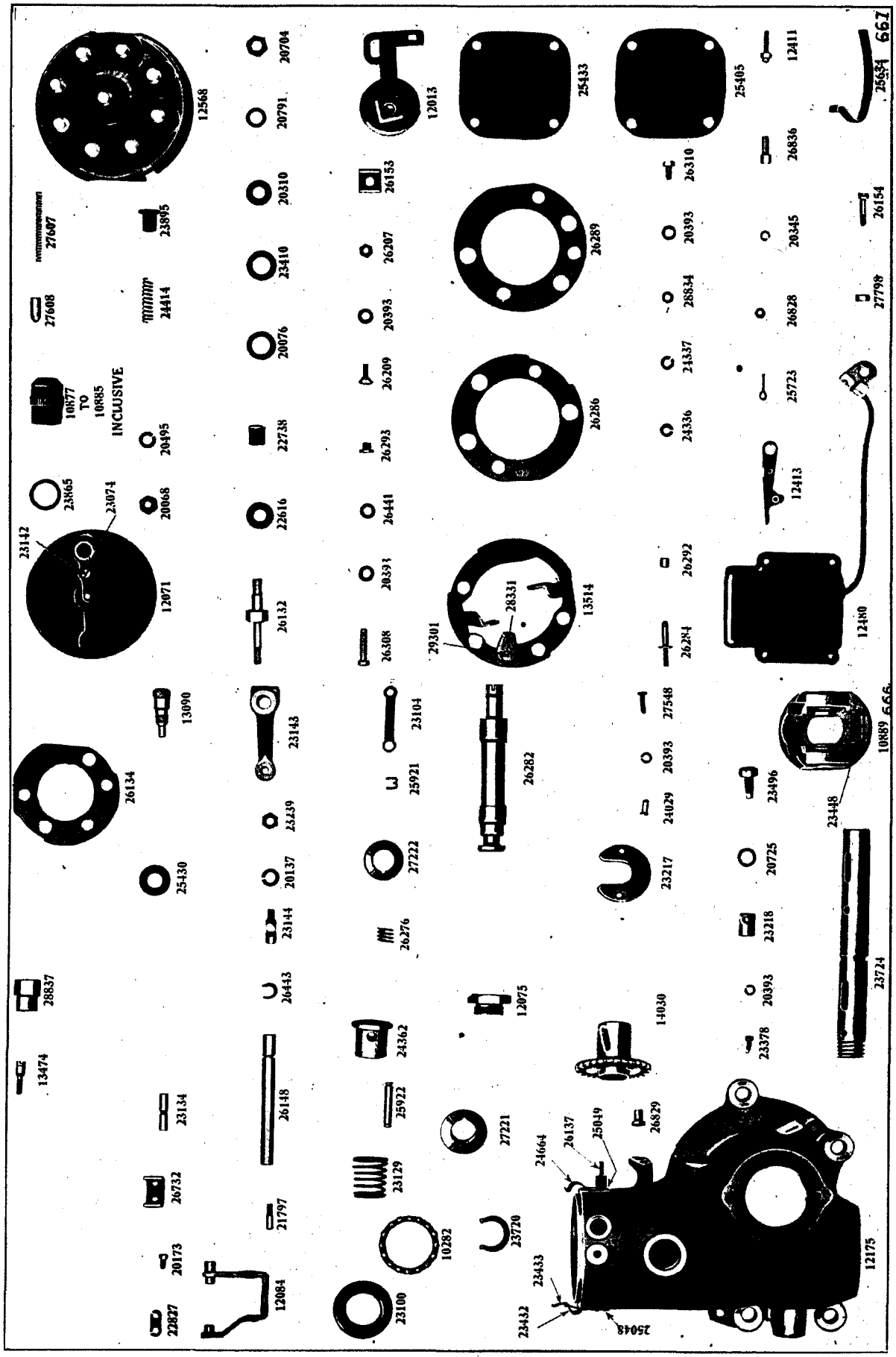
No. 5150 DISTRIBUTOR (Continued)

Piece Number	NAME OF PART	Quantity Required
12458	**Condenser Assembly (Service)** (Includes the next 2 Items)	1
23601	Screw for attaching Condenser Assembly 12458	4
27798	Bushing for Screw 23601	4
12084	**Advance Yoke Assembly**	1
26148	Shaft for Advance Shaft Assembly	1
23143	Advance Lever for Shaft 26148	1
26443	Clip for retaining Spring 26276	1
23144	Screw for Advance Lever 23143	1
23239	Nut for Screw 23144	1
21717	Lock Washer for Nut 23239	1
26308	Screw for retaining Mounting Plate 26134	1
20393	Lock Washer for Screw 26308	1
26293	Insulating Bushing for Screw 26308	2
25634	Spring for Contact Arm Assembly 12413	2
26132	Stud for Resistance Unit Assembly	1
22616	Plain Washer for Stud 26132 (Outer)	1
20068	Nut for retaining Resistance Unit Assembly (Outer)	1
20495	Lock Washer for Nut 20068	1
28548	Plain Washer for Nut 20068	1
20076	Insulating Washer for Stud 26132 (Outer)	1
22738	Insulating Bushing for Stud 26132	1
23410	Insulating Washer for Nut 20704 (Inner)	1
20791	Lock Washer for Nut 20704	1
20310	Plain Washer for Nut 20704	1
20704	Nut for Stud 26132 (Inner)	1
28837	Cam for Operating Contact Arm Assembly 12413	1
13474	**Distributor Cam Adjustment Screw Assembly for retaining Cam 28837**	1
21797	Screw for Advance Yoke Assembly 12084	1
25430	Felt Washer for Shaft 26148	1
26276	Spring for Shaft 26148	1
26829	Insulating Bushing for Resistance Unit Assembly	1
13090	**Oiler Assembly**	1
12071	**Distributor Rotor Assembly Complete** (Includes the next 4 Items. Do not count Service Part)	1
23074	Connector for Distributor Rotor Assembly 12071 (Old Style)	1
26803	Screw for retaining Connector 23074 (Service) (Old Style)	1
23895	Brush for Distributor Rotor Assembly 12071	1
24414	Spring for Brush 23895	1
25405	Cover Plate for Bottom of Housing 26150	1
25433	Gasket for Cover Plate 25405	1
26310	Screw for attaching Cover Plate 25405	4
20393	Lock Washer for Screw 26310	4
12568	**Distributor Head Assembly Complete**	1
27608	Plunger for Distributor Head Assembly 12568	1
21424	Spring (Old Style) for Plunger 21425	1
21425	Plunger (Old Style) for Distributor Head Assembly 12568	1
27607	Spring for Plunger 27608	1
10877	**High Tension Terminal Assembly (Blank)**	1
10878	**High Tension Terminal Assembly (1)**	1
10879	**High Tension Terminal Assembly (2)**	1
10880	**High Tension Terminal Assembly (3)**	1
10881	**High Tension Terminal Assembly (4)**	1
10882	**High Tension Terminal Assembly (5)**	1
10883	**High Tension Terminal Assembly (6)**	1
10884	**High Tension Terminal Assembly (7)**	1
10885	**High Tension Terminal Assembly (8)**	1
23865	Rubber Washer for High Tension Terminal Assemblies	9
12741	**Wrench Assembly (With Gauge) (Not shown in Illustration)**	1
31886	Wrench (Plain) (Not shown in Illustration)	1
23374	Terminal Clip for connecting Distributor (Not shown in Illustration)	1

No. 5150 DISTRIBUTOR

Note: No. 5150 Distributor superseded by No. 5166 Distributor. When ordering a complete new unit, order No. 5166.

Piece Number	NAME OF PART	Quantity Required
5150	**DISTRIBUTOR COMPLETE**	1
12175	**Distributor House Assembly** (Includes the next 8 Items)	1
23432	Clip for retaining Distributor Head Assembly 12568 (With Clip 23433)	1
23433	Clip for retaining Distributor Head Assembly 12568 (Long Tongue Clip)	1
24664	Clip for retaining Distributor Head Assembly 12568 (Single)	1
25048	Rivet for retaining Clips 23432 and 23433	2
25049	Rivet for retaining Clip 24664	1
26137	Stud for retaining Clip 24664	1
32232	Name Plate for Housing 26150 (Not shown in Illustration)	1
32821	Pin for retaining Name Plate 32232 (Not shown in Illustration)	2
20775	Cup for Retainer and Balls Assembly 10282	1
12075	**Breather Nut Assembly**	1
26732	Stop for Advance Yoke Assembly 12084	1
20173	Screw for retaining Stop 26372	2
22827	Lock Plate for Screw 20173	2
10889	**Governor Ring Assembly** (Includes the next 2 Items)	1
23448	Clip for Governor Ring Assembly 10889	1
24198	Screw for attaching Clip 23448 (Not shown in Illustration)	2
10282	**Retainer and Balls Assembly**	2
23724	Shaft for Distributor (Outer)	1
26282	Shaft for Distributor (Inner)	1
12413	**Contact Arm Assembly for Distributor**	2
12411	**Contact Screw Assembly for Contact Arm Assembly 12413**	2
26828	Nut for Contact Screw Assembly 12411 (Short)	1
26836	Nut for Contact Screw Assembly 12411 (Long)	2
25723	Cotter Pin for retaining Contact Arm Assembly 12413	2
20345	Lock Washer for Nut 26836	2
13514	**Plate Assembly for Contact Arm Assembly**	1
28331	Oiler Spout for Plate Assembly 13514	1
29301	Rivet for retaining Oiler Spout 28331	1
26289	Insulator for Plate 26295	1
26286	Connector for Plate 26295	1
26284	Stud for Contact Arm Assembly 12413	1
29438	Insulating Bushing for Stud 26284	2
29440	Insulating Washer for Stud 26284	2
28834	Nut for Stud 26284	2
24336	Plain Washer for 28834	2
24337	Lock Washer for Nut 28834	2
27221	Cone for Shaft 23724 (Upper)	1
23720	Clip for retaining Cone 27221	1
27216	Stud for Cones 27221 and 27219 (Not shown in Illustration)	2
26134	Mounting Plate for Distributor Shaft Assembly 12004	1
20775	Cup for Retainer and Balls 10282 (Upper)	1
23129	Spring for Shaft 23724	1
24362	Advance Collar for Governor Ring Assembly 10889	1
25922	Pin for retaining Arm 23104	2
25921	Clip for retaining Pin 25922	4
23104	Arm for connecting Advance Collar 24362 and Governor Ring Assembly 10889	2
23496	Screw for retaining Governor Ring Assembly 10889	2
24493	Lock Washer for Screw 23496	2
14030	**Distributor Shaft Pinion and Hub Assembly (Service)** (Includes the next 2 Items)	1
27548	Screw for Spiral Gear 25151	2
20393	Lock Washer for Screws 27548, 23378 and 23879	11
23217	Plate for Spiral Gear 26151	1
24029	Pin for Hub 23977	1
26795	Spiral Gear for Driving Pinion and Hub Assembly 14030 (Not shown in Illustration)	1
26210	Spiral Gear (Old Style) (Used before Motor Generator Serial No. 352610)	1
23100	Advance Ring for Shaft 23724	1
23134	Pin for Advance Shaft 23100	1
23218	Clamp for Pin 23134	1
23378	Screw for Clamp 23218	1
27222	Cone for Shaft 23724 (Lower)	1
21443	Nut for Shaft 23724 (Round) (Not shown in Illustration)	1
21444	Nut for Shaft 23724 (Hexagon) (Not shown in Illustration)	1
23879	Screw for retaining Plate 26296 (Not shown in Illustration)	2
26293	Insulating Bushing for Screw 23879	2
23876	Plain Washer for Screw 23879 (Not shown in Illustration)	2
12013	**Resistance Unit Assembly**	1
26209	Screw for retaining Clip 25153	1
26153	Clip for retaining Terminal Clip 23374	1
26207	Nut for Screw 26209	1
20393	Lock Washer for Nut 26207	1



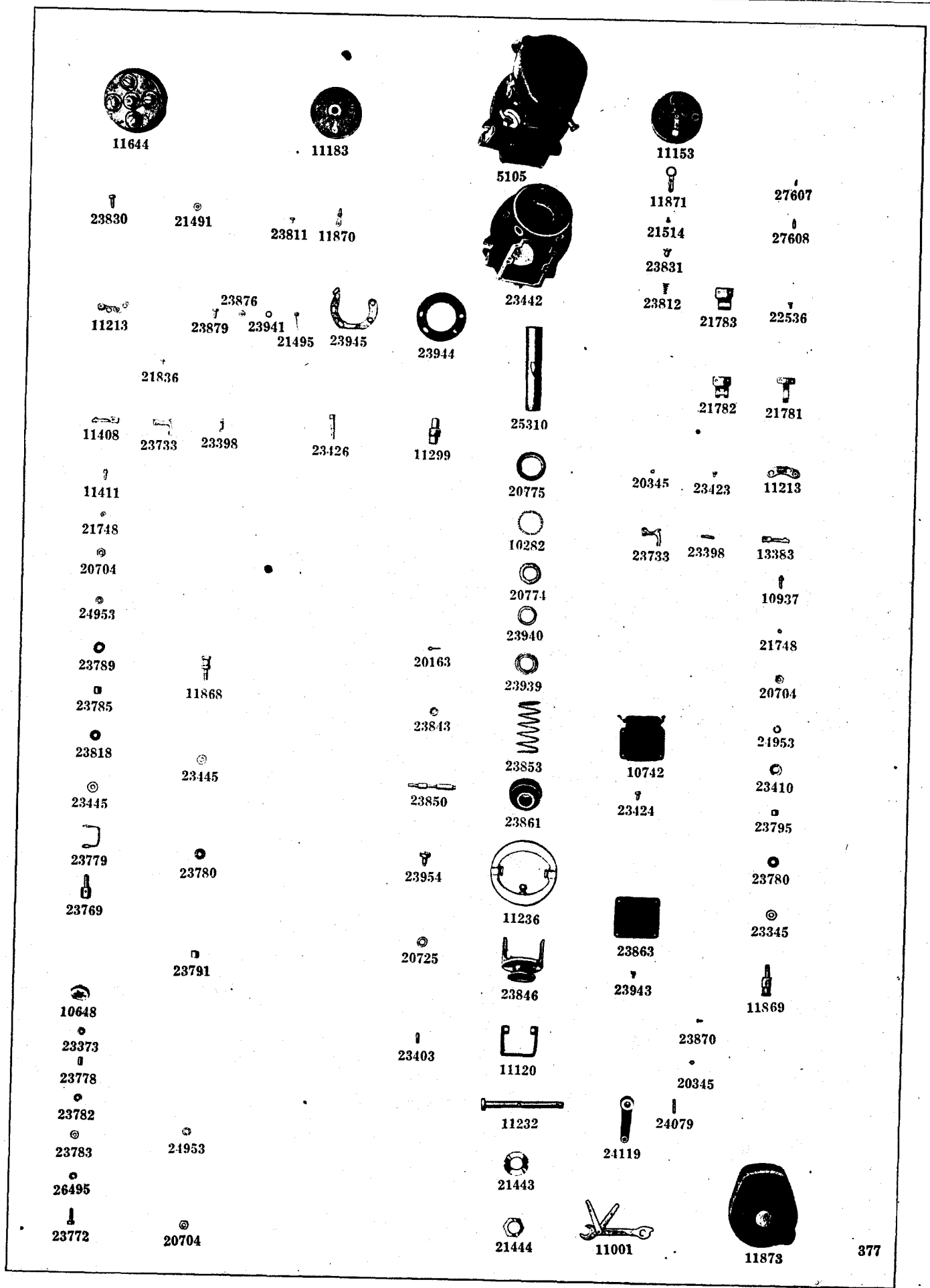
No. 5150 DISTRIBUTOR

No. 5105 DISTRIBUTOR (Continued)

Piece Number	NAME OF PART	Quantity Required
23783	Plain Washer for Screw 23772	1
23782	Insulating Washer for Screw 23772	1
23778	Insulating Bushing for Screw 23772	1
23773	Washer for Resistance Unit Assembly 10648 (Shoulder)	1
23770	Protector for Resistance Unit Assembly 10648 (Not shown in Illustration)	1
23779	Connector for Resistance Unit Assembly 10648 and Housing 23442	1
11213	**Segment Assembly for retaining Contact Assemblies 14383 and 11408** (Includes the next 2 Items)	2
21493	Stud for mounting Stop 23733 (Not shown in Illustration)	1
21494	Stud for mounting Contact Arm Assemblies 11408 and 14383 (Not shown in Illustration)	1
23879	Screw for retaining Segment Assembly 11213	4
23876	Plain Washer for Screw 23879	4
23941	Insulating Washer for Screw 23879	4
21495	Insulating Bushing for Screw 23879	4
23945	Connector for Segment Assembly 11213	1
23944	Insulator for Segment Assembly 11213	1
14383	**Contact Arm Assembly (Battery) (Not shown in Illustration)** (Includes the next 2 Items)	1
24069	Hub for Contact Arm Assembly 14383 (Not shown in Illustration)	1
24947	Screw for attaching Hub 24069 (Not shown in Illustration)	2
11408	**Contact Arm Assembly (Magneto)** (Includes the next 3 Items. Do not count Old Style Parts)	1
11379	**Connector Assembly for Contact Arm Assembly 11408 (Not shown in Illustration(**	1
21801	Terminal Wire (Old Style)	1
24069	Hub for Contact Arm Assembly 11408 (Not shown in Illustration)	1
24947	Screw for attaching Hub 24069 (Not shown in Illustration)	2
12411	**Contact Screw Assembly (Battery)**	1
12411	**Contact Screw Assembly (Magneto) (Not shown in Illustration)**	1
21748	Nut for Contact Screw Assembly 12411	2
23733	Stop for Contact Arm Assemblies 14383 and 11408	2
23398	Spring for Contact Arm Assemblies 14383 and 11408	2
21836	Screw for retaining Stop 23733	2
11407	**Wrench for Distributor**	1
23835	Terminal Clip for Distributor Head Assembly 11644 (Not shown in Illustration)	5
20953	Terminal Clip for Spring Terminal Assemblies 11868 and 11869 (Not shown in Illustration)	2
11644	**Distributor Head Assembly Complete** (Includes the next 4 Items. Do not count Old Style Parts)	1
21425	Plunger (Old Style) for Distributor Head Assembly 11644 (Approximately ⅛" Diameter)	1
21424	Spring (Old Style) for Plunger 21425 (Approximately ⅛" Diameter)	1
27608	Plunger for Distributor Head Assembly 11644 (Approximately ¼" Diameter)	1
27607	Spring for Plunger 27608 (Approximately ¼" Diameter)	1
23830	Screw for Distributor Head Assembly 11644	4
21491	Nut for Distributor Head Assembly 11644	1

No. 5105 DISTRIBUTOR

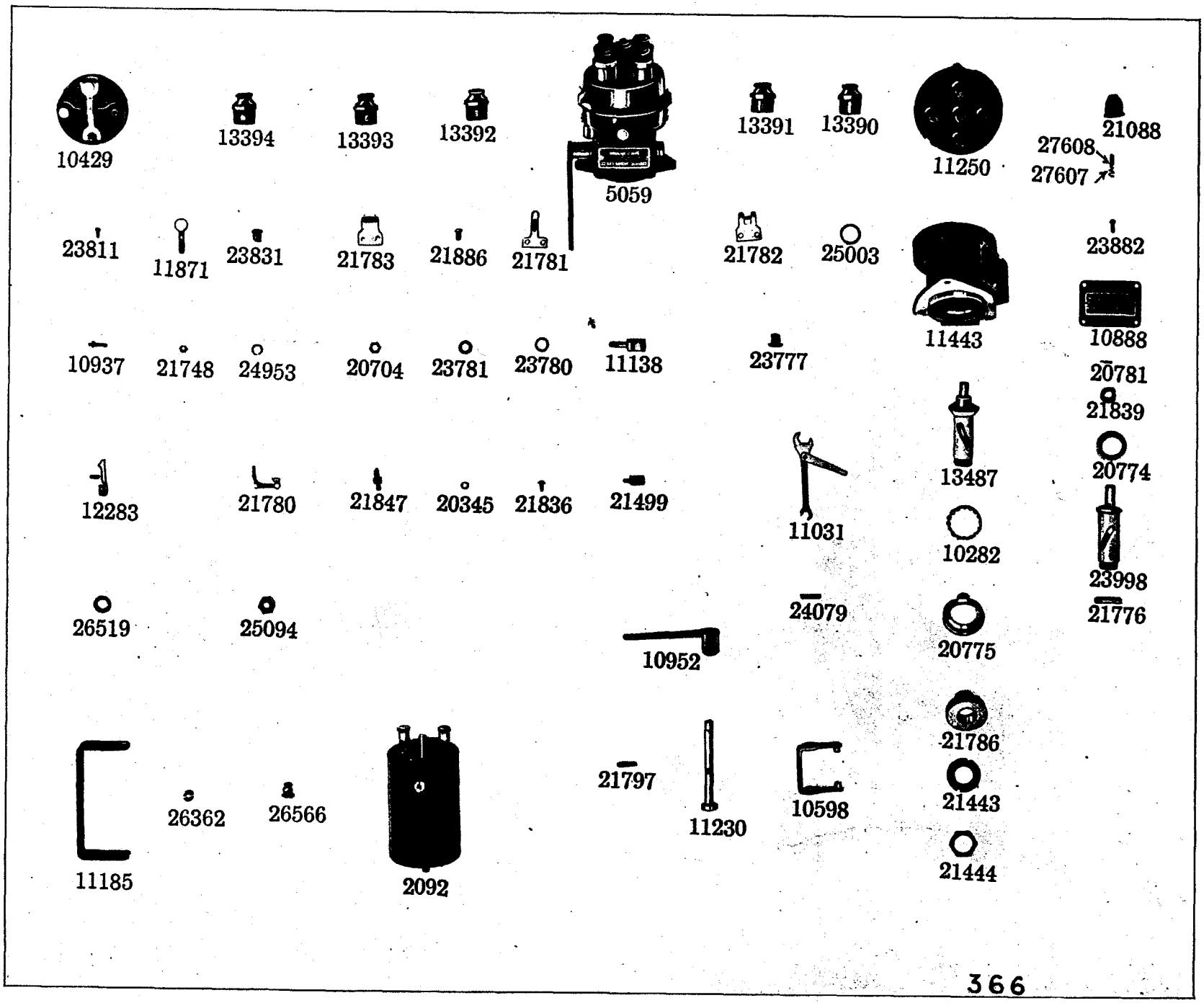
Piece Number	NAME OF PART	Quantity Required
5105	**DISTRIBUTOR COMPLETE**	1
23442	Housing for Distributor Assembly 5105	1
14123	**Shaft Assembly (Service) (Including Shaft 25310 and Upper Cone) (Not shown in Illustration)**	1
25310	Shaft for Distributor	1
27222	Cone for Shaft 25310 (Not shown in Illustration)	2
21443	Clamp Nut for Shaft 25310 (Round)	1
21444	Lock Nut for Clamp Nut 21443 (Hexagon)	1
11299	**Cam Adjustment Assembly** (Includes the next 3 Items)	1
23458	Cam for Cam Adjustment Assembly 11299 (Not shown in Illustration)	1
23736	Pin for Cam 23458	1
23426	Screw for Cam Adjustment Assembly 11299	1
11153	**Distributor Rotor Assembly Complete** (Includes the next 6 Items)	1
11871	**Connector Assembly (Contact)**	1
21514	Screw for retaining Connector Assembly 11871	1
11870	**Clip Assembly for locating Distributor Rotor Assembly 11153**	1
23811	Screw for retaining Clip Assembly 11870	1
23831	Brush for Distributor Rotor Assembly 11153	1
23812	Spring for Brush 23831	1
11232	**Advance Shaft Assembly**	1
24119	Advance Lever for Advance Shaft Assembly 11232	1
24079	Dowel Pin for retaining Advance Lever 24119	1
11120	**Advance Yoke Assembly**	1
23403	Screw for Advance Yoke Assembly 11120	1
11236	**Governor Ring Assembly**	1
23954	Screw for retaining Governor Ring Assembly 11236	2
20725	Lock Washer for Screw 23954	2
23940	Spacing Washer for Shaft 25310 between Cone 27222 and Advance Ring 23861	1
23861	Advance Ring (for Manual Advance)	1
23846	Sleeve on Shaft 25310 for Governor Ring Assembly 11236 (Not shown in Illustration)	1
23939	Sleeve Collar on Shaft 25310 next to Upper Cone 27222 for Spring 23853	1
23853	Spring for Shaft 25310	1
20775	Cup for Retainer and Balls Assembly 10282	2
10282	**Retainer and Balls Assembly**	2
10745	**Condenser Assembly** (Includes the next Item)	1
32141	Screw for retaining Condenser Assembly 10745	4
23863	Cover Plate for Housing 23442	1
23943	Screw for retaining Cover Plate 23863	4
21782	Clip for retaining Distributor Head Assembly 11644 (With Clip 21781)	1
21781	Clip for retaining Distributor Head Assembly 11644 (Long Tongue Clip)	1
21783	Clip for retaining Distributor Head Assembly 11644 (Single)	1
22556	Screw for retaining Clips 21781 and 21782 (Not shown in Illustration)	2
23423	Screw for retaining Clip 21783	2
23850	Pin for connecting Shaft 25310 and Sleeve 23846	1
23843	Washer for retaining Pin 23850	2
20163	Cotter Pin for retaining Washer 23843	2
23870	Screw for connecting Condenser Assembly 10745 to Spring Terminal Assembly 11869 and Stud 23769	2
20345	Lock Washer on Screws 23870 and 21836	4
11873	**Protector Assembly for Distributor Head Assembly 11644**	1
11869	**Spring Terminal Assembly (Common)**	1
11868	**Spring Terminal Assembly (Battery)**	1
23769	Stud for Resistance Unit Assembly 10648	1
20704	Nut for Spring Terminal Assemblies 11868 and 11869 and Stud 23769	3
24953	Lock Washer for Nut 20704	3
23445	Plain Washer for Nut 20704 and Spring Terminal Assemblies 11868 and 11869 and Stud 23769	6
23785	Insulating Bushing for Stud 23769	1
23795	Insulating Bushing for Spring Terminal Assembly 11869	1
23791	Insulating Bushing for Spring Terminal Assembly 11868	1
23818	Insulating Washer for Stud 23769 (Outer)	1
23789	Insulating Washer for Stud 23769 and Spring Terminal 11888 (Inner)	2
23780	Insulating Washer for Spring Terminal Assemblies 11868 and 11869 (Outer)	2
23410	Insulating Washer for Spring Terminal Assembly 11869 (Inner)	1
10648	**Resistance Unit Assembly**	1
23772	Screw for retaining Resistance Unit Assembly 10648	1
20495	Lock Washer for Screw 23772	1



No. 5105 DISTRIBUTOR

No. 5059 DISTRIBUTOR

Piece Number	NAME OF PART	Quantity Required
5059	**DISTRIBUTOR ASSEMBLY COMPLETE**	1
24399	Housing for Distributor (Not shown in Illustration)	1
20775	Cup for Housing 24399	2
21443	Clamp Nut for Shaft Assembly 13487 (Round)	1
21444	Lock Nut for Clamp Nut 21443 (Hexagon)	1
27222	Cone for Shaft Assembly 13487 (Not shown in Illustration)	2
13487	**Shaft Assembly (Service) (Includes Shaft, Cam and Pin)**	1
10429	**Distributor Rotor Assembly Complete** (Includes the next 6 Items)	1
11871	**Connector Assembly (Contact)**	1
23811	Screw for retaining Connector Assembly 11871	1
11870	**Clip Assembly for locating Distributor Rotor Assembly (Not shown in Illustration)**	1
21514	Screw for retaining Clip Assembly 11870 (Not shown in Illustration)	1
23831	Brush for Distributor Rotor Assembly	1
23812	Spring for Brush 23831 (Not shown in Illustration)	1
10952	**Advance Lever Assembly**	1
11230	**Advance Shaft Assembly**	1
24079	Dowel Pin for retaining Advance Lever Assembly 10952	1
10888	**Cover Assembly for Housing 24399** (Includes the next 2 Items)	1
23849	Name Plate Cover Assembly 10888 (Not shown in Illustration)	1
23839	Rivet for Name Plate 23849 (Not shown in Illustration)	2
10598	**Advance Yoke Assembly**	1
11868	**Spring Terminal Assembly**	1
14383	**Contact Arm Assembly** (Includes the next 2 Items)	1
24069	Hub for Contact Arm Assembly 14383 (Not shown in Illustration)	1
24947	Screw for attaching Hub 24069 (Not shown in Illustration)	1
12411	**Contact Screw Assembly**	1
21748	Clamp Nut for Contact Screw Assembly 12411	1
23398	Spring for Contact Arm Assembly 14383 (Not shown in Illustration)	1
21780	Stop for Contact Arm Assembly 14383	1
21836	Screw for retaining Stop 21780	1
20345	Lock Washer for Screw 21836	1
10282	**Retainer and Balls Assembly**	2
21786	Advance Ring for Advance Yoke Assembly 10598	1
21776	Pin for Advance Ring	1
23777	Insulating Bushing for Spring Terminal Assembly 11868	1
23780	Insulating Washer for Spring Terminal Assembly 11868 (Inner)	1
23781	Insulating Washer for Spring Terminal Assembly 11868 (Outer)	1
23784	Plain Washer for Spring Terminal Assembly 11868 (Not shown in Illustration)	1
20704	Nut for Spring Terminal Assembly 11868	1
24953	Lock Washer for Nut 20704	1
23445	Plain Washer for Spring Terminal Assembly 11868 (Not shown in Illustration)	1
21782	Clip for Distributor Head Assembly 11250 (With Clip 21781)	1
21781	Clip for Distributor Head Assembly 11250 (Long Tongue Clip)	1
21783	Clip for Distributor Head Assembly 11250 (Single)	1
21847	Stud for retaining Contact Arm Assembly 14383	1
21499	Stud for retaining Stop 21780	1
21886	Screw for retaining Clip 21783	2
21887	Screw for retaining Clips 21781 and 21782 (Not shown in Illustration)	2
21797	Screw for Advance Yoke Assembly 10598	1
23882	Screw for retaining Cover Assembly 10888	4
12969	**High Tension Terminal Assembly for Distributor Head Assembly 11250 (Blank) (Not shown in Illustration)**	1
12970	**High Tension Terminal Assembly for Distributor Head Assembly 11250 (1) (Not shown in Illustration)**	1
12971	**High Tension Terminal Assembly for Distributor Head Assembly 11250 (2) (Not shown in Illustration)**	1
12972	**High Tension Terminal Assembly for Distributor Head Assembly 11250 (3) (Not shown in Illustration)**	1
12973	**High Tension Terminal Assembly for Distributor Head Assembly 11250 (4) (Not shown in Illustration)**	1
20953	Terminal Clip for connecting Distributor (Not shown in Illustration)	1
11250	**Distributor Head Assembly Complete** (Includes the next 2 Items. Do not count Old Style Parts)	1
21425	Plunger (Old Style) for Distributor Head Assembly 11250 (Approximately 1/8" Diameter)	1
29764	Plunger for Distributor Head Assembly 11250 (Not shown in Illustration) (Approximately 1/4" Diameter)	1
21424	Spring (Old Style) for Plunger 21425 (Approximately 1/8" Diameter)	1
27607	Spring for Plunger 29764 (Approximately 1/4" Diameter)	1
11407	**Wrench for Distributor**	1
25003	Rubber Washer for High Tension Terminal Assemblies	5

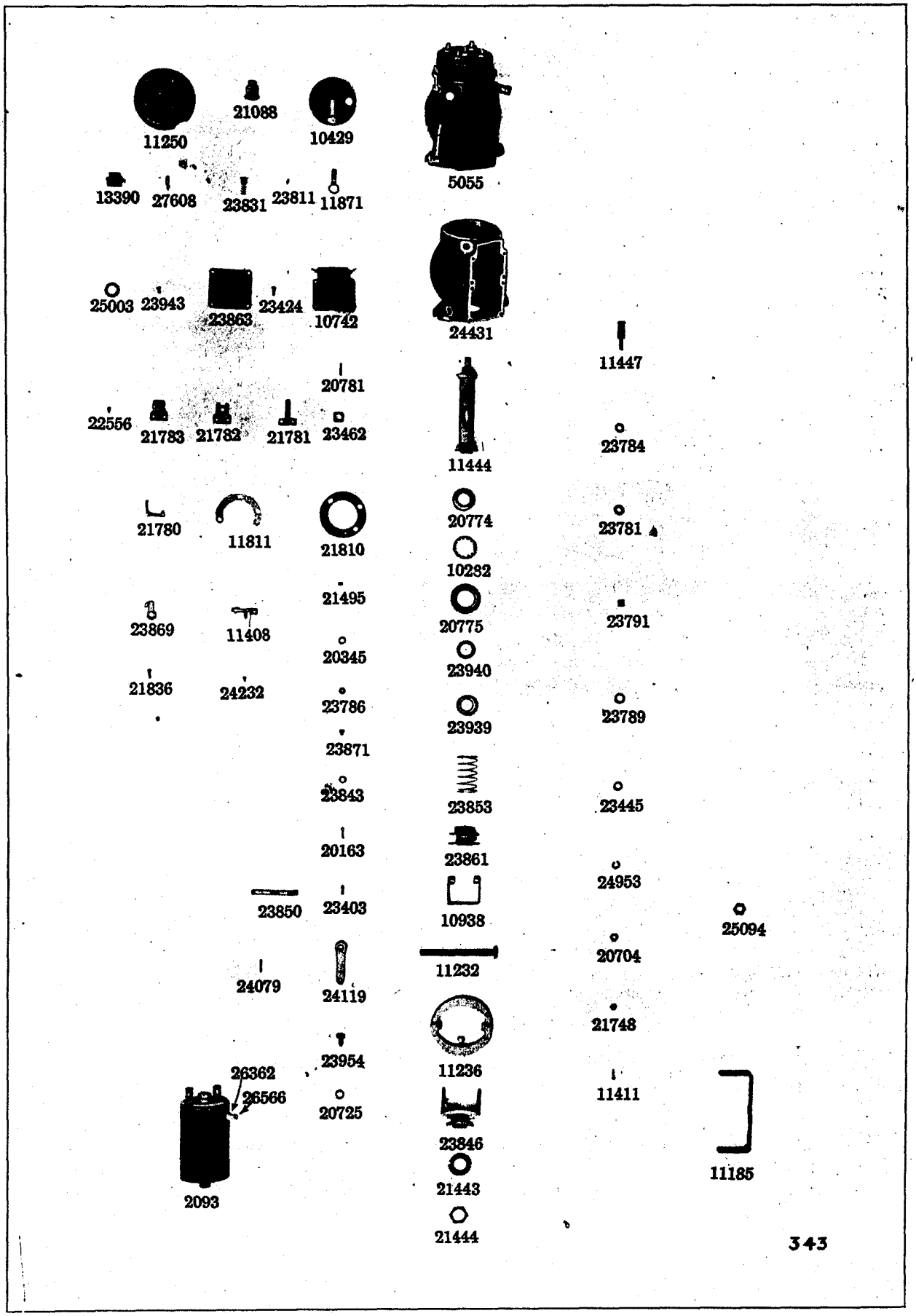

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25003
23882
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21748
24953
20704
23781
23780
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23777
20781
21839
20774
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21847
20345
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21499
11031
10282
23998
21776
26519
25094
24079
20775
10952
21786
21797
11230
10598
21443
26362
26566
21444
11185
2092
366

No. 5055 DISTRIBUTOR (Continued)

Piece Number	NAME OF PART	Quantity Required
10282	**Retainer and Balls Assembly**	2
23940	Spacing Washer on Shaft 24973 between Cone 20774 and Advance Ring 23861	1
23861	Advance Ring (for Manual Advance)	1
23846	Sleeve on Shaft 24973 for Governor Ring Assembly 11236	1
11236	**Governor Ring Assembly**	1
23939	Sleeve Collar on Shaft 24973 next to Upper Cone 27222 for Spring 23853	1
23853	Spring for Shaft 24973	1
23954	Screw for retaining Governor Ring Assembly 11236	1
20725	Lock Washer for Screw 23954	2
23850	Pin for connecting Shaft 24973 and Sleeve 23846	2
23843	Washer for retaining Pin 23850	1
20163	Cotter Pin for retaining Washer 23843	2
11250	**Distributor Head Assembly Complete** (Includes the next 2 Items. Do not count Old Style Parts)	2
21425	Plunger (Old Style) for Distributor Head Assembly 11250 (Approximately ⅛" Diameter)	1
29764	Plunger for Distributor Assembly 11250 (Approximately ¼" Diameter) (Not shown in Illustration)	1
21424	Spring (Old Style) for Plunger 21425 (Approximately ⅛" Diameter)	1
27607	Spring for Plunger 29764 (Approximately ¼" Diameter) (Not shown in Illustration)	1
20953	Terminal Clip for connecting Distributor (Not shown in Illustration)	1
12741	**Wrench for Distributor (Not shown in Illustration)**	2
12969	**High Tension Terminal Assembly for Distributor Head Assembly 11250 (Blank) (Not shown in Illustration)**	1
12970	**High Tension Terminal Assembly for Distributor Head Assembly 11250 (1) (Not shown in Illustration)**	1
12971	**High Tension Terminal Assembly for Distributor Head Assembly 11250 (2) (Not shown in Illustration)**	1
12972	**High Tension Terminal Assembly for Distributor Head Assembly 11250 (3) (Not shown in Illustration)**	1
12973	**High Tension Terminal Assembly for Distributor Head Assembly 11250 (4) (Not shown in Illustration)**	1
25003	Rubber Washer for High Tension Terminal Assemblies	1
		5

No. 5055 DISTRIBUTOR

Piece Number	NAME OF PART	Quantity Required
5055	**DISTRIBUTOR COMPLETE**	1
24431	Housing for Distributor 5055	1
20775	Cup for Retainer and Balls Assembly 10282	2
14005	**Shaft Assembly (Service) (Includes Shaft, Cam and Pin)**	1
14116	**Shaft and Cone Assembly (Service) (Includes Shaft Assembly 14005 and Upper Cone) (Not shown in Illustration)**	1
27222	Cone for Shaft Assembly 14005 (Not shown in Illustration)	1
21443	Clamp Nut for Shaft Assembly 14005 (Round)	1
21444	Lock Nut for Clamp Nut 21443	1
10745	**Condenser Assembly** (Includes the next Item)	1
32141	Screw for attaching Condenser Assembly 10745	4
23863	Cover Plate for Housing 24431	1
23943	Screw for retaining Cover Plate 23863	4
11869	**Spring Terminal Assembly (Common)**	2
20704	Nut for Spring Terminal Assembly 11869	2
24953	Lock Washer for Nut 20704	2
23445	Plain Washer for Nut 20704	2
23784	Plain Washer for Spring Terminal Assembly 11869	2
23781	Insulating Washer for Spring Terminal Assembly 11869	2
23789	Insulating Washer for Nut 20704 on Spring Terminal Assembly 11869	2
23791	Insulating Bushing for Spring Terminal Assemblies 11869	1
11408	**Contact Arm Assembly** (Includes the next 3 Items. Do not count Old Style Parts)	1
11379	**Connector Assembly for Contact Arm Assembly 11408 (Not shown in Illustration)**	1
21801	Terminal Wire (Old Style)	1
24069	Hub for Contact Arm Assembly 11408 (Not shown in Illustration)	1
24947	Screw for attaching Hub 24069 (Not shown in Illustration)	2
23398	Spring for Contact Arm Assembly 11408 (Not shown in Illustration)	1
21780	Stop for Contact Arm Assembly 11408	1
21836	Screw for retaining Stop 21780	1
20345	Lock Washer for Screws 21836 and 23871	3
23871	Screw for connecting Condenser Assembly 10745 to Spring Terminal Assembly 11869	2
12411	**Contact Screw Assembly (Not shown in Illustration)**	1
21748	Nut for Contact Screw Assembly 12411	1
21782	Clip for Distributor Head Assembly 11250 (With Clip 21781)	1
21781	Clip for Distributor Head Assembly 11250 (With Long Tongue Clip)	1
21783	Clip for Distributor Head Assembly (Single)	1
22556	Screw for retaining Clips 21781 and 21782	2
23423	Screw for retaining Clip 21783 (Not shown in Illustration)	2
11232	**Advance Shaft Assembly**	1
24119	Advance Lever for Advance Shaft Assembly 11232	1
24079	Pin for retaining Advance Lever 24119	1
10938	**Advance Yoke Assembly**	1
23403	Screw for Advance Yoke Assembly 10938	1
10429	**Distributor Rotor Assembly Complete** (Includes the next 6 Items)	1
11871	**Connector Assembly (Contact)**	1
23811	Screw for retaining Connector Assembly 11871 (Not shown in Illustration)	1
11870	**Clip Assembly for locating Distributor Rotor Assembly 10429 (Not shown in Illustration)**	1
21514	Screw for retaining Clip Assembly 11870 (Not shown in Illustration)	1
23831	Brush for Distributor Rotor Assembly 10429	1
23812	Spring for Brush 23831 (Not shown in Illustration)	1
11811	**Plate Assembly for retaining Contact Arm Assembly 11408** (Includes the next 2 Items)	1
21493	Stud for mounting Stop 21780 (Not shown in Illustration)	1
21494	Stud for mounting Contact Arm Assembly 11408 (Not shown in Illustration)	1
23879	Screw for retaining Plate Assembly 11811 (Not shown in Illustration)	3
23876	Plain Washer for Screw 23879 (Not shown in Illustration)	3
23941	Insulating Washer for Screw 23879 (Not shown in Illustration)	3
21945	Insulating Bushing for Screw 23879	3
21810	Insulator for Plate Assembly 11811	1
23869	Terminal for connecting Plate Assembly 11811 and Spring Terminal Assembly 11869	1
24232	Screw for retaining Terminal 23869	1



No. 5055 DISTRIBUTOR

No. 5049 DISTRIBUTOR

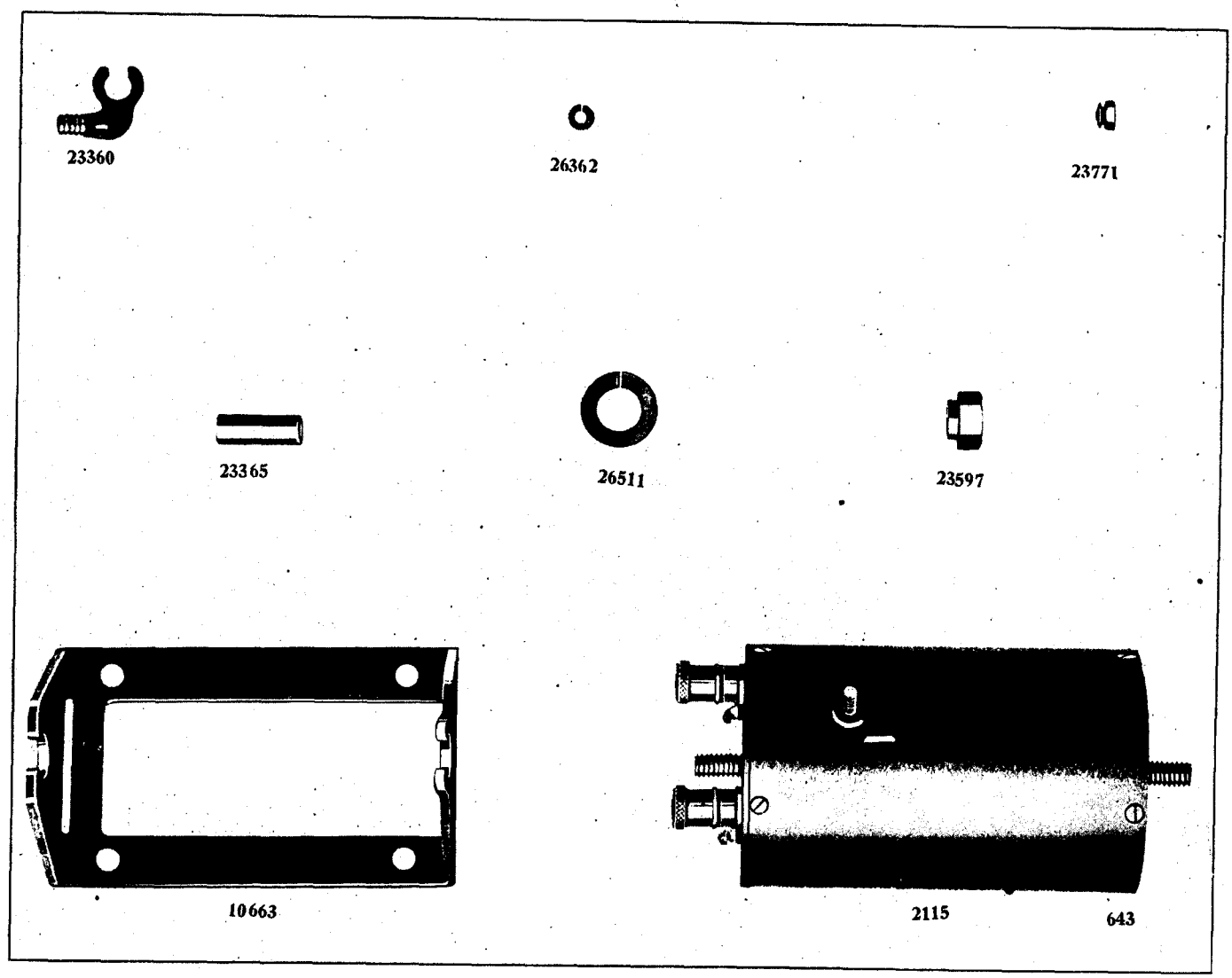
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Piece Number	NAME OF PART	Quantity Required
5049	**DISTRIBUTOR ASSEMBLY COMPLETE**	1
11442	Housing Assembly Complete	1
	(Includes the next 2 Items)	
24406	Housing for Housing Assembly 11442	1
20775	Cup for Retainer and Balls Assembly 10282	2
21443	Clamp Nut for Shaft Assembly 11440 (Round)	1
21444	Lock Nut for Clamp Nut 21443	1
27222	Cone for Shaft Assembly 11440	2
11440	**Shaft Assembly (Includes Shaft, Cam, and Pin)**	1
14115	**Shaft and Cone Assembly Includes Shaft Assembly 11440) (Service) (and Upper Cone) (Service)**	1
10282	**Retainer and Balls Assembly**	2
10598	**Advance Yoke Assembly**	1
21797	Screw for Advance Yoke Assembly 10598	1
21786	Advance Ring for Advance Yoke Assembly 10598	1
21776	Pin for Advance Ring 21786	1
11869	**Spring Terminal Assembly (Magneto)**	2
10745	**Condenser Assembly**	1
	(Includes the next Item)	
32141	Screw for attaching Condenser Assembly 10740	4
23875	Separator for Condenser Assembly 10745	1
11408	**Contact Arm Assembly for Distributor**	1
	(Includes the next 3 Items. Do not count Old Style Parts)	
11379	**Connector Assembly for Contact Arm Assembly 11408**	1
21801	Terminal Wire (Old Style)	1
24069	Hub for Contact Arm Assembly 11408	1
24947	Screw for attaching Hub 24069	2
12411	**Contact Screw Assembly for Contact Arm Assembly 11408**	1
21748	Nut for Contact Screw Assembly 11411	1
23398	Spring for Contact Arm Assembly 11408	1
21780	Stop for Contact Arm Assembly 11408	1
21836	Screw for retaining Stop 21780	1
20345	Lock Washer for Screws 21836 and 23870	3
23870	Screw for connecting Condenser Assembly 10745 to Spring Terminal Assembly 11869	2
11111	**Advance Shaft Assembly**	1
23841	Collar for Shaft Assembly 11111	1
24079	Pin for retaining Collar 23841	1
11643	**Distributor Head Assembly Complete**	1
	(Includes the next 2 Items. Do not count Old Style Parts)	
21425	Plunger (Old Style) for Distributor Head Assembly 11643 (Approximately ⅛" Diameter)	1
27608	Plunger for Distributor Head Assembly 11643 (Approximately ¼" Diameter)	1
21424	Spring (Old Style) for Plunger 21425 (Approximately ⅛" Diameter)	1
27607	Spring for Plunger 27608 (Approximately ¼" Diameter)	1
10429	**Distributor Rotor Assembly Complete**	1
	(Includes the next 6 Items)	
11871	**Connector Assembly Contact**	1
23811	Screw for retaining Connector Assembly 11871	1
11870	**Clip Assembly for locating Distributor Rotor Assembly 10429**	1
21514	Screw for retaining Clip Assembly 11870	1
23831	Brush for Distributor Rotor Assembly 10429	1
23812	Spring for Brush 23831	1
21782	Clip for Distributor Head Assembly 11643 (With Clip 21781)	1
21781	Clip for Distributor Head Assembly 11643 (Long Tongue Clip)	1
21783	Clip for Distributor Head Assembly 11643 (Single)	1
21886	Screw for retaining Clip 21783	2
21887	Screw for retaining Clips 21781 and 21782	2
11811	**Plate Assembly for retaining Contact Arm Assembly 11408**	1
	(Includes the next 2 Items)	
21493	Stud for mounting Stop 21780	1
21494	Stud for mounting Contact Arm Assembly 11408	1
21747	Screw for retaining Plate Assembly 11811	3
23876	Plain Washer for Screw 21747	3
21495	Insulating Bushing for Screw 21747	3
23941	Insulating Washer for Screw 21747	3
23810	Insulator under Plate 11811	1
23869	Terminal for connecting Plate Assembly 11811	1
24232	Screw for retaining Terminal 23869	1
23777	Insulating Bushing for Spring Terminal Assembly 11869	2
23780	Insulating Washer for Spring Terminal Assembly 11869	4
20704	Nut for Spring Terminal Assembly 11869	2
24953	Lock Washer for Nut 20704	2
23445	Plain Washer for Spring Terminal Assembly 11869	4
12741	**Wrench for Distributor**	1
11863	**High Tension Terminal Assembly for Distributor Head Assembly 11643 (Blank)**	5
25003	Rubber Washer for High Tension Terminal Assemblies	5

No. 5001 DISTRIBUTOR

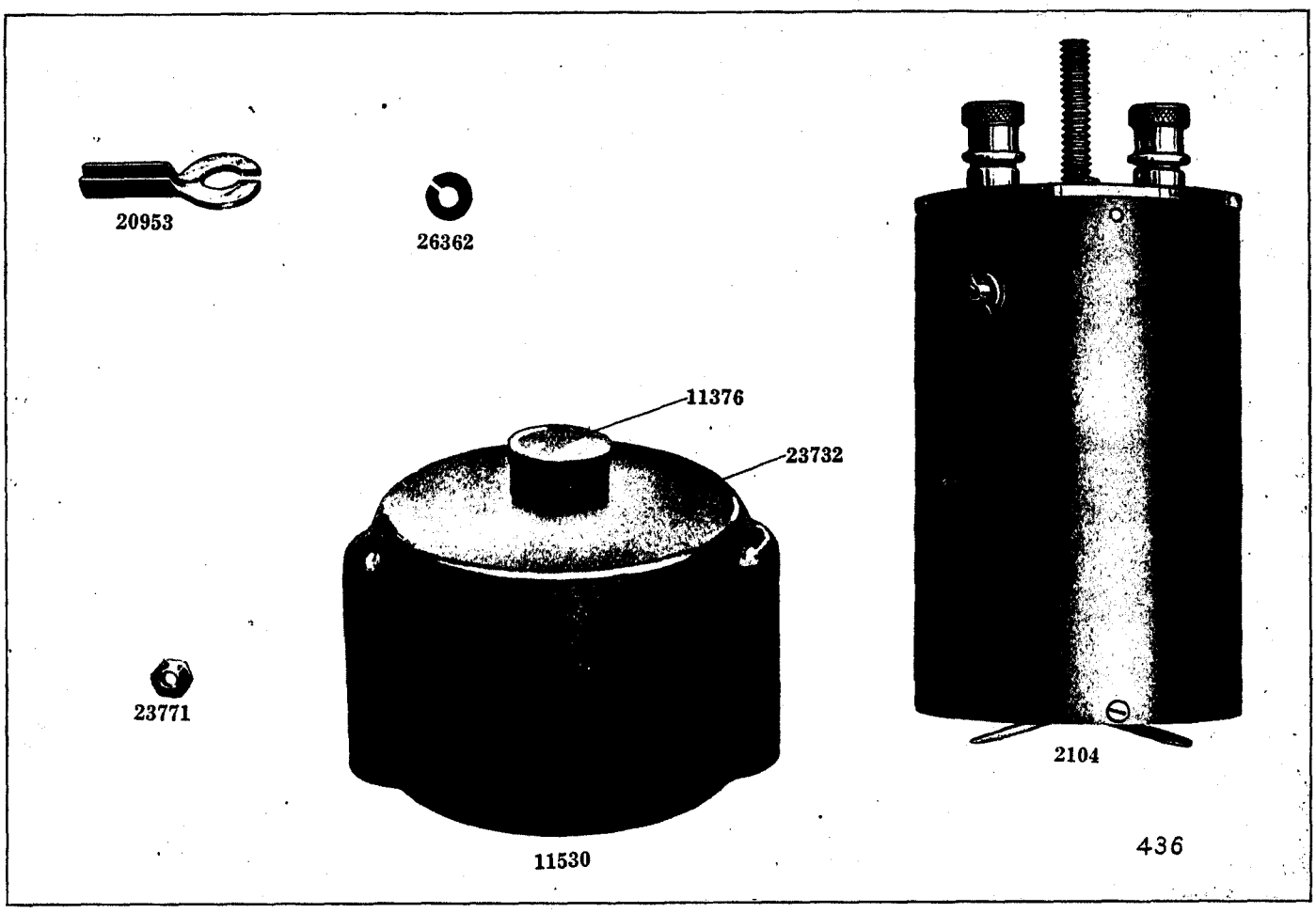
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Piece Number	NAME OF PART	Quantity Required
5001	**DRY CELL DISTRIBUTOR COMPLETE**	1
11991	**Housing Assembly Complete**	1
	(Includes the next 2 Items)	
24367	Housing for Housing Assembly 11991	1
20775	Cup for retainer and Balls Assembly 10282	1
14114	**Shaft Assembly (Service) Including Shaft 11435 and Upper Cone)**	1
21443	Clamp Nut for Shaft Assembly 11435 (Round)	1
21444	Lock Nut for Clamp Nut 21443 (Hexagon)	1
27222	Cone for Shaft Assembly 11435	2
11435	**Shaft Assembly (Includes the Shaft, Cam and Pin)**	1
11667	**Shaft and Cone Assembly**	1
11226	**Advance Lever Assembly**	1
11230	**Advance Shaft Assembly**	1
24079	Dowel Pin for retaining Advance Lever Assembly 11226	1
10888	**Cover Assembly for Housing 24367**	1
	(Includes the next 2 Items)	
23849	Name Plate for Cover Assembly 10888	1
23839	Rivet for Name Plate 23849	2
10282	**Retainer and Balls Assembly**	2
12411	**Contact Screw Assembly**	1
11868	**Spring Terminal Assembly**	1
14383	**Contact Arm Assembly**	1
	(Includes the next 2 Items)	
24069	Hub for Contact Arm Assembly 14383	1
24947	Screw for attaching Hub 24069	2
10598	**Advance Yoke Assembly**	1
21797	Screw for Advance Yoke Assembly 10598	1
10429	**Distributor Rotor Assembly Complete**	1
	(Includes the next 6 Items)	
11871	**Distributor Rotor Connector Assembly (Contact)**	1
23811	Screw for retaining Connector Assembly 11871	1
11870	**Clip Assembly for locating Distributor Rotor Assembly 10429**	1
21514	Screw for retaining Clip Assembly 11870	1
23831	Brush for Distributor Rotor Assembly 10429	1
23812	Spring for Brush 23831	1
11643	**Distributor Head Assembly Complete**	1
	(Includes the next 2 Items. Do not Count Old Style Parts)	
21425	Plunger (Old Style) for Distributor Head Assembly 11643 (Approximately ⅛" Diameter)	1
27608	Plunger for Distributor Head Assembly 11643 (Approximately ¼" Diameter)	1
21424	Spring (Old Style) for Plunger 21425 (Approximately ⅛" Diameter)	1
27607	Spring for Plunger 27608 (Approximately ¼" Diameter)	1
21782	Clip for Distributor Head Assembly 11643 (With Clip 21781)	1
21781	Clip for Distributor Head Assembly 11643 (Long Tongue Clip)	1
21783	Clip for Distributor Head Assembly 11643 (Single)	1
21887	Screw for retaining Clips 21781 and 21782	2
21886	Screw for retaining Clip 21783	2
23777	Insulating Bushing for Spring Terminal Assembly 11868	1
23780	Insulating Washer for Spring Terminal Assembly 11868	2
23445	Plain Washer for Spring Terminal Assembly 11868	2
20704	Nut for Spring Terminal Assembly 11868	1
24953	Lock Washer for Nut 20704	1
21748	Lock Nut for Contact Screw Assembly 12411	1
21847	Stud for retaining Contact Arm Assembly 14383	1
21499	Stud for retaining Stop 21780	1
21780	Stop for Contact Arm Assembly 14383	1
21836	Screw for retaining Stop 21780	1
20345	Lock Washer for Screw 21836	1
23398	Spring for operating Contact Arm Assembly 14383	1
23882	Screw for attaching Cover Assembly 10888	4
21776	Pin for Advance Ring 21786	1
21786	Advance Ring for Advance Yoke Assembly 10598	1
13502	**Lead Assembly for connecting Distributor 5001**	1
	(Includes the next Item)	
20953	Terminal Clip for Lead Assembly 13502	2
12741	**Wrench for Distributor**	1
11863	**High Tension Terminal Assembly for Distributor Head Assembly 11643 (Blank)**	5
25003	Rubber Washer for High Tension Terminal Assemblies	5



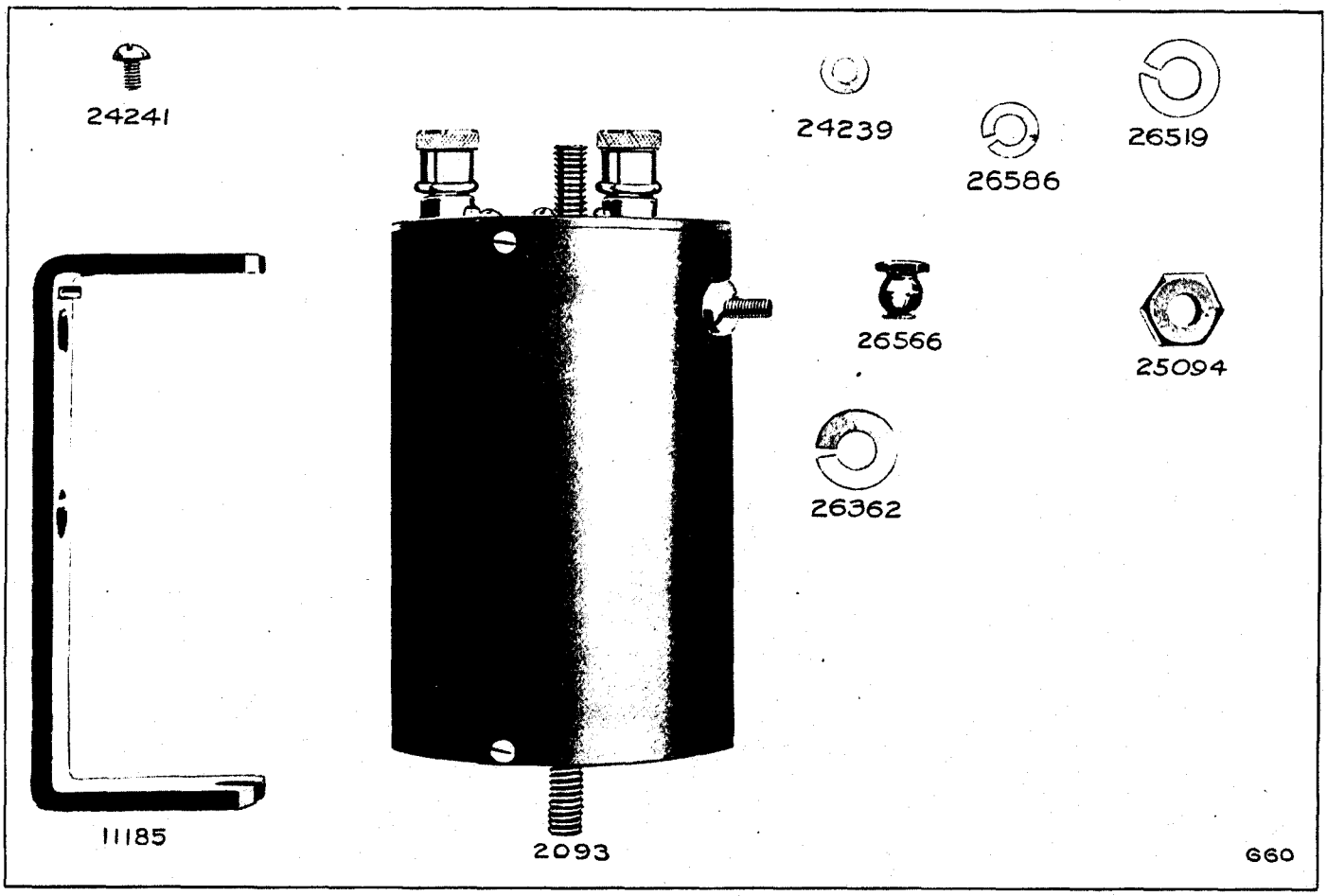
No. 2115 IGNITION COIL

Piece Number	NAME OF PART	Quantity Required
2115	**IGNITION COIL COMPLETE** (Includes the next 4 Items)	1
32115	Nut for High Tension Terminal	1
26362	Lock Washer for Nut 23771	1
23597	Nut for retaining Bracket Assembly 10663	2
26511	Lock Washer for Nut 23597	2
23360	Terminal Clip for connecting Ignition Coil 21115	1
23365	Fibre Ferrule for Terminal Clip 23360	1
10663	**Bracket Assembly for mounting Ignition Coil 2115**	1



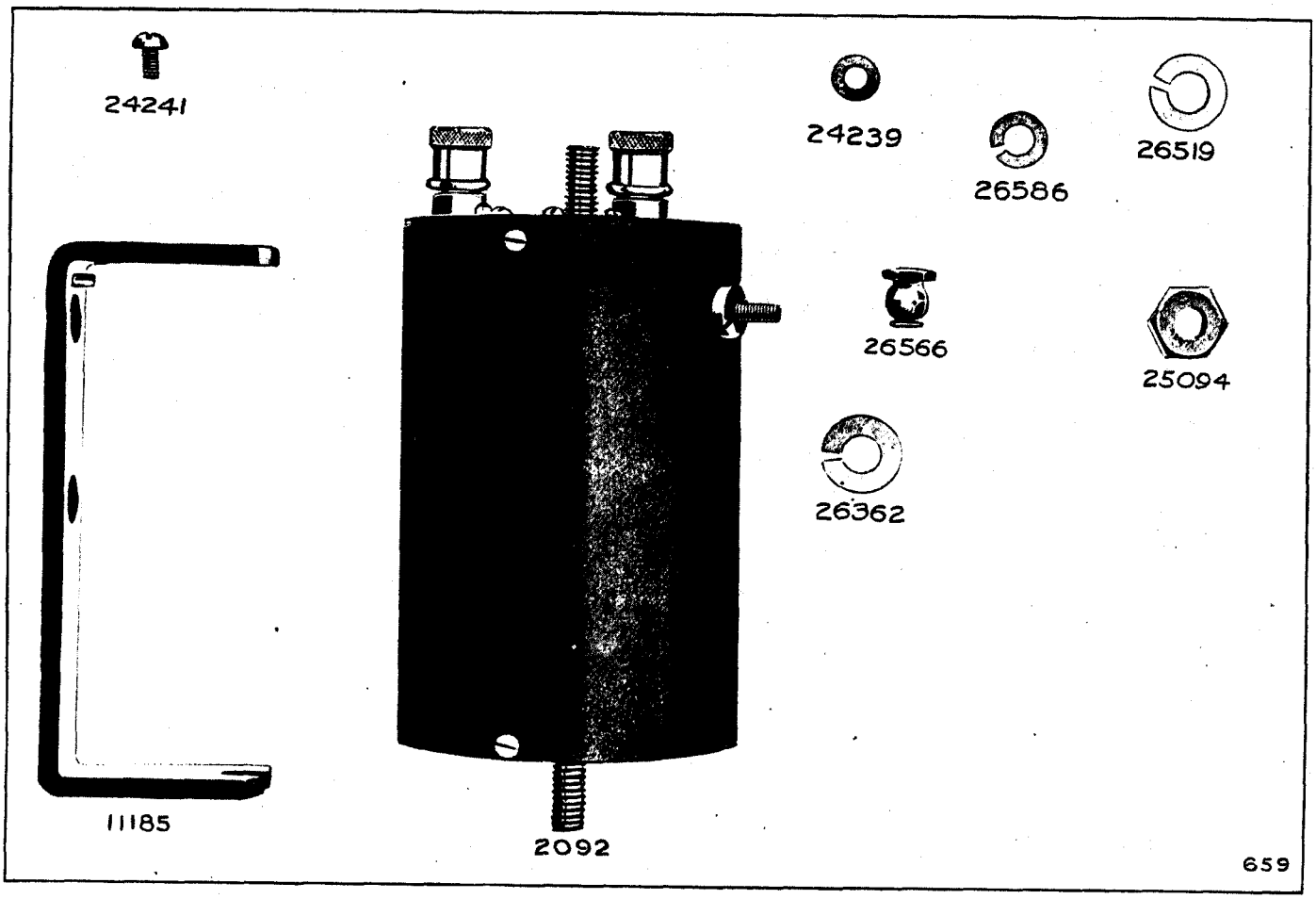
No. 2104 IGNITION COIL

Piece Number	NAME OF PART	Quantity Required
2104	**IGNITION COIL COMPLETE**	1
23771	Nut for High Tension Terminal	1
26362	Lock Washer for Nut 23771	1
11530	**Protector Assembly Complete** (Includes the next 3 Items)	1
23732	Protector for Protector Assembly 11530	1
11376	**Nut Assembly**	1
23447	Plain Washer for Nut Assembly 11376 (Not shown in Illustration)	1
20953	Terminal Clip for connecting Ignition Coil 2104	2
23835	Terminal Clip for High Tension Terminal (Not shown in Illustration)	1



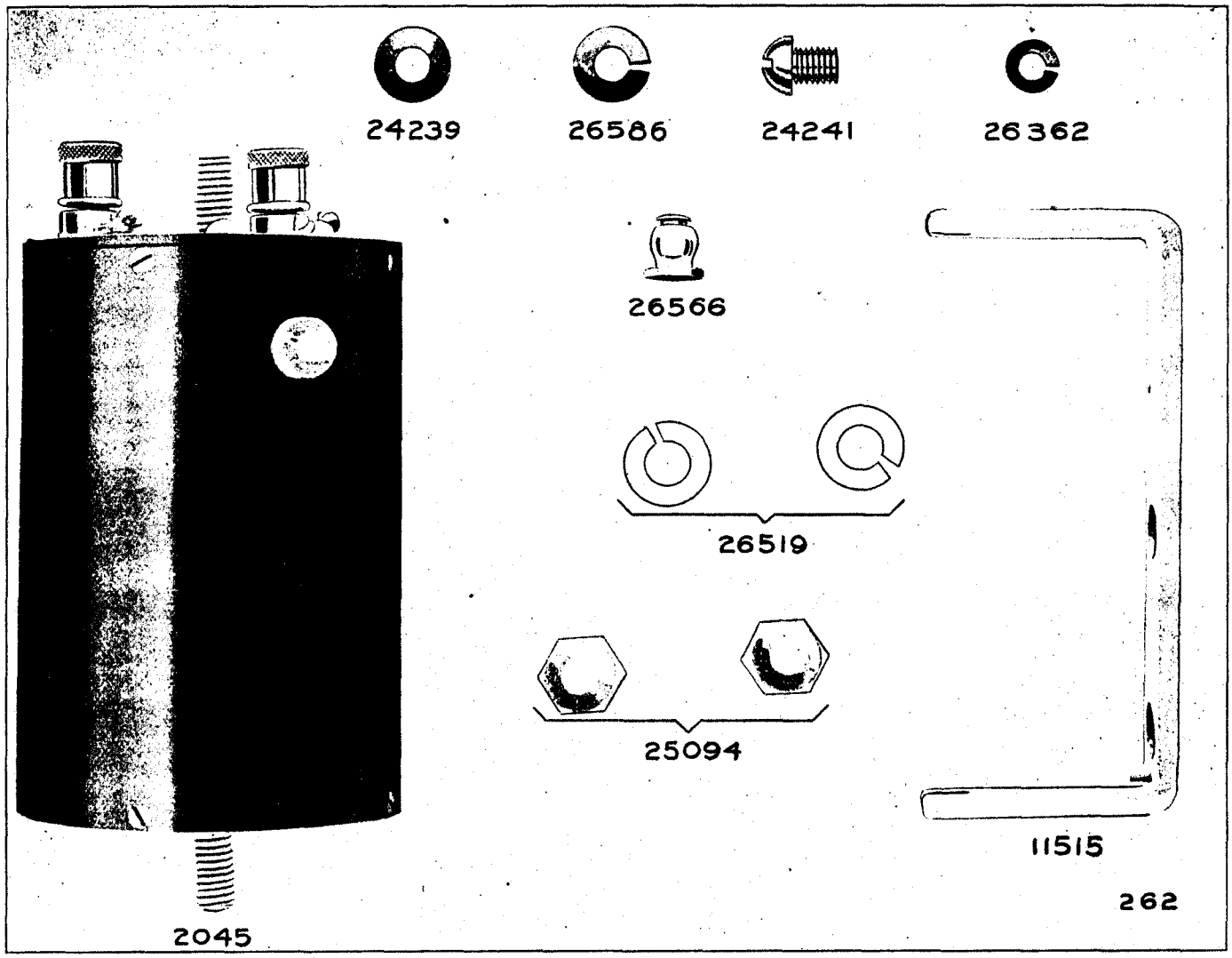
No. 2093 IGNITION COIL

Piece Number	NAME OF PART	Quantity Required
2093	**IGNITION COIL COMPLETE**	1
26566	Nut for High Tension Terminal	1
26362	Lock Washer for Nut 26566	1
25094	Nut for attaching Bracket Assembly 11185	2
26519	Lock Washer for Nut 25094	2
11185	**Bracket Assembly for mounting Ignition Coil 2093**	1
24241	Screw for Bracket Assembly 11185	1
26586	Lock Washer for Screw 24241	1
24239	Plain Washer for Screw 24241	1
20953	Terminal Clip for connecting Ignition Coil 2093 (Not shown in Illustration)	2



No. 2092 IGNITION COIL

Piece Number	NAME OF PART	Quantity Required
2092	**IGNITION COIL COMPLETE**	1
26566	Nut for High Tension Terminal	1
26362	Lock Washer for Nut 26566	1
11185	**Bracket Assembly for attaching Ignition Coil 2092**	1
25094	Nut for retaining Bracket Assembly 11185	2
26519	Lock Washer for Nut 25094	2
24241	Screw for Bracket Assembly 11185	1
26586	Lock Washer for Screw 24241	1
24239	Plain Washer for Screw 24241	1
20953	Terminal Clip for connecting Ignition Coil 2092 (Not shown in Illustration)	1



No. 2045 IGNITION COIL

Piece Number	NAME OF PART	Quantity Required
2045	**IGNITION COIL COMPLETE**	1
11515	**Bracket Assembly for mounting Coil**	1
25094	Nut for mounting Coil	2
26519	Lock Washer for Nut 25094	2
26566	Nut for High Tension Terminal	1
26362	Lock Washer for Nut 26566	1
24241	Screw for Bracket Assembly 11515	1
26586	Lock Washer for Screw 24241	1
24239	Plain Washer for Screw 24241	1

No. 2022 IGNITION COIL

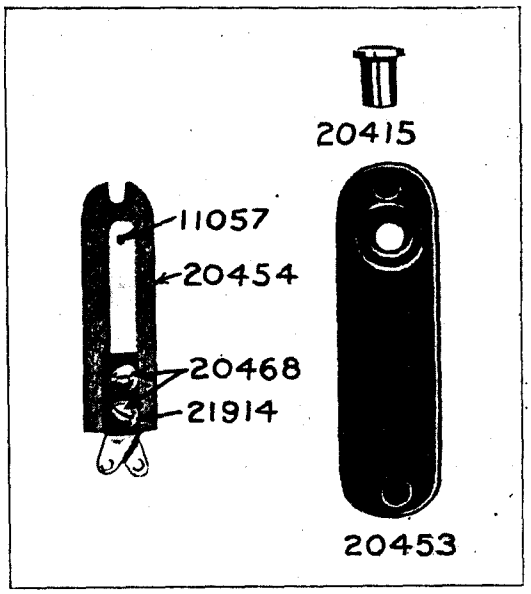
(Not Illustrated)

Piece Number	NAME OF PART	Quantity Required
2022	**IGNITION COIL COMPLETE**	1
26566	Nut for High Tension Terminal	1
26362	Lock Washer for Nut 26566	1
25094	Nut for retaining Bracket 21497	2
26519	Lock Washer for Nut 25094	2
21497	Bracket for attaching Coil 2022	1
24241	Screw for Bracket 21497	1
26586	Lock Washer for Screw 24241	1
24239	Plain Washer for Screw 24241	1
23573	Number Plate for Coil 2022	1
24747	Screw for attaching Number Plate 23573	2

No. 2004 COIL BOX

(Not Illustrated)

Piece Number	NAME OF PART	Quantity Required
2004	**COIL BOX COMPLETE**	1
10707	**Spring Terminal Assembly**	5
12882	**Coil Assembly**	1
12994	**Box Assembly**	1
	(Includes the next 2 Items)	
23568	Name Plate for Box Assembly 13013	2
24963	Rivet for Name Plate 23568	1
24960	Screw for retaining Box Assembly 12994	5
24694	Screw for retaining Spring Terminal Assembly 10707	5
28335	Plain Washer for Screw 24694	5
28333	Box for retaining Coil Assembly 12882	1
25374	Separator for Coil Assembly 12882	3
24487	Nut for High Tension Terminal	4
24744	Nut for retaining Coil Assembly 12882	4
25207	Plain Washer for Nut 24744	4
25373	Insulator for High Tension Terminal	4
25119	Plain Washer for Insulator 25373 (Large)	4
25189	Insulator for Separator 25374	1
25188	Bracket for mounting Coil Box 2004	1
28326	Screw for attaching Bracket 25188	4
28337	Strip for mounting Spring Terminal Assembly 10707	1
28336	Strip for retaining Coil Assembly 12882	1

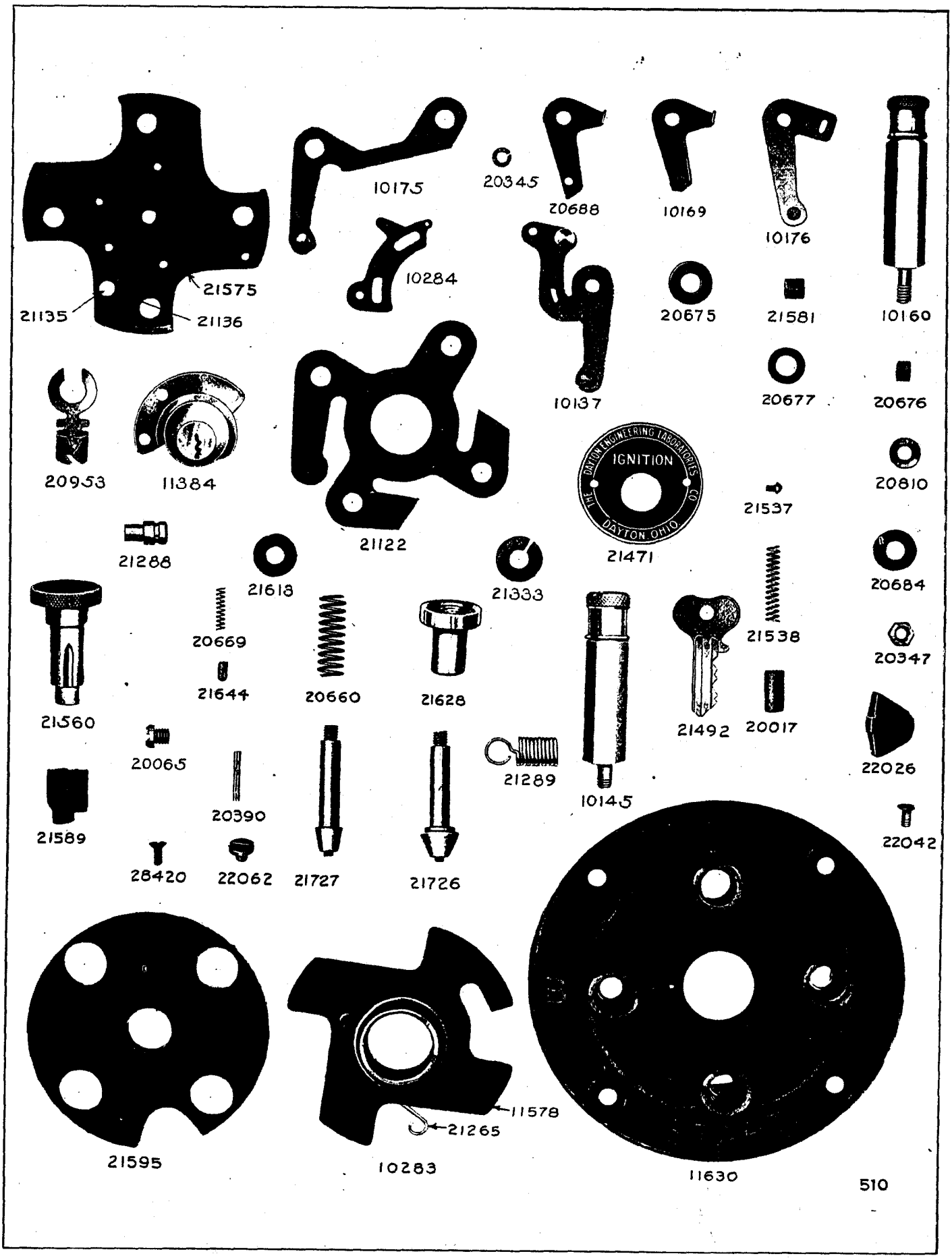


No. 1991 STARTING SWITCH

Piece Number	NAME OF PART	Quantity Required
1991	**STARTING SWITCH COMPLETE**	1
20453	Cover for Switch	1
20415	Plunger for operating Contact Spring Assembly 11057	1
20454	Plate for mounting Contact Spring Assembly 11057	1
11057	**Contact Spring Assembly for Switch**	2
20468	Screw for mounting Contact Spring Assembly 11057	2
20418	Insulating Bushing for Screw 20468 (Not shown in Illustration)	2
21914	Lock Washer for Screw 20468	2
20201	Insulator between Contact Spring Assembly 11057 (Not shown in Illustration)	3
20467	Insulator (Long) for Contact Spring Assembly 11057 (Not shown in Illustration)	1
20200	Insulator for Contact Spring Assembly 11057 under Screw 20468 (Not shown in Illustration)	1

No. 1979 IGNITION SWITCH

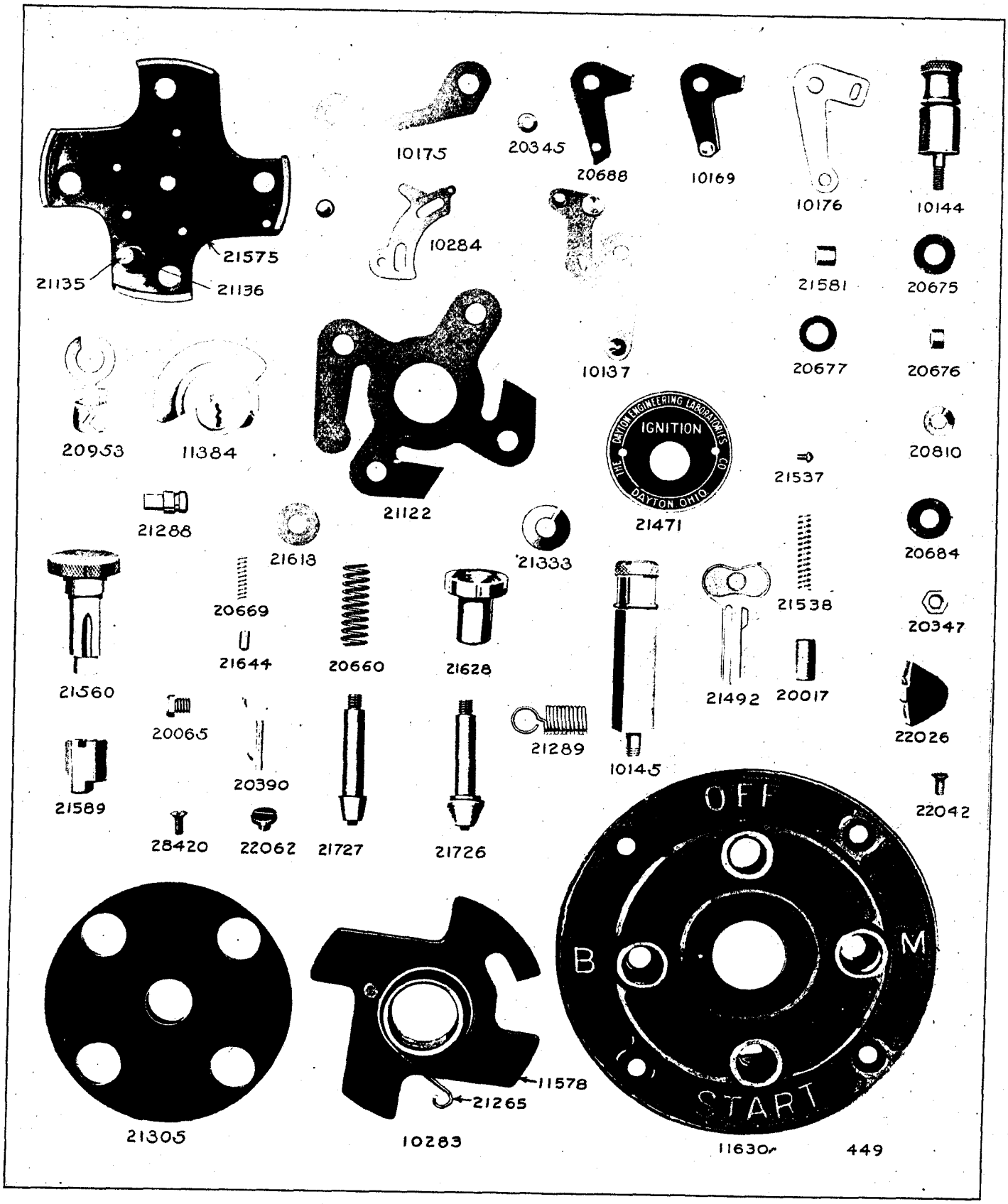
Piece Number	NAME OF PART	Quantity Required
1979	**IGNITION SWITCH COMPLETE**	1
10289	**Shell Assembly Complete** (Includes the next 16 Items)	1
10287	**Shell Assembly** (Includes the next 6 Items)	1
13836	**Shell Assembly**	1
21628	Button for Studs 21726 and 21727	3
21726	Stud for operating Contacts (Battery and Magneto)	2
21727	Stud for operating Contacts (Start)	1
20660	Spring for Push Button 21628	3
29284	Lock Washer for Button 21628 (Not shown in Illustration)	3
21560	Button for locking Switch	1
21644	Plunger for Button 21560	1
20669	Spring for Plunger 21644	1
20017	Plunger for Spring 21538	1
21538	Spring for Button 21560	1
22026	Bracket for retaining Spring 21538 and Plunger 20017	1
22042	Screw for retaining Bracket 22026	2
21589	Locking Cam for Button 21560	1
20390	Pin for Locking Cam 21589	1
10288	**Switch Mechanism Assembly Complete** (Includes the next 28 Items)	1
10285	**Support Plate Assembly** (Includes the next 6 Items)	1
10284	**Locking Cam Assembly**	1
21289	Spring for Locking Cam Assembly 10284	1
21288	Stud for Spring 21289	1
21137	Stud for Locking Cam Assembly 10284 (Not shown in Illustration)	1
21136	Plain Washer for Stud 21135	1
21135	Stud for retaining Spring 21265	1
10169	**Contact Arm Assembly (Short)**	1
10176	**Contact Arm Assembly (Single)**	1
10137	**Contact Arm Assembly (Double)**	1
10175	**Contact Arm Assembly (Common)**	1
10160	**Spring Terminal Assembly (Outer)**	1
10145	**Spring Terminal Assembly (Center)**	1
21122	Insulator for Contact Arm Assembly 10175	1
20677	Insulating Washing for Contact Arm Assemblies 10169 and 10176	2
20675	Insulating Washer for Nut 20347	4
20810	Plain Washer for Nut 20347	4
20684	Plain Washer for (Common) Spring Terminal Assembly (Thick)	1
21613	Plain Washer for Spring Terminal Assembly 10160 (Thin)	1
20347	Nut for Spring Terminal Assemblies 10145 and 10160	5
24240	Lock Washer for Spring Terminal Assembly 10145 (Not shown in Illustration)	1
20676	Insulating Bushing for Spring Terminal Assembly 10160 (Long)	3
21581	Insulating Bushing for Spring Terminal Assembly 10160 (Short)	1
20688	Support Plate for Contact Arm Assembly 10176	2
20345	Lock Washer for Screw 20065	3
20065	Screw for retaining Lock Assembly 11384	3
11384	**Lock Assembly Complete** (Includes the next Items)	1
29958	Key for Lock Assembly 11384 (Give Series No. of Lock)	2
10283	**Detent Assembly Complete** (Includes the next 2 Items)	1
21262	Stud for Spring 21265 (Not shown in Illustration)	1
21265	Spring for Detent Assembly 10283	1
21595	Cover Plate for Switch	1
21471	Name Plate for Switch	1
21537	Screw for retaining Name Plate 21471	2
28420	Screw for retaining Cover Plate 21595	4
22062	Screw for retaining Switch Mechanism Assembly 10268	4
20953	Terminal Clip for connecting Switch 1979	4



No. 1979 IGNITION SWITCH

No. 1978 IGNITION SWITCH

Piece Number	NAME OF PART	Quantity Required
1978	**IGNITION SWITCH COMPLETE**	1
10289	**Shell Assembly Complete** (Includes the next 16 Items)	1
10287	**Shell Assembly** (Includes the next 6 Items)	1
13836	**Shell Assembly**	3
21628	Button for Studs 21726 and 21727	2
21726	Stud (Battery and Magneto) for operating Contacts	1
21727	Stud for operating Contacts (Start)	3
20660	Spring for Push Button 21628	3
29284	Lock Washer for Button 21628 (Not shown in Illustration)	1
21560	Button for locking Switch	1
21644	Plunger for Button 21560	1
20669	Spring for Plunger 21644	1
20017	Plunger for Spring 21538	1
21538	Spring for Plunger 21560	1
22026	Bracket for retaining Spring 21538 and Plunger 20017	2
22042	Screw for retaining Bracket 22026	1
21589	Locking Cam for Button 21560	1
20390	Pin for Locking Cam 21589	1
10286	**Switch Mechanism Assembly Complete** (Includes the next 28 Items)	1
10285	**Support Plate Assembly** (Includes the next 6 Items)	1
10284	**Locking Cam Assembly**	1
21289	Spring for Locking Cam Assembly 10284	1
21288	Stud for Spring 21289	1
21137	Stud for Locking Cam Assembly 10284 (Not shown in Illustration)	1
21136	Plain Washer for Locking Cam Assembly 10284	1
21135	Stud for retaining 21265	1
10169	**Contact Arm Assembly (Short)**	1
10176	**Contact Arm Assembly (Single)**	1
10137	**Contact Arm Assembly (Double)**	1
10175	**Contact Arm Assembly (Common)**	4
10144	**Spring Terminal Assembly (Short)**	1
10145	**Spring Terminal Assembly (Long)**	1
21122	Insulator for Contact Arm Assembly 10175	2
26677	Insulating Washer for Contact Arm Assemblies 10169 and 10176	4
20675	Insulating Washer for Nut 20347	4
20810	Plain Washer for Nut 20347	1
20684	Plain Washer for (Common) Spring Terminal Assembly 10144 (Thick)	1
21613	Plain Washer for Spring Terminal Assembly 10144 (Thin)	5
20347	Nut for Spring Terminal Assemblies 10144 and 10145	1
24240	Lock Washer for Spring Terminal Assembly 10145 (Not shown in Illustration)	3
20676	Insulating Bushing for Spring Terminal Assembly 10144 (Long)	1
21581	Insulating Bushing for Spring Terminal Assembly 10144 (Short)	2
20688	Support Plate for Contact Arm Assembly 10176	3
20345	Lock Washer for Screw 20065	3
20065	Screw for retaining Lock Assembly 11384	1
11384	**Lock Assembly** (Includes the next Item)	2
29958	Key for Lock Assembly 11384 (Give Series No. of Lock)	1
10283	**Detent Assembly Complete** (Includes the next 2 Items)	1
21262	Stud for Spring 21265 (Not shown in Illustration)	1
21265	Spring for Detent Assembly 10283	1
21305	Cover Plate for Switch	1
21471	Name Plate for Switch	2
21537	Screw for retaining Name Plate 21471	4
28420	Screw for retaining Cover Plate 21305	4
22062	Screw for retaining Switch Mechanism Assembly 10286	5
20953	Terminal Clip for connecting Ignition Switch 1978	



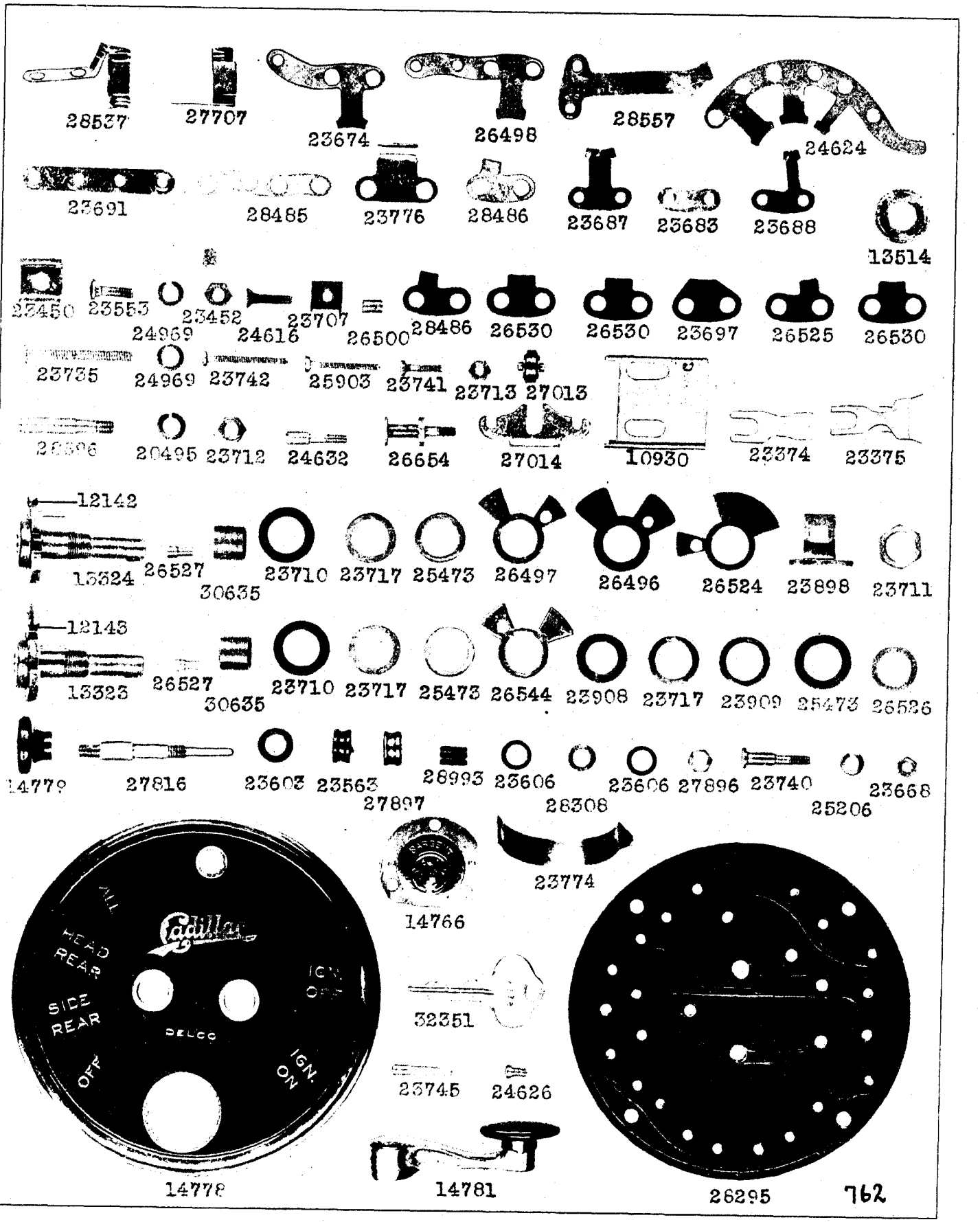
No. 1978 IGNITION SWITCH

No. 1150 COMBINATION SWITCH (Continued)

Piece Number	NAME OF PART	Quantity Required
26525	Insulating Plate for Terminals No. 1 and 8	5
26530	Insulating Plate for Terminals Nos. 2, 3, 5 and 6	11
28483	Insulating Bushing for Terminal No. 3 (Not shown in Illustration)	2
28486	Separator Plate for Terminal No. 8	2
28537	Contact Spring for connecting Terminal No. 8 and Plunger Assembly 13086	1
27705	Contact Spring for connecting Plunger Assembly 13086 and Terminal No. 9	1
23741	Screw for retaining Contact Spring 27707 and Terminal No. 4	4
23740	Screw for retaining Tumbler Assembly 10930	2
23683	Plate for retaining Screws 23741 on Terminal No. 4	1
23697	Insulating Plate for Terminal No. 6 under Brush 26498 (Large)	1
28485	Plate connecting Terminal No. 3 and Contact Spring 28537	1
23713	Nut for Screws 23740, 24632 and Stud 26654	5
23668	Nut for retaining Screw 23742	2
26654	Stud for retaining Roller Bracket 27014	1
25206	Lock Washer for Nut 23713	5
20495	Lock Washer for Nut 23712	2
20393	Lock Washer for Screw 23735	4
23735	Screw for retaining Housing Assembly	4
23707	Nut for Screw 24616	1
24616	Screw for retaining Spring 23774	1
23742	Screw for retaining Brushes 23674 and 24624 (Short)	2
24632	Stop Screw for Blade Assemblies	2
26523	Screw for retaining Terminal No. 7 (Not shown in Illustration)	2
31009	Spacing Washer for Blade Assemblies	2
28896	Stud for retaining Blade Assemblies	2
23712	Nut for retaining Stud 28896	2
23691	Terminal Plate under Terminal Plate No. 4	1
23374	Terminal Clip for connecting Switch (Small)	7
23375	Terminal Clip for connecting Switch (Large)	2

No. 1150 COMBINATION SWITCH

Piece Number	NAME OF PART	Quantity Required
1150	**COMBINATION SWITCH**	1
14777	**Housing Assembly Complete** (Includes the next 12 Items)	1
32291	Escutcheon Plate for Switch	1
28612	Ferrule for retaining Plate 32291	2
14779	**Button Assembly for Plunger Assembly 15307**	1
28308	Insulating Washer for Plunger Assembly 15307	1
15307	**Plunger Assembly Complete** (Includes the next 7 Items)	1
27816	Plunger for Plunger Assembly 15307	1
23563	Insulating Collar for Plunger 27816	1
28993	Insulating Bushing for Plunger 27816	1
27897	Contact Collar for Plunger 27816	1
23606	Plain Washer for Nut 27896	1
23603	Insulating Washer for Contact Collar 27897	1
27896	Nut for Clamping Plunger Assembly 15307	1
23898	Terminal Post for connecting Switch	1
23553	Screw for retaining Terminal Clip 23450	1
23452	Nut for Screw 23553	1
20393	Lock Washer for Nut 23452	1
23450	Clip for Terminal Clip 23374	1
13290	**Blade Assembly Complete (Ignition)** (Includes the next 15 Items)	1
13323	**Stud Assembly**	1
12143	**Stop Wheel Assembly**	1
26527	Insulating Bushing for Stop Wheel Assembly 12143	1
30635	Insulating Bushing for Stud Assembly 13323	1
26497	Blade for Blade Assembly 13290 (Lower)	1
26524	Blade for Blade Assembly 13290 (Upper)	1
26496	Insulator between Blade 26497 and 26524)	1
23710	Insulating Washer for Blade 26497 and 26524	2
23717	Plain Washer for Stop Wheel Assembly 12143 (Thick)	2
25473	Plain Washer for Stop Wheel Assembly 12143 (Thin)	1
23908	Plain Washer for Blade 26524 (Thick)	1
23711	Nut for Clamping Blade Assembly 13290	1
26526	Lock Washer for Nut 23711	1
23909	Plain Washer for Nut 23711	1
25473	Plain Washer for Blades 26524 (Thin)	1
13291	**Blade Assembly Complete (For Lighting)** (Includes the next 13 Items)	1
13324	**Stud Assembly**	1
12142	**Stop Wheel Assembly**	1
26527	Insulating Bushing for Stop Wheel Assembly 12142	1
30635	Insulating Bushing for Stud Assembly 13324	1
26544	Blade for Blade Assembly 13291	1
23717	Plain Washer for Stop Wheel Assembly 12142 (Thick)	1
25473	Plain Washer for Stop Wheel Assembly 12142 (Thin)	1
23710	Insulating Washer for Blade 26544	2
25473	Plain Washer for Blade 26544 (Thin)	1
23908	Plain Washer for Blade 26544 (Thick)	1
23909	Plain Washer for Nut 23711	1
26526	Lock Washer for Nut 23711	1
23711	Nut for Clamping Blade Assembly 13291	1
14766	**Lock Assembly for Switch** (Includes the next Item)	1
32351	Key for Lock Assembly 14766 (Give Series No. of Lock	2
24626	Screw for retaining Lock Assembly 14766	3
10930	**Tumbler Assembly for Locking Blade Assemblies 13290 and 13291**	1
14781	**Lever Assembly for operating Blade Assemblies**	2
23745	Screw for retaining Lever	2
27014	Roller Bracket for retaining Roller 27013	1
27013	Roller for Blade Assemblies 13290 and 13291	2
23774	Spring for Roller Bracket 27014	2
23776	Spring for Tumbler Assembly 10930	1
28295	Mounting Plate for Switch	1
23674	Brush for Terminal No. 5 (Lower)	1
23687	Brush for Terminals No. 2, 3, 5, 6 (Upper)	4
23688	Brush for Terminal No. 1 (Upper)	1
28557	Brush for connecting Terminal No. 8 and Blade Assembly	1
24624	Brush for Terminals No. 1, 2 and 3 (Lower)	1
26498	Brush for Terminals No. 6 and 7 (Lower)	1
25903	Screw for retaining Terminals No. 1, 2, 3, 5, 6 and 8	12
26500	Insulating Bushing for Screw 25903	10



No. 1150 COMBINATION SWITCH

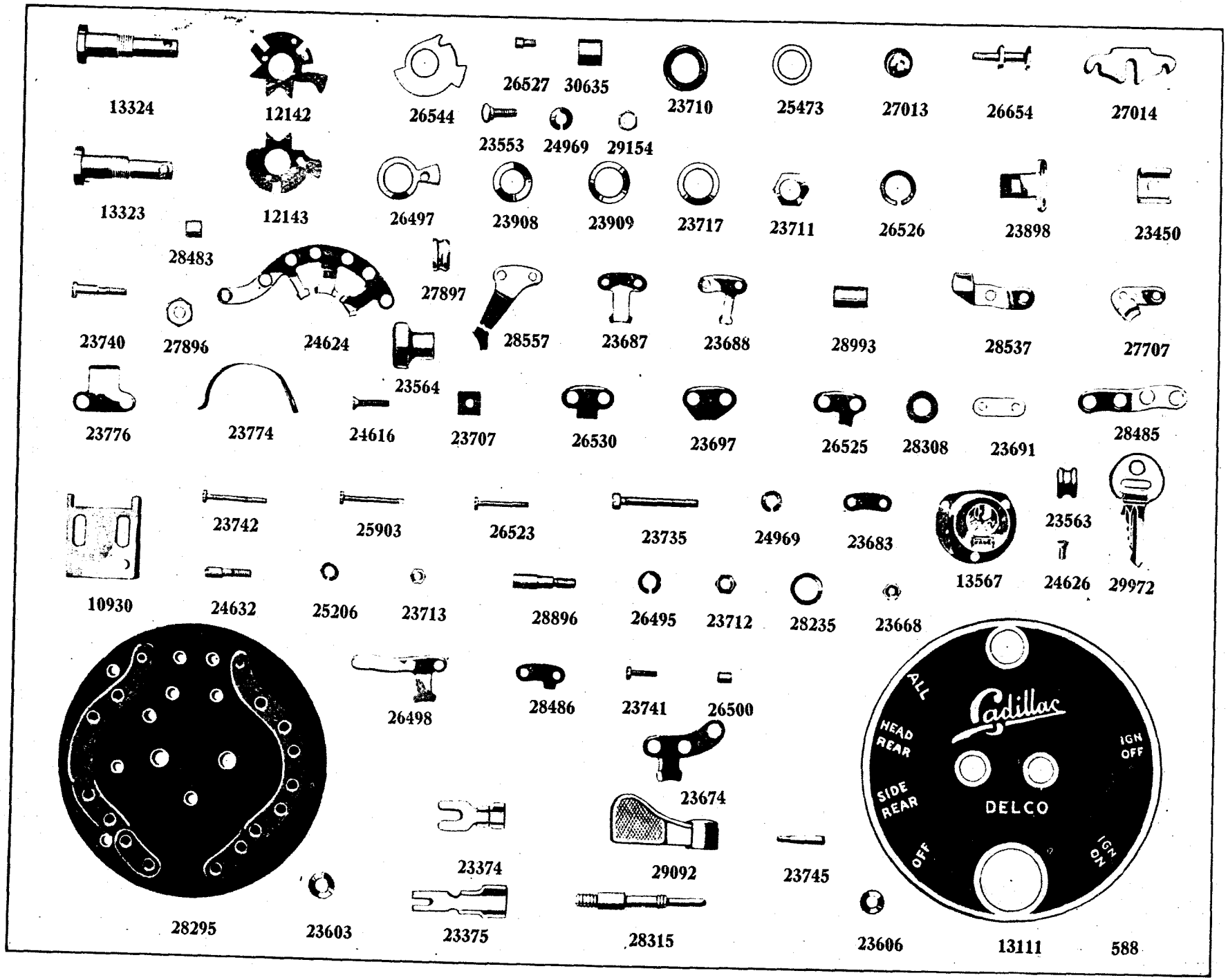
No. 1099 COMBINATION SWITCH (Continued)

Piece Number	NAME OF PART	Quantity Required
26498	Brush for Terminals No. 6 and 7 (Lower)	1
25903	Screw for retaining Terminals No. 1, 2, 3, 5, 6 and 8	12
26500	Insulating Bushing for Screw 25903	10
26525	Insulating Plate for Terminals No. 1 and No. 8	5
26530	Insulating Plate for Terminals No. 2, 3, 5 and 6	11
28483	Insulating Bushing for Terminal No. 8	2
28486	Separator Plate for Terminal No. 8	2
28537	Contact Spring for connecting Terminal No. 3 and Plunger Assembly 13110	1
27707	Contact Spring for connecting Plunger Assembly 13110 and Terminal No. 9	1
23741	Screw for retaining Contact Spring 27707 and Terminal No. 4	1
23740	Screw for retaining Tumbler Assembly 10930	2
23683	Plate for retaining Screws 23741 on Terminal No. 4	1
23697	Insulating Plate for Terminal No. 6 under Brush 26498 (Large)	1
28485	Plate connecting Terminal No. 3 and Contact Spring 28537	1
23713	Nut for Screws 23740, 24632 and Stud 26654	5
23668	Nut for retaining Screw 23742	2
26654	Stud for retainng Roller Bracket 27014	1
25206	Lock Washer for Nut 23713	5
20495	Lock Washer for Nut 23712	2
20393	Lock Washer for Screw 23735	4
23735	Screw for retaining Housing Assembly 13112	4
23707	Nut for Screw 24616	1
24616	Screw for retaining Spring 23774	1
23742	Screw for retaining Brushes 23674 and 24624 (Short)	2
24632	Stop Screw for Blade Assemblies 13290 and 13291	2
26523	Screw for retaining Terminal No. 7	2
31009	Spacing Washer for Blade Assemblies 13290 and 13291	2
28896	Stud for retaining Blade Assemblies 13290 and 13291	2
23712	Nut for retaining Stud 28896	2
23691	Terminal Plate under Termnal Plate No. 4	1
23374	Terminal Clip for connecting Switch (Small)	7
23375	Terminal Clip for connecting Switch (Large)	2

No. 1099 COMBINATION SWITCH

Note: No. 1099 Combination Switch superseded by No. 1150 Combination Switch. When ordering a complete new unit, order No. 1150.

Piece Number	NAME OF PART	Quantity Required
1099	**COMBINATION SWITCH**	1
13112	**Housing Assembly Complete** (Includes the next 12 Items)	1
28627	Escutcheon Plate for Switch	1
28612	Ferrule for Retaining Plate	2
23564	Button for Plunger Assembly 13110	1
28308	Insulating Washer for Plunger Assembly 13110	1
13110	**Plunger Assembly Complete** (Includes the next 7 Items)	1
28315	Plunger for Plunger Assembly 13110	1
23563	Insulating Collar for Plunger 28315	1
28993	Insulating Bushing for Plunger 28315	1
27897	Contact Collar for Plunger 28315	1
23606	Plain Washer for Nut 27896	1
23603	Insulating Washer for Contact Collar 27897	1
27896	Nut for Clamping Plunger Assembly 13110	1
23898	Terminal Post for connecting Switch	1
23553	Screw for retaining Terminal Clip 23450	1
23452	Nut for Screw 23553	1
20393	Lock Washer for Nut 23452	1
23450	Clip for Terminal Clip 23374	1
13290	**Blade Assembly Complete (For Ignition)** (Includes the next 15 Items)	1
13323	**Stud Assembly**	1
12143	**Stop Wheel Assembly**	1
26527	Insulating Bushing for Stop Wheel Assembly 12143	1
30635	Insulating Bushing for Stud Assembly 13323	1
26497	Blade for Blade Assembly 13290 (Lower)	1
26524	Blade for Blade Assembly 13290 (Upper) (Not shown in Illustration)	1
26496	Insulator between Blades 26497 and 26524 (Not shown in Illustration)	1
23710	Insulating Washer for Blades 26497 and 26524	2
23717	Plain Washer for Stop Wheel Assembly 12143 (Thick)	2
25473	Plain Washer for Stop Wheel Assembly 12143 (Thin)	1
23908	Plain Washer for Blade 26524 (Thick)	1
23711	Nut for Clamping Blade Assembly 13290	1
26526	Lock Washer for Nut 23711	1
23909	Plain Washer for Nut 23711	1
25473	Plain Washer for Blades 26524 (Thin)	1
13291	**Blade Assembly Complete (For Lighting)** (Includes the next 13 Items)	1
13324	**Stud Assembly**	1
12142	**Stop Wheel Assembly**	1
26527	Insulating Bushing for Stop Wheel Assembly 12142	1
30635	Insulating Bushing for Stud Assembly 13324	1
26544	Blade for Blade Assembly 13291	1
23717	Plain Washer for Stop Wheel Assembly 12142 (Thick)	1
25473	Plain Washer for Stop Wheel Assembly 12142 (Thin)	1
23710	Insulating Washer for Blade 26544	2
25473	Plain Washer for Blade 26544 (Thin)	1
23908	Plain Washer for Blade 26544 (Thick)	1
23909	Plain Washer for Nut 23711	1
26526	Plain Washer for Nut 23711	1
23711	Nut for Clamping Blade Assembly 13291	1
13567	**Lock Assembly for Locking Switch (Used on Model No. 57 Cadillac 1918)** (Includes the next Item)	1
29972	Key for Lock Assembly 13567 (Give Series No. of Lock)	2
14308	**Lock Assembly for Switch (Used on Model No. 59 Cadillac 1919)** (Includes the next Item)	1
31533	Key for Lock Assembly 14308 (Give Serial No. of Lock)	2
24626	Screw for retaining Lock Assembly 13567	3
10930	**Tumbler Assembly for Locking Blade Assemblies 13290 and 13291**	1
29092	Lever for operating Blade Assemblies 13290 and 13291	2
23745	Screw for retaining Lever 29092	2
27014	Roller Bracket for retaining Roller 27013	1
27013	Roller for Blade Assemblies 13290 and 13291	2
23774	Spring for Roller Bracket 27014	2
23776	Spring for Tumbler Assembly 10930	1
28295	Mounting Plate for Switch	1
23674	Brush for Terminal No. 5 (Lower)	1
23687	Brush for Terminals No. 2, 3, 5, 6 (Upper)	4
23688	Brush for Terminal No. 1 (Upper)	1
28557	Brush for connecting Terminal No. 8 and Blade Assembly 12176	1
24624	Brush for Terminals No. 1, 2 and 3 (Lower)	1

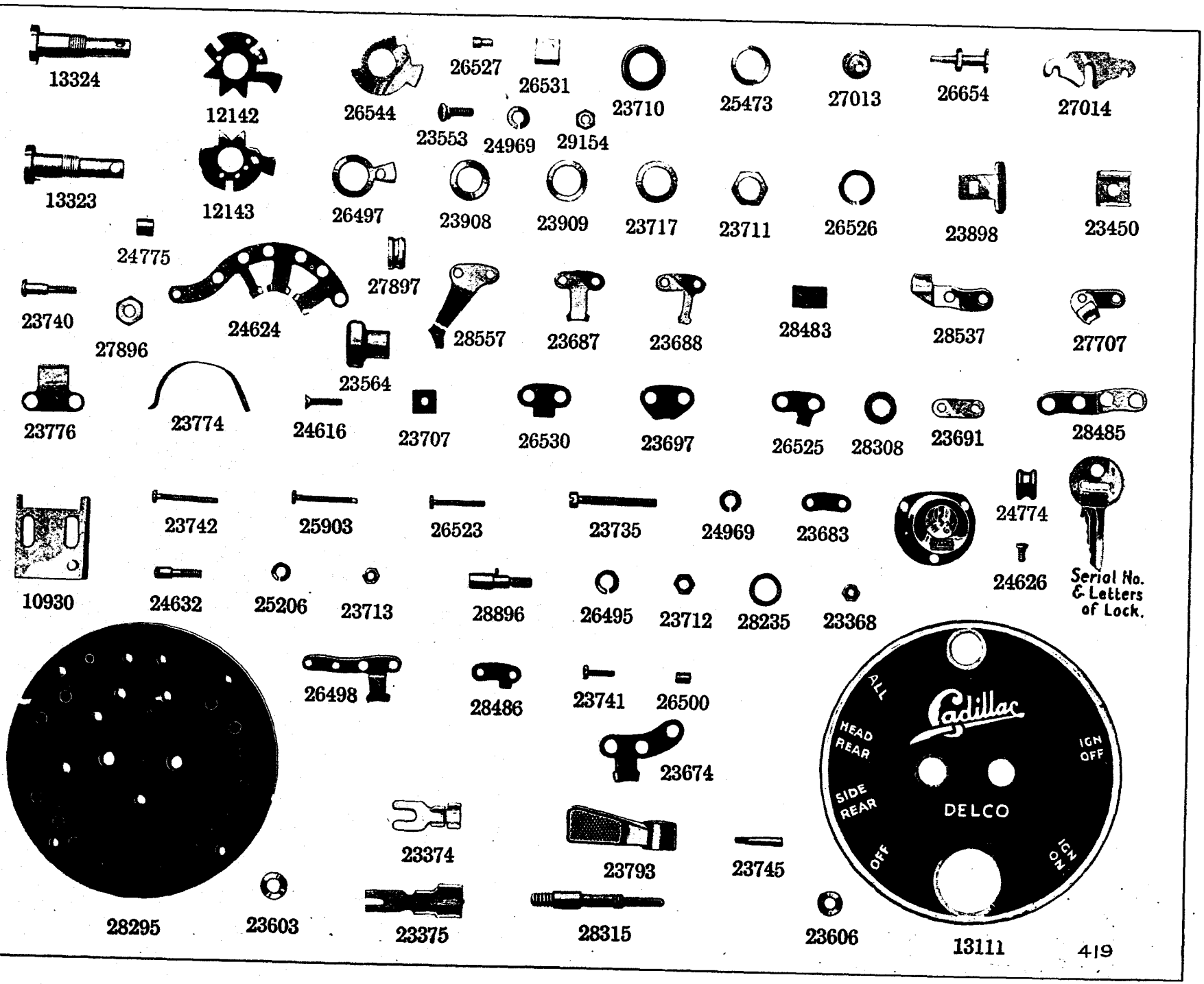

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25903
26523
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29972
13567
10930
24632
25206
23713
28896
26495
23712
28235
23668
26498
28486
23741
26500
23674
23374
29092
23745
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23603
23375
28315
23606
13111
588
ALL
HEAD REAR
SIDE REAR
OFF
Cadillac
DELCO
IGN OFF
IGN ON

No. 1077 COMBINATION SWITCH (Continued)

Piece Number	NAME OF PART	Quantity Required
23688	Brush for Terminal No. 1 (Upper)	1
28557	Brush for connecting Terminal No. 8 and Blade Assembly 13290	1
24624	Brush for Terminals No. 1, 2 and 3 (Lower)	1
26498	Brush for Terminals No. 6 and 7 (Lower)	1
25903	Screw for retaining Terminals No. 1, 2, 3, 5, 6 and 8	12
26500	Insulating Bushing for Screw 25903	10
26525	Insulating Plate for Terminals No. 1 and 8	5
23696	Insulating Plate for Terminals No. 2, 3, 5 and 6	11
28483	Insulating Bushing for Terminal No. 8	2
28486	Separator Plate for Terminal No. 8	2
28537	Contact Spring for connecting Terminal No. 3 and Plunger Assembly 13110	1
27707	Contact Spring for connecting Plunger Assembly 13110 and Terminal No. 9	1
23741	Screw for retaining Contact Spring 27707 and Terminal No. 4	4
23740	Screw for retaining Tumbler Assembly 10930	2
23683	Plate for retaining Screws 23741 and Terminal No. 4	1
23697	Insulating Plate for Terminal No. 6 under Brush 26498 (Large)	1
28485	Plate connecting Terminal No. 3 and Contact Spring 28537	1
23713	Nut for Screws 23740 and 24632 and Stud 26654	5
23668	Nut for retaining Screw 23742 (Not shown in Illustration)	2
26654	Stud for retaining Roller Bracket 27014	1
25206	Lock Washer for Nut 23713	5
20495	Lock Washer for Nut 23712	2
20393	Lock Washer for Screw 23735	4
23735	Screw for retaining Housing Assembly 13112	4
23707	Nut for Screw 24616	1
24616	Screw for retaining Spring 23774	1
23742	Screw for retaining Brushes 23674 and 24624 (Short)	2
24626	Screw for retaining Lock Assembly 13039	3
24632	Stop Screw for Blade Assembly 13290	2
26523	Screw for retaining Terminal No. 7	2
31009	Spacing Washer for Blade Assemblies 13290 and 13291 (Not shown in Illustration)	2
28896	Stud for retaining Blade Assemblies 13290 and 13291	2
23712	Nut for retaining Stud 28896	2
23691	Terminal Plate under Terminal No. 4	1
23374	Terminal Clip for connecting Switch (Small)	7
23375	Terminal Clip for connecting Switch (Large)	2

No. 1077 COMBINATION SWITCH

Piece Number	NAME OF PART	Quantity Required
1077	**COMBINATION SWITCH COMPLETE**	1
13112	**Housing Assembly Complete** (Includes the next 12 Items)	1
28627	Escutcheon Plate for Switch	2
28612	Ferrule for retaining Plate 28627	1
23564	Button for Plunger Assembly 13110	1
28308	Insulating Washer for Plunger Assembly 13110	1
13110	**Plunger Assembly** (Includes the next 7 Items)	1
28315	Plunger for Plunger Assembly 13110	1
23563	Insulating Collar for Plunger 28315 (Not shown in Illustration)	1
28993	Insulating Bushing for Plunger 28315 (Not shown in Illustration)	1
27897	Contact Collar for Plunger 28315	1
23606	Plain Washer for Nut 27896	1
23603	Insulating Washer for Contact Collar 27897	1
27896	Nut for clamping Plunger Assembly 13110	9
23898	Terminal Post	9
23553	Screw for retaining Clip 23450	9
23452	Nut for Screw 23553 (Not shown in Illustration)	9
20393	Lock Washer for Nut 23452	1
23450	Clip for retaining Terminal Clip 23374	1
13290	**Blade Assembly Complete (For Ignition)** (Includes the next 16 Items)	1
13323	**Stud Assembly** (Includes the next Item)	1
23747	Pin for Stud Assembly 13323 (Not shown in Illustration)	1
12143	**Stop Wheel Assembly** (Includes the next Item)	1
23946	Stud for Stop Wheel Assembly 12143 (Not shown in Illustration)	1
26527	Insulating Bushing for Stop Wheel Assembly 12143	1
30635	Insulating Bushing for Stud Assembly 13323 (Not shown in Illustration)	1
26497	Blade for Blade Assembly 13290 (Lower)	1
26524	Blade for Blade Assembly 13290 (Upper) Not shown in Illustration)	1
26496	Insulator between Blades 26497 and 26524 (Not shown in Illustration)	2
23710	Insulating Washer for Blades 26497 and26524	2
23717	Plain Washer for Stop Wheel Assembly 12143 (Thick)	1
25473	Plain Washer for Stop Wheel Assembly 12143 (Thin)	1
23908	Plain Washer for Blade 26524 (Thick)	1
23711	Nut for clamping Blade Assembly 13290	1
26526	Lock Washer for Nut 23711	1
23909	Plain Washer for Nut 23711	1
13291	**Blade Assembly Complete (For Lighting)** (Includes the next 14 Items)	1
13324	**Stud Assembly** (Includes the next Item)	1
23747	Pin for Stud Assembly 13324 (Not shown in Illustration)	1
12142	**Stop Wheel Assembly** (Includes the next Item)	1
23946	Stud for Stop Wheel Assembly 12142 (Not shown in Illustration)	1
26527	Insulating Bushing for Stop Wheel Assembly 12142	1
30635	Insulating Bushing for Stud Assembly 13324 (Not shown in Illustration)	1
26544	Blade for Blade Assembly 13291	2
23717	Plain Washer for Stop Wheel Assembly 12142 (Thick)	1
25473	Plain Washer for Stop Wheel Assembly 12142 (Thin)	2
23710	Insulating Washer for Blade 26544	1
23908	Plain Washer for Blade 26544 (Thick)	1
23909	Plain Washer for Nut 23711	1
26526	Lock Washer for Nut 23711	1
23711	Nut for clamping Blade Assembly 13291	1
13039	**Lock Assembly for Locking Switch** (Includes the next Item)	2
29962	Key for Lock Assembly 13039 (Give Series No. of Lock)	1
10930	**Tumbler Assembly for locking Switch** (Includes the next Item)	1
23738	Stud for Tumbler Assembly 10930 (Not shown in Illustration)	2
23793	Lever for operating Blade Assemblies 13290 and 13291	2
23745	Screw for retaining Lever 23793	1
27014	Roller Bracket for retaining Roller 27013	2
27013	Roller for Blade Assemblies 13290 and 13291	2
23774	Spring for Roller Bracket 27014	1
23776	Spring for Tumbler Assembly 10930	1
28295	Mounting Plate (Back of Switch)	1
23674	Brush for Terminal No. 5 (Lower)	4
23687	Brush for Terminals No. 2, 3, 5 and 6 (Upper)	

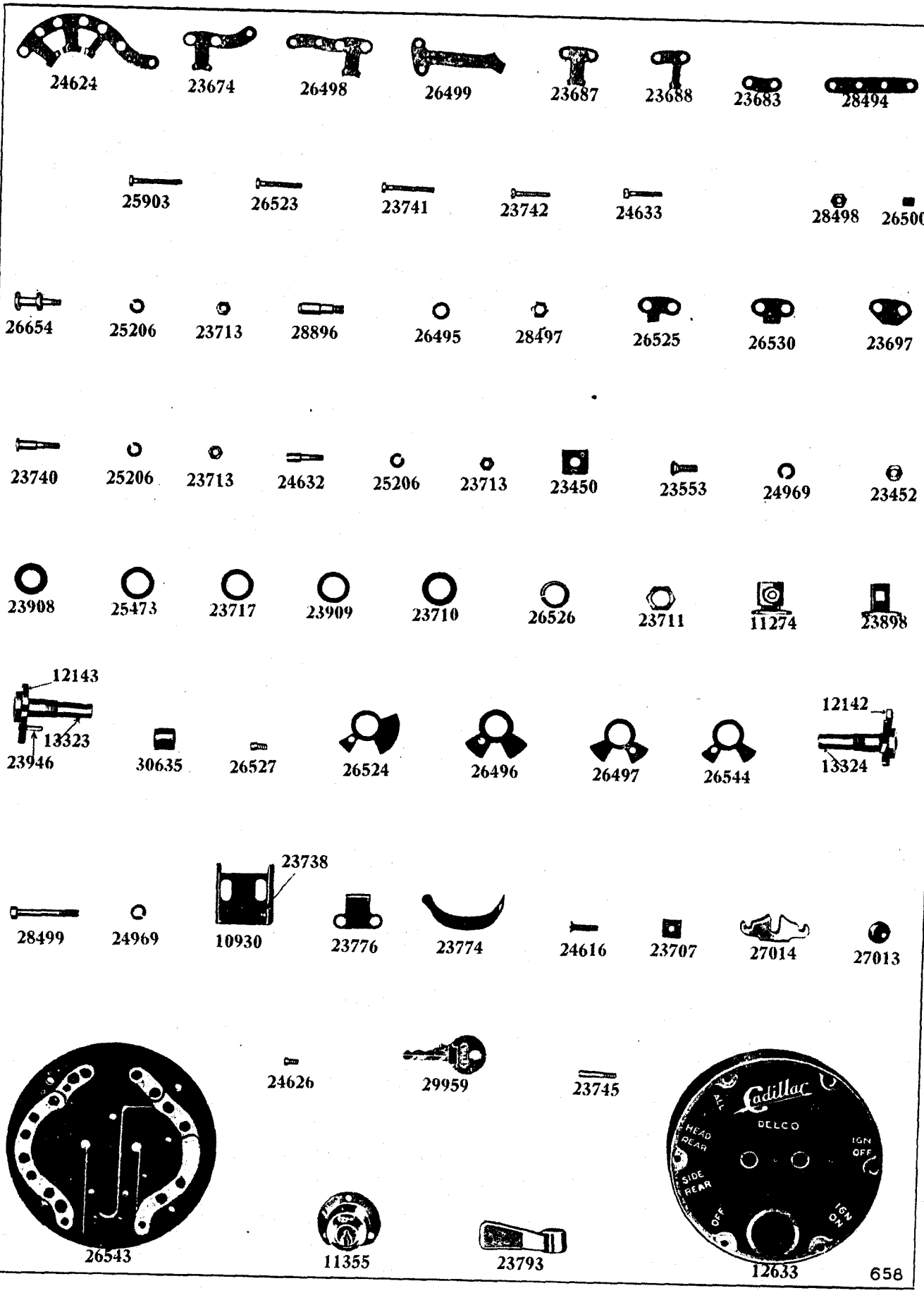

13324
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25473
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12143
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23908
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23717
23711
26526
23898
23450
24775
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23740
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24624
28557
23687
23688
28483
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23564
23776
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23707
26530
23697
26525
28308
23691
28485
23742
25903
26523
23735
24969
23683
24774
24626
Serial No. & Letters of Lock.
10930
24632
25206
23713
28896
26495
23712
28235
23368
26498
28486
23741
26500
23674
23374
23793
23745
28295
23603
23375
28315
23606
13111
ALL
HEAD REAR
SIDE REAR
OFF
Cadillac
DELCO
IGN OFF
IGN ON
419

No. 1069 COMBINATION SWITCH (Continued)

Piece Number	NAME OF PART	Quantity Required
26496	Insulator between Blades 26497 and 26524	1
23710	Insulating Washer for Blades 26497 and 26524	2
23717	Plain Washer for Stop Wheel Assembly 12143 (Thick)	2
25473	Plain Washer for Stop Wheel Assembly 12143 (Thin)	1
23908	Plain Washer for Blade 26524 (Thick)	1
23711	Nut for clamping Blade Assembly 13290	1
26526	Lock Washer for Nut 23711	1
23909	Plain Washer for Nut 23711	1
13291	**Blade Assembly Complete (For Lighting)** (Includes the next 13 Items)	1
13324	**Stud Assembly** (Includes the next Item)	1
23747	Pin for Stud Assembly 13324 (Not shown in Illustration)	1
12142	**Stop Wheel Assembly** (Includes the next Item)	1
23946	Stud for Stop Wheel Assembly 12142 (Not shown in Illustration)	1
26527	Insulating Bushing for Stop Wheel Assembly 12142	1
30635	Insulating Bushing for Stud Assembly 13324	1
26544	Blade for Blade Assembly 13291	1
23717	Plain Washer for Stop Wheel Assembly 12142 (Thick)	2
25473	Plain Washer for Stop Wheel Assembly 12142 (Thin)	1
23710	Insulating Washer for Blade 26544	2
23908	Plain Washer for Blade 26544 (Thick)	1
23909	Plain Washer for Nut 23711	1
26526	Lock Washer for Nut 23711	1
23711	Nut for clamping Blade Assembly 13291	1
31009	Plain Washer for Blade Assemblies 13290 and 13291 (Not shown in Illustration)	2
23375	Terminal Clip for connecting Switch (Large) (Not shown in Illustration)	2
23374	Terminal Clip for connecting Switch (Small) (Not shown in Illustration)	6

No. 1069 COMBINATION SWITCH

Piece Number	NAME OF PART	Quantity Required
1069	**COMBINATION SWITCH COMPLETE**	1
12633	**Housing Assembly** (Includes next 2 Items)	1
27586	Escutcheon Plate for Switch	6
27229	Rivet for retaining Plate 27586	1
11355	**Lock Assembly Complete** (Includes the next Item)	2
29959	Key for Lock Assembly 11355 (Give Series No. of Lock)	1
10930	**Tumbler Assembly for locking Switch** (Includes the next Item)	1
23738	Stud for Tumbler Assembly 10930	1
26543	Mounting Plate for Terminal Post	8
23898	Terminal Plate	8
23553	Screw for retaining Clip 23450	8
23452	Nut for Screw 23553	8
20393	Lock Washer for Nut 23452	8
23450	Clip for retaining Terminal Clip	2
27013	Roller for Blade Assemblies 13290 and 13291	1
27014	Roller Bracket for Roller 27013	1
23674	Brush for Terminal No. 5 (Lower)	4
23687	Brush for Terminals No. 2, 3, 5 and 6 Upper)	1
23688	Brush for Terminal No. 1 (Upper)	1
26499	Brush for connecting Terminal No. 8 and Blade Assembly 13290	1
24624	Brush for Terminals Nos. 1, 2 and 3 (Lower)	1
26498	Brush for Terminals Nos. 7 and 6 (Lower)	1
26654	Stud for retaining Roller Bracket 27014	5
23713	Nut for Stud 26654 and Screws 23740 and 24632	5
25206	Lock Washer for Nut 23713	2
23740	Screw for retaining Tumbler Assembly 10930	2
24632	Stop Screw for Blade Assemblies 13290 and 13291	1
23776	Spring for Tumbler Assembly 10930	2
28896	Stud for retaining Blade Assemblies 13290 and 13291	2
23712	Nut for retaining Stud 28896	2
20495	Lock Washer for Nut 23712	4
23735	Screw for retaining Housing Assembly 12633	4
20393	Lock Washer for Screw 23735	2
26523	Screw for retaining Terminal No. 7	10
25903	Screw for retaining Terminals Nos. 1, 2, 3, 5 and 6	2
23793	Lever for operating Blade Assemblies 13290 and 13291	2
23745	Screw for retaining Lever 23793	2
24633	Screw for retaining Terminal No. 8	1
24616	Screw for retaining Spring 23774	2
23774	Spring for Roller Bracket 27014	2
23668	Nut for retaining Terminal Plate 23691	1
23691	Terminal Plate under Terminal No. 4	1
23683	Plate for retaining Screw 23741	1
23741	Screw for retaining Terminal No. 4	2
23742	Screw for retaining Brushes 23674 and 24624 (Short Screws)	1
23707	Nut for Screw 24616	3
24626	Screw for retaining Lock Assembly 11355	10
26500	Insulating Bushing for Screw 25903	1
23697	Insulating Plate for Terminal No. 6 (Lower)	12
26530	Insulating Plate for Terminals No. 2, 3 and 5	3
26525	Insulating Plate for Terminal No. 1	1
23696	Insulating Plate for Terminal No. 6	1
13290	**Blade Assembly Complete (For Ignition)**	1
13323	**Stud Assembly** (Includes the next Item)	1
23747	Pin for Stud Assembly 13323 (Not shown in Illustration)	1
12143	**Stop Wheel Assembly** (Includes the next Item)	1
23946	Stud for Stop Wheel Assembly 12143	1
26527	Insulating Bushing for Stop Wheel Assembly 12143	1
30635	Insulating Bushing for Stud Assembly 13323	1
26497	Blade for Blade Assembly 13290 (Lower)	1
26524	Blade for Blade Assembly 13290 (Upper)	



No. 1069 COMBINATION SWITCH

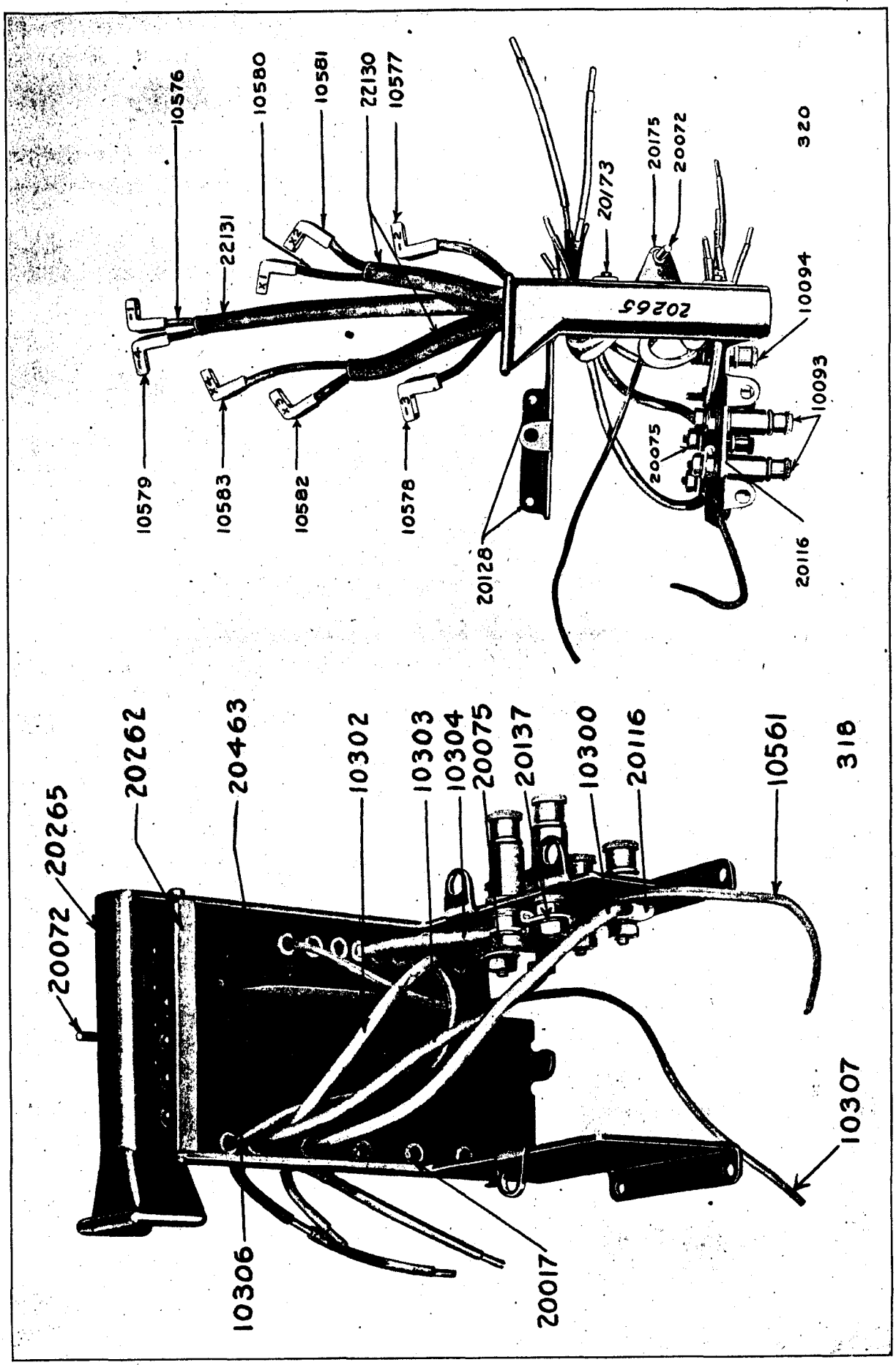
No. 1062 COMBINATION SWITCH (Continued)

Piece Number	NAME OF PART	Quantity Required
23908	Plain Washer for Blade 26524 (Thick)	1
23711	Nut for Clamping Blade Assembly 13290	1
26526	Lock Washer for Nut 23711	1
23909	Plain Washer for Nut 23711	1
25473	Plain Washer for Blade 26524 (Thin)	1
13291	**Blade Assembly Complete (For Lighting)**	1
	(Includes the next 13 Items)	1
13324	**Stud Assembly**	
	(Includes the next Item)	1
23747	Pin for Stud Assembly 13324 (Not shown in Illustration)	1
12142	**Stop Wheel Assembly**	1
	(Includes the next Item)	1
23946	Stud for Stop Wheel Assembly 12142 (Not shown in Illustration)	1
26527	Insulating Bushing for Stop Wheel Assembly 12142	1
30635	Insulating Bushing for Stud Assembly 13324	1
26544	Blade for Blade Assembly 13291	1
23717	Plain Washer for Stop Wheel Assembly 12142 (Thick)	1
25473	Plain Washer for Stop Wheel Assembly 12142 (Thin)	2
23710	Insulating Washer for Blade 26544	1
23908	Plain Washer for Blade 26544 (Thick)	2
23909	Plain Washer for Nut 23711	1
26526	Lock Washer for Nut 23711	1
23711	Nut for clamping Blade Assembly 13291	1
23375	Terminal Clip for connecting Switch (Large) (Not shown in Illustration)	1
23374	Terminal Clip for connecting Switch (Small) (Not shown in Illustration)	2
		6

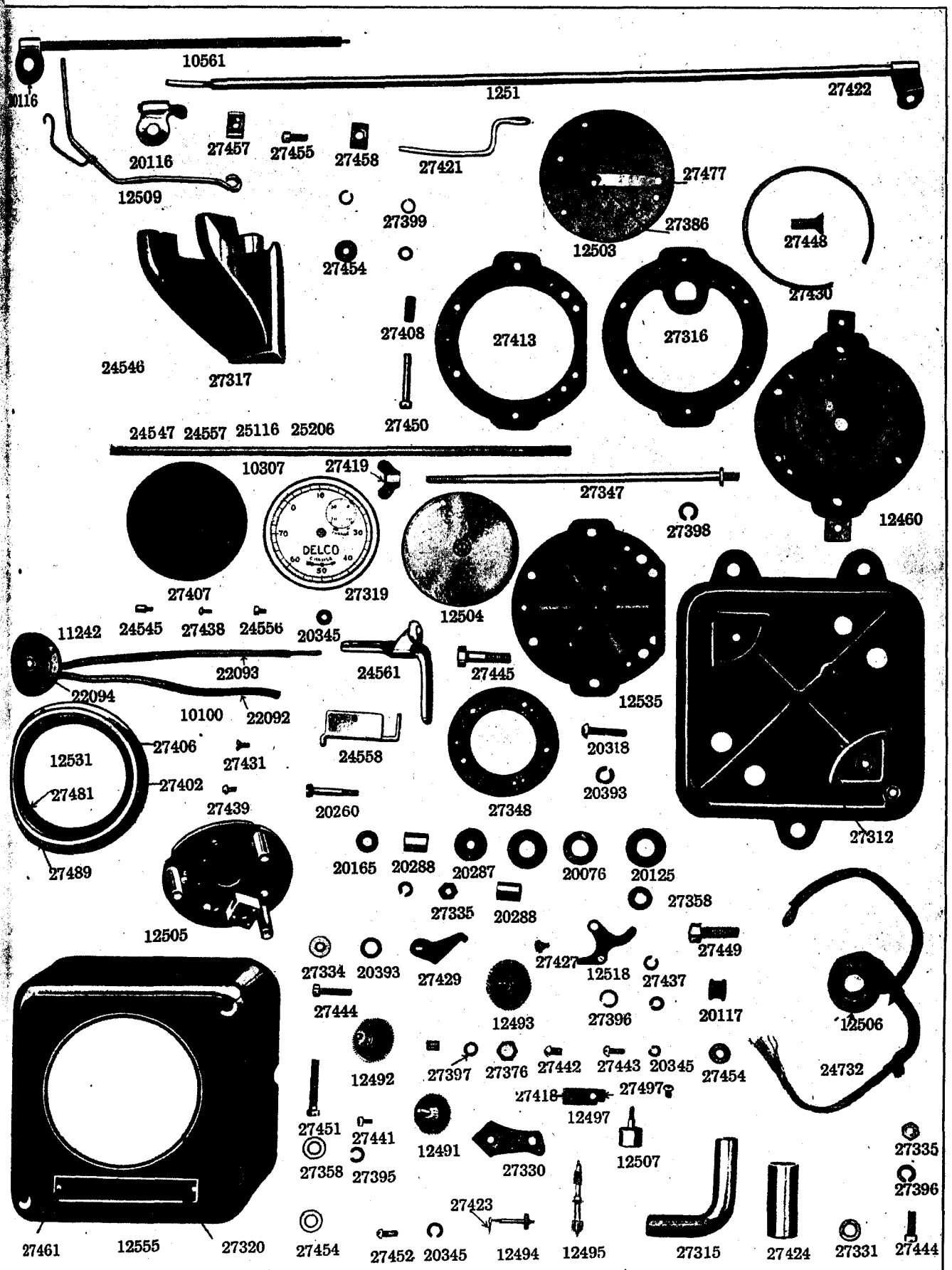
No. 1062 COMBINATION SWITCH

Note: No. 1062 Combination Switch superseded by No. 1069 Combination Switch. When ordering a complete new unit, order No. 1069.

Piece Number	NAME OF PART	Quantity Required
1062	**COMBINATION SWITCH COMPLETE**	1
14631	**Housing Assembly**	1
11355	**Lock Assembly Complete** (Includes the next Item)	1
29959	Key for Lock Assembly 11355 (Give Series No. of Lock)	2
10930	**Tumbler Assembly for Locking Blade Assemblies 13290 and 13291** (Includes the next Item)	1
23738	Stud for Tumbler Assembly 10930 (Not shown in Illustration)	1
26543	Mounting Plate for Terminal Post 23898	1
23898	Terminal Post	8
23553	Screw for retaining Clip 23450	8
23452	Nut for Screw 23553	8
20393	Lock Washer for Nut 23452	8
23450	Clip for retaining Terminal Clip	8
27013	Roller for Blade Assemblies 13290 and 13291	2
27014	Roller Bracket for Roller 27013	1
23674	Brush for Terminal No. 5 (Lower)	1
23687	Brush for Terminals Nos. 2, 3, 5 and 6 (Lower)	4
23688	Brush for Terminal No. 1 (Upper)	1
26499	Brush for connecting Terminal No. 8 and Blade Assembly 13290)	1
24624	Brush for Terminals Nos. 1, 2 and 3 (Lower)	1
26498	Brush for Terminals Nos. 7 and 6 (Lower)	1
26654	Stud for retaining Roller Bracket 27014	1
23713	Nut for Stud 26654 and Screws 23740 and 24632	5
25206	Lock Washer for Nut 23713	5
23740	Screw for retaining Tumbler Assembly 10930	2
24632	Stop Screw for Blade Assemblies 13290 and 13291	2
23776	Spring for Tumbler Assembly 10930	1
28896	Stud for retaining Blade Assemblies 13290 and 13291	2
23712	Nut for retaining Stud 28896	2
20495	Lock Washer for Nut 23712	2
23735	Screw for retaining Housing Assembly 12144	4
20393	Lock Washer for Screw 23735	4
26523	Screw for retaining Terminal No. 7	2
25903	Screw for retaining Terminals Nos. 1, 2, 3, 5 and 6	10
23793	Lever for operating Blade Assemblies 13290 and 13291	2
23745	Screw for retaining Lever 23793	2
24633	Screw for retaining Terminal No. 8 (Not shown in Illustration)	2
24616	Screw for retaining Spring 23774	1
23774	Spring for Roller Bracket 27014	2
23668	Nut for retaining Terminal Plate 23691 (Not shown in Illustration)	2
23691	Terminal Plate under Terminal No. 4	1
23683	Plate for retaining Screw 23741	1
23741	Screw for retaining Terminal No. 4	2
23742	Screw for retaining Brushes 23674 and 24624 (Short Screw)	2
23707	Nut for Screw 24616	1
24626	Screw for retaining Lock Assembly 11355	3
26500	Insulating Bushing for Screw 25903	10
23697	Insulating Plate for Terminal No. 6 (Lower)	1
26530	Insulating Plate for Terminals Nos. 2, 3 and 5	12
23698	Insulating Plate for Terminal No. 1 (Not shown in Illustration)	3
23696	Insulating Plate for Terminal No. 6 (Not shown in Illustration)	1
13290	**Blade Assembly Complete (For Ignition)** (Includes the next 15 Items)	1
13323	**Stud Assembly** (Includes the next Item)	1
23747	Pin for Stud Assembly 13323 (Not shown in Illustration)	1
12143	**Stop Wheel Assembly** (Includes the next Item)	1
23946	Stud for Stop Wheel Assembly 12143 (Not shown in Illustration)	1
26527	Insulating Bushing for Stop Wheel Assembly 12143	1
30635	Insulating Bushing for Stud Assembly 13323	1
26497	Blade for Blade Assembly 13290 (Lower)	1
26524	Blade for Blade Assembly 13290 (Upper)	1
26496	Insulator between Blades 26497 and 26524	2
23710	Insulating Washer for Blades 26497 and 26524	1
23717	Plain Washer for Stop Wheel Assembly 12143 (Thick)	2
25473	Plain Washer for Stop Wheel Assembly 12143 (Thin)	1

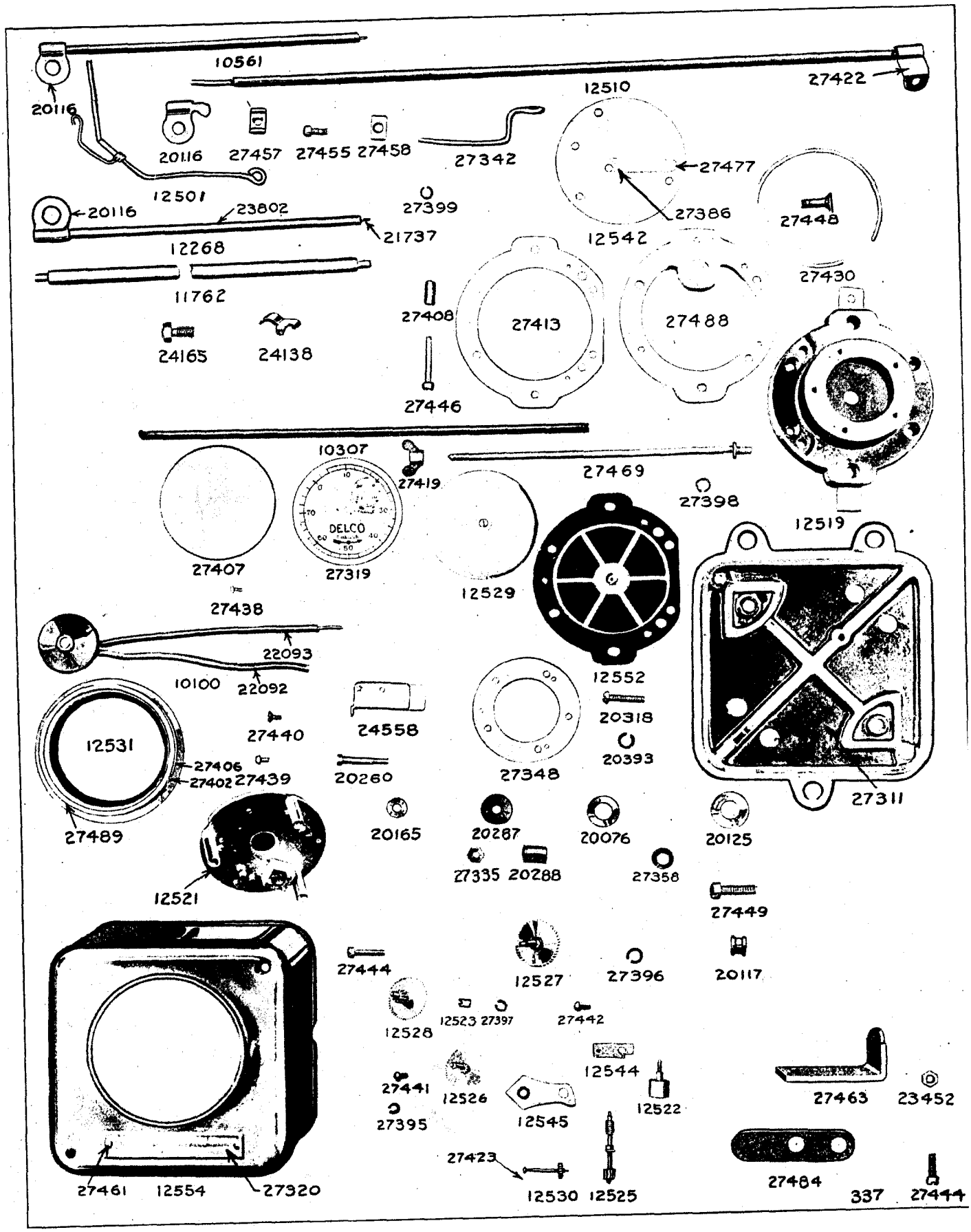


No. 5401 BATTERY BOX

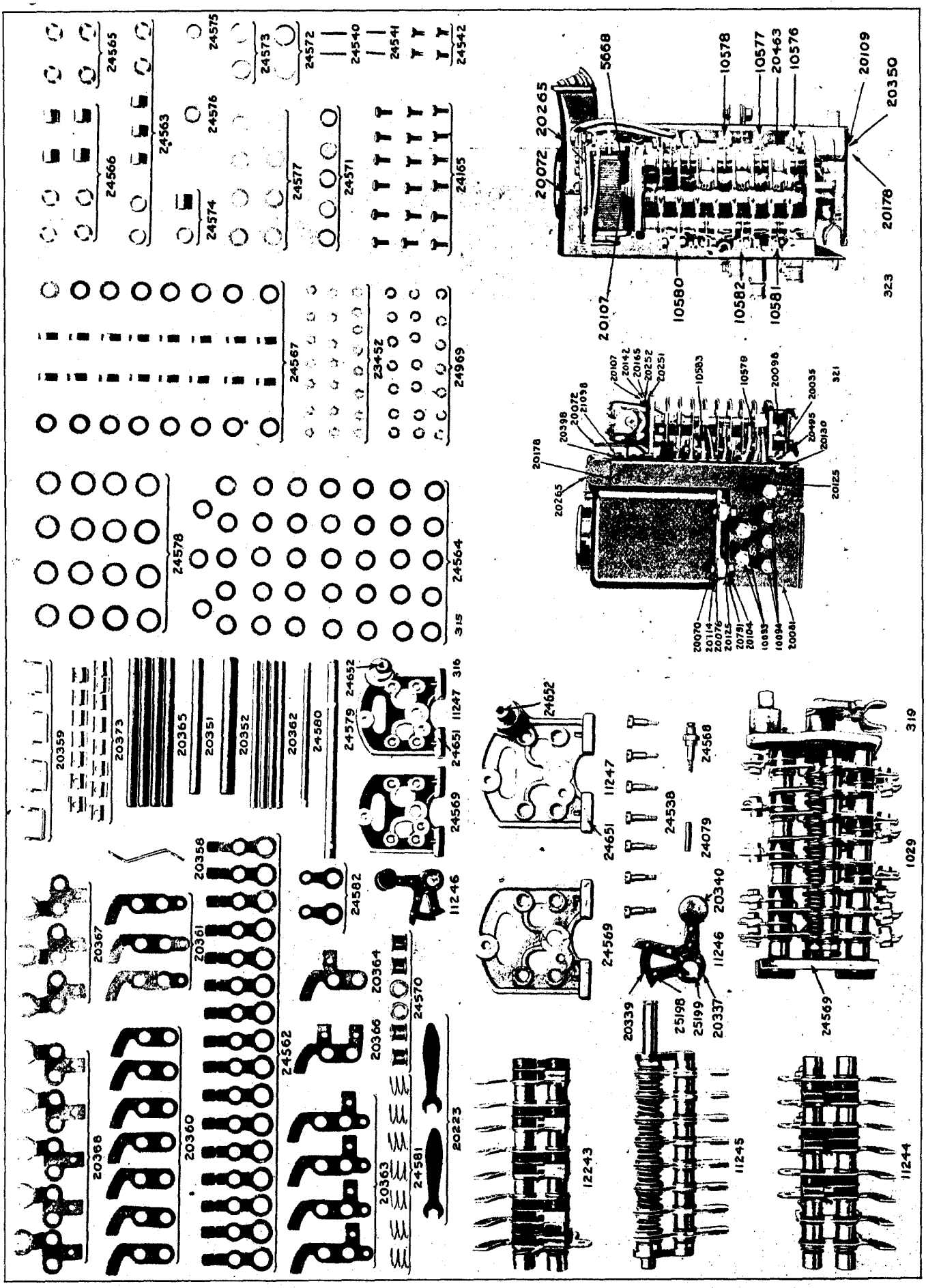


No. 5401 BATTERY BOX

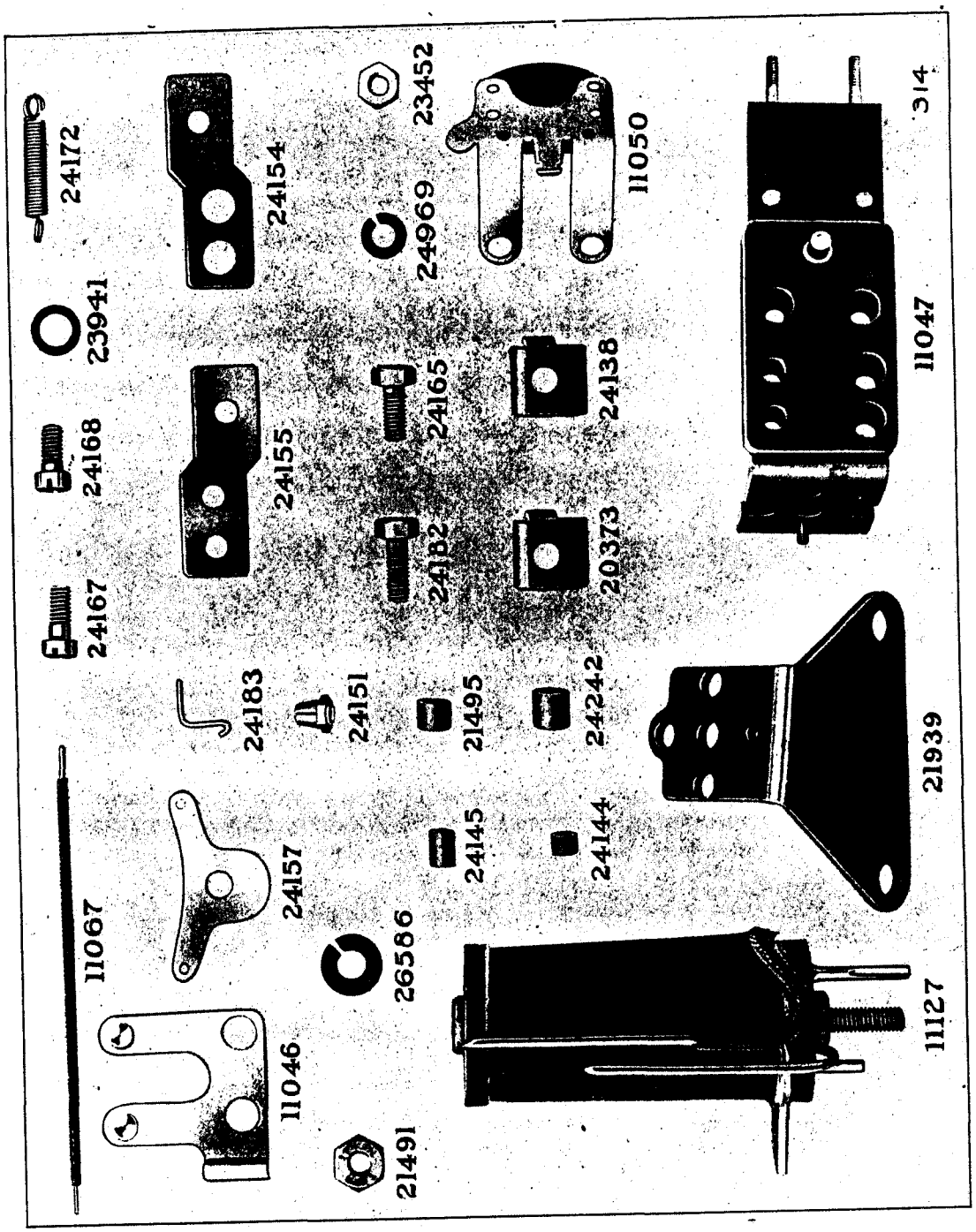
THE DAYTON ENGINEERING LABORATORIES CO., DAYTON, OHIO



No. 5401 BATTERY BOX



No. 5401 BATTERY BOX



No. 5401 BATTERY BOX

No. 5401 BATTERY BOX

Piece Number	NAME OF PART	Quantity Required
5401	**BATTERY BOX COMPLETE**	1
10099	**Controller Bracket Assembly Complete for Battery Box Base Assembly 10533** (Includes the next 305 Items)	1
10091	**Controller Bracket Assembly (Not shown in Illustration)** (Includes the next 4 Items)	1
10090	**Controller Cover Clamp Stud Assembly Complete (Not shown in Illustration)** (Includes the next Item)	1
20072	Stud for Controller Cover Clamp Stud Assembly 10090	1
20197	Rivet for Bracket (Not shown in Illustration)	3
20130	Guide Stud for Cover Assembly 10108	2
20262	Conduit for retaining Battery Leads (Fiber Block)	1
20178	Screw for Conduit 20262	2
20265	Condulet for covering Battery Leads (Metal)	1
21098	Screw for Condulet 20265	2
20393	Lock Washer for Screw 21098	2
10094	**Spring Terminal for Bracket 20082 (Short)**	6
10095	**Controller Lead Assembly Complete for connecting Controller Switch** (Includes the next 14 Items)	1
10300	**Lead Assembly from Terminal No. 1 on Controller Bracket to the Fourth Terminal from the Bottom, on the Right Side of Controller Switch** (Includes the next 2 Items)	1
20116	Clip for Lead Assembly 10300	1
21737	Ferrule for Lead Assembly 10300 (Not shown in Illustration)	1
10561	**Lead Assembly from Terminal No. 2 on Controller Bracket to B. on Meter Contact Assembly 10766** (Includes the next Item)	1
20116	Clip for Lead Assembly 10561	1
10302	**Lead Assembly from Terminal No. 4 on Controller Bracket to Third Terminal from the Top on the Right Side of Controller Switch** (Includes the next 2 Items)	1
21737	Ferrule for Lead Assembly 10302 (Not shown in Illustration)	1
20116	Clip for Lead Assembly 10302	1
10303	**Lead Assembly from Terminal No. 5 on Controller Bracket to the Second Terminal from the Top on Right Side of Controller Switch** (Includes the next 2 Items)	1
20116	Clip for Lead Assembly 10303	1
21737	Ferrule for Lead Assembly 10303 (Not shown in Illustration)	1
10304	**Lead Assembly from Terminal No. 6 on Controller Bracket to the First Terminal from the Bottom on Left Side of Controller Switch** (Includes the next 2 Items)	1
20116	Clip for Lead Assembly 10304	1
21737	Ferrule for Lead Assembly 10304 (Not shown in Illustration)	1
20115	Insulating Bushing for Spring Terminal Assembly 10094 (Not shown in Illustration)	6
20125	Insulating Washer for Spring Terminal Assembly 10094 (Not shown in Illustration)	6
20076	Insulating Washer for Spring Terminal Assembly 10094 (Not shown in Illustration)	6
20137	Lock Washer for Nut 20075	6
20114	Plain Washer for Nut 20075 (Not shown in Illustration)	6
20075	Nut for Spring Terminal Assembly 10094	12
20117	Insulating Bushing for Bracket 20082	16
20272	Wire (Relay Controller Lead Wire) (Not shown in Illustration)	1
10096	**Battery Lead Assembly Complete (Not shown in Illustration)** (Includes the next 10 Items)	1
10580	**Lead Assembly from Positive Terminal on Battery to the Second Terminal from the Top on the Left Side of Controller Switch** (Includes the next Item)	1
22237	Ferrule for Lead Assembly 10580 (Not shown in Illustration)	1
10581	**Lead Assembly from Positive No. 2 Terminal on Battery to the Second Terminal from the Bottom on the Left Side of Controller Switch** (Includes the next Item)	1
22237	Ferrule for Lead Assembly 10581 (Not shown in Illustration)	1
10582	**Lead Assembly from Positive No. 3 Terminal on Battery to the Fourth Terminal from the Bottom on the Left Side of Controller Switch** (Includes the next Item)	1
22237	Ferrule for Lead Assembly 10582 (Not shown in Illustration)	1
10583	**Lead Assembly from Positive No. 4 on Battery to the Third Terminal from the Top on the Left Side of Controller Switch** (Includes the next Item)	1
22237	Ferrule for Lead Assembly 10583 (Not shown in Illustration)	1
10576	**Lead Assembly from Negative No. 1 on Battery, to the First Terminal from the Bottom, on Right Side of Switch** (Includes the next Item)	1
22237	Ferrule for Lead Assembly 10576 (Not shown in Illustration)	1

No. 5401 BATTERY BOX (Continued)

Piece Number	NAME OF PART	Quantity Required
10577	**Lead Assembly from Negative No. 2 on Battery to the Second Terminal from the Bottom on the Right Side of Controller Switch**	1
	(Includes the next 2 Items)	
22237	Ferrule for Lead Assembly 10577 (Not shown in Illustration)	1
10578	**Lead Assembly from Negative No. 3 on Battery to the Third Terminal from the Bottom on the Right Side of Controller Switch**	1
	(Includes the next Item)	
22237	Ferrule for Lead Assembly 10578 (Not shown in Illustration)	1
10579	**Lead Assembly from Negative No. 4 on Battery to the First Terminal from the Bottom on the Right Side of Controller Switch**	1
	(Includes the next Item)	
22237	Ferrule for Lead Assembly 10579 (Not shown in Illustration)	1
22130	Tube for Lead Assemblies 10582, 10583, 10580 and 10581	2
22131	Tube for Lead Assemblies 10576 and 10579	1
13476	**Ampere Hour Meter Assembly Complete**	1
	(Includes the next 120 Items)	
	(13476 Ampere Hour Meter Assembly has a single set of Magnets. 10101 Amper Hour Meter Assembly has two sets of Magnets. When ordering repair parts, order for the correct Meter. The two Amper Hour Meters as a whole are interchangeable. When ordering a complete new Ampere Hour Meter always order 10101. The above Ampere Hour Meter must be returned to Delco when any extensive repairs are required or when it is necessary to disassemble the unit to make internal repairs or adjustments. Delco will furnish parts for minor repairs that can be easily taken care of in the field.	
10100	**Resistance Button Assembly Complete**	1
	(Includes the next 2 Items)	
22092	Lead for Simplex Resistance Button 22094 (Short)	1
22093	Lead for Simplex Resistance Button 22094 (Long)	1
20125	Insulating Washer for Resistance Button Assembly 10100 and Meter Base 28311 (Large)	4
20287	Insulating Washer for Resistance Button Assembly 10100 (Small)	1
20318	Screw for retaining Resistance Button Assembly 10100	1
20165	Plain Washer for Screw 20318	1
20288	Insulating Bushing for Meter Base 27311	3
20076	Insulating Washer for Meter Base 27311 (Small)	3
10766	**Contact Assembly**	1
	(Includes the next 2 Items)	
24556	Screw for attaching Guard 24558	2
24558	Guard for Contact Assembly 10766	1
20260	Screw for retaining Contact Assembly 10766	2
20393	Lock Washer for Screw 20260 and Nut 23452	4
20117	Insulating Bushing for Meter Base 27311	4
11762	**Lead Assembly from Terminal No. 2 on Meter, attached to Lead Assembly 10579 at Terminal on Controller Switch**	1
21737	Ferrule for Lead Assembly 11762	1
12268	**Lead Assembly from Terminal No. 3 on Controller Bracket to Terminal No. 1 on Meter**	1
	(Includes the next 2 Items)	
20116	Clip for Lead Assembly 12268	1
21737	Ferrule for Lead Assembly 12268	1
10307	**Lead Assembly from (C) on Meter Contact to the First Terminal from Top on Left Side of Controller Switch**	1
	(Includes the next Item)	
21737	Ferrule for Lead Assembly 10307	1
10561	**Lead Assembly from Terminal No. 2 on Controller Bracket to (B) on Meter Contact**	1
	(Includes the next Item)	
20116	Clip for Lead Assembly 10561	1
24165	Screw for Meter Terminals	2
23452	Nut for Screw 24165	2
24138	Clip for Meter Terminals	2
12554	**Case Assembly Complete**	1
	(Includes the next 2 Items)	
27320	Name Plate for Case 27313	1
27461	Pin for retaining Name Plate 27320	2
12520	**Large Hand Assembly**	1
12542	**Train Plate Assembly**	1
	(Includes the next 2 Items)	
27386	Spring for Train Plate Assembly 12542	1
27477	Rivet for Spring 27386	1
12530	**Fifth Staff Assembly**	1
12528	**Fourth Staff Assembly**	1
12527	**Third Staff Assembly**	1
12526	**Second Staff Assembly**	1
12525	**Worm Staff Assembly**	1
12544	**Bracket Assembly for Worm Staff Assembly 12525**	1
	(Includes the next Item)	
27466	Pin for Bracket Assembly 12544 (Not shown in Illustration)	1

No. 5401 BATTERY BOX (Continued)

Piece Number	NAME OF PART	Quantity Required
12521	**Hopper Plate Assembly**	1
	(Includes the next 6 Items)	
12545	**Bridge Assembly**	1
27441	Screw for attaching Bridge Assembly 12545	1
27395	Lock Washer for Screw 27441	1
27475	Support for Worm Staff Assembly 12525 (Not shown in Illustration)	1
27484	Bracket for Worm Staff Assembly 12525	1
27479	Rivet for retaining Bracket 27484 (Not shown in Illustration)	2
12523	**Bearing Assembly (Upper)**	1
12519	**Armature Box Assembly**	1
12522	**Worm Spindle Assembly**	1
12529	**Armature Assembly**	1
12552	**Pole Plate Assembly**	1
12531	**Bezel Ring Assembly Complete**	1
	(Includes the next 7 Items)	
12551	**Bezel Ring Assembly (Not shown in Illustration)**	1
	(Includes the next 2 Items)	
27489	Ring for Bezel Ring Assembly 12551	1
27402	Dowel Pin for Ring 27489	2
27406	Snap Ring for Bezel Ring Assembly 12531	1
27407	Glass for Bezel Ring Assembly 12531	1
27430	Bezel Ring for Bezel Ring Assembly 12531	1
27481	Gasket for Glass 27407 (Not shown in Illustration)	1
27311	Base for Ampere Hour Meter Assembly 6077	1
27319	Dial for Ampere Hour Meter Assembly 6077	1
28471	Nut for Screw 27446	2
27348	Washer for Hopper Plate Assembly 12521 (Small Gasket)	1
27358	Plain Washer for Screw 27446	2
13839	**Magnet Assembly**	1
	(Includes the next Item)	
27448	Screw for Magnet Assembly 13839	4
27376	Nut for Bearing Assembly 12523	1
26088	Spacing Washer for damping Pole (Not shown in Illustration)	4
27395	Lock Washer for Screws 27439, 27441, 27442 and 27465	10
27396	Lock Washer for Screws 27446 and 27444	8
27397	Lock Washer for Nut 27376	1
27398	Lock Washer for Stud 27469	2
27399	Lock Washer for Screws 27449 and 27446	5
27408	Insulator for Screw 27446	2
27413	Washer for Armature Box Assembly 12519 (Large Gasket)	1
27419	Nut for Stud 27469 (Wing Nut)	2
20117	Insulating Bushing for Meter Base 27311	4
27423	Small Hand for Third Staff Assembly 12527	1
27438	Screw for mounting Dial 27319	3
27439	Screw for Bracket 27464 (Small)	1
27440	Screw for mounting Train Plate Assembly 12542 (Flat Head)	1
27442	Screw for mounting Hopper Plate Assembly 12521	1
27444	Screw for Meter Terminals and for retaining Clamp Ring 27488	6
27446	Screw for mounting Armature Box Assembly 12519	2
27449	Screw for retaining Meter Base 27311	2
	(Includes the next 3 Items)	
14189	**Clamp Assembly (Not shown in Illustration)**	1
27455	Screw for connecting Friction Slider 27457 and Friction Clamp 27458	1
27457	Friction Slider for connecting Right Hand Shunt Lead Assembly 12501 and Left Hand Shunt Lead 27342	1
27458	Friction Clamp for connecting Right Hand Shunt Lead Assembly 12501 and Left Hand Shunt Lead 27342	1
27459	Insulating Tube for Case Stud 27469 (Not shown in Illustration)	2
27463	Ear Clip for Metal Terminals	2
27464	Bracket for Armature Box Assembly 12519 (Not shown in Illustration)	1
27465	Screw for Train Plate Assembly 12542 (Head Milled Down) (Not shown in Illustration)	2
27469	Case Stud for mounting Case Assembly 12554	2
27482	Gasket on Meter Base 27311 for Case Assembly 12554 (Not shown in Illustration)	1
27488	Clamp Ring under Pole Plate Assembly 12552	1
12501	**Right Hand Shunt Lead Assembly**	1
27342	Left Hand Shunt Lead, connecting Meter Terminal and Right Hand Shunt Lead Assembly 12501	1
10101	**Ampere Hour Meter Assembly Complete**	1
	(Includes the next 134 Items)	
	(No. 13476 Ampere Hour Meter Assembly has a single set of Magnets, the No. 10101 Ampere Hour Meter Assembly has two sets of Magnets. When ordering repair parts, order for the correct Meter. The two Ampere Hour Meters are interchangeable as a whole. When ordering a complete new Ampere Hour Meter, always order No. 10101. The above Ampere Hour Meter must be returned to Delco when any extensive repairs are required or when it is necessary to disassemble the unit to make internal repairs or adjustment. Delco will furnish parts for minor repairs that can be easily taken care of in the field.	

No. 5401 BATTERY BOX (Continued)

Piece Number	NAME OF PART	Quantity Required
20117	Insulating Bushing for Meter Base 23712	4
10100	**Resistance Button Assembly** (Includes the next 2 Items)	1
22092	Lead (Short) for Resistance Button	1
22093	Lead for Simplex Resistance Button (Long)	1
20125	Insulating Washer for Resistance Button Assembly 10100 (Large)	1
20287	Insulating Washer for Resistance Button Assembly 10100 (Small)	1
20165	Plain Washer for Resistance Button 10100	1
20318	Screw for mounting Resistance Button Assembly 10100	1
20288	Insulating Bushing for Screw 20070	3
20076	Insulating Washer for Screw 20070 (Large, for Top of Meter Base)	3
20125	Insulating Washer for Screw 20070 (Large, under Top of Meter Base)	3
10766	**Contact Assembly Complete (Not shown in Illustration)** (Includes the next 2 Items)	1
24556	Screw for mounting Guard 24558	2
24558	Guard for Contact Spring Assemblies	1
20260	Screw for retaining Contact Assembly 10766	2
20393	Lock Washer for Screw 20260	2
20345	Lock Washer for Nut 27334 on Meter Dial	1
12555	Case Assembly Complete with Name Plate (Cover for Meter) (Includes the next 2 Items)	1
27320	Name Plate for Case 27495	1
27461	Pin for retaining Name Plate 27320	2
12503	**Train Plate Assembly Complete** (Includes the next 2 Items)	1
27386	Lifting Spring for Train Plate 27393	1
27477	Rivet for Lifting Spring 27386	1
12493	**Center Staff Assembly**	1
12492	**Compound Staff for Driving Center Staff Assembly**	1
12491	**Worm Wheel Staff for Driving Compound Staff 12492**	1
12494	**Counting Staff for Small Indicator Hand 27423**	1
12495	**Worm Staff for Driving Worm Wheel Staff 12491**	1
12497	**Worm Wheel Bracket for Worm Staff Assembly 12495** (Includes the next Item)	1
27418	Pin for Worm Wheel Bracket 12497	1
12505	**Hopper Plate Assembly Complete (Lower Plate for mounting Compound Staff Assembly 12492 and Worm Wheel Staff 12491)** (Includes the next 3 Items)	1
27330	Bridge for Center Staff Assembly 12493	1
27441	Screw for retaining Bridge 27330	1
27395	Lock Washer for Screw 27441	1
12460	**Armature Box Assembly for Meter**	1
12523	**Upper Bearing Assembly (For Coupling Spindle Assembly 12507 (Not shown in Illustration)**	1
12507	**Coupling Spindle Assembly for Driving Worm Staff Assembly 12495**	1
12504	**Armature Assembly for Meter**	1
12535	**Pole Plate Assembly (For retaining Armature Assembly 12504)**	1
12506	**Compensation Coil Assembly Complete for Meter**	1
12509	**Right Hand Lead Assembly for connecting No. 1 and No. 2 Terminals on Meter**	1
27421	Left Hand Lead for connecting Right Hand Lead Assembly 12509 to Terminal No. 2 on Meter	1
14189	**Clamp Assembly (Not shown in Illustration)** (Includes the next 3 Items)	1
27458	Clamp (Outside) for connecting Right Hand Lead Assembly 12509 and Left Hand Lead 27421	1
27457	Slide(Inside) for connecting Right Hand Lead Assembly 12509 and Left Hand Lead 27421	1
27455	Screw for Clamp 27458 and Slide 27457	1
12518	**Contact Lever Assembly Complete for Operating Contact Assembly 10766**	1
12531	**Bezel Ring Assembly Complete** (Includes the next 7 Items)	1
12551	**Bezel Ring Assembly (Not shown in Illustration)** (Includes the next Item)	1
27402	Dowel Pin for Bezel Ring Assembly 12551	2
27406	Snap Ring for Bezel Ring Assembly 12531	1
27407	Glass for Bezel Ring Assembly 12531	1
27430	Spring for Bezel Ring Assembly 12531	1
27481	Gasket for Glass 27407 (Not shown in Illustration)	1
27312	Base for Ampere Hour Meter	1
13840	**Magnet Assembly** (Includes the next Item)	1
27448	Screw for Magnet Assembly 13840	8
26088	Spacing Washer for Damping Pole (Not shown in Illustration)	4
27315	Compensating Pole (Mounted in Compensating Coil Assembly 12506)	1
27316	Clamp Ring (Mounted between Pole Plate Assembly 12535 and Pole Pieces)	1
27319	Dial for Meter	1
27331	Washer between Compensating Pole 27315 and Driving Pole 27318	1
27334	Nut for retaining Hand Lever 27429 on Center Shaft Assembly 12493	1
28471	Hexagon Nut on Screw 27445	2
27347	Case Stud for Meter Case Assembly 12555	2

No. 5401 BATTERY BOX (Continued)

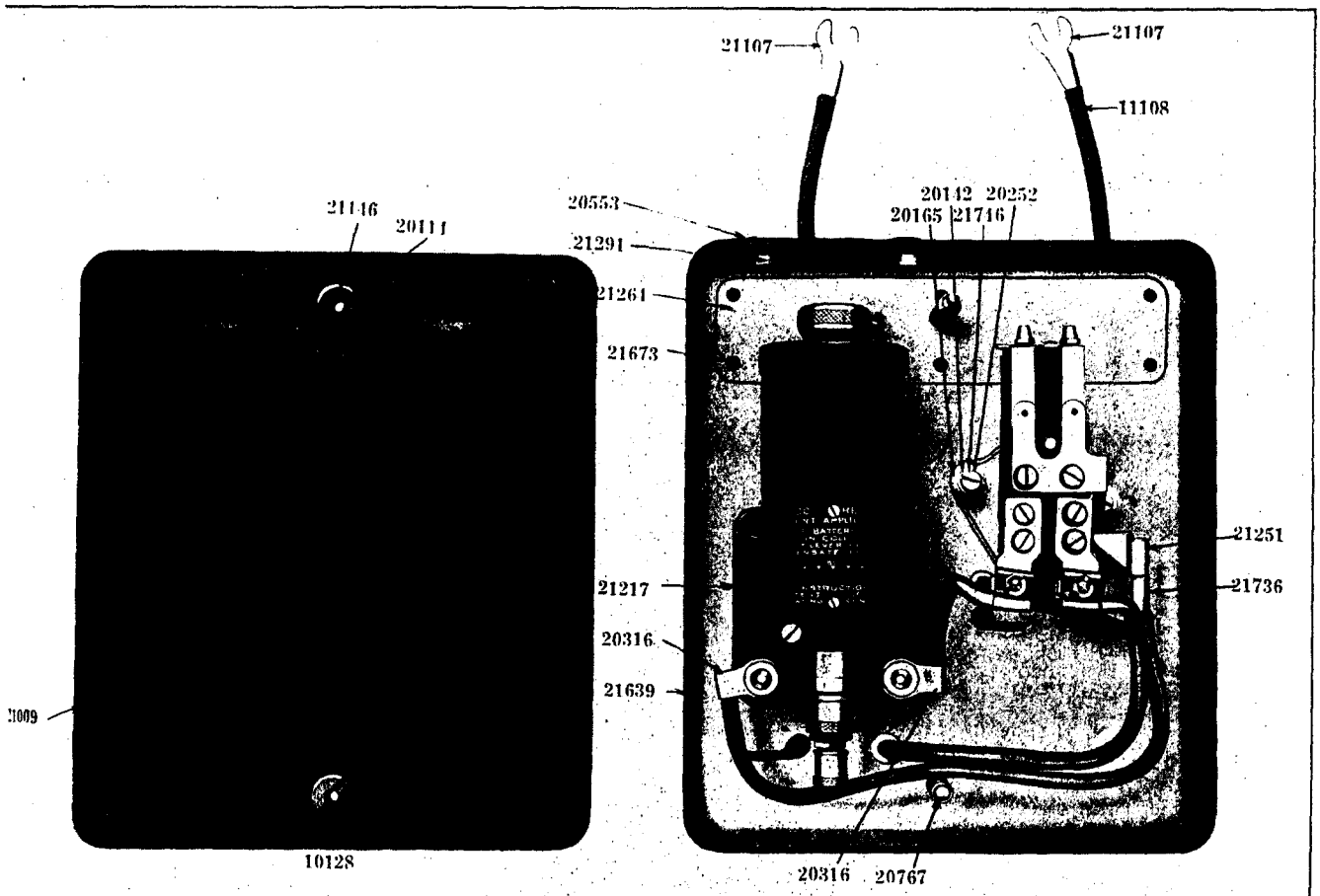
Piece Number	NAME OF PART	Quantity Required
27348	Washer for Hopper Plate Assembly 12505 (Small)	1
27358	Plain Washer for Screws 27444 and 27445	3
27376	Nut for Upper Bearing Assembly 12523	1
27395	Lock Washer for Screws 27452, 27439, 27443 and 27442	8
27396	Lock Washer for Screws 27450, 27444 and 27445, 27451	11
25397	Lock Washer for Nut 27376 (For Upper Bearing)	1
27398	Lock Washer for Case Stud 27347	2
27399	Lock Washer for Screw 27449	2
27431	Screw for mounting Upper Train Plate Assembly 12503 (Taper Head)	1
27408	Insulating Tube for Screw 27450	1
27413	Washer for Armature Box (Large Paper Gasket)	1
27419	Wing Nut for retaining Case Assembly 12555 (Wing Nut)	2
20117	Insulating Bushing for Insulating Leads through Meter Base 27312	4
27423	Small Indicator Hand on Dial 27319	1
27427	Screw for Contact Lever 27429	1
27429	Contact Lever for Operating Contact Assembly 10766	1
20810	Plain Washer under Contact Lever 27429 (Not shown in Illustration)	1
27438	Screw for mounting Dial 27319	3
27439	Screw for Train Plate Assembly 12503 (Round Head)	3
27442	Screw for Hopper Plate Assembly 12505 (Short Round Head)	3
27443	Screw for Hopper Plate Assembly 12505 (Long Round Head)	1
27444	Screw for mounting Armature Box Assembly 12460 and for Meter Terminal No. 1 (Short Fillister Head)	3
27445	Screw for Meter Terminal No. 2	1
27449	Screw for retaining Meter Base 27312	2
27450	Long Screw for Armature Box Assembly 12460 on Driving Pole 27318	1
27451	Screw for mounting Compensating Pole 27315	1
27452	Screw for mounting Hopper Plate Assembly 12505 (Round Head, milled down)	1
27454	Plain Washer for Screws 27450 and 27444	6
27459	Insulating Tube for Case Stud 27347 (Not shown in Illustration)	2
27482	Gasket around Meter Base 27312 for Case Assembly 12555 (Not shown in Illustration)	1
10306	**Lead Assembly from Side Terminal on Cut-Out Relay to the Third Terminal from Bottom on Left Side of Controller Switch** (Incudes the next Item)	1
21737..	Ferrule for Lead Assembly 10306 (Not shown in Illustration)	1
10307	**Lead Assembly from (C) on Meter Contact Assembly 10766 to the First Terminal from the Top on Left Side of Controller Switch** (Includes the next Item)	1
21737	Ferrule for Lead Assembly 10307 (Not shown in Illustration)	1
27432	Lead from Terminal No. 3 on Controller Bracket to Compensating Coil Assembly 12506 (Not shown in Illustration)	1
20116	Clip for Lead 27432 (Not shown in Illustration)	1
12510	**Lead Assembly from Terminal No. 1 on Ampere Hour Meter to the First Terminal from Bottom on Left Side of Controller Switch** (Includes the next Item)	1
27422	Clip for Lead Assembly 12510	1
10561	**Lead Assembly** (Includes the next Item)	1
20116	Clip for Lead Assembly 10561	1
5668	**Cut-Out Relay Assembly Complete** (Includes the next 27 Items)	1
11127	**Coil Assembly for Relay 5668**	1
21939	Bracket for mounting Cut-Out Relay 5668	1
11047	**Bracket for mounting Contact Assembly 11046 and Armature Assembly 11050** (Includes the next 3 Items)	1
24144	Bushing for Frame Assembly 11047 (Not shown in Illustration)	1
24149	Insulator for Frame Assembly 11047 (Not shown in Illustration)	1
24169	Stud for retaining Insulator 24149 (Not shown in Illustration)	1
11050	**Armature Assembly for Cut-Out Relay 5668**	1
11046	**Contact Assembly (Upper)**	1
24151	Nut for Armature Assembly 11050	1
24154	Terminal Plate (Small Screw Holes for mounting Screws)	2
24155	Terminal Plate (Large Screw Holes for mounting Screws)	1
24168	Screw for mounting Terminal Plate 24154	2
24167	Screw for mounting Terminal Plate 24155 and Contact Assembly 11046	4
24969	Lock Washer for Screws 24167 and 24168	6
23941	Insulating Washer for Screw 24167	4
21495	Insulating Bushing for Screw 24167 for Contact Assembly 11046	2
11067	**Lead Assembly for connecting Armature Assembly 11050**	1
24138	Terminal Clamp (on Top of Terminal Plates 24154 and 24155)	2
20373	Terminal Clamp (under Terminal Plate 24155 and for Terminal on Side of Coil)	2
21491	Nut for Coil Assembly 11127	2
26586	Lock Washer for Nut 21491	1
24242	Insulating Bushing for Screw 24167 for mounting Terminal Plate 24155	2
24145	Insulating Bushing for Coil Studs (Long)	2

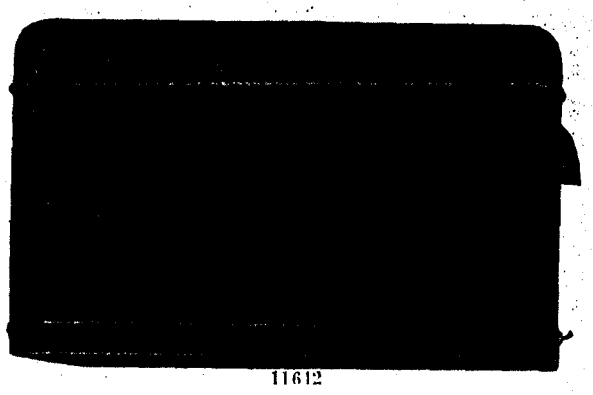
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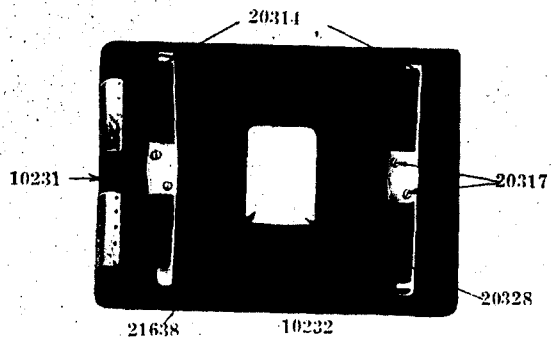
Piece Number	NAME OF PART	Quantity Required
24144	Insulating Bushing for Coil Studs (Short)	1
24157	Plate for grounding Terminal Lead Assembly 11067	1
24182	Screw for retaining Terminal Clamps on Terminal Plate 24155	1
24165	Screw for retaining Terminal Clamp on Terminal Plate 24154 and Terminal on Side of Coil Assembly 11127	2
24969	Lock Washer for Nut 23452	3
23452	Nut for Screws 24182 and 24165	3
24172	Spring for operating Armature Assembly 11050	1
21937	Insulator for Cut-Out Relay 5668 (Not shown in Illustration)	1
20107	Screw for retaining Cut-Out Relay Assembly 5668	2
20251	Insulating Bushing for Screw 20107	2
20252	Insulating Washer for Screw 20107	2
20165	Plain Washer for Screw 20107	2
20142	Lock Washer for Screw 20107	2
10532	**Controller Switch Assembly Complete** (Includes the next 78 Items)	1
10076	**Controller Latch Arm for Controller Switch Assembly 1029 (Not shown in Illustration)**	1
10335	**Shunt Wire for Switch Assembly 1029 (To be used when charging rate is low) (Not shown in Illustration) (Double Shunt Service)**	1
10118	**Shunt Wire Assembly (Single Shunt) (Not shown in Illustration)**	1
20098	Spring for Latch Arm Assembly 10076	1
20178	Screw for Latch Arm 10076	1
20350	Lock Washer for Screw 20178	1
20109	Plain Washer for Screw 20178	1
1029	**Controller Switch Complete** (Includes the next 63 Items)	1
24569	Frame (Upper) for Controller Switch Assembly 1029	1
11247	**Frame Assembly Complete (Lower) for Controller Switch Assembly 1029**	1
20358	Connector across Back of Switch connecting Top Terminal on Right Side of Switch to Fourth Terminal from Top on Left Side of Switch	1
20359	Connector for Blades on Left Side of Switch	4
11244	**Controller Blade Assembly (Blades Assembled Complete for Left Side of Switch)** (Includes the next 13 Items)	1
20361	Blade (Blades on Left Side of Switch with Extension for Connectors)	3
20366	Blade on Left Side of Switch with Extension for Two Binding Posts	1
20363	Blade on Left Side of Switch with Extension for Binding Posts and Connectors	3
20364	Blade on Left Side of Switch with Extension for One Binding Post	1
20367	Connector on Left Side of Switch Connecting with Brush	3
20362	Rod for supporting Blades	2
20365	Insulating Sleeve for Blades	2
24574	Brass Collar between Blades and Lower End Frame (On Left Side of Switch)	1
24564	Insulating Washer for Blade on Left Side of Switch	9
24566	Brass Collar between Blades on Left Side of Switch	4
24565	Brass Collar between Blades and Upper End Frame	1
24567	Insulating Collar between Blades on Left Side of Switch (Hard Rubber)	6
27963	Lock Washer between Blades and Upper End Frame	1
11243	**Blade Assembly (Blades Assembled Complete for Right Side of Switch)** (Includes the next 10 Items)	1
20363	Blade on Right Side of Switch with Extension for Connector and Bind Post	1
20360	Blade on Right Side of Switch with Extensions	7
20368	Connector on Right Side connecting with Brush	5
20362	Rod for supporting Blades on Right Side of Switch	2
20365	Insulating Sleeve for Blades on Right Side of Switch	2
24564	Insulating Washer between Blades and End Frame on Right Side of Switch	1
24570	Brass Collar with Shoulder between Blades on Right Side of Switch	3
24567	Insulating Collar between Blades on Right Side of Switch (Hard Rubber)	9
24565	Brass Collar between Blades and Upper End Frame	1
27963	Lock Washer between Blades and Upper End Frame (Not shown in Illustration)	1
11245	**Brush Assembly Complete (Blades Assembled Complete for Center of Switch)** (Includes the next 18 Items)	1
24572	Lock Washer on Ends of Rod 24579 for Pivoting Brush Blades	2
24582	Arm for Binding Brush Parts together	2
24581	Compression Spring for Brush Blades	7
24578	Insulating Washer on Pivoting Rod 24579 for Brush Blades	16
24573	Brass Collar on Ends of Pivoting Rod 24579	2
24580	Rod for locating Brush Blades on Brush Assembly 11245	1
20351	Insulating Sleeve for locating Rod 24580 (Hard Rubber)	1
24579	Rod for locating Brush Blades on Brush Assembly 11245 (Not shown in Illustration)	1
20352	Insulating Sleeve for Pivoting Rod 24579 (Hard Rubber)	1
24576	Brass Collar on Lower End of locating Rod 24580	1
24562	Blades for Brush Assembly 11245	16
24563	Brass Collar on locating Rod 24580 between Blades	7
24540	Dowel Pin for Pivoting Rod 24579	2
24541	Dowel Pin for locating Rod 24580	2
24564	Insulating Washer on Rod 24580 for Brush Blades	16

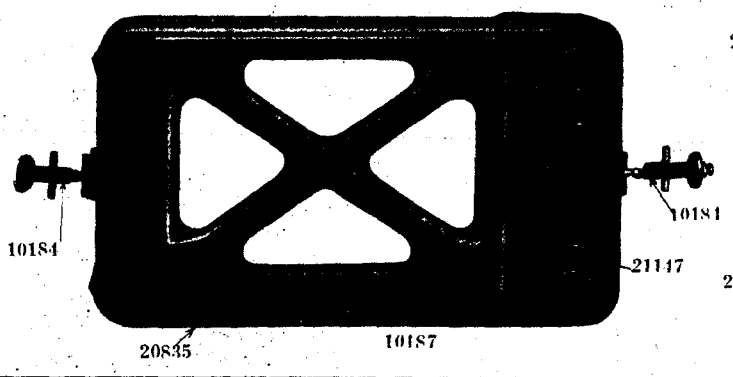
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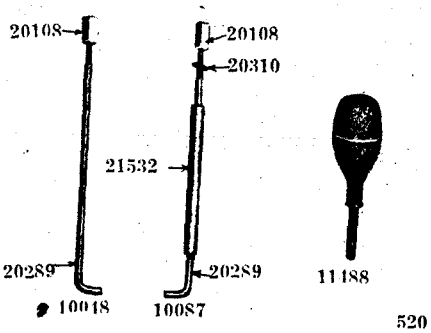
Piece Number	NAME OF PART	Quantity Required
27963	Lock Washer on Upper End of Rod 24580 (Not shown in Illustration)	1
24575	Brass Collar on Upper End of Rod 24580	1
24577	Spacing Washer between Blades 24562	8
23452	Nut for Screws 24165 and 24542	22
24969	Lock Washer for Nut 23452	22
20373	Terminal Clamp for Binding Posts	15
11246	**Arm Assembly for Operating Brush Assembly 11246**	1
24079	Dowel Pin for retaining Arm Assembly 11246	1
24538	Screw for End Frame 24569 and End Frame Assembly 11247	7
24165	Screw for Terminal Clamps on Binding Posts, and Long Screws for Connectors on Back of Switch	18
24542	Screws (Short Screw for Connectors on Back of Switch)	4
24568	Stud in End Frame Assembly 11247 for Spring 20098	1
20463	Insulator (Back of Controller Switch)	1
20035	Screw for mounting Controller Switch	4
20495	Lock Washer for Screw 20035	4
20104	Nut for mounting Ampere Hour Meter Assembly 10101	3
20070	Screw for mounting Ampere Hour Meter Assembly 10101	3
20791	Lock Washer for Screw 20070	3
20114	Plain Washer for Screw 20070	3
20125	Insulating Washer for Screw 20070 (Large)	3
20075	Nut for Spring Terminal	1
20137	Lock Washer for Nut 20075	1
22237	Ferrule Placed over Ends of Lead Assemblies 10579 and 11262, and Leads 10304 and 10582 and soldered (Not shown in Illustration)	2
22238	Insulator Placed over Ferrule 22237 after soldering (Not shown in Illustration)	2
10108	**Cover Assembly Complete for Controller Switch** (Includes the next 4 Items)	1
20168	Clamp Nut for Cover Assembly 10108	1
20310	Plain Washer for Clamp Nut 20168	1
21923	Name Plate for Cover Assembly 10108 (Not shown in Illustration)	1
20687	Rivets for Name Plate 21923 (Not shown in Illustration)	2
20128	Screw for attaching Controller Bracket Assembly 10099 (Not shown in Illusration)	5
20129	Nut for Screw 20128 (Not shown in Illustration)	5
20137	Lock Washer for Nut 20129	5
12135	**Base Assembly for Battery Box Base Assembly 12135 (Not shown in Illustration)** (Includes the next 13 Items)	1
10113	**Battery Box Latch Assembly for mounting Battery Box Cover Assembly** (Includes he next 5 Items)	1
20584	Latch for Battery Box Latch Assembly 10113 (Not shown in Illustration)	1
20587	Bolt for Battery Box Latch Assembly 10113 (Not shown in Illustration)	1
20586	Nut for Battery Box Latch Assembly 10113 (Not shown in Illustration)	1
20588	Spring for Battery Box Latch Assembly 10113 (Not shown in Illustration)	1
20585	Nut for Battery Box Latch Assembly 10113 (Round) (Not shown in Illustration)	1
12002	**Base Assembly for Battery Box Base Assembly 12135** (Includes the next 4 Items)	1
20091	Guide for Controller Rod Assembly 10107	1
21001	Rivet for Guide 20091 and Plate	9
20596	Plate for retaining Latch Assembly 10113	2
21001	Rivets for Plate 20596	6
10122	**Battery Cover Assembly Complete for Battery** (Includes the next 4 Items)	1
20314	Spring for Battery Cover Assembly 10122	2
20317	Screw for Spring 20314	4
21267	Date Card for Battery Cover Assembly 10122 (Not shown in Illustration)	2
20328	Pin for Date Card 21267 on Battery Cover Assembly 10122	2
21565	Base Support for Battery Box (Not shown in Illustration)	4
20080	Terminal Clip for connecting Battery Box (Not shown in Illustration)	6
20289	Bolt for Battery	1
20108	Nut for Bolt 20289	1
20310	Plain Washer for Nut 20108	1
11536	**Battery Box Cover Assembly**	1
20223	Wrench for Controller Switch 1029	2
10534	**Controller Operating Rod Assembly Complete** (Includes the next 6 Items)	1
10535	**Controller Operating Rod Assembly** (Includes the next Item)	1
21162	Dowel Pin for retaining Collar 20236	2
20048	Spring for Controller Operating Rod Assembly 10534	1
20389	Sleeve for Rod 20123	1
20176	Guide for Sleeve 20389	1
20096	Cup for Spring 20048	2



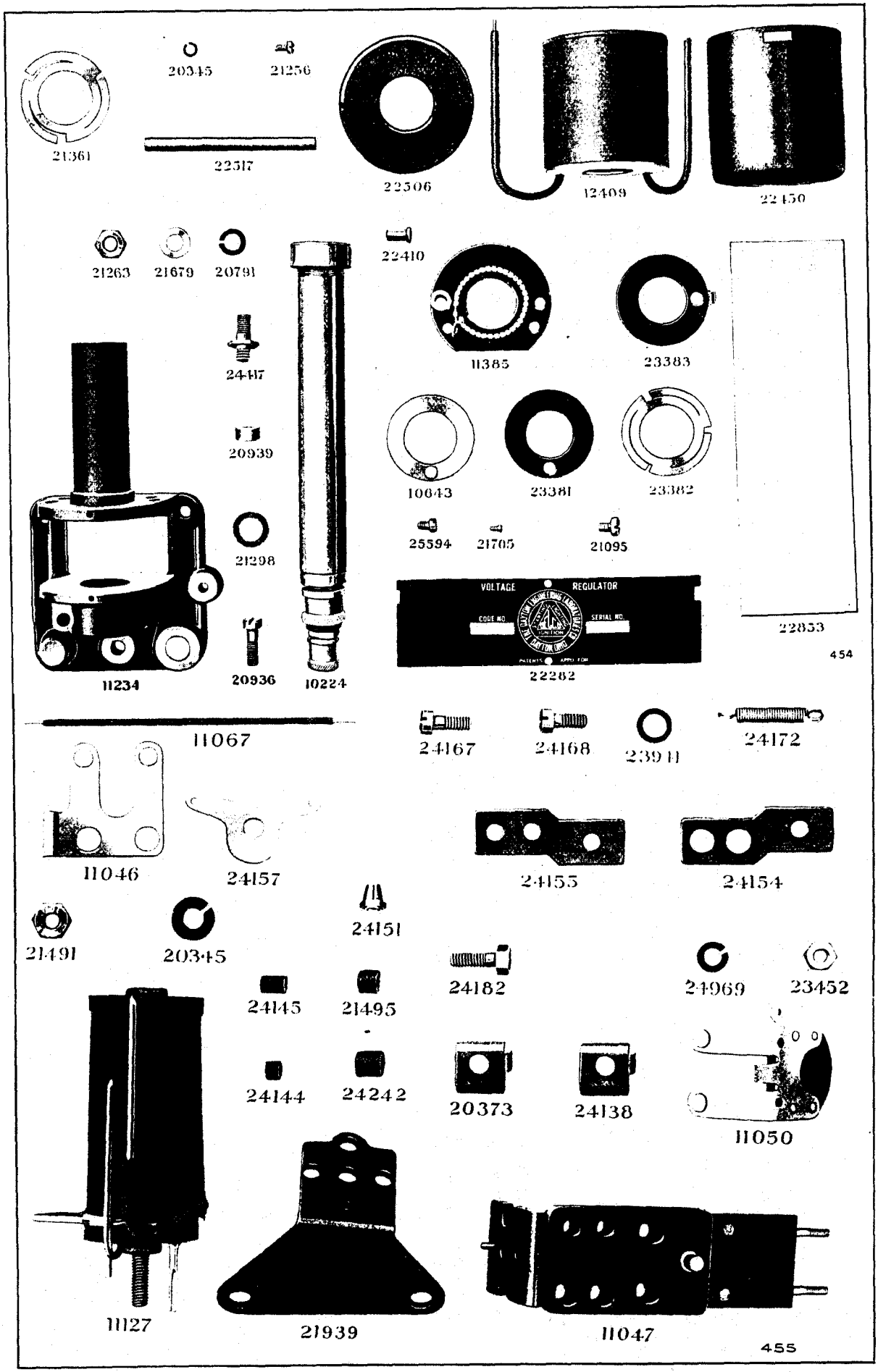








No. 5404 BATTERY BOX



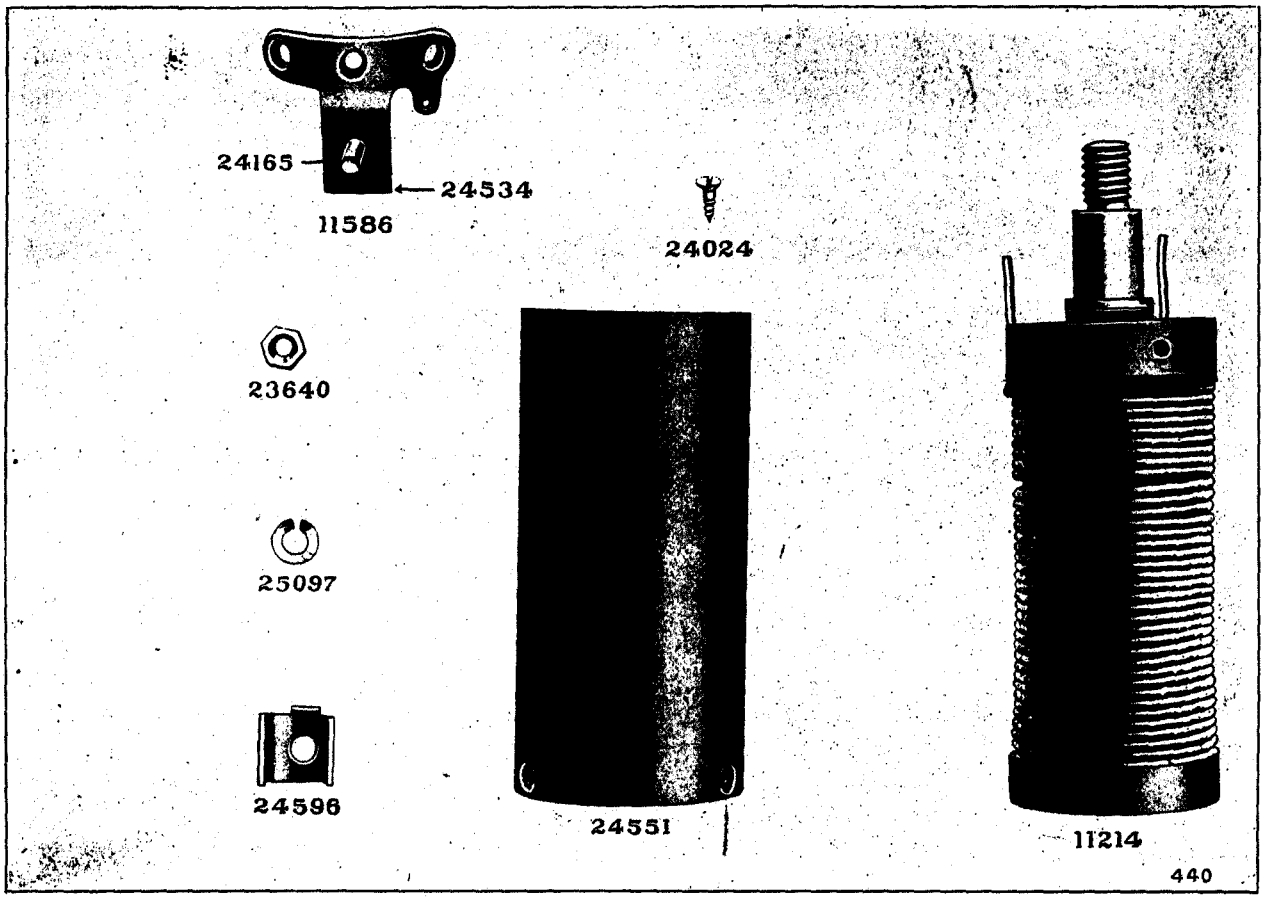
No. 5404 BATTERY BOX

No. 5404 BATTERY BOX

Piece Number	NAME OF PART	Quantity Required
5404	**BATTERY BOX COMPLETE**	1
11642	**Cover Assembly**	1
20316	Terminal Clip for Voltage Regulator 5602	1
11488	**Syringe for Filling Storage Battery**	1
10232	**Cover Assembly Complete for Storage Battery (Wood)** (Includes the next 4 Items)	1
20314	Spring for Cover Assembly 10231	2
20317	Screw for retaining Spring 20314	4
21638	Date Card for Cover Assembly 10232	1
20328	Pin for retaining Date Card	4
20289	Bolt for Battery Bolt Assembly	1
20108	Nut for Bolt 20289	1
20310	Plain Washer for Nut 20108	1
10087	**Battery Bolt Assembly Complete** (Includes the next 4 Items)	1
20289	Bolt for Battery Bolt Assembly 10087	1
20108	Nut for Bolt 20289	1
20310	Plain Washer for Nut 20108	1
21532	Sleeve for Bolt 20289	1
20835	Base for Battery Box	1
21600	Screw for retaining Clamp Plate 21597 (Not shown in Illustration)	4
21601	Nut for Screw 21600 (Not shown in Illustration)	4
20393	Lock Washer for Nut 21601 (Not shown in Illustration)	4
10184	**Latch Assembly Complete** (Includes the next 8 Items)	2
20588	Spring for Latch Assembly 10184 (Not shown in Illustration)	1
20585	Clamp Nut for Latch Assembly 10184 (Not shown in Illustration)	1
20586	Cap Nut for Latch Assembly 10184 (Not shown in Illustration)	1
20584	Latch for Latch Assembly 10184 (Not shown in Illustration)	1
20310	Plain Washer for Spring 20588 (Not shown in Illustration)	1
10183	**Latch Assembly (Not shown in Illustration)** (Includes the next 2 Items)	1
20587	Bolt for Latch Assembly 10183 (Not shown in Illustration)	1
21597	Clamp Plate for Bolt 20587 (Not shown in Illustration)	1
20129	Nut for Screw 21147 (Not shown in Illustration)	3
21147	Screw for retaining Apparatus Box 5502 (Not shown in Illustration)	1
20137	Lock Washer for Nut 20129 (Not shown in Illustration)	3
5502	**Apparatus Box Complete** (Includes the next 96 Items)	1
20939	Insulating Bushing for Screw 20128 (Long) (Not shown in Illustration)	2
21078	Insulating Bushing for Screw 20128 (Short) (Not shown in Illustration)	1
20117	Insulating Bushing for Box 21639 (Rubber) (Not shown in Illustration)	3
21193	Cover Plate for Box 21639 (Not shown in Illustration)	1
20553	Screw for attaching Cover Plate 21193 (Not shown in Illustration)	2
20484	Lock Washer for Screw 20553 (Not shown in Illustration)	2
21291	Nut for retaining Screw 20553 (Not shown in Illustration)	2
21684	Clip for retaining Lead (Outside of Box) (Long Clip) (Not shown in Illustration)	1
21208	Clip for retaining Lead (Outside of Box) (Short Clip) (Not shown in Illustration)	1
21217	Insulator for Voltage Regulator 5502	1
20068	Nut for retaining Screws 21746 and 20107 (Not shown in Illustration)	2
20347	Nut for retaining Screw 20349 (Not shown in Illustration)	1
20393	Lock Washer for Nut 20347 (Not shown in Illustration)	1
20128	Screw for retaining Voltage Regulator 5502 (Not shown in Illustration)	3
20349	Screw for Side Terminal on Relay 5678 (Not shown in Illustration)	1
20114	Plain Washer for Screw 20128 (Not shown in Illustration)	3
20137	Lock Washer for Screw 20128 (Not shown in Illustration)	3
20076	Insulating Washer for Screw 20128 (Not shown in Illustration)	3
20107	Screw for attaching Relay 5678 (Inner) (Not shown in Illustration)	1
20251	Insulating Bushing for Screw 21746 (Not shown in Illustration)	1
20252	Insulating Washer for Screw 21746	1
20165	Plain Washer for Screw 21746	1
20142	Lock Washer for Screw 21746	1
21746	Screw for attaching Relay 5678 (Outer)	1
10126	**Box Assembly Complete** (Includes the next 4 Items)	1
21264	Insulator for Box Assembly 10126	2
21673	Rivet for retaining Insulator 21264	6
21923	Number Plate for Box Assembly 10125 (Not shown in Illustration)	1
22216	Rivet for retaining Number Plate 21923 (Not shown in Illustration)	2
11108	**Lead Assembly (Long Single)** (Includes the next 2 Items)	1
21107	Clip for Lead Assembly 11108	1
21737	Ferrule for Clip 21107 (Not shown in Illustration)	1
11109	**Lead Assembly (Double) (Not shown in Illustration)** (Includes the next 5 Items)	1
21736	Connector for Lead Assembly 11109	1
20316	Clip for Voltage Regulator End of Lead Assembly 11109	1
21107	Clip for Lead Assembly 11109	1
21251	Clip for Cut-out Relay End of Lead Assembly 11109	1
20117	Insulating Bushing for Lead Assembly 11109	1

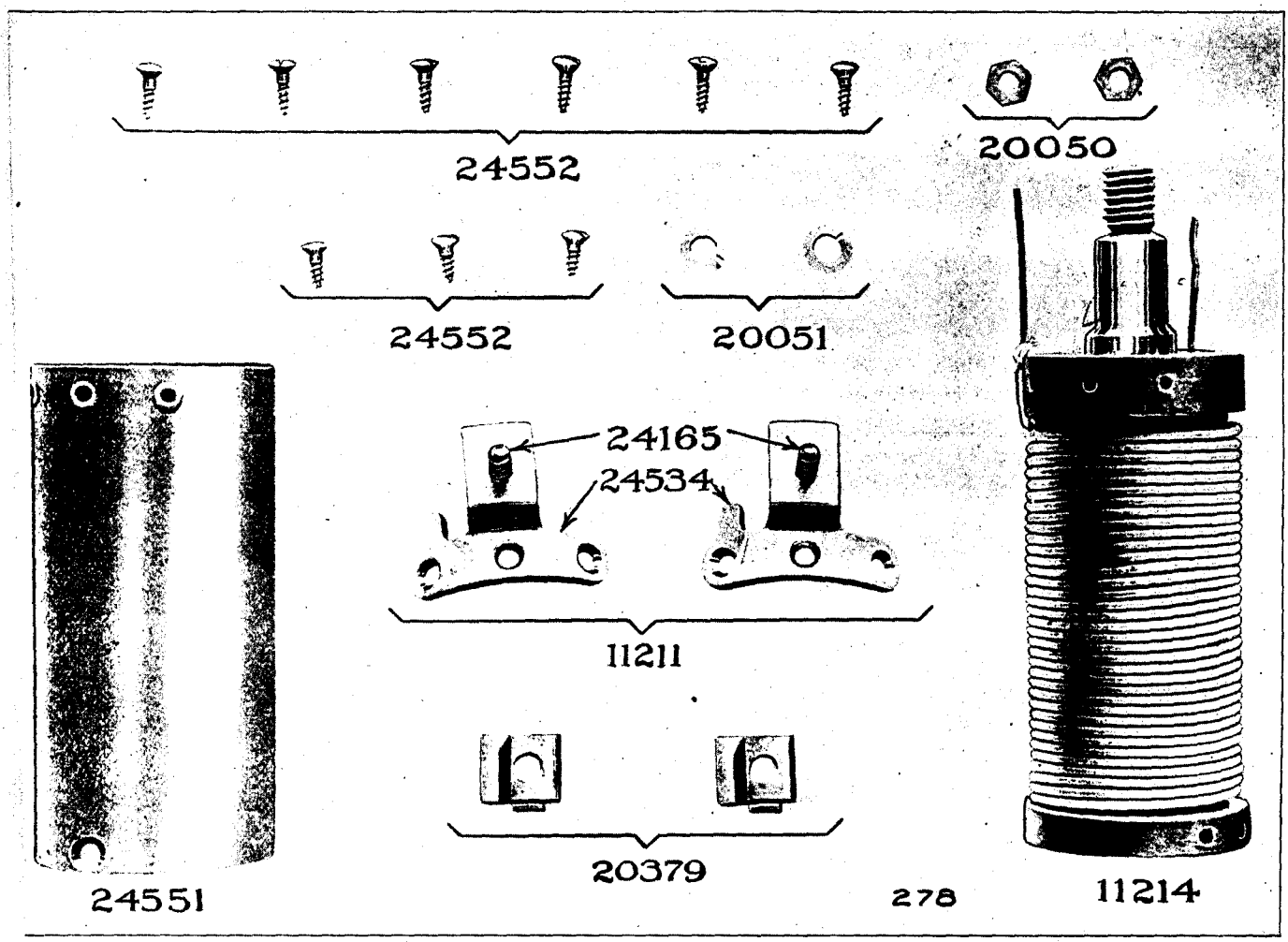
No. 5404 BATTERY BOX (Continued)

Piece Number	NAME OF PART	Quantity Required
11110	**Lead Assembly (Short Single) (Not shown in Illustration)**	1
	(Includes the next 2 Items)	
20316	Clip for Lead Assembly 11110	1
21737	Ferrule for Clip 20316	1
5678	**Cut-Out Relay Complete**	1
	(Includes the next 27 Items)	
11127	**Coil Assembly**	1
11067	**Lead Assembly for connecting Contact Spring Assembly 11050**	1
11050	**Contact Spring Assembly (Lower Contact)**	1
11046	**Contact Spring Assembly (Upper Contact)**	2
24151	Nut for retaining Contact Spring Assembly 11050 (Split Nut)	4
24167	Screw for attaching Contact Spring Assembly 11046 and Terminal Plate 24155	4
23941	Insulating Washer for Screws 24167, 24182 and 24168	2
21495	Insulating Bushing on Screw 24167 for Contact Spring Assembly 11046	1
24242	Insulating Bushing on Screw 24167 for Terminal Plate 24155	2
24168	Screw for retaining Contact Plate 24154	1
24154	Terminal Plate (Small Hole)	1
24155	Terminal Plate (Large Hole)	2
24138	Terminal Clip for Terminal Plates 24154 and 24155 (Upper)	2
20373	Terminal Clip for Terminal Plates 24154 and 24155 (Lower)	2
24182	Screw for retaining Terminal Clips 20373 and 24138	2
23452	Nut for Screw 24182	2
24969	Lock Washer for Nut 23452	1
11047	**Bracket Assembly for retaining Contact Spring Assemblies 11050 and 11046**	1
	(Includes the next 3 Items)	
24169	Stud for Insulator (Not shown in Illustration)	1
24149	Insulator for Bracket Assembly 11047 (Not shown in Illustration)	1
24144	Bushing for Stud 24169	1
21939	Bracket for attaching Relay 5678	1
24172	Spring for operating Contact Spring Assembly 11050	2
21491	Nut for retaining Coil Assembly 11127	1
24345	Lock Washer for Nut 21491	1
24145	Insulating Bushing for Coil Assembly 11127 (Long)	2
24144	Insulating Bushing for Coil Assembly 11127 (Short)	1
24157	Plate under Nut 21491 for Grounding Lead Assembly 11067	1
21937	Insulator for Bracket 21939 (Not shown in Illustration)	8
24969	Lock Washer for Screws 24167, 24182 and 24168	1
5602	**Voltage Regulator Complete**	
	(Includes the next 30 Items)	
10884	**Voltage Regulator Assembly (Service) (Complete 5602 Assembly less Mercury Tube 10224) (Not shown in Illustration)**	1
11234	**Bracket Assembly for Voltage Regulator 5602**	1
10224	**Mercury Tube Assembly**	1
22450	Shell for Coil Assembly 15279	1
15279	**Coil Assembly**	1
22512	Terminal Clip for Coil Assembly 15279 (Not shown in Illustration)	1
22853	Insulator for Coil Assembly 15279	1
22517	Insulator for Lead on Coil Assembly 15279	1
11385	**Rheostat Coil Assembly**	1
22506	Cover for Shell 22450	2
22410	Insulating Bushing for Lead on Coil Assembly 15279	2
21256	Screw for retaining Shell 22450	2
20345	Washer for Screw 21256	1
22282	Name Plate for Voltage Regulator 5602	2
21705	Screw for retaining Name Plate 22282	1
20936	Screw in Bracket Assembly 11234 for Clamping Mercury Assembly 10224	1
21095	Screw for retaining Rheostat Coil Assembly 11385 (Large Head)	1
25594	Screw for Rheostat Coil Assembly 11385 (Small Head)	1
22417	Terminal Stud for retaining Terminal Stud Assembly 10591	1
21263	Nut for Terminal Stud 22417	1
21679	Plain Washer for Nut 21263	1
20791	Lock Washer for Nut 21263	1
20939	Insulating Bushing for Terminal Stud 22417	2
21298	Insulating Washer for Terminal Stud 22417	2
10643	**Contact Plate Assembly for Rheostat Coil Assembly 11385**	1
23381	Insulating Plate for Contact Plate Assembly 10643	1
23382	Tension Spring for Contact Plate Assembly 10643	1
23383	Adjusting Plate for Contact Plate Assembly 10643	1
21361	Tension Spring for Coil Assembly 15279	1
22526	Screw for Voltage Regulator 5602 (Not shown in Illustration)	
10591	**Terminal Stud Assembly for connecting Voltage Regulator 5602 (Not shown in Illustration)**	1
	(Includes the next 4 Items)	
22894	Stud for Terminal Stud Assembly 10591 (Not shown in Illustration)	1
24281	Clamp for Terminal Stud Assembly 10591 (Not shown in Illustration)	1
20347	Nut for Stud 22894 (Not shown in Illustration)	1
20393	Lock Washer for Nut 20347 (Not shown in Illustration)	1
10128	**Cover Assembly for Apparatus Box 5502**	
	(Includes the next 4 Items)	2
21146	Nut for Cover 21009	2
20114	Washer for Nut 21146	



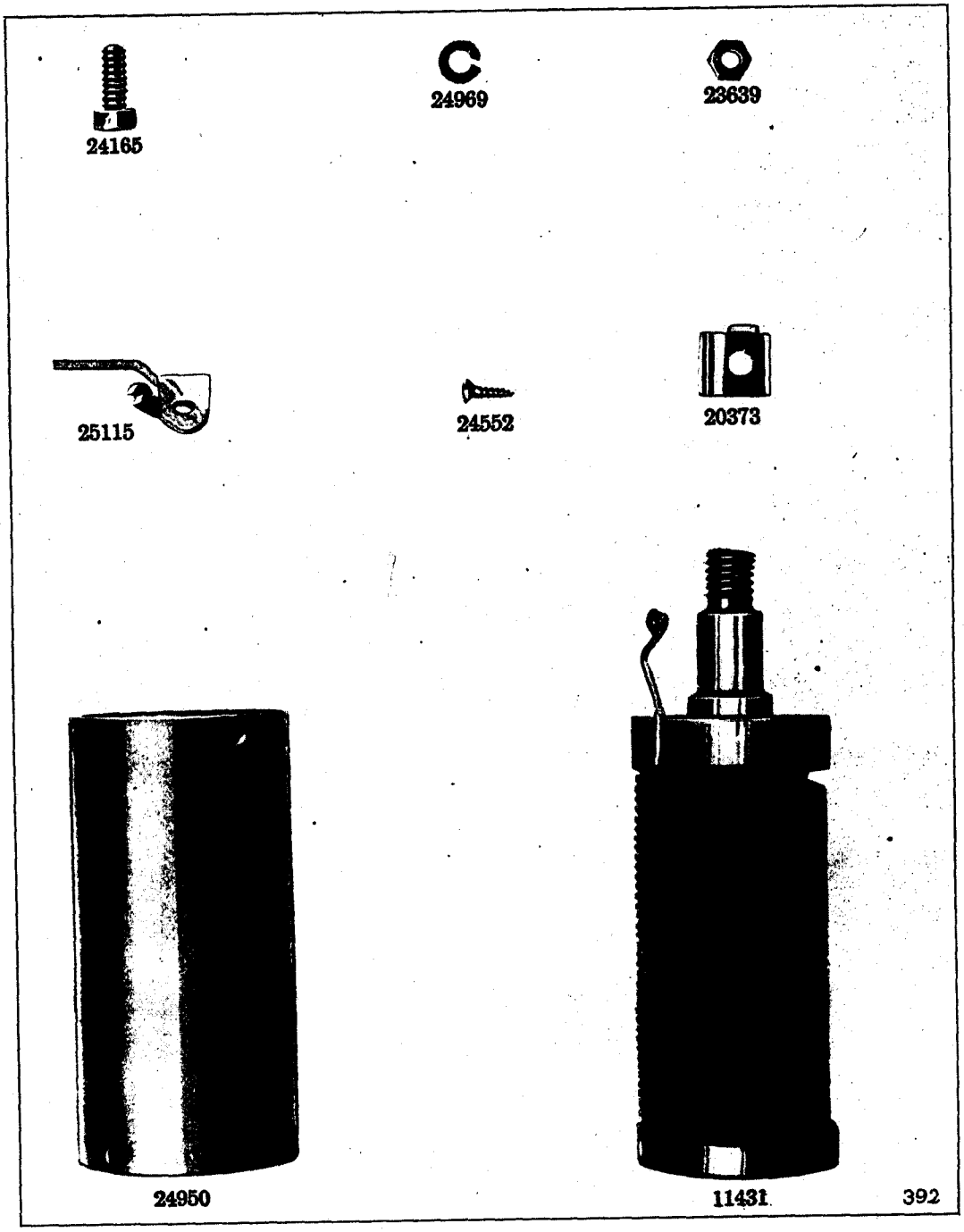
No. 5440 CLUTCH MAGNET

Piece Number	NAME OF PART	Quantity Required
5440	**CLUTCH MAGNET COMPLETE**	1
11214	**Latch Magnet Coil Assembly**	1
24551	Shell for Clutch Magnet Coil Assembly 11214	1
24024	Screw for retaining Shell 24551 and Terminal Assembly 12126	9
12126	**Terminal Assembly Complete (Not shown in Illustration)** (Includes the next 5 Items)	2
11586	**Terminal Assembly** (Includes the next Item)	1
24165	Screw for connecting Clutch Magnet	1
24596	Clip for Screw 24165	1
23640	Nut for Screw 24165	1
25097	Lock Washer for Nut 23640	1



No. 5442 CLUTCH MAGNET

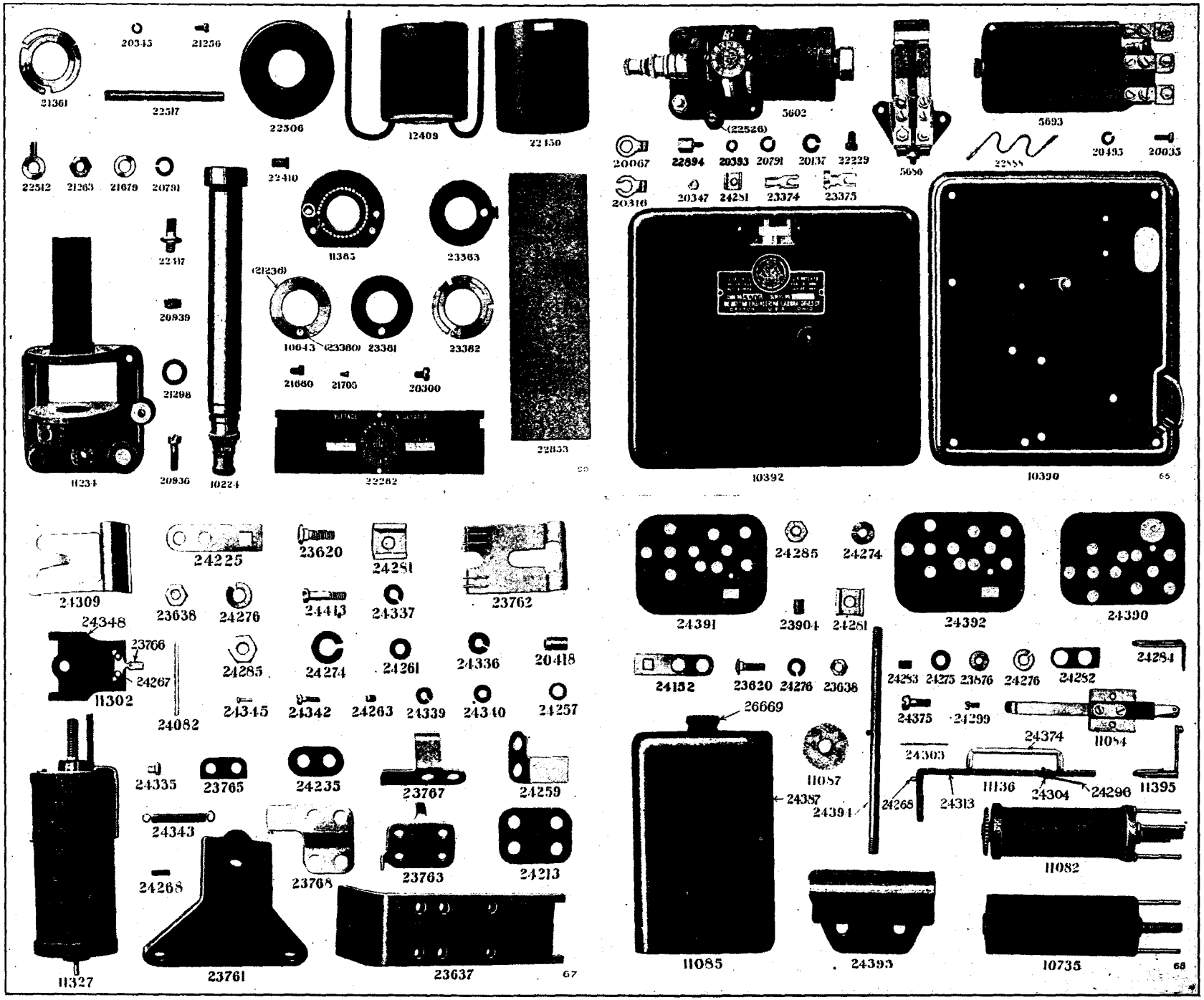
Piece Number	NAME OF PART	Quantity Required
5442	**CLUTCH MAGNET COMPLETE**	1
11214	**Coil Assembly**	1
24551	**Shell for Coil Assembly 11214**	1
24552	Screw for retaining Shell 24551 and Terminal Assembly 11508	9
11508	**Terminal Assembly Complete (Not shown in Illustration)** (Includes the next 5 Items)	2
11211	**Terminal Assembly** (Includes the next Item)	1
24165	Screw for connecting Clutch Magnet	1
20373	Clip for Screw 24165 (Not shown in Illustration)	1
23639	Nut for Screw 24165	1
24539	Lock Washer for Nut 23639	1



No. 5447 CLUTCH MAGNET

Piece Number	NAME OF PART	Quantity Required
5447	**CLUTCH MAGNET COMPLETE**	1
11431	**Coil Assembly**	1
24950	Shell for Coil Assembly 11413	1
24552	Screw for retaining Shell 24950 and Terminal Assembly 13492	8
13492	**Terminal Assembly Complete** (Includes the next 5 Items)	2
11432	**Terminal Assembly** (Includes the next Item)	1
24165	Screw for connecting Clutch Magnet	1
20373	Clip for Screw 24165	1
23639	Nut for Screw 24165	1
20393	Lock Washer for Nut 23639	1

No. 5506 APPARATUS BOX



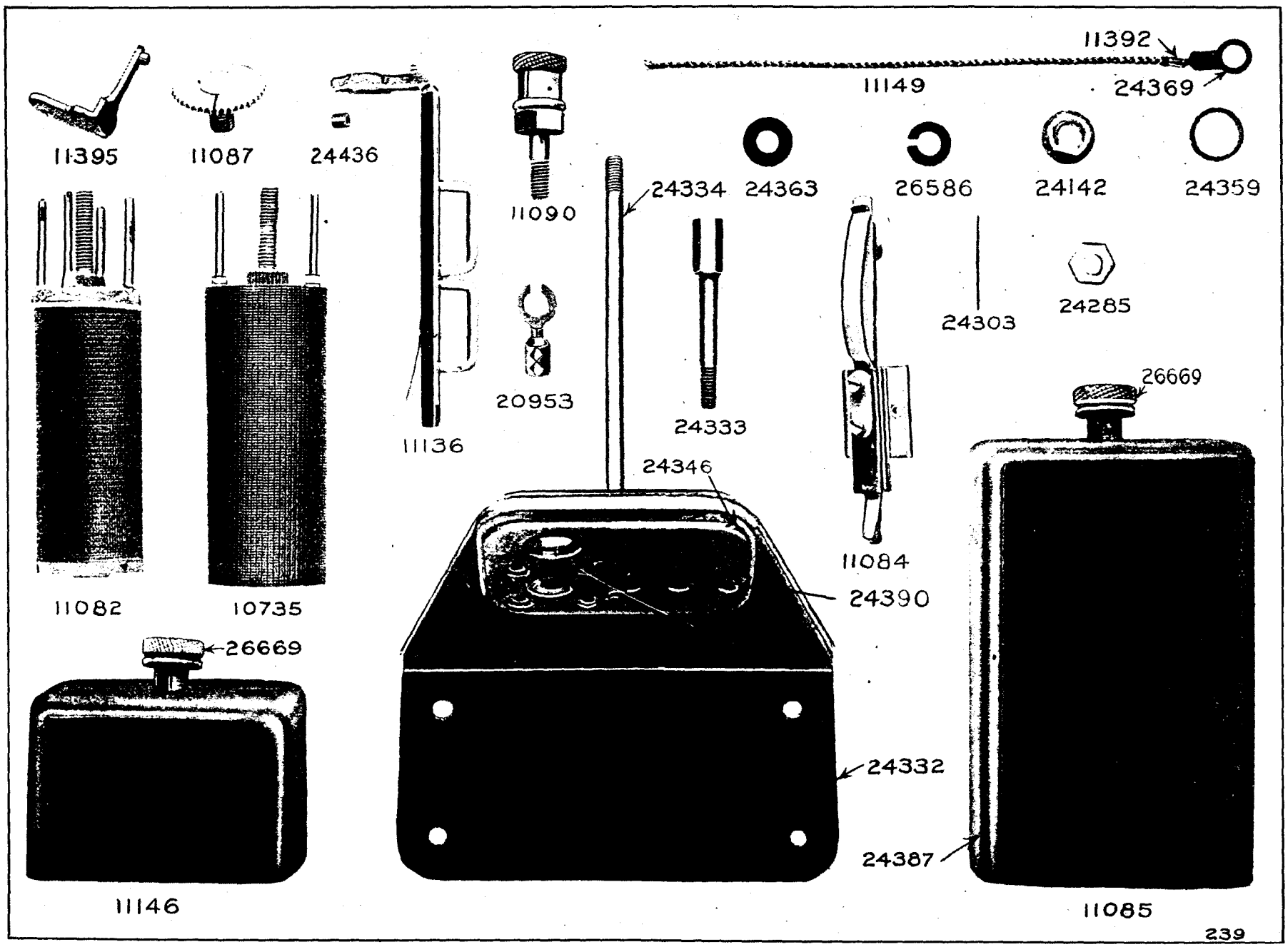
No. 5506 APPARATUS BOX

(No. 5510 Apparatus Box is the same as No. 5506 Apparatus Box with the Voltage Regulator taken out. No. 5510 Apparatus Box is used with No. 28B Motor Generator. No. 5506 Apparatus Box is used with No. 28 Motor Generator.

Piece Number	NAME OF PART	Quantity Required
5506	APPARATUS BOX COMPLETE	1
10392	**Cover Assembly Complete** (Includes the next 8 Items)	1
22907	Clamp Nut for Cover Assembly 10392 (Not shown in Illustration)	1
20114	Plain Washer for Clamp Nut 22907 (Not shown in Illustration)	1
22439	Indicator Guard for Cover 22423 (Not shown in Illustration)	1
22440	Indicator Cover for Indicator Guard 22439 (Not shown in Illustration)	1
20810	Plain Washer for Rivet 22731 (Not shown in Illustration)	2
22731	Rivet for Indicator Guard 22439 (Not shown in Illustration)	2
22408	Name Plate for Cover 22423 (Not shown in Illustration)	1
22216	Rivet for Name Plate 22408 (Not shown in Illustration)	2
10390	**Base Assembly**	1
20035	Screw for Mounting Relays 5693 and 5686	4
20495	Lock Washer for Screw 20035	4
22229	Screw for mounting Regulator 5602	2
20137	Lock Washer for Screw 22229	3
22881	Protector Strip for Cover Assembly 10592 (Not shown in Illustration)	1
22962	Rubber Bushing for Leads	1
22888	Battery Charging Resistance for connecting Regulator 5602 and Relay 5686	1
10591	**Terminal Stud Assembly for Battery Charging Resistance 22888 (Service)** (Includes the next 4 Items)	1
22894	Connector Stud for Terminal Stud Assembly 10591	1
24281	Clip for Connector Stud 22894	1
20347	Nut for Connector Stud 22894	1
20393	Lock Washer for Nut 20347	1
22526	Ground Screw Regulator 5602	1
20791	Lock Washer under Terminal Stud Assembly 10591	1
5686	**Cut-Out Relay Complete** (Includes the next 37 Items)	1
11327	**Coil Assembly for Relay**	1
23761	Mounting Bracket for Mounting Relay	1
23637	Bracket for Mounting Contact	1
11302	**Armature Assembly for operating Double Contact Arm 23762**	1
24309	Indicator Mounted on Armature Assembly 11302	1
24343	Spring for operating Armature Assembly 11302	1
24345	Pin for mounting Indicator Shutter 24309	2
24268	Pin for locating mounting Bracket 23761 and Bracket 23637	1
24335	Stud for Double Contact Arm 23762	2
24082	Pin for mounting Armature Assembly 11302	1
24285	Nut for mounting Coil Assembly 11327	1
24274	Lock Washer for Nut 24285	1
23763	Terminal Plate for Grounding Coil Assembly 11327	1
24259	Connector for connecting Coil and Terminal Plate 24225	1
23762	Double Contact Arm for Armature Assembly 11302	1
23767	Single Contact Arm for Cut-Out Relay (Two Holes)	1
23768	Single Contact Arm for Cut-Out Relay (Four Holes)	1
24266	Screw for mounting Double Contact Arm 23762	2
24263	Insulating Bushing for Screw 24266	2
24339	Lock Washer for Screw 24266	2
24340	Plain Washer for Screw 24266	2
24257	Insulating Washer for Screw 24266	2
23765	Insulator for Double Contact Arm 23762	1
24225	Terminal Plate for Connecting Relay	2
23620	Screw for Terminal Plate 24225	2
24281	Clip for Terminal Plate 24225	2
23638	Nut for Screw 23620	2
24276	Lock Washer for Nut 23638	2
24413	Screw for mounting Terminal Plate 24225	4
20418	Insulating Bushing for Screw 24413	4
24336	Plain Washer for Screw 24413	4
24337	Lock Washer for Screw 24413	4
24261	Insulating Washer for Screw 24413	1
24235	Insulator for Contact Arms 23767 and 23768	2
24213	Insulator under Contact Arms 23767 and 23768	1
5602	**Voltage Regulator Complete** (Includes the next 28 Items)	1
10844	**Voltage Regulator Assembly (Service) (Voltage Regulator complete less Mercury Tube Assembly)**	1
11234	**Bracket Assembly for Regulator 5602**	1
10224	**Mercury Tube Assembly**	1
22450	Coil Shell for Coil Assembly 15279	1
15279	**Coil Assembly for Regulator**	1

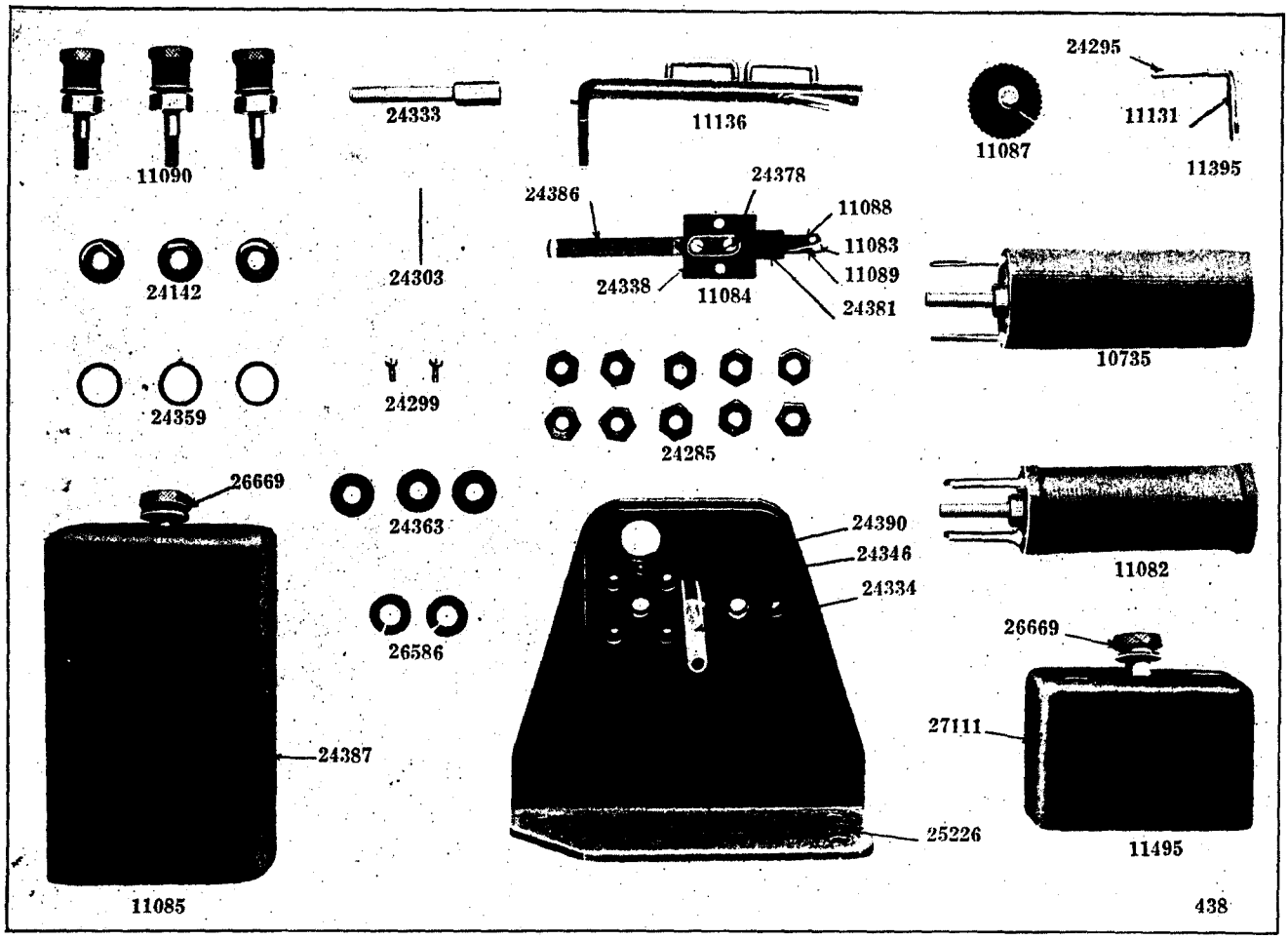
No. 5506 APPARATUS BOX (Continued)

Piece Number	NAME OF PART	Quantity Required
22512	Terminal Clip for Coil Assembly	1
22853	Insulator for Coil Assembly 15279	1
22517	Insulator for Lead on Coil Assembly 15279	1
11385	**Rheostat Coil Assembly**	1
22506	Cover for Coil Shell 22450	1
22410	Insulating Bushing for Lead on Coil Assembly 12409	1
21256	Screw for retaining Coil Shell 22450	2
20345	Lock Washer for Screw 21256	2
22282	Name Plate for Regulator	2
21705	Screw for Name Plate 22282	1
20936	Screw in Bracket Assembly 11234 for Clamping Mercury Tube Assembly 10224	2
25594	Screw for mounting Rheostat Coil Assembly 11385 (Small) (Not shown in Illustration)	1
21095	Screw for mounting Rheostat Coil Assembly 11385 (Large) (Not shown in Illustration)	1
22417	Terminal Stud for mounting Terminal Stud Assembly 10591	1
21263	Nut for Terminal Stud 22417	1
21679	Plain Washer for Nut 21263	1
20791	Lock Washer for Nut 21263	1
20939	Insulating Bushing for Terminal Stud 22417	1
21298	Insulating Washer for Terminal Stud 22417	1
10643	**Contact Plate Assembly Complete for Rheostat Coil Assembly 11385**	2
23381	Insulator Plate for Contact Plate Assembly 10643	1
23382	Tension Spring for Contact Plate Assembly 10643	1
23383	Adjusting Plate for Contact Plate Assembly 10643	1
21361	Tension Spring for Coil Assembly 12409	1
5693	**Ignition Relay Complete**	1
	(Includes the next 45 Items)	1
24393	Mounting Bracket for Mounting Relay	
24394	Stud for mounting Shell Assembly 11085	1
10735	**Condenser Assembly for Relay**	1
11082	**Coil Assembly for Relay**	1
	(Includes the next Item)	1
11087	**Adjustment Screw for Coil Assembly 11082**	
11085	**Shell Assembly Complete Relay**	1
	(Includes the next Item)	1
26669	Clamp Nut for Shell 24387	
24389	Plain Washer for retaining Nut 26669	1
11136	**Mounting Bracket Assembly Complete for mounting Contact Assembly 11084**	1
	(Includes the next 2 Items)	1
24296	Spring for Bracket Assembly 11136	
24304	Rivet for attaching Spring 24296	1
11395	**Armature Assembly for operating Contact Assembly 11084**	2
24303	Pin for mounting Armature Assembly 11395	1
11084	**Contact Assembly Complete for Relay**	1
24285	Nut for mounting Coil Assembly 11082 and Condenser Assembly 10735	1
26586	Lock Washer for Nut 24285 (Not shown in Illustration)	4
24299	Screw for mounting Contact Assembly 11084	2
24391	Dust Pad for mounting Bracket 24393	2
24392	Mounting Plate (Outside) for mounting Coil Assembly 11082 and Condenser Assembly 10735	1
24390	Mounting Plate (Inside of Mounting Coil Assembly 11082 and Condenser Assembly 10735)	1
23904	Insulating Bushing for Coil Assembly 11082 and Condenser Assembly 10735	1
24152	Base Plate for mounting Relay	6
24375	Screw for mounting Base 24152	3
24283	Insulating Bushing for Screw 24375	6
24275	Insulating Washer for Screw 24375	6
23876	Plain Washer for Screw 24375	6
24276	Lock Washer for Screw 24375	6
24282	Insulator for Connector 24284	6
24284	Connector for connecting Coil Assembly 11082 and Condenser Assembly 10735 to Terminal Plate 24225	3
24281	Clip for retaining Terminal Clips	3
23620	Screw for retaining Clip 24281	3
23638	Nut for Screw 23620	3
24276	Lock Washer for Nut 23638	3
20316	Terminal Clip for Voltage Regulator	3
23375	Terminal Clip for Cut-Out Relay	1
23374	Terminal Clip for Ignition Relay	2
20067	Terminal Clip (Ground)	3
		1


11395
11087
24436
11136
11090
20953
11392
11149
24369
24334
24363
26586
24142
24359
24333
24303
24285
11084
26669
11082
10735
24346
24390
24332
24387
11085
26669
11146
239

No. 5661 IGNITION RELAY

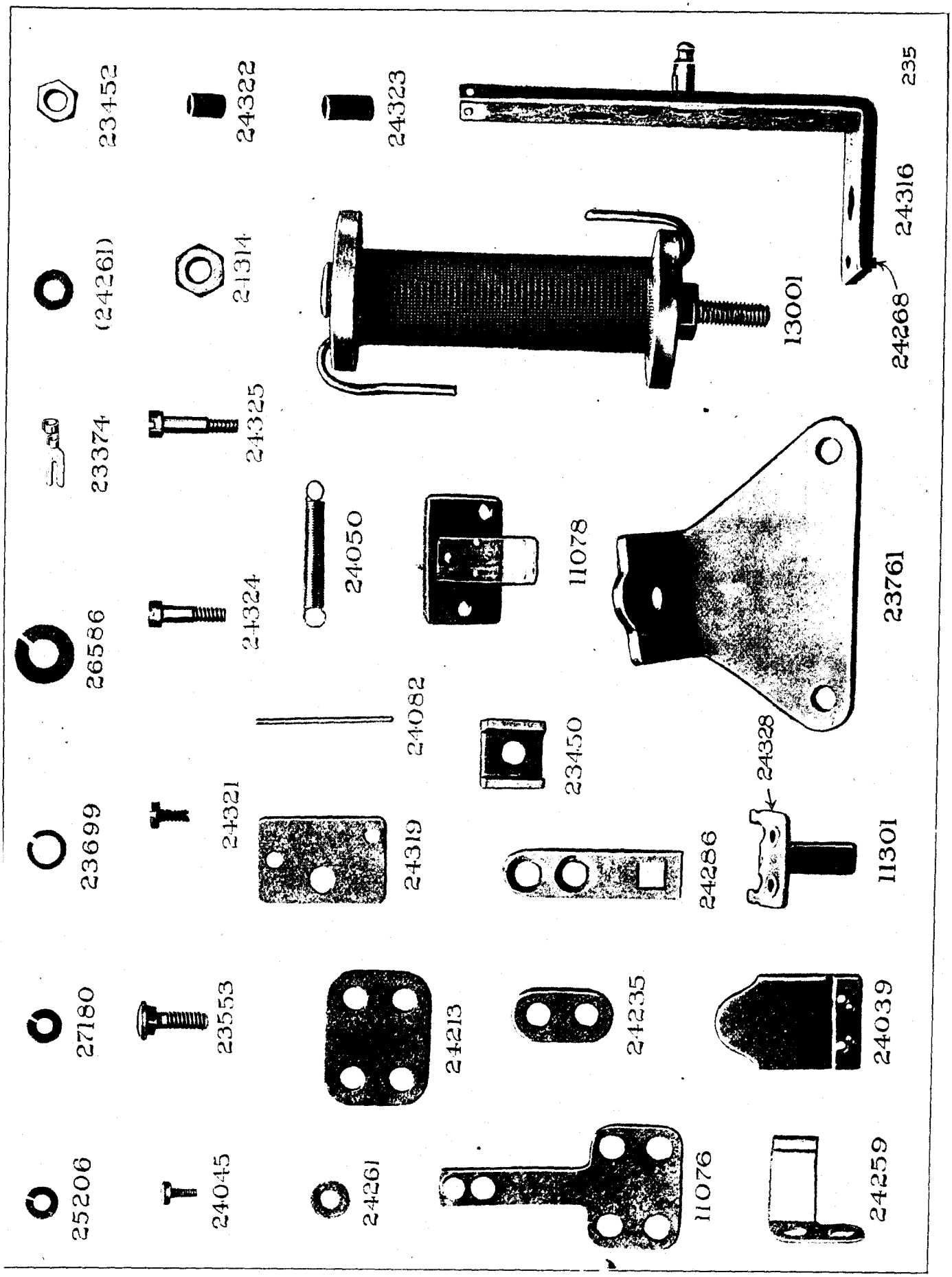
Piece Number	NAME OF PART	Quantity Required
5661	**IGNITION RELAY**	1
24332	Mounting Bracket for Mounting Ignition Relay 5661	1
24436	Insulating Bushing for Coil Assembly 11082 and Condenser Assembly 10735	6
24333	Stud for Mounting Shell Assembly 11146	1
24334	Rod for Mounting Shell Assembly 11085	1
11085	**Shell Assembly Complete for Governing Coil Assembly 11082 and Condenser Assembly 10735** (Includes the next Item)	1
26669	Nut for Shell Assembly 11085	1
24285	Nut for Mounting Coil Assembly 11085 and Condenser Assembly 10735 and Spring Terminal Assembly 11090	10
26586	Lock Washer for Nut 24285	2
10735	**Condenser Assembly for Relay**	1
11149	**Lead Assembly Complete for connecting Terminal Assembly 11090 to Coil Assembly** 11082 (Includes the next 3 Items)	3
24369	Clip for connecting Lead Assembly 11149 to Terminal Assembly 11090	1
11392	**Copper Wire Assembly for Lead Assembly 11149**	1
24461	Sleeve for Lead Assembly 11149 (Not shown in Illustration)	1
11146	**Shell Assembly Complete for Mounting Spring Terminal Assembly 11090** (Includes the next Item)	1
26669	Nut for Shell Assembly 11146	1
24346	Gasket for Mounting Plate 24390	2
24390	Mounting Plate for Shell Assemblies 11085 and 11146	2
11090	**Spring Terminal Assembly for connecting Relay**	3
24142	Insulating Bushing for Spring Terminal Assembly 11090	3
24359	Insulating Washer for Spring Terminal Assembly 11090	3
24363	Plain Washer for Spring Terminal Assembly 11090	3
24285	Nut for Spring Terminal Assembly 11090	6
11084	**Contact Spring Assembly for Relay**	1
11395	**Armature Assembly Complete for Operating Contact Spring Assembly 11084**	1
24303	Pin for Mounting Armature Assembly 11395	1
11136	**Bracket Assembly for Mounting Spring Assembly 11084**	1
11082	**Coil Assembly for Relay**	1
11087	**Adjusting Screw Assembly for Coil Assembly 11082**	1
20953	Terminal Clip for Ignition Relay 5661	1



No. 5677 IGNITION RELAY

No. 5677 IGNITION RELAY

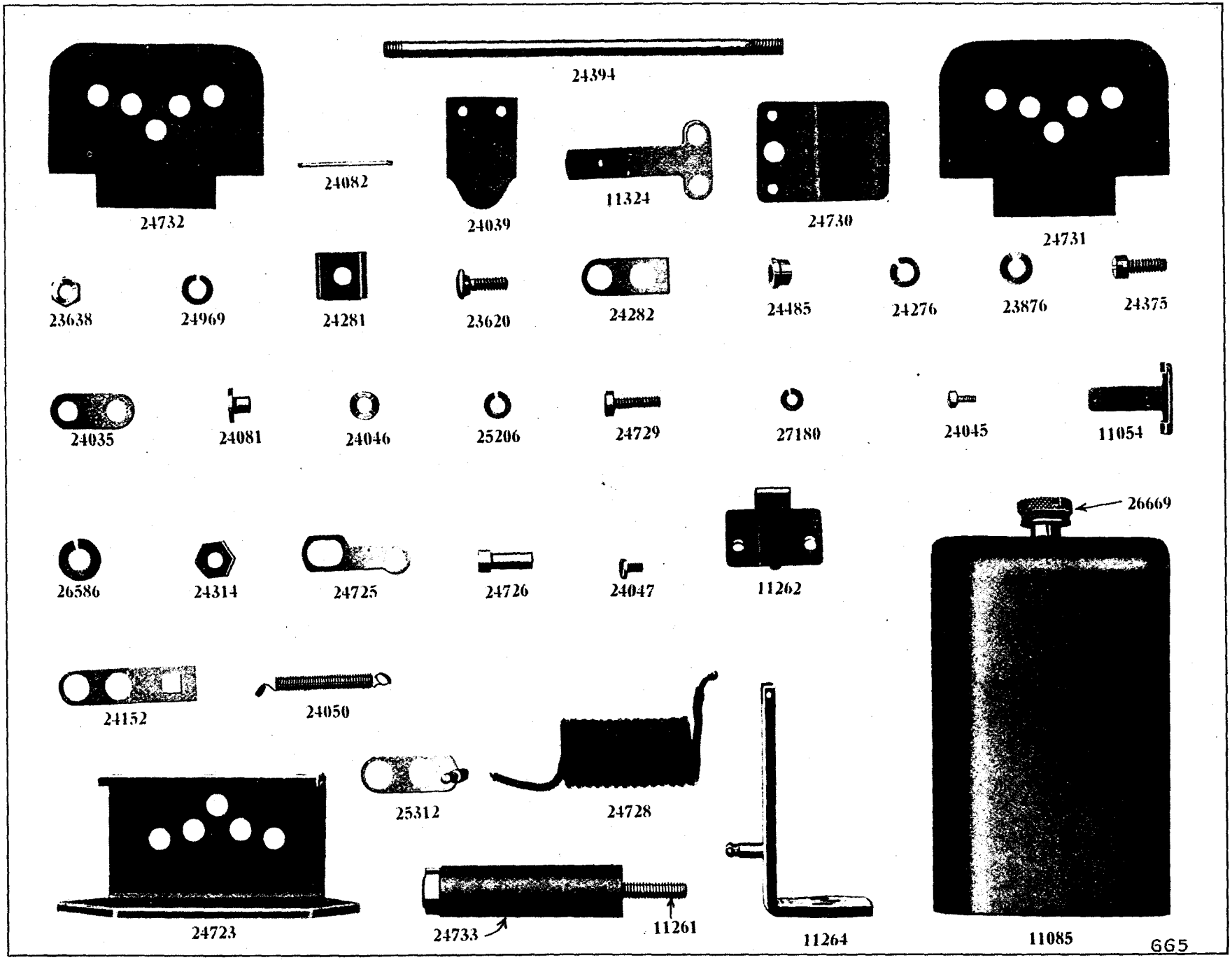
Piece Number	NAME OF PART	Quantity Required
5677	**IGNITION RELAY COMPLETE**	1
11084	**Contact Spring Assembly**	1
24299	Screw for attaching Contact Spring Assembly 11084	2
11395	**Armature Assembly**	1
24303	Pin for attaching Armature Assembly 11395	1
11136	**Bracket Assembly for Contact Spring Assembly 11084**	1
11082	**Coil Assembly** (Includes the next Item)	1
11087	**Adjusting Screw Assembly for Coil Assembly 11082**	1
11085	**Shell Assembly Complete (Long)** (Includes the next Item)	1
26669	Nut for Shell Assembly 11085	1
24389	Plain Washer for retaining Nut 26669	1
24285	Nut for retaining Spring Terminal Assembly 11090	6
24363	Plain Washer for Nut 24285	3
11090	**Spring Terminal Assembly for Shell Assembly 11446**	3
24142	Insulating Bushing for Spring Terminal Assembly 11090	3
24359	Insulating Washer for Spring Terminal Assembly 11090	3
11149	**Lead Assembly for Connecting Spring Terminal Assembly 11090 to Coil Assembly 11082 and Condenser Assembly 10735 (Not shown in Illustration)**	3
11495	**Shell Assembly** (Includes the next Item)	1
26669	Nut for Shell Assembly 11495	1
24333	Stud for retaining Shell Assembly 11446	1
24334	Rod for retaining Shell Assembly 11085	1
24390	Mounting Disc for Shell Assemblies 11446 and 11085	2
24346	Gasket for Mounting Disc 24390	2
24436	Insulating Bushing for Coil Assembly 11082 and Condenser Assembly 10735 (Not shown in Illustration)	6
24285	Nut for retaining Coil Assembly 11082 and Condenser Assembly 10735	4
26586	Lock Washer for Nut 24285	2
25226	Bracket for attaching Relay Assembly 5677	1
10735	**Condenser Assembly**	1
24270	Wire for connecting Terminals on Coil Assembly 11082 and Terminals on Condenser Assembly 10735 (19-32″ long) (Not shown in Illustration)	1
24964	Wire for connecting Terminals on Coil Assembly 11082 and Terminals on Condenser Assembly 10735 (.759″ long) (Not shown in Illustration)	1
24962	Wire for connecting Terminals on Coil Assembly 11082 and Terminals on Condenser Assembly 10735 (2 $^{9}/_{32}$″ long) (Not shown in Illustration)	1
24271	Wire for connecting Terminals on Coil Assembly 11082 and Terminals on Condenser Assembly 10735 (1 $^{29}/_{32}$″ long) (Not shown in Illustration)	1
24278	Sleeving for Wire 24962 (Not shown in Illustration)	1



No. 5692 CIRCUIT BREAKER

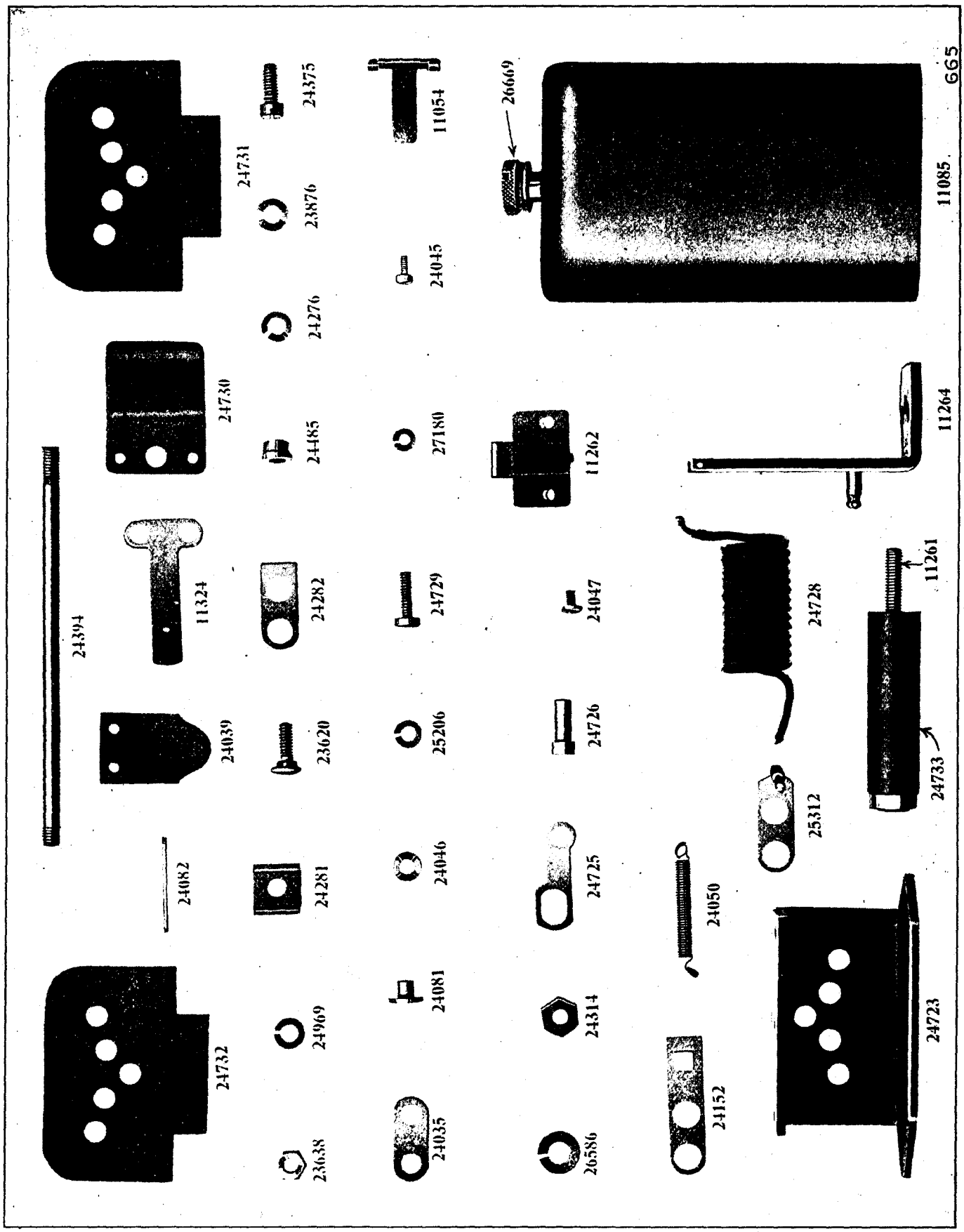
No. 5692 CIRCUIT BREAKER

Piece Number	NAME OF PART	Quantity Required
5692	**CIRCUIT BREAKER COMPLETE**	1
23761	Mounting Bracket for mounting Circuit Breaker	1
24316	Bracket for mounting Terminal Clip Assembly 11078	1
11078	**Terminal Clip Assembly for connecting Coil Assembly 13001**	1
24319	Insulator for Terminal Clip Assembly 11078	1
24321	Screw for mounting Terminal Clip Assembly 11078	2
13001	**Coil Assembly for Circuit Breaker**	1
24314	Nut for mounting Coil Assembly 13001	1
26586	Washer for Nut 24314	1
24039	Armature for operating Stop Assembly 11301	1
11301	**Stop Assembly for operating Contact Arm Assembly 11076**	1
24328	Stop for operating Contact with Fibre Bumper (Not shown in Illustration)	1
24330	Stud for Stop 24328 (Not shown in Illustration)	1
24050	Spring for operating Armature 24039	2
24045	Screw for mounting Stop Assembly 11301	2
27180	Washer for Screw 24045	2
24082	Pin for mounting Armature 24039	1
11076	**Contact Assembly**	1
11438	**Contact Assembly (Old Style) With Fibre Bumper (Not shown in Illustration)**	1
24213	Insulator under Contact Assembly 11076	2
24325	Screw for mounting Contact Assembly 11076 (Long)	2
24324	Screw for mounting Contact Assembly 11076 (Short)	2
24322	Insulating Bushing for Screw 24324	2
24323	Insulating Bushing for Screw 24325	2
25206	Lock Washer for Screws 24324 and 24325	4
24046	Plain Washer for Screws 24324 and 24325 (Not shown in Illustration)	4
24261	Insulating Washer for Screws 24324 and 24325	4
24259	Connector for connecting Oil Assembly 13001 to Terminal Plate 24286	1
24286	Terminal Plate for connecting Circuit Breaker	2
23553	Screw for retaining Clip 23450	2
23450	Clip for retaining Terminal Clips	2
23452	Nut for Screw 23553	2
23699	Lock Washer for Nut 23452	2
24235	Insulator for Connector 24259	1
24268	Pin for locating Mounting Bracket 23761 and Bracket 24316	1
23374	Terminal Clip for Circuit Breaker 5692	2


24394
24732
24082
24039
11324
24730
24731
23638
24969
24281
23620
24282
24485
24276
23876
24375
24035
24081
24046
25206
24729
27180
24045
11054
26586
24314
24725
24726
24047
11262
26669
24152
24050
25312
24728
24723
24733
11261
11264
11085
665

No. 5695 CIRCUIT BREAKER

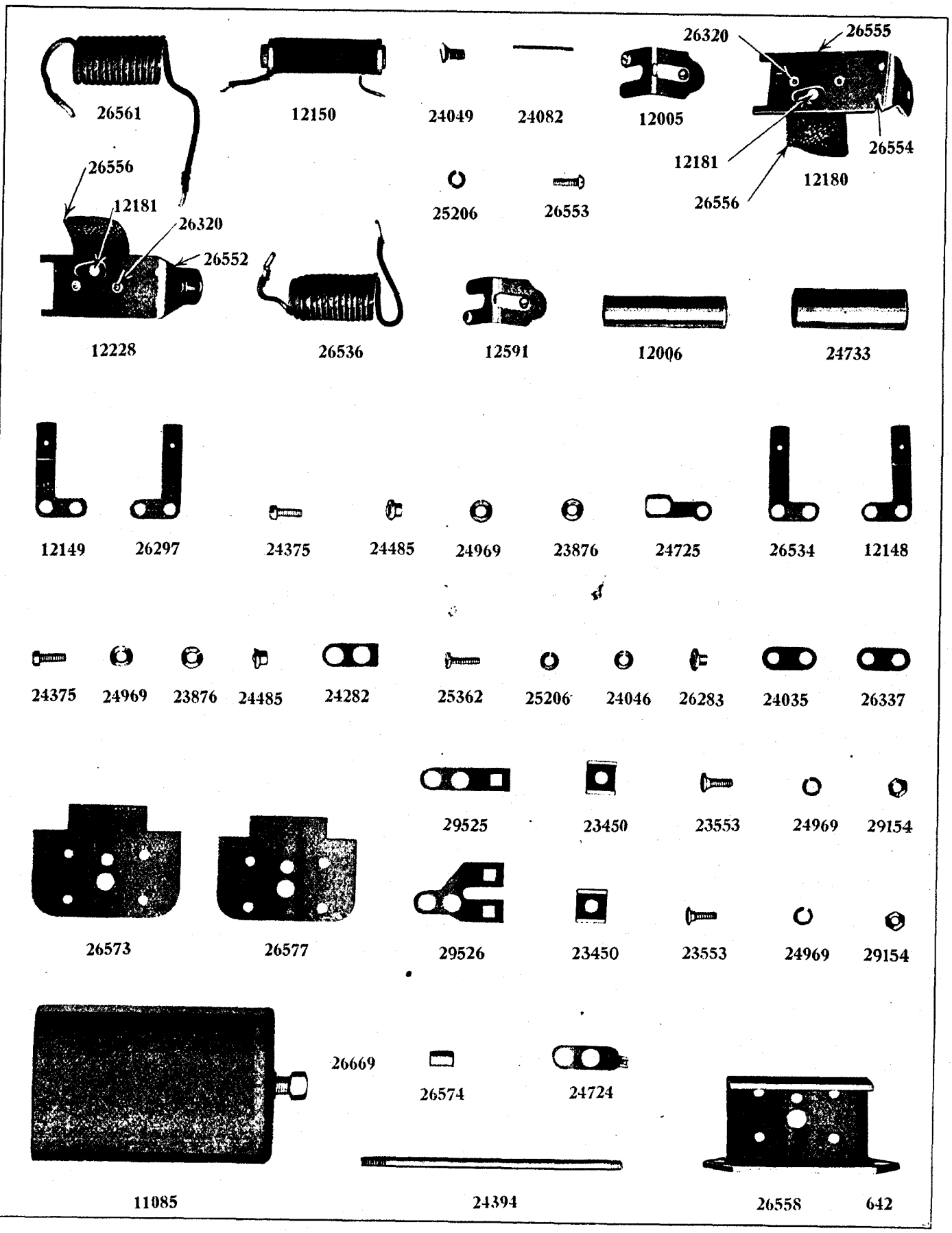
Piece Number	NAME OF PART	Quantity Required
5695	**CIRCUIT BREAKER COMPLETE**	1
11085	**Shell Assembly Complete** (Includes the next 2 Items)	1
26669	Nut for Shell Assembly 11085	1
24389	Plain Washer for Nut 26669 (Not shown in Illustration)	1
11324	**Contact Spring Assembly (Upper Contact)**	2
11054	**Stop Assembly for Operating Contact Spring Assembly 11324**	2
11262	**Terminal Assembly (Lower Contact)**	1
24039	Armature for Operating Stop Assembly 11054	2
11261	**Core Assembly for Coils 24728 and 25580**	2
24733	Insulating Sleeve for Coils 24728 and 25580	2
11264	**Bracket Assembly for Coil Assembly 11261 and Contact Spring Assembly 11324**	2
24723	Bracket for Bracket Assembly 11264	1
25312	Terminal Clip under Center Terminal for connecting Coils 24728 and 25580	1
23876	Plain Washer for Screw 24375	6
20393	Lock Washer for Screw 24375	6
24485	Insulating Bushing for Screw 24375	6
24282	Insulator for Terminal Post Assembly 11135	3
24375	Screw for attaching Terminal Post Assembly 11135	6
24276	Lock Washer for Screw 24375	6
24152	Base Plate for connecting Circuit Breaker	1
23620	Screw for retaining Terminal Clamp 24281	1
23638	Nut for Screw 23620	1
20393	Lock Washer for Nut 23638	1
24281	Terminal Clamp for retaining Terminal Clip 23375	1
24314	Nut for retaining Core Assembly 11261	4
26586	Lock Washer for Nut 24314	2
24729	Screw for retaining Contact Spring Assembly 11324	4
25206	Lock Washer for Screw 24729	4
24046	Plain Washer for Screw 24729	4
24081	Insulating Bushing for Screw 24729	4
24725	Terminal Plate for connecting Terminal Assembly 11135 and Contact Spring Assembly 11324	2
24732	Mounting Plate for Shell Assembly 11085 (Large)	1
24731	Mounting Plate for Shell Assembly 11085 (Small)	1
24726	Insulating Bushing for Coils 24728 and 25580	2
24035	Insulating Plate for Contact Spring Assembly 11324	4
24730	Insulator for Terminal Assembly 11262	2
25580	Coil for Right Hand Relay (Not shown in Illustration)	1
24728	Coil for Left Hand Relay	1
24050	Spring for Operating Armature 24039	4
24082	Pin for retaining Armature 24039	2
24394	Pin for retaining Shell Assembly 11085	1
24047	Screw for attaching Terminal Assembly 11262	1
24045	Screw for attaching Stop Assembly 11054	2
27180	Lock Washer for Screw 24045	4
23375	Terminal Clip for connecting Circuit Breaker (Not shown in Illustration)	3



No. 5696 CIRCUIT BREAKER

No. 5696 CIRCUIT BREAKER

Piece Number	NAME OF PART	Quantity Required
5696	**CIRCUIT BREAKER COMPLETE**	1
11085	**Shell Assembly Complete** (Includes the next 2 Items)	1
26669	Nut for retaining Shell Assembly 11085	1
24389	Plain Washer for Nut 26669 (Not shown in Illustration)	1
11324	**Contact Spring Assembly (Upper Contact)**	1
11264	**Bracket Assembly for Armature 24039 and Contact Spring Assembly 11324**	1
11054	**Stop Assembly Complete for Operating Contact Spring Assembly 11324**	1
11262	**Terminal Assembly (Lower Contact)**	1
11261	**Core Assembly for Coil 24728**	1
24723	Bracket for Circuit Breaker	1
24724	Terminal for connecting Coil 24728 and Terminal Post Assembly 11135 (Not shown in Illustration)	1
24375	Screw for retaining Terminal Post Assembly 11135	3
20393	Lock Washer for Screw 24375	3
23876	Plain Washer for Screw 24375	3
24485	Insulating Bushing for Screw 24375	3
24282	Insulator for Terminal Post Assembly 11135	2
24152	Base Plate for connecting Circuit Breaker	1
23620	Screw for retainnig Terminal Clip 24281	1
23638	Nut for Screw 23620	1
24276	Lock Washer for Nut 23638	1
24281	Terminal Clamp for retaining Terminal Clip 23375	1
24394	Pin for retaining Shell Assembly 11085	1
24728	Coil for Circuit Breaker 5696	1
24314	Nut for retaining Core Assembly 11261	2
26586	Lock Washer for Nut 24314	1
24050	Spring for Operating Contact Spring Assembly 11324	2
24039	Armature for Operating Stop Assembly 11324	1
24082	Pin for attaching Armature 24039	1
24045	Screw for retaining Stop Assembly 11054	2
27180	Lock Washer for Screw 24045	2
24729	Screw for retaining Contact Spring Assembly 11324	2
25206	Lock Washr for Screw 24729	2
24046	Plain Washer for Screw 24729	2
24081	Insulating Bushing for Screw 24729	2
24726	Insulating Bushing for Coil 24728	2
24732	Mounting Plate for Shell Assembly 11085 (Large)	1
24731	Mounting Plate for Shell Assembly 11085 (Small)	1
24733	Insulating Sleeve for Coil 24728	1
24035	Insulating Plate for Contact Spring Assembly 11324	2
24730	Insulator for Terminal Assembly 11262	1
24047	Screw for retaining Terminal Assembly 11262	2
24375	Screw for retaining Terminal Plate 24725	1
24725	Terminal Plate for connecting Contact Spring Assembly 11324 and Terminal Post Assembly 11135	1
20393	Plain Washer for Screw 24375	1
24485	Insulating Bushing for Screw 24375	1
23876	Plain Washer for Screw 24375	1
23375	Terminal Clip for connecting Circuit Breaker 5696 (Not shown in Illustration)	2

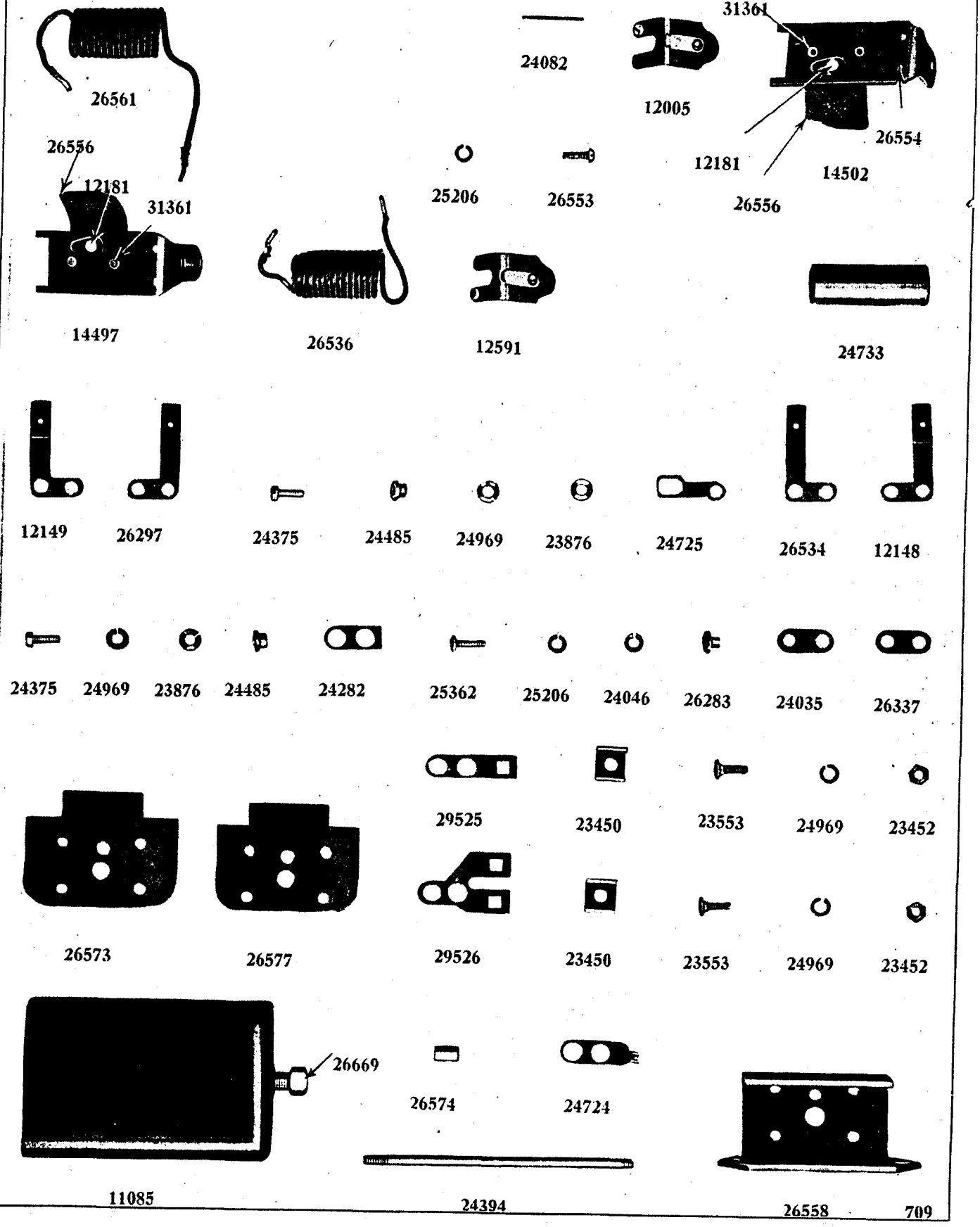


No. 5705 CIRCUIT BREAKER

5705 CIRCUIT BREAKER

Note: No. 5705 Circuit Breaker superseded by No. 5742 Circuit Breaker. When ordering a complete new unit, order No. 5742.

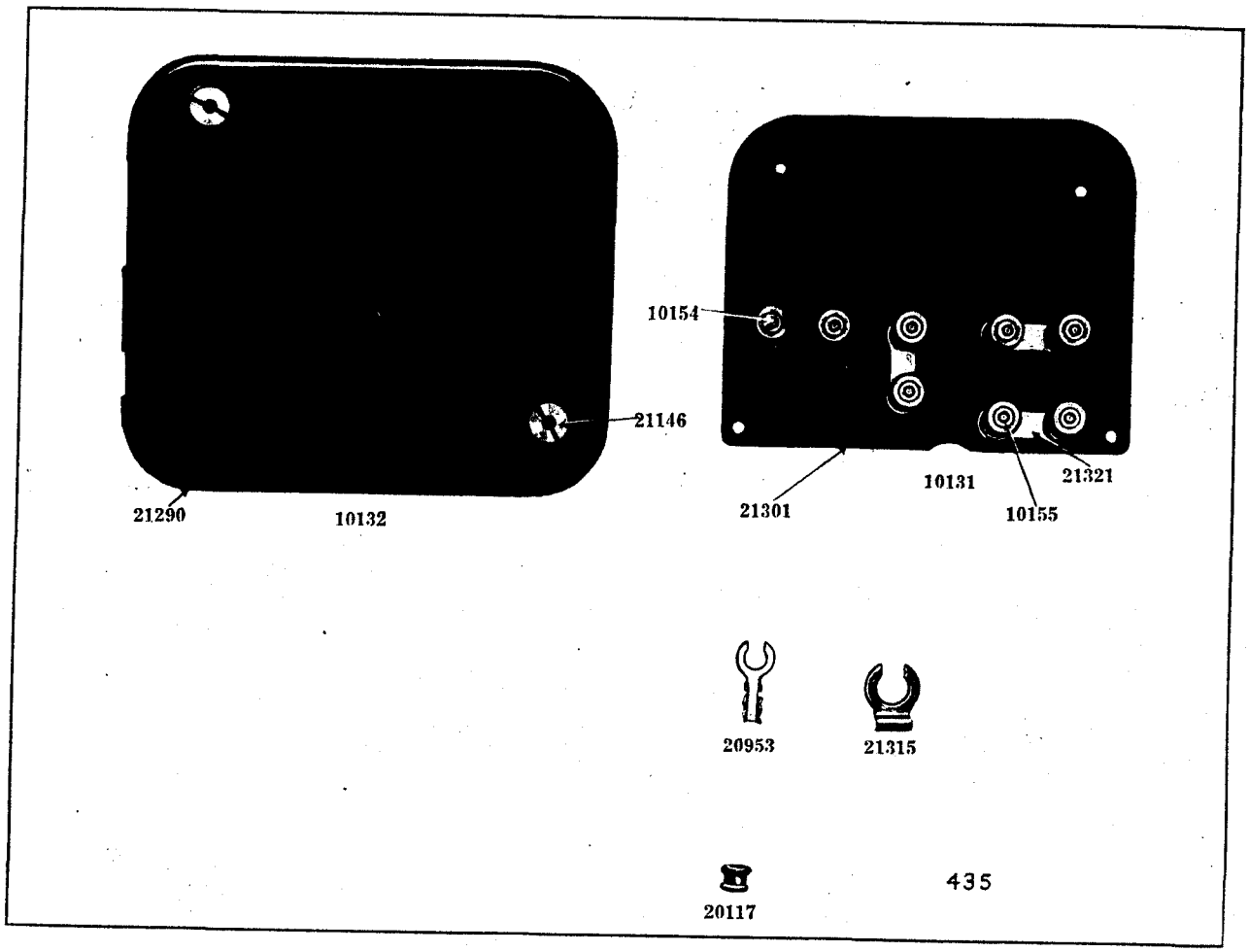
Piece Number	NAME OF PART	Quantity Required
5705	**CIRCUIT BREAKER COMPLETE**	1
26558	Bracket for Mounting Assembly	1
24394	Pin for retaining Shell Assembly 11085	1
29526	Terminal Post for Switch (Double)	1
23553	Screw for retaining Clamp 23450	3
23452	Nut for Screw 23553	3
20393	Lock Washer for Nut 23452	3
23450	Clip for retaining Terminal Clip	3
29525	Terminal Post for Switch (Single)	2
24375	Screw for retaining Terminal Post Assemblies	4
20393	Lock Washer for Screw 24375	4
23876	Plain Washer for Screw 24375	4
24485	Insulating Bushing for Screw 24375	4
26574	Insulating Bushing in Bracket 26558 for Coils 26561 and 26536	1
26573	Mounting Plate for Shell Assembly 11085 (Large)	1
26577	Mounting Plate for Shell Assembly 11085 (Small)	1
24724	Terminal Plate for connecting Coils 26536 and 26561	1
24282	Insulator for Terminal Post Assemblies 12186 and 12187	3
11085	**Shell Assembly Complete** (Includes the next 2 Items)	1
26669	Nut for Shell 24387	1
24389	Plain Washer for Nut 26669	1
26536	Coil for Vibrating Relay	1
26561	Coil for Lock Out Relay (Outer)	1
12150	**Coil Assembly for Lock Out Relay (Inner)**	1
12006	**Core Assembly for Vibrating Relay**	1
24733	Insulating Sleeve for Core Assembly 12006	1
12591	**Armature Assembly for Vibrating Relay**	1
12005	**Armature Assembly for Lock Out Relay**	1
24082	Pin for attaching Armature Assemblies 12005 and 12591	2
24049	Screw for retaining Core Assembly 12006 and Coil Assembly 12150	2
26297	Spring for operating Armature Assembly 12005	1
26534	Spring for operating Armature Assembly 12591	1
12148	**Contact Spring Assembly for Vibrating Relay (Upper Contact)**	1
12149	**Contact Spring Assembly for Lock Out Relay (Upper Contact)**	1
24035	Insulating Plate for Contact Spring Assemblies 12148 and 12149 (Thick)	2
26337	Insulating Plate for Contact Spring Assemblies 12148 and 12149 (Thin)	2
24725	Terminal Plate for connecting Terminal Post Assemblies 12186 and 12187 to Contact Spring Assemblies 12148 and 12149	2
24375	Screw for retaining Terminal Plate 24725	2
20393	Lock Washer for Screw 24375	2
23876	Plain Washer for Screw 24375	2
24485	Insulating Bushing for Screw 24375	2
25362	Screw for retaining Contact Spring Assemblies 12148 and 12149	4
25206	Lock Washer for Screws 26553 and 25362	8
24046	Plain Washer for Screw 25362	4
24081	Insulating Bushing for Screw 25362	1
26553	Screw for retaining Bracket Assemblies 12180 and 12228	4
12180	**Bracket Assembly for Lock Out Relay** (Includes the next 5 Items	1
26555	Bracket for Bracket Assembly 12180	1
12181	**Terminal Assembly (Lower Contact)**	1
26320	Rivet for retaining Terminal Assembly 12181	2
26556	Insulator for Terminal Assembly 12181	1
26554	Bushing for Bracket 26555	1
12228	**Bracket Assembly for Vibrating Relay** (Includes the next 4 Items)	1
26552	Bracket for Bracket Assembly 12228	1
12181	**Terminal Assembly (Lower Contact)**	1
26556	Insulator for Terminal Assembly 12181	1
26320	Rivet for retaining Terminal Assembly 12181	2
23374	Terminal Clip for connecting Circuit Breaker (Small) (Not shown in Illustration)	2
23375	Terminal Clip for connecting Circuit Breaker (Large) (Not shown in Illustration)	2



No. 5742 CIRCUIT BREAKER

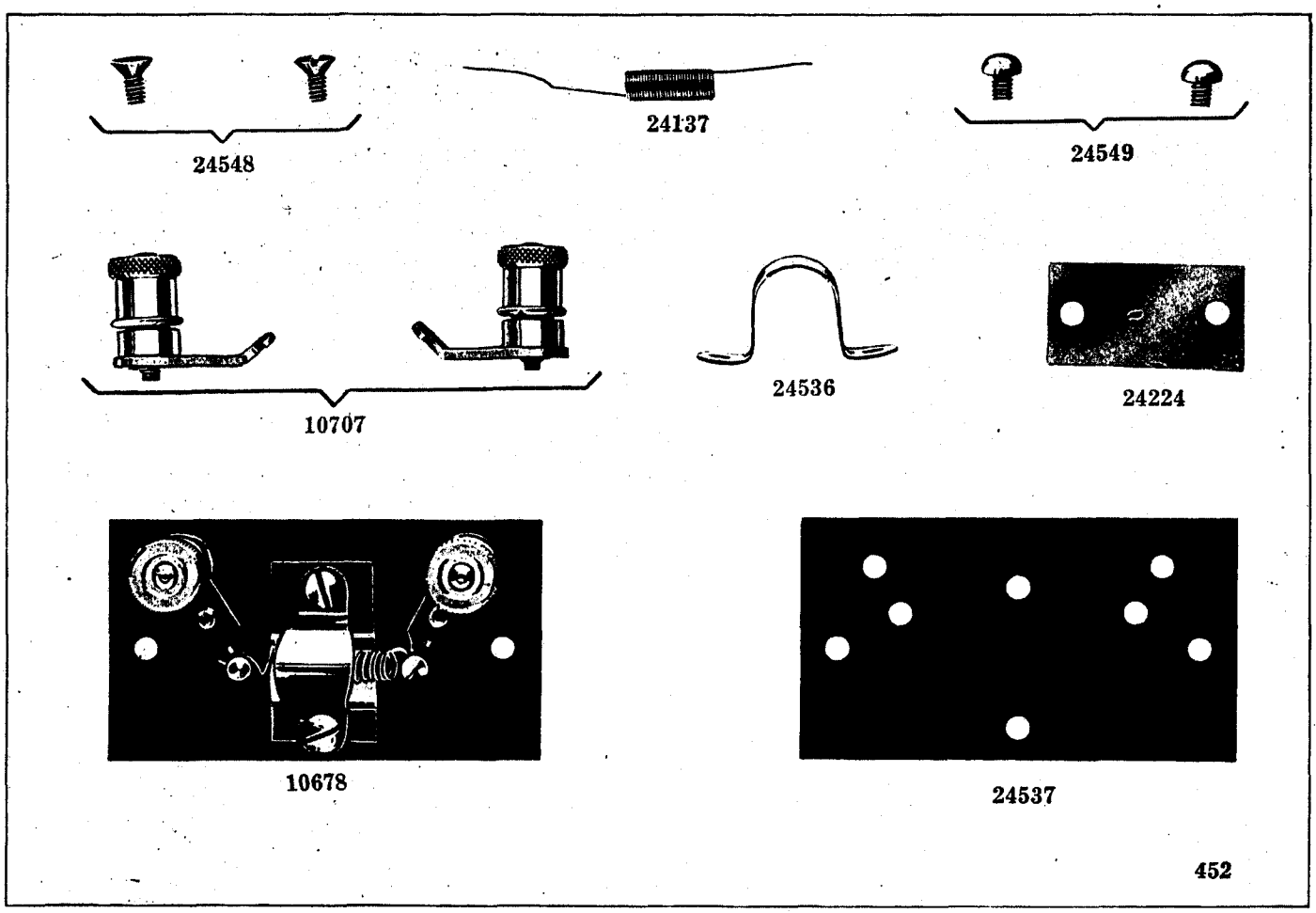
No. 5742 CIRCUIT BREAKER

Piece Number	NAME OF PART	Quantity Required
5742	**CIRCUIT BREAKER CMPLETE**	1
26558	Bracket for mounting Circuit Breaker	1
24294	Pin for retaining Shell Assembly 11085	1
29525	Terminal Post (Single)	1
29526	Terminal Post (Double)	1
23553	Screw for retaining Clamp 23450	4
23452	Nut for Screw 23553	4
20393	Lock Washer for Nut 23452	4
23450	Clamp for retaining Terminal Post	4
24375	Screw for retaining Terminal Posts 29525 and 29526	4
20393	Lock Washer for Screw 24375	4
23876	Plain Washer for Screw 24375	4
24485	Insulating Bushing for Screw 24375	4
26574	Insulating Bushing in Bracket 26558 for Coils 26561 and 26536	1
26573	Mounting Plate for Shell Assembly 11085 (Large)	1
26577	Mounting Plate for Shell Assembly 11085 (Small)	1
24724	Terminal Plate for connecting Coils 26536 and 26561	1
24282	Insulator for Terminal Posts 29525 and 29526	3
11085	**Shell Assembly Complete**	1
	(Includes the next 2 Items)	
26669	Nut for Shell	1
24389	Plain Washer for Nut 26669	1
26536	Coil for Vibrating Relay	1
26561	Coil for Lock Out Relay (Outer)	1
24733	Insulating Sleeve for Coil 26536	1
12591	**Armature Assembly for Vibrating Relay**	1
12005	**Armature Assembly for Lock Out Relay**	1
24082	Pin for attaching Armature Assemblies 12005 and 12591	2
26297	Spring for operating Armature Assembly 12005	1
26534	Spring for operating Armature Assembly 12591	1
12148	**Contact Spring Assembly for Vibrating Relay (Upper Contact)**	1
12149	**Contact Spring Assembly for Lock Out Relay (Upper Contact)**	1
24035	Insulating Plate for Contact Spring Assemblies 12148 and 12149 (Thick)	2
26337	Insulating Plate for Contact Spring Assemblies 12148 and 12149 (Thin)	2
24725	Terminal Plate for connecting Terminal Posts 29525 and 29526 to Contact Spring Assemblies 12148 and 12149	2
24375	Screw for retaining Terminal Plate 24725	2
20393	Lock Washer for Screw 24375	2
23876	Plain Washer for Screw 24375	2
24485	Insulating Bushing for Screw 24375	2
25362	Screw for retaining Contact Spring Assemblies 12148 and 12149	4
25206	Lock Washer for Screws 26553 and 25362	8
24046	Plain Washer for Screw 25362	4
24081	Insulating Bushing for Screw 25362	1
26553	Screw for retaining Bracket Assemblies	4
14502	**Bracket Coil and Contact Assembly**	1
	(Includes the next 3 Items)	
12181	**Terminal Assembly (Lower Contact)**	1
26320	Rivet for retaining Terminal Assembly 12181	2
26556	Insulator for Terminal Assembly 12181	1
26554	Bushing for Bracket Assembly	1
14497	**Bracket Core and Contact Assembly**	1
	(Includes the next 3 Items)	
12181	**Terminal Assembly (Lower Contact)**	1
26556	Insulator for Terminal Assembly 12181	1
26320	Rivet for retaining Terminal Assembly 12181	2
23374	Terminal Clip for connecting Circuit Breaker (Small) (Not shown in illustration)	2
23375	Terminal Clip for connecting Circuit Breaker (Large) (Not shown in illustration)	2



No. 10131 TERMINAL BOARD

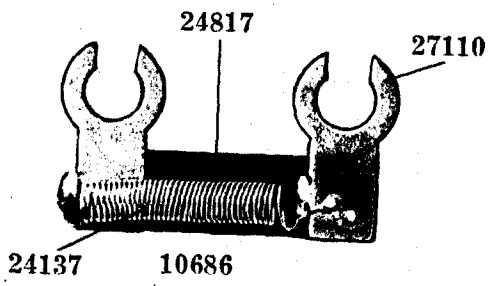
Piece Number	NAME OF PART	Quantity Required
10131	**TERMINAL BOARD ASSEMBLY COMPLETE** ..... (Includes the next 6 Items)	1
10154	**Spring Terminal Assembly (Short)**	8
21301	Plate for Terminal Board Assembly 10131	1
21321	Connector for Spring Terminal Assembly 10154	3
21314	Screw for retaining Spring Terminal Assembly 10154 (Not shown in Illustration) ..	8
21333	Lock Washer for Screw 21314 (Not shown in Illustration)	8
10132	**Terminal Board Cover Assembly Complete** ..... (Includes the next 2 Items)	1
21146	Nut for Cover 21290	2
20114	Lock Washer for Nut 21146 (Not shown in Illustration)	2
20953	Terminal Clip (Long)	1
21315	Terminal Clip (Short)	1
20117	Insulating Bushing for Plate 21301	2

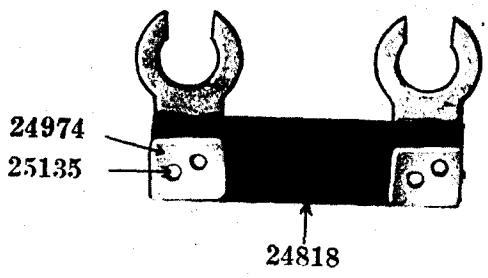


No. 10678 RESISTANCE UNIT

Note: No. 10678 Resistance Unit superseded by No. 10680 Resistance Unit. When ordering a complete new unit, order No. 10680.

Piece Number	NAME OF PART	Quantity Required
10678	**RESISTANCE UNIT ASSEMBLY COMPLETE** ..... (Includes the next 7 Items)	1
24537	Plate for holding Spring Terminal Assembly 10707	1
10707	**Spring Terminal Assembly**	2
24548	Screw for attaching Spring Terminal Assembly 10707	2
24536	Protector for Coil 24137	1
24549	Screw for retaining Protector 24536	2
24137	Coil for Resistance Unit Assembly 10678	1
24224	Insulator for Coil 24137	1

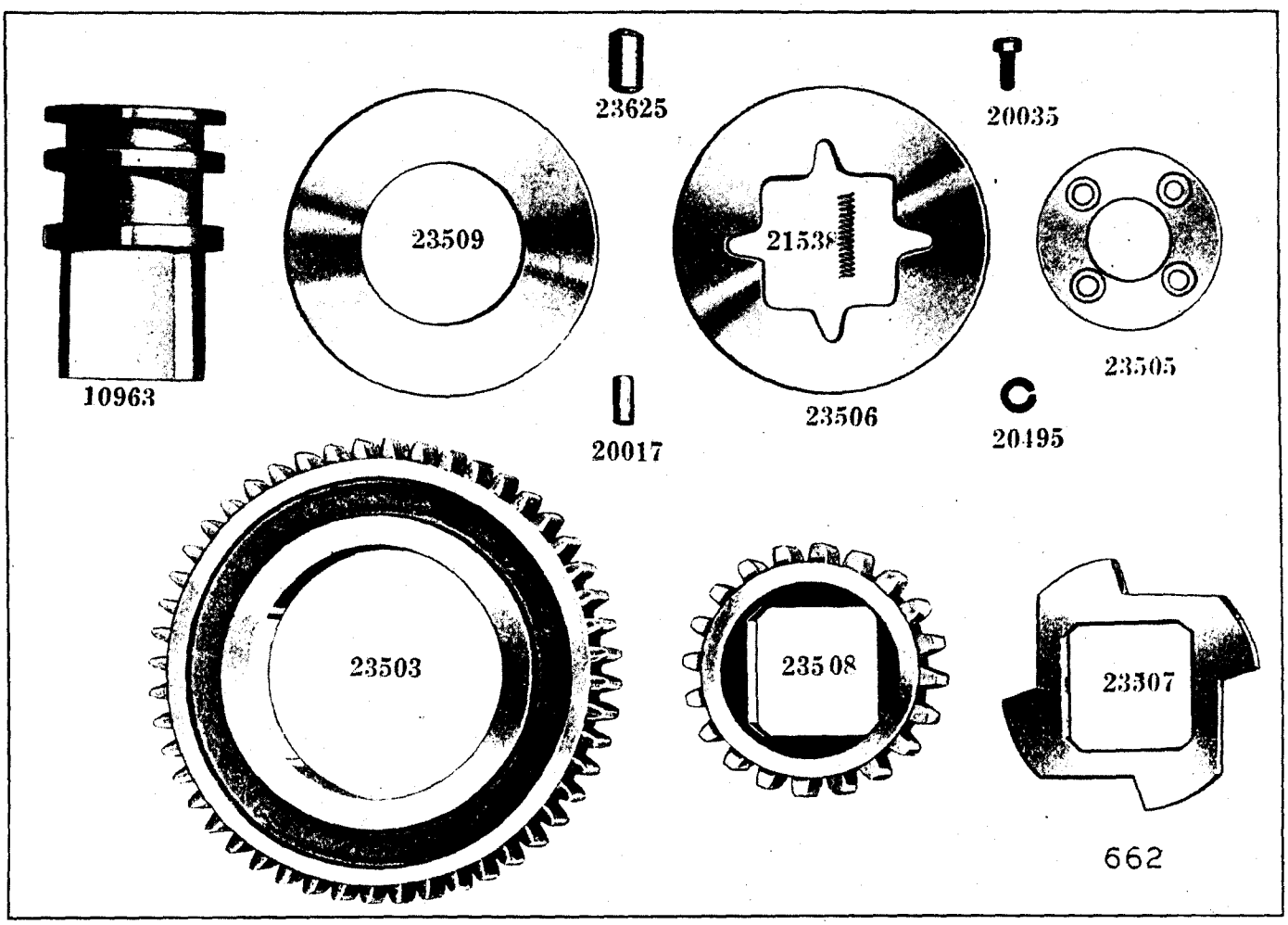




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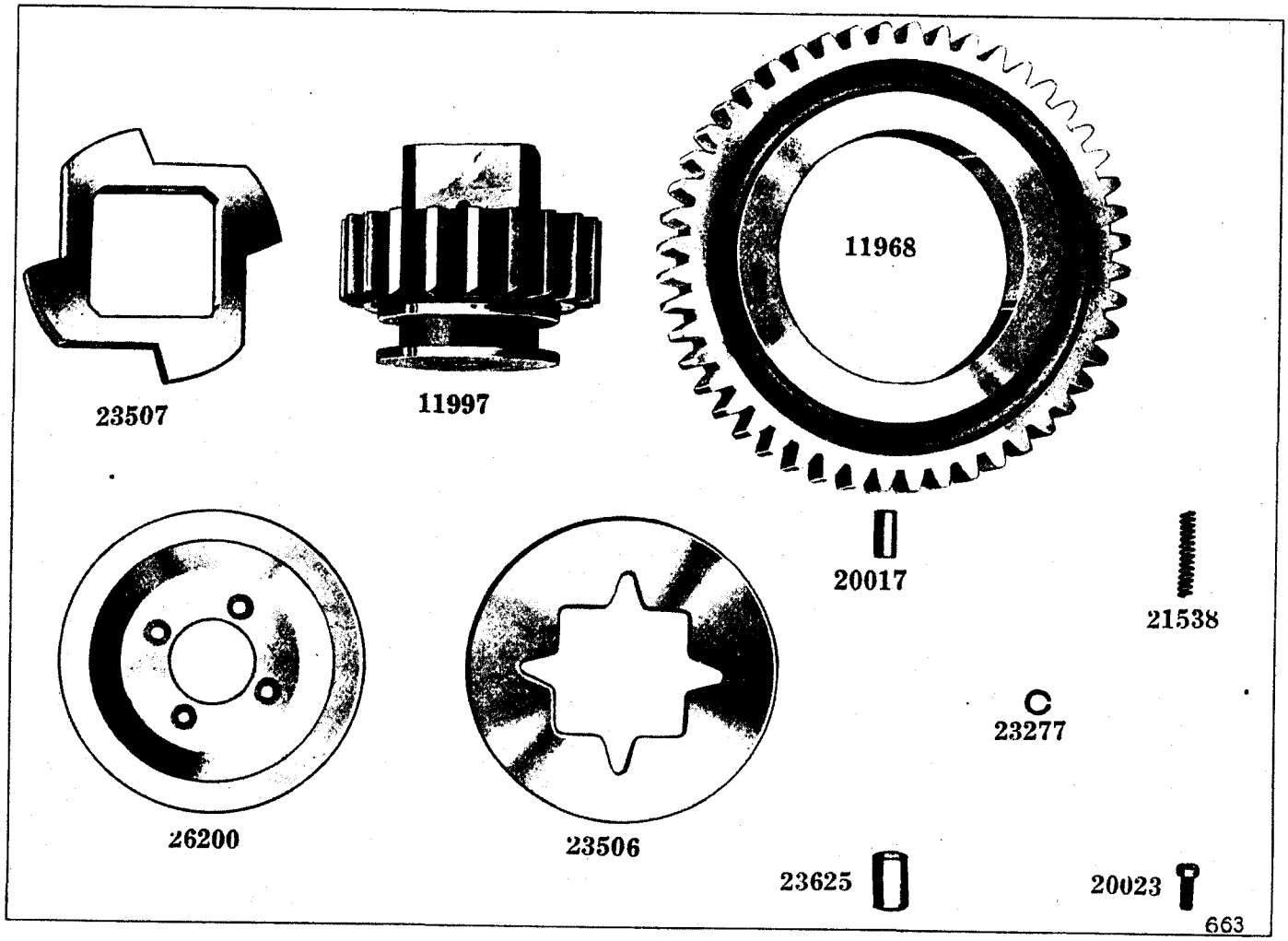
No. 10686 RESISTANCE UNIT

Piece Number	NAME OF PART	Quantity Required
10686	**RESISTANCE UNIT ASSSEMBLY COMPLETE** ..... (Includes the next 6 Items)	1
24974	Plate for mounting Terminal 27110	1
27110	Terminal for Resistance Unit Assembly 10686	2
25135	Rivet for retaining Terminal 27110	4
24137	Coil for Resistance Unit Assembly 10686	1
24817	Insulator for Coil 24137 (Mica)	1
24818	Insulator for Coil 24137 (Black Fibre)	1



No. 10726 MOTOR CLUTCH

Piece Number	NAME OF PART	Quantity Required
10726	**MOTOR CLUTCH ASSEMBLY COMPLETE** ..... (Includes the next 12 Items)	1
10963	**Sleeve Assembly**	1
23508	Pinion for Motor Clutch Assembly 10726	1
23503	Gear for Motor Clutch Assembly 10726	1
23507	Cam for Gear 23503	1
23625	Roll for Cam 23507	4
23509	Retainer for Roll 23625 (Large Hole) (Inner)	1
23506	Retainer for Roll 23625 (Small Hole) (Outer)	1
20035	Screw for Retainers 23506 and 23509	4
20495	Lock Washer for Screw 20035	4
23505	Clamp Washer for Pinion 23508	1
20017	Plunger for Roll 23625	4
21538	Spring for Plunger 20017	4



No. 11973 MOTOR CLUTCH

Piece Number	NAME OF PART	Quantity Required
11973	**MOTOR CLUTCH ASSEMBLY COMPLETE** (Includes the next 10 Items)	1
11997	**Pinion Assembly**	1
11968	**Gear Assembly**	1
23506	Retainer for Roll 23625 (Inner)	1
26200	Retainer for Roll 23625 (Outer)	1
20023	Screw for Retainers 26200 and 23506	4
23277	Lock Washer for Screw 20023	4
23507	Cam for Gear Assembly 11968	1
23625	Roll for Cam 23507	4
20017	Plunger for Roll 23625	4
21538	Spring for Plunger 20017	4