

ORIGINAL



SPECIFICATIONS

INTERNATIONAL JAN. I

1929

MODELS	CYLINDERS									
	BORE	STROKE	NO	HORSEPOWER		COMP RATIO	PISTON DISPLACE- MENT CUB IN	HEAD	CAST	VALVE DRIVEN PER MIN
				VACC	MAX					
CHARTON										
ROADSTER										
SEDAN										
COACH										
COUPE	$\frac{5}{316}$	$3\frac{3}{4}$	6	263	4681 2600 R.P.M.	50:1 TO 1	194	SEPARATE	EN-3700	132
CABRIOLET										
INFANTIAL										
SEDAN										
CHASSIS										
SEDAN DEL										
CHARTON										
CHARTON S										
COMMERCIAL										
CHARTON S										
UTEP TRUCK										

1929 INTERNATIONAL MOTOR SPECIFICATIONS

MODELS	CAMSHAFT BEARINGS			CRANKSHAFT BEARINGS					CRANKSHAFT CENTER TO TOP OF CYLINDER
	FRONT	CENTER	REAR	FRONT	CENTER	REAR	CLEARANCE	MATERIAL	
THRETON	9 1/16 X 1 3/8	1 25/32 X 1 1/8	5 8/11 X 1 9/16	1 15/16 X 1 3/4	2 X 2	2 1/8 X 2 3/16	0005 X 0025	ALUMINUM BRASS	10.753
ROADSTER									
SEDAN									
LOUCH									
LOUPE									
CHRYSLER									
WHEEL									
SEDAN									
CHASSIS									
SEDAN									
THRETON									
CHASSIS									
COMMERCIAL									
CHASSIS									
CHRYSLER									

1929 INTERNATIONAL MOTOR SPECIFICATIONS

MODELS	TYPE OF MOTOR	CONNECTING ROD & PISTON							PISTON	
		PISTON DIA	PISTON DIA DIFFER	CRANK P.A	LENGTH OF ROD	WEIGHT	CLEARANCE TOP	GRAND DIAM	PISTON DIA	PISTON DIA
P-45TON	SUPER 3.170	1 X 2 7/8	None	2 X 1 5/8	7	16 LBS	0.1	150	3	3 1/2
ROADSTER										
SEDAN										
CORCH										
COUPE										
CARROLLET										
IMPERIAL										
SECON										
SECON DEL										
P-45TON										
CHASSIS										
COMMERCIAL										
CHASSIS										
TRUCK										

1929 INTERNATIONAL MOTOR SPECIFICATIONS

MODELS	FRN				START 16-24-103-151-101							
	DIA	NO OF BLADES	BEARING	RAFT	TYPE	START- BUTOR TYPE	MANUAL RETARD	AUTOMATIC ADVANCE	AUTOMATIC DIST. CONT.	SYSTEM	ADJUSTING	NO.
PHRETON												
ROADSTER												
SEDAN												
COUCH												
COUPE												
CHARRIOT	5'4"	2					15°	20°	.030			
IMPERIAL												
SEDAN												
CLASSIS												
SEDAN DEL.												
PHRETON												
CHASSIS												
CONVERTIBLE												
CHASSIS												
UTEXPT. TRUCK	15	4										

1929 INTERNATIONAL MOTOR SPECIFICATIONS

MODELS	FLY WHEEL			OILING SYSTEM	OIL PRESSURE	OIL DRAINED	OIL CAPACITY	TYPE OF WATER PUMP	UPPER HOSE	LOWER HOSE	WATER CAPACITY QUARTS
	NO. TEETH	TOOTH WIDTH	WEIGHT								
PHRETON				SPLASH SYSTEM OIL CIRCULATED BY ROTOR PUMP IN CRANKCASE	12.85 AT 30 MILES PER HOUR	EVERY 3000 MILES - SUMMER EVERY 500 MILES - WINTER	6 QTS.	CENTRIFUGAL	1 1/2" X 5/8" HOSES	10 QTS.	
ROADSTER											
SEDAN											
CORCH											
COUPE	104	3.4	34.58								
CABRIOLET											
IMPERIAL											
SEDAN											
CHASSIS											
SEDAN DEL											
PHRETON											
CHASSIS											
COMMERCIAL											
CHASSIS											
UTEN TRUCK											

1929 INTERNATIONAL MOTOR SPECIFICATIONS

MODELS	WHEEL BASE	TREAD	TURNS	WHEELS	FRAME			STEERING WHEEL		
					OVERALL WIDTH	OVERALL LENGTH	SECTION	AXIS UP	TYPE	ANGLE OF POST
PARAGON	07	50	450-20 52.015	450-20 52.015	FRONT 25.64 REAR 44.94	E TO E 148.32 OVERALL 50.58	4 3/4 x 3 1/2 x 3/4	4 1/8	SEM-REINFORCED FULL WORM GEAR	40.0°
ROADSTER										
SEDAN										
CABRIO										
COUPE										
CABRIOLETT										
MPV 2.0										
SEDAN	13	55C	5X20	DISC DEWARM 5X20	20.2	87.3	6X24x5 3/8	2 1/2	40.0°	40.0°
CHASSIS										
COMMERCIAL										
CHASSIS	13	55C	5X20	DISC DEWARM 5X20	20.2	87.3	6X24x5 3/8	2 1/2	40.0°	40.0°
CHASSIS										

1929 INTERNATIONAL CHASSIS SPECIFICATIONS

MODELS	SERVICE BRAKES				EMERGENCY BRAKES			
	TYPE OF BRAKE	DIA OF DRUM	WIDTH OF LINING	EFFECTIVE AREA SQ IN	TYPE OF BRAKE	DIA OF DRUM	WIDTH	TRAIL
PACER	REAR-DRUM FRONT-DRUM INTERVAL EXPD 10	10 1/2	1 1/2	50	INTERVAL EXPD 10	10 1/2	1 1/2	10
PORTER								
SEDA								
LOREL								
COUPE								
CABRIOLET								
WAGON								
SEDAN								
SEDAN								
SEDAN								
UTAH								

1929 INTERNATIONAL CHASSIS SPECIFICATIONS

MODELS	SERVICE BRIDGE	FRONT AXLE						JACK CLEARANCE	CROSS IN ANGLE
		DIVISION OF POWER	SEC-TION	STEERING	AXLE DIA OF RING	WHEEL BEARINGS	INNER		
0-AL-101									
0-AL-102									
0-AL-103									
0-AL-104									
0-AL-105									
0-AL-106									
0-AL-107									
0-AL-108									
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0-AL-199									
0-AL-200									

1929 INTERNATIONAL CHASSIS SPECIFICATIONS

MODEL	FRONT AXLE		DRIVE SHAFT				WHEEL
	TYPE	AVG. A. TORQUE	DRIVE SHAFT	TYPE	WHEEL	WHEEL	
CHARTER							
ROADSTER							
WAGON							
COACH							
COUPE							
CARROLL							
WAGON							
SEDAN							
SEDAN DEL							
PHARETON							
CHASSIS							
COMMERCIAL							
CHASSIS							
UTILITY							

1929 INTERNATIONAL MOTOR SPECIFICATIONS

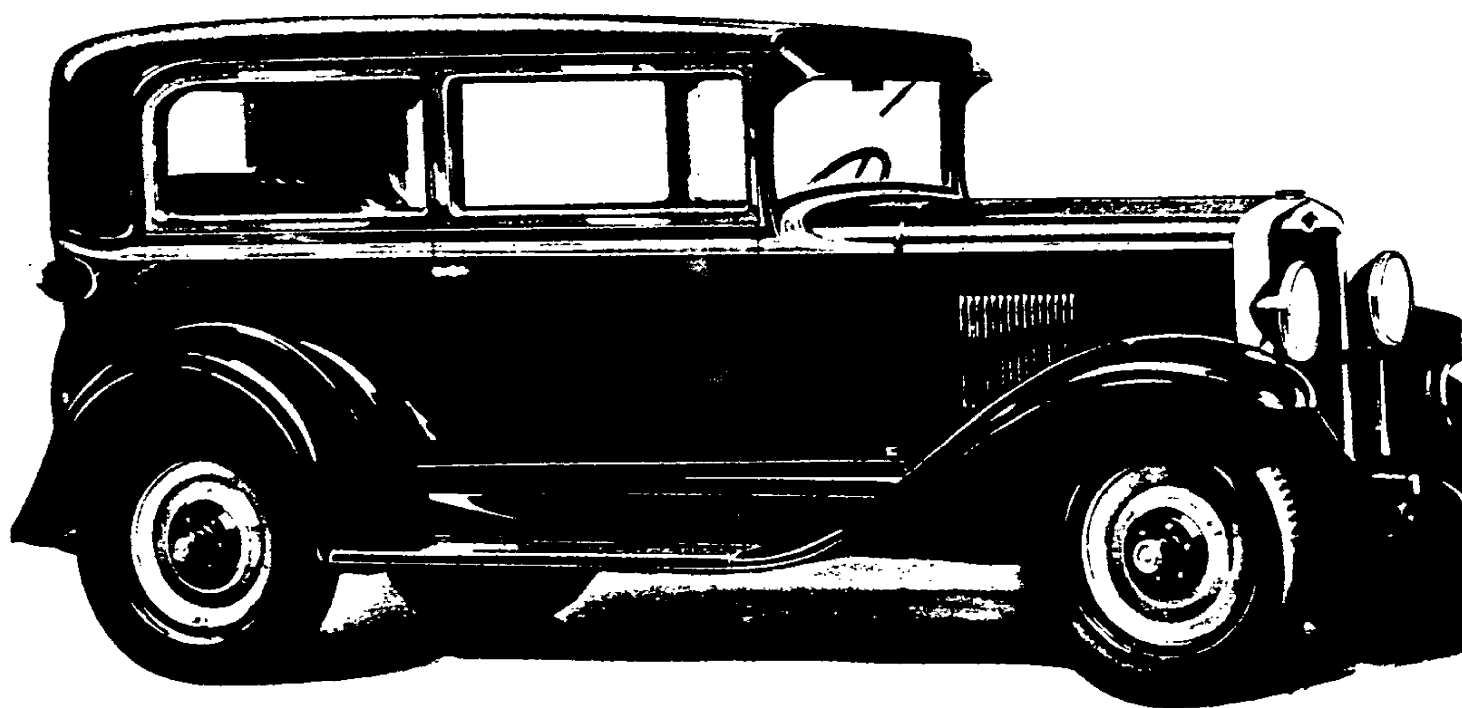
MODEL	CAPACITY	DRIVE	CURB WEIGHT (LBS.)			CARRYING WEIGHT (LBS.)	GRAND TOTAL (LBS.)	M/V	TOP SPEED (M.P.H.)	WHEEL BASE (IN.)	WHEELS	WHEELS	WHEELS
			FRONT	REAR	TOTAL								
SEDAN	5		1220	1220	2360	2250							
SEDAN	5		135	130	2265	255							
SEDAN	5		1210	1405	2615	2585							
SEDAN	5		1210	1400	2610	2500							
COUPE	2		1220	1290	2510	2400							
CABRIOLET	2		1220	1305	2525	2415							
IMPERIAL	PASSENGER		1225	1445	2670	2560							
SEDAN	5												
SEDAN	5		1230	1330	2560	2450							
SEDAN	5												
SEDAN	5		1200	1060	2260	2150							
SEDAN	5		1420	1405	2825	2700							

1929 INTERNATIONAL CAR SPECIFICATIONS

¹⁹²⁹
CHEVY PARTS and CARS

VOL. 2 NO. 1

JANUARY, 1964



ORIGINAL COPY

PUBLISHED FOR THE CHEVROLET ENTHUSIAST

INTERNATIONAL MODEL CHEVROLET

New Features and Improvements

Frame

Malleable Iron Spring Horns arranged for Bumper Mounting.
Drop-Forged Steering Gear Bracket.
New Design, Quiet, Leak Proof Muffler.
New Design Brake Cross Shaft for greater leverage.

Front Axle

Tie Rod arranged for Alemite Lubrication.

Rear Axle

Improved Rear Service Brake Mechanism.
Oil Deflector for improved Differential Lubrication.

Motor

New oiling system with sediment pockets over Bearings, Individual Connecting Rod trough and $\frac{1}{4}$ " dip.

Lubricated Rocker Arms.
3 port Intake Manifold.
4 port Exhaust Manifold with heated riser.
Cast iron Pistons with 3 rings above pin.
Large Pistons Pins, with reinforcements at center.
3 Extra Large Crankshaft Bearings.
3 Extra Large Camshaft Bearings.
Semi-automatic Distributor.
Fuel Pump with Gasoline Filter.
New Improved Carburetor.
New Oil Separator.

Clutch

Throwout Bearing mounted in U Bearings with Spring Retainer.

Transmission

New design of Gear teeth for quiet operation.
Improved Torque Ball Retainer design.

Gasoline System

Larger Tank with 11 gallons capacity.
Mechanical Fuel Pump with filter on engine.

Steering Gear

Solid Steering Gear Main Shaft.
New design flat type Steering Wheel with rubber covered spokes.
Large Horn Button.
Steering Connecting Rod arranged for Alemite lubrication.

Controls

Spark, Throttle and Choke Controls on Instrument Panel.

Wheels

20x4.50 Balloon Tires.
Larger Hubs and Caps.
Stamped Hub Cover.

Sheet Metal

Longer one-piece Front Fenders.
New design Rear Fenders.
Full rubber covered corrugated Running Boards.
New design Radiator Splash Guard with louvres and Starting Crank Hole Cover.
Sheet metal black enameled Cover over Rear Cross Member.

Electrical

Battery on right-hand side.
New design Headlamps with depressable beam bulbs, separate parking bulbs and chrome-plated Rims.
Foot controlled dimmer Switch.
Vertical chrome-plated Headlamp Supports mounted on Frame.
Water temperature Indicator on Instrument Panel.
Increased Starter torque.

Radiator

Distinctive new Radiator shape.
Larger capacity brass Radiator Core.
Chrome-plated brass Shell.

Equipment

Electrolock.
Windshield Wiper Valve at left side of Instrument Panel.
Windshield Wiper on Open Models.

Tire Carrier

New design with steel brace rods.

Body

Larger Cowl bead.
All Bodies longer and wider.
Lower appearance.
Doors on all Models wider.
Heavier Doors with heavier Hinges on open Models.
One-piece folding Windshield on open Models.
More beautiful lines on all Models.
New colors on all Models.
Side Panel metal carried over edge of roof on Sedan, Coach and Coupe.
Improved hardware on closed Models.
Folding Landau Top on Imperial.
Adjustable Front Seats on all closed Models.
Swivel type Rear View Mirror on all closed Models.

FISHER BODY DATA

1926-1934

The Construction and Service of Coupe Body Sills

The previous fifteen bulletins of Vol. 2 have included a complete description of the wood structure, the metal panels, the upholstery, the hardware, and the service requirements of sedan type Fisher bodies. In the forthcoming series, the construction and service requirements of the standard coupe bodies, including both business and sport types, will be similarly presented.

The present bulletin deals with that portion of the coupe body sills that extends back of the lock pillar including the upright members of the body proper, which are attached to it. The construction of the front half

and its adjoining members corresponds to the sedan type, already explained fully in *Bulletin No. 1, Vol. 2.*

ILLUSTRATION NO. 131

Cut-out showing differences of construction of main body sills in sport coupe

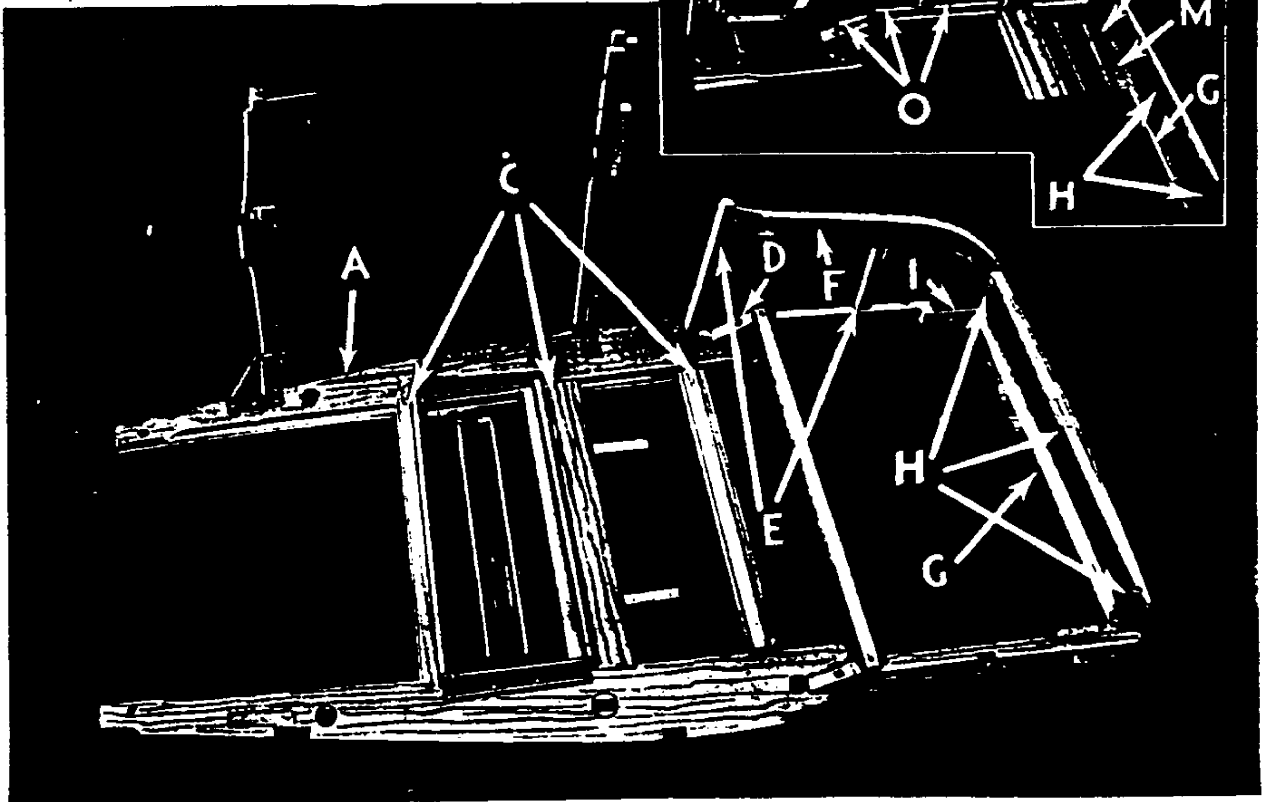
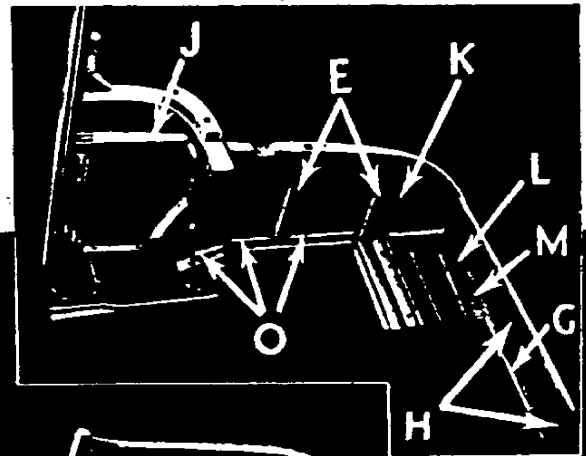


ILLUSTRATION NO. 130

Shown above is construction of main body sill and attached wood members of business coupe (only right side shown)

Fisher Body Service Bulletin

VOLUME 2

Number 14

The Removal and Replacement of Roof Coverings

No part of an automobile body is subjected to more wear or hard usage from the elements than roof coverings. Therefore, they must be selected from materials that will withstand the strains of road shock and weave, of wind and rain, as well as the expansion and contraction caused by quick changes in temperature. Moreover, with ordinary care these materials must remain waterproof over a satisfactory period.

The roof coverings used on Fisher bodies are of two different types: the coated, known as imitation leather, and the uncoated, called Burbank or Khaki material.

The uncoated type of roof covering is used chiefly on landaulets, cabriolets, sport sedans, roadsters, and touring cars, the installation of which will be treated in a later bulletin.

COATED FABRIC

The coated fabric for Fisher body roof coverings is made up of two layers of cloth which are cemented together into one piece by means of a rubberized solution. The outside surface of this fabric is coated with a composition which is rolled and grained with a glazed finish. This treatment renders the texture unusually tough, elastic, and durable and of even greater tensile strength than leather. It is water-repellent and will not absorb the moisture even at the edges of the fabric.

Coated fabrics used for roof coverings are furnished only in black for bodies of present production, although colored fabrics may be procured from service stock for older models.

Other colors or color tones are obtained by applying Duco of the desired shade. These roof coverings may be obtained in varying widths. In the standard sedans of present production the average width of the roof covering is approximately 46 inches.

This bulletin deals with the removal, replacement, and care of coated fabric roof coverings for standard sedans of current production which have side roof rail cover panels and roof crown mouldings.

REMOVAL AND INSTALLATION OF ROOF COVERINGS

REMOVAL. The first step is to remove the front roof crown moulding and then remove the adjoining side sections, working towards the rear. This operation is usually accomplished by prying off the moulding with a body spoon or chisel that is slightly turned up at the end. (See *Illustration No. 109.*) In this operation care should be taken to avoid damaging the side roof cover panel. Next, remove the tacks from the edges of the roof covering and

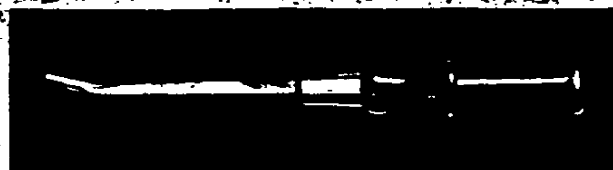


ILLUSTRATION NO. 109

Shows body chisel

inspect the exposed edge of the steel roof panels for tightness, insulation, protruding nails, etc. Remove all tacks. Scrape off surplus cement and clean off thoroughly. Now that the roof covering is removed, see that the padding over the roof slats is smooth and in good condition.

As a part of additional service one should now drive the car, if possible, for a short distance to locate any roof noises, squeaks, or rattles. After the roof covering has been removed, annoyances such as these can be very easily eliminated at a slight extra cost to the owner. (See *Bulletin No. 4, Vol. 2, on the construction and service of the framework.*)

At the edges of the roof panels, where the covering was attached, it will be noted that oblong-shaped slots have been punched lengthwise through the panels at regular intervals in order that the tacks which hold the roof covering and the nails in the crown moulding may be easily driven into the wood roof rail. Therefore, as a preliminary step to installation, it is advisable to mark the center of each of these slots with a piece of chalk (See

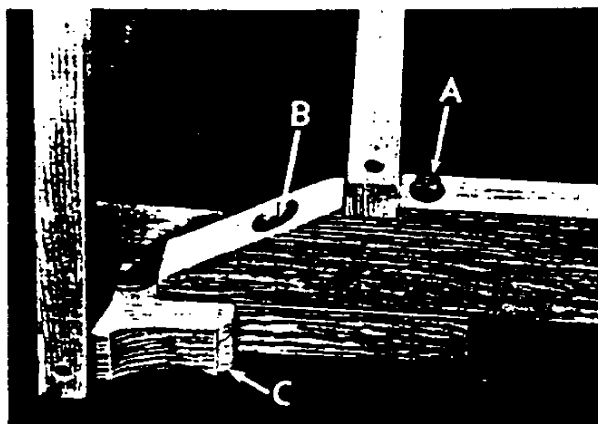


ILLUSTRATION NO. 133

Close-up of lap joint at kick-up section of main side sill assembly

THE BODY SILL

BUSINESS COUPE—As in the sedan types, the main section of the side sill is milled in one piece (see *A* in *Ill. No. 130*). However, there are two sections of the complete side sill. The additional piece that is screwed, bolted, and glued to the main section forms a kick-up assembly which allows clearance for the rear axle.

There are three cross sills joined to the side sills at points where reinforcement is desirable (see *C* in *Ill. No. 130*). Also a rear cross sill (see *G* in *Ill. No. 130*) which has three strainers that extend to the deck lower bar (see *H* in *Ill. No. 130*). The deck side rail (see *F* in *Ill. No. 130*) has two wood strainers at point *E* in *Ill. No. 130*.

SPORT COUPE—While the general construction of the sport coupe corresponds to that of the business coupe, the cut-out (*Ill. No. 131*) shows the following differences in construction, namely: the side compartment frame (see *J* in *Ill. No. 131*); the positions of the two strainers that extend from the main side sill to the deck side rail (see *E* in *Ill. No. 131*); and the hinge bracket, to which the hinge of the rumble seat back is attached, this being bolted to the main side sill and deck side rail (see *K* in *Ill. No. 131*).

A wood cross member assembly in two pieces (see *L* in *Ill. No. 131*) is attached to the main side sills and is specially milled to act as a stop for the deck lid when it is raised into position as a rumble seat back. To this member and the rear cross sill is nailed a metal pan (see

M in *Ill. No. 131*) which provides drainage through grooved openings in the rear cross sill.

There are two strainers which extend from the rear cross sill to the deck lower bar (see *B* in *Ill. No. 135*).

Trim sticks, to which are attached the fibre board foundation of the deck compartment trim, are nailed to the top of the kick-up section of the sill at *O* in *Ill. No. 131*.

JOINTS

In both the business and sport coupes the joints of the body sills and of the several wood members attached to them are scientifically designed to add supplementary strength to the whole body assembly. All joints are glued and screwed or bolted together in set-up body jigs (see *Bulletin No. 1, Vol. 1, Ill. No. 4*). They are further reinforced by specially designed metal braces which bind the framework together securely at vital points of strain or shock.

The main side sill assembly is constructed of two pieces, instead of three as in the sedan, and is joined by a full lap joint (see *D* in *Ill. No. 130* or close-up of *Ill. No. 132*). They are glued together and further secured at *A* and *B* by heavy bolts. This illustration also shows at *C* how the main side sill is milled to receive the wheel housing.

The construction of this joint as well as the next described are identical in both business and sport coupes.

A close-up (*Ill. No. 133*) shows the combination of lap

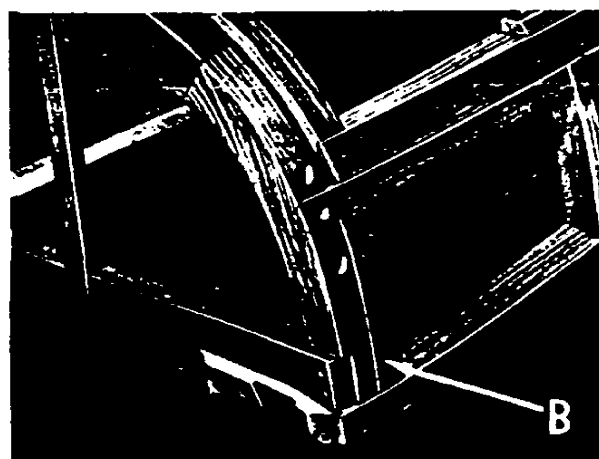


ILLUSTRATION NO. 133

Close-up of lap joints of rear and side sills and deck rail

joints which secures the main side sill to the rear cross sill and deck side rail. These joints are glued together and further secured by screws at both sides and bottom of the combined joint. This makes an exceptionally strong joint in the wood frame at a point that is subjected to unusual strains. The filler block to the right of the deck side rail on the business coupe body not only acts as a strainer but also serves as a foundation to which the deck lower panel is nailed (see *B in Ill. No. 133*).

The lower portion of this deck side rail is glued, bolted, and metal-braced to the rear and main side sills in a lap joint and united in a dovetail joint with its upper half at the point of greatest curve. This rail is milled in two pieces to secure the full strength of straight grained wood throughout the entire length of this member. This construction is identical in both coupe types. A view of this joint is shown in *Ill. No. 133*.

The cross sills are attached to the main side sills by mortise and tenon joints and are glued and further secured with wood screws.

In the sport coupe the lock pillar of the right side

compartment frame is glued and screwed to the main side sill (*A in Ill. No. 136*), as illustrated on page 4, the hinge pillar of the side compartment frame forming an integral part with the body lock pillar assembly (see *C in Ill. No. 136*).

A filler block which forms the bottom for the doorway frame of the side compartment is screwed and glued to the main side sill (see *B in Ill. No. 136*).

BRACES

The coupe body pillar-to-sill braces are similar to those of the sedan type already described in *Bulletin No. 1, Vol. 2*. Other braces that are attached to the coupe body sill are the deck side rail to main side sill braces in the business coupe (see *I in Ill. No. 130*) and the deck side rail to rear cross sill braces in the sport coupe (see *A in Ill. No. 135*). The business coupe has additional support at the inside of the deck side rail in the wood filler block which is screwed to the rail (see *B in Ill. No. 133*).

The hinge bracket, on which the hinge of the rumble seat deck lid swings, also acts as a metal brace, being bolted to the main side sill and the deck side rail.

A metal plate is screwed to the lock pillar and the bottom board of the deck side compartment frame and acts both as a brace for these two members and as a stop for the door itself (see *Ill. No. 131*).

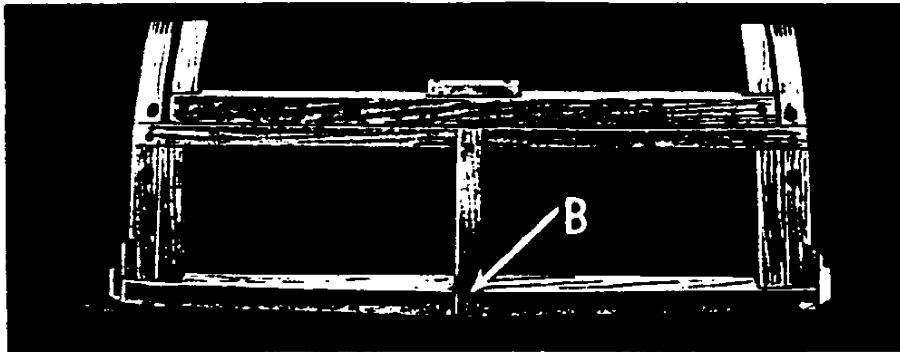


ILLUSTRATION NO. 133
Above—shows view of business coupe rear sill and attached members

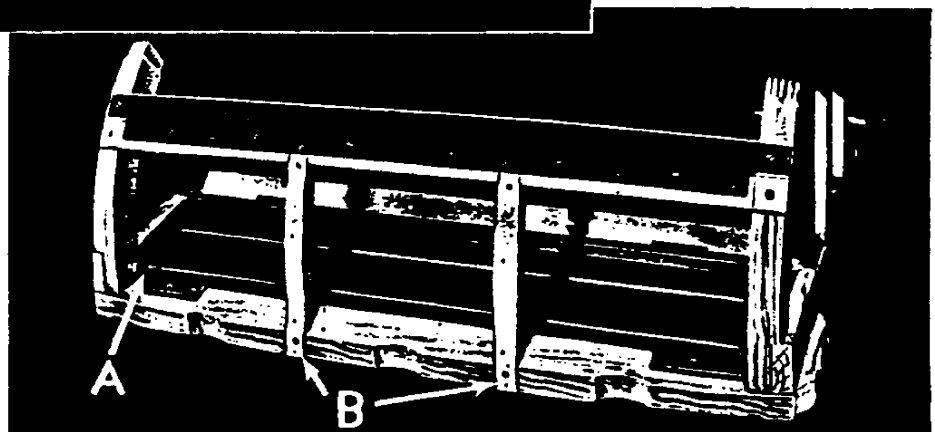


ILLUSTRATION NO. 135
At the right—shows view of sport coupe rear sill and attached members

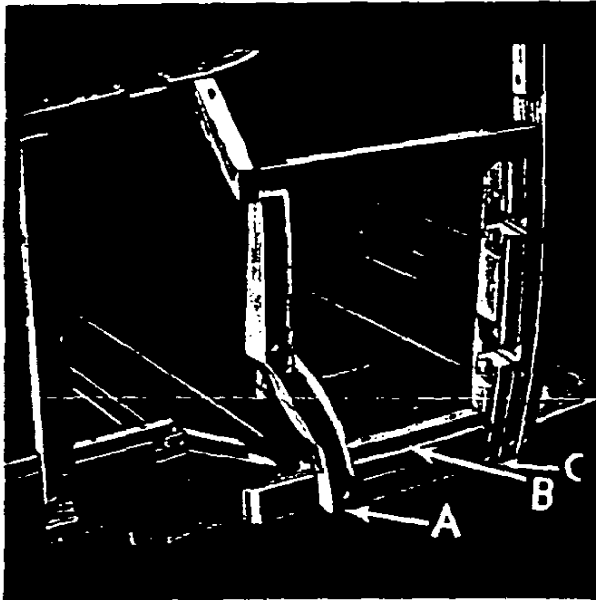


ILLUSTRATION No. 136

Section of side sill showing attachment of side compartment

SERVICE REQUIREMENTS

In repair work be careful not to damage the electric lighting wires which are grooved into the sills and covered with metal strips.

Swelling of Floor Boards

Remove the floor board and plane off enough of the wood at the side of the board to allow clearance for friction tape. Apply tape on the edges of the floor board and restore the board to its original position.

Loose Pillar to Sill Brace

Unscrew the brace and apply friction tape between it and the wood parts, then reinstall the brace, using larger size screws if necessary.

Loose Joint at Rear Cross and Main Side Sills

Remove metal brace and insert a wood wedge, which has been covered with F. S. No. 604 friction paste, at the inside of deck side rail, driving the wedge outward until the joint is tight, then reinstall the brace, applying friction tape between the metal and wood. If necessary, use larger screws to fasten brace securely. In the sport coupe this brace is further reinforced by a bolt which extends through the deck side rail.

Questions and Answers

Question—What should be used to thin R. & M. Roof Joint Compound?

Answer—Boiled linseed oil should be used to thin R. & M. Roof Joint Compound.

Question—Why do you recommend the use of turpentine on a file when metal-finishing solder or aluminum?

Answer—In metal finishing, turpentine is recommended for use on the blade of the file because it prevents the teeth from clogging with metal filings and consequently scratching the metal. Also, turpentine applied lightly on the metal panel saves considerable time in this operation.

Question—What is the best way to stop a noise at the front end of the two-piece drip moulding?

Answer—A noise at this point indicates that the moulding is loose and rubbing on the metal panels. To eliminate this trouble, drill one or more holes in the moulding, countersink, and insert nails or screws. Plug the holes with aluminum or solder wire, refinish, and touch up.

Question—How can a service station regain the metal garnish moulding?

Answer—It is not possible to satisfactorily regain this moulding. This work is done only by manufacturers having special dies, rolls, and equipment. It is always necessary to replace a damaged garnish moulding of this type.

Question—What would cause the cowl metal next to the sill to crack at the front?

Answer—A common reason is that the shim at the front body tie-down bolt extends out too far, permitting the cowl metal to ride on the shim. This pinches the metal and causes the panel to crack—(for details see Vol. 1, Bulletin No. 1). If investigation shows this shim to be free of the panel, the remaining cause is that the front body tie-down bolt has been pulled down so tightly as to create a severe strain at this point. Increase the thickness of the shim at this point and adjust the bolt as explained in Vol. 2, Bulletin No. 5.

Fisher Body Service Bulletin

VOLUME 2



Number 17

The Construction and Service of Coupe Decks and Rear Belt Rails

Having covered in the previous bulletin the foundation of the coupe wood structure, namely, the body sills and their adjoining members, the present number follows in logical order with a description of the deck and rear belt rail construction.

As the deck of the business coupe body is used exclusively for storage, whereas that of the sport coupe body may be used either for storage or for the accommodation of passengers, there are necessarily several differences in the construction of the two types, which are separately described and illustrated in this bulletin.

THE BUSINESS COUPE DECK

Illustration No. 137, looking from the left into the deck assembly of the business coupe, shows the construction of the deck side rail (A) bolted to the rear belt rail assembly (at B); the deck lid (C) with its side rails and three cross bars, the lock bar (at D) being joined to the deck lid side rail by a lap joint, the center bar (at E) by a mortise-and-tenon joint, and the hinge bar (at F) by a



ILLUSTRATION NO. 137
View of deck from the left side of business coupe

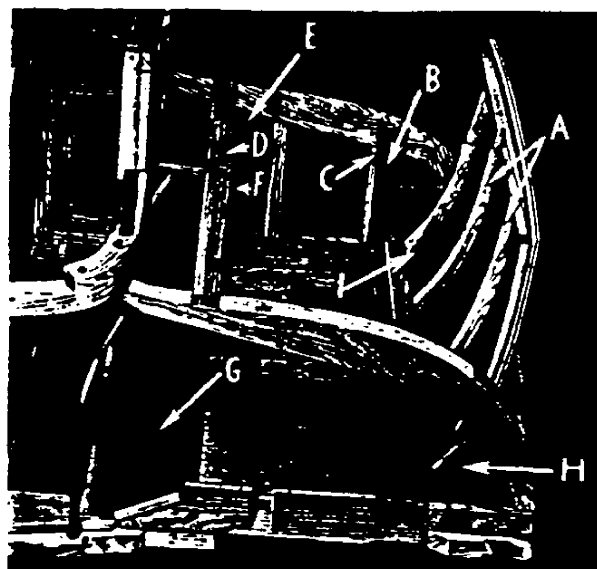


ILLUSTRATION NO. 138
View of deck from the left side of sport coupe

lap joint. The deck lid hinge is screwed to the upper end of the deck side rail (at K). Near the center of the deck lid side rails, supporting arms are attached to brackets on the deck lid and the deck side rail (at G). A small metal stamping (at L) acts as a stop for the deck lid.

The floor boards (at H) are fitted together by lap joints and screwed to the main side sills. Two sheet metal floor pans (at J) are nailed across the bottom of the deck compartment in the space directly back of the seat assembly. These allow clearance as well as convenient access to certain parts of the chassis.

THE SPORT COUPE DECK

Illustration No. 138, photographed in the same relative position as No. 137, shows clearly the differences in the deck construction between the sport coupe body and the business coupe body. This combination lid and rumble seat back has two supporting strainers (at A). The

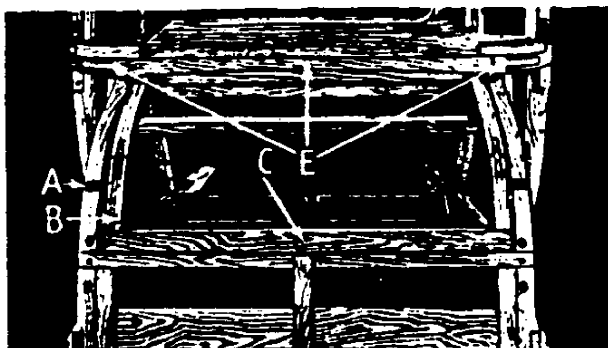


ILLUSTRATION NO. 139
Top—Rear view of business coupe deck

ILLUSTRATION NO. 140
Bottom—Same view of sport coupe showing
difference in construction

deck lid swings on a pivot hinge (at B) which is bolted to an iron bracket (C) attached to the deck side rail and main side sill. These brackets also act as braces. The deck lid assembly is still further braced at the four corners by triangular blocks of wood glued and screwed to the frame of the lid (at I).

The deck lid lock bar is attached to the deck side rails by an open mortise (D in Illustration No. 138) and is braced at the center by a wood strainer to the back window frame. At the rear of the floor boards is nailed a metal drain pan (H) which extends to the rear cross sill.

Steel braces (at E in Illustration No. 138) that also serve as stops for the deck lid, are bolted to the deck side rails and lock bar. A striker plate for the deck lid lock is located at the center of the lock bar (at F). A metal section is nailed to the bottom of the deck as a flooring for the side compartment (at G). Metal, especially shaped, is used instead of boards to permit clearance for certain cross members of the chassis.

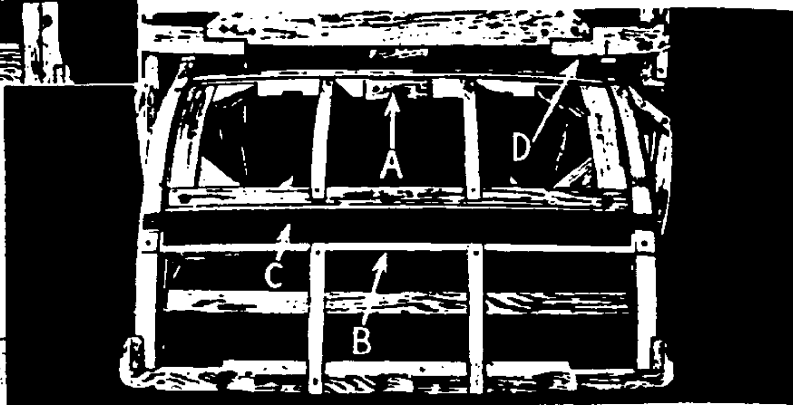
THE REAR OF THE DECK STRUCTURE

BUSINESS COUPE BODY. A rear view of the deck assembly of the business coupe is shown in Illustration No. 139. Here may be seen clearly the dovetail joint (at A) in the deck side rail construction. Additional strength is acquired by having this type of joint, because the grain of the wood runs the entire length of the rail. A spline

performs a like function at approximately the same point in the deck lid side rail (at B). At C is shown the deck lid lock bar.

Illustration No. 139 also shows the construction of the back of the rear belt rail assembly (E) and its joints with the side rails.

SPORT COUPE BODY. Illustration No. 140 shows a rear



view of the sport coupe body which reveals several differences in construction with that of the business coupe body. The deck side rail is similar in construction to that of the business coupe body. But in this type the deck lock bar is at the top (A) and the deck lower bar (B) is covered by a flange iron (at C) over which the deck panel lower is flanged. The construction of the rear belt rail (D) is different, as the lower section of the back window frame in this assembly takes the place of the back section of the rear belt rail.

JOINT OF THE REAR BELT RAIL AND DECK SIDE RAIL

Illustration No. 141 shows a close-up of the joint and the bolts that connect the deck side rail with the curved section of the rear belt rail assembly. The connecting members of the rear belt rail are joined solidly by a spline (A) by which the straight grain of the wood is preserved throughout this assembly.

A reinforcing member (C) is glued and bolted at this point, thereby doubling the strength of the rear belt rail.

The deck side rail is secured to these two wood members of the rear belt rail assembly by means of heavy bolts (at B).

THE RIGHT SIDE DECK COMPARTMENT

An assembly that is also used exclusively in the construction of the sport coupe is the right side deck compartment (see *Illustration No. 142*). The compartment lock pillar (A) and its corresponding door lock pillar (B) are composed of two sections, each of which are screwed together in a lap joint, and shaped so as to permit clearance for the wheel housing. The lock pillar, the hinge pillar, and the header bar of the compartment frame are mortised, glued, and screwed together (see *points E*). The lock pillar of the compartment frame is supported to the deck side rail by a wood strainer (at C). The hinge pillar of the compartment frame is screwed to the lock pillar of the body (D). "Concealed" type hinges are used. The casings of the hinge (*points F*) are screwed to the compartment hinge pillar, then the hinge is bolted through the door hinge pillar. The wood members of the compartment door are connected by open mortise joints glued and then screwed together.

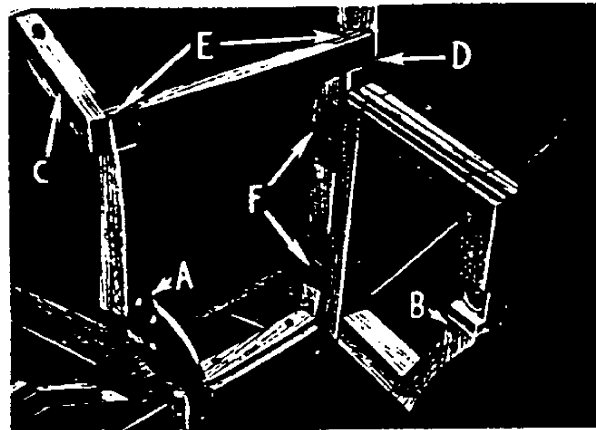


ILLUSTRATION NO. 142
Showing construction of right side compartment frame and door

this point. Separate the joint and insert friction tape between the deck side rail and the rear belt rail, then reinstall the bolt, being sure to draw the nut up tightly. The bolt should be dipped in R & M compound before reinstalling. (Noise such as described above may also have its source in the metal panels.)

SERVICE REQUIREMENTS

BUSINESS COUPE BODY. (*Deck hinges loose*)—Remove hinge pivot screws, lift off deck lid, and tighten hinges by installing larger wood screws. If the pivot screws are frozen by rust they may be started with a punch and hammer.

Noise in the rear belt rail. If a noise appears to come from the rear of a coupe body, at either corner, examine the joint between the deck side rail and the rear belt rail. If this joint seems to be loose remove the bolt at

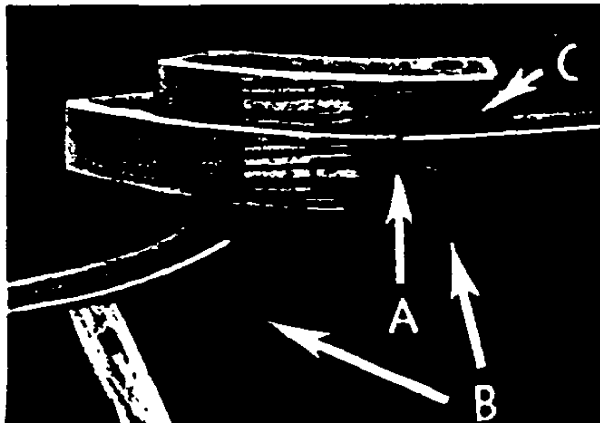


ILLUSTRATION NO. 141
Shows a close up of rear belt rail and deck side rail joint

SPORT COUPE BODY

ADJUSTMENT OF DECK LID. If the deck lid rubs at either upper corner, remove the bolts of the hinge bracket (at B in *Illustration No. 138*) and change its position so that the lid will clear the framework. Reinstall the bolts, filling up the old holes with wood plugs or plastic wood.

DECK LID STRIKING FLANGE IRON. If the rear edge of the deck lid, when being opened, strikes the flange iron of the deck lower bar, insert several small wooden wedges between the inside of the flange and the wooden bar until the flange iron is forced upward to its original shape. This will allow the proper clearance for the deck lid.

LOOSE HINGE PIVOT. To tighten hinge pivot of deck lid loosen the safety set screw at the top of the hinge pivot. Then tighten the pivot hinge screw, inserting fibre washer between the hinge pivot and bracket if necessary.

DECK COMPARTMENT DOOR SWELLING. Remove the door and, with a rabbit plane or wood chisel, remove sufficient wood to allow clearance at that portion of the door which binds.

Questions and Answers

Question—What causes the outside door handle and the inside safety screw to become loose?

Answer—Care should be taken when removing the inside safety screw so as not to allow the inner washer to drop down into the door bottom. This inside washer is found between the trim and the locking mechanism and can easily be held in place with a screwdriver while the replacement is being made. The absence of this washer is the immediate cause for the handle and safety screw to become loose.

Question—What is the best method of tightening the bolts in the front roof rail corner bracket if the nuts, which are under the front roof rail cover panel, turn with the bolts?

Answer—Drill through the bracket and the front roof rail in such a manner as to hit the washer on the bolt. Insert a nail or some pointed instrument and press firmly against this washer, turning the bolt head at the same time with a screwdriver. If this method fails because of the nut being frozen to the bolt, it may be necessary to make a small crosscut in the panel, folding back the four corners of the metal to uncover the nut. After the bolt is removed the metal may be pressed back in place, soldered, and refinished. No difficulty will be experienced on the present type of bodies, as an anchor plate, set in the wood, has been substituted for the nut that was formerly used.

Question—How is the window regulator handle removed?

Answer—There are three types of regulators and remote control handles. The one most commonly used today is removed in the following manner: press the escutcheon plate firmly against the upholstery of the door. This will reveal a small U-shaped retainer spring which may be removed by using a small pointed tool. The handle may then be pulled from the shaft but care should be taken not to lose the coil tension spring that is contained within the handle.

Another type of handle screws directly on to the shaft. A small notch is cut into the edge of the metal base. To remove, insert the special wrench which is contained in

the Emergency Tool and Repair Kit and turn the base until it is free of the threads on the shaft.

The third type is applied with a screw which goes directly through the face of the handle. Simply remove the screw and the handle may be slipped from its position.

Question—What causes windows to lower of their own accord when the car is in motion?

Answer—This condition may result from the teeth of the regulator gear being worn or sheared, permitting the mechanism to jump several teeth before again engaging. Replacement of the regulator is the quickest and most satisfactory method of correction.

A weak or broken spring in the regulator will usually permit the weight of the window to carry the glass downward for an inch or more, particularly if the position of the regulator handle is to the front of the car when the window is tightly closed. It is a false economy to attempt to replace the regulator spring. Replacement of the entire regulator assembly is always advisable.

Question—What may cause water to leak in over the top of a front door?

Answer—The drip moulding sometimes becomes loose, permitting water to enter behind it and be blown into the opening at the top of the door. If this should happen the over door weather strip, if properly adjusted, will prevent entrance of the water into the car. It is always possible for a water leak to occur if the over door weather strip is installed too high above the door opening. Refer to Vol. 1, Bulletin No. 15 for complete instructions in setting this weather strip lower to overcome the condition described.

Question—Should hinge pins be oiled?

Answer—The proper oiling of hinge pins at regular intervals is important. A small slot is provided for this purpose on the inside of the hinge, which is revealed when the door is open. Light lubricating oil should be applied regularly at this point in order to prevent the hinge pins from sticking or freezing in the hinges. This will allow the door to operate more easily.

Fisher Body Service Bulletin

VOLUME 2

Number 18

The Construction and Service of the Coupe Back Window and Roof Framework

The present bulletin, which completes the description of the coupe body wood structure, describes the back window frame, the seat compartment, and the roof assemblies, including many improvements in construction.

Except for size, the coupe roof differs but slightly in its construction from that of the sedan type, already described in Vol. 2, Bulletin No. 4. However, this bulletin will also explain in detail the new front and rear roof rail corner brackets and the metal crown roof rail support strainers, which are now standard on all the sedan and coupe bodies. As these are comparatively new installations they have not been described in any of the previous bulletins.

the greatest possible support to the rear belt rail and the roof structure (see points B). This is done to secure straight-grained wood at each rounded corner of the window opening (see points A).

SPORT COUPE BODY. In this body type the framework is similarly assembled and milled to the square shape of the window light opening (see Ill. No. 144). The lower portion of this framework is joined and screwed to the rear quarters of the rear belt rail assembly (at points A) and is milled to accommodate the back window regulator mechanism.

A metal drain pan is attached to the bottom of this assembly at B in Ill. No. 144.

THE BACK WINDOW FRAME ASSEMBLY

BUSINESS COUPE BODY. A rear view of the back window framework is shown in Ill. No. 143. Unusual strength in this assembly is achieved by first assembling the wood members in a jig, where they are accurately fitted, glued and screwed together, and then milled to the exact contour of the stationary window opening, thus affording

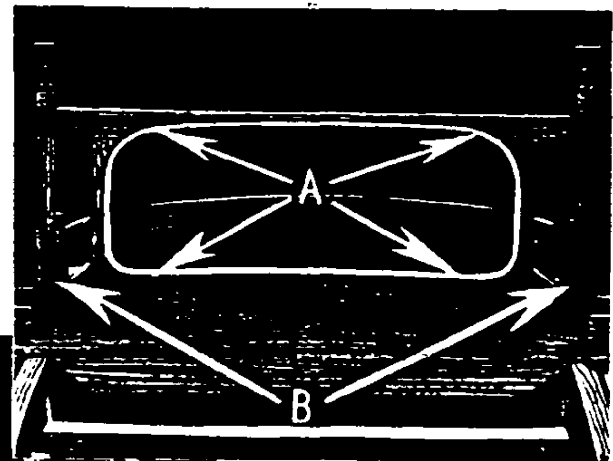
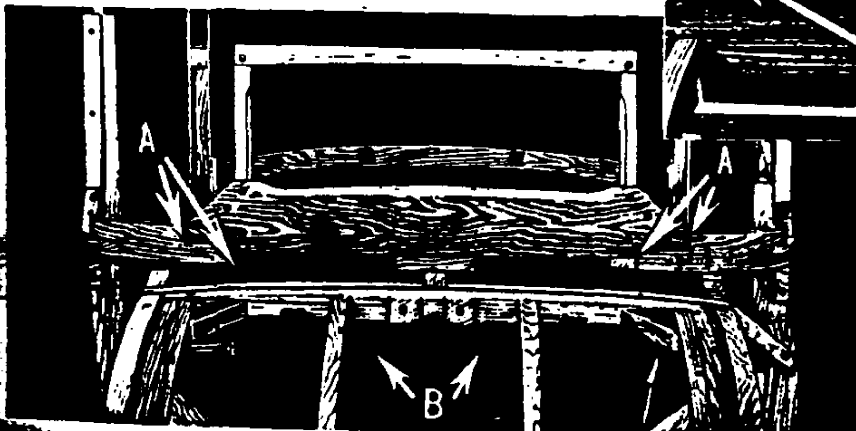


ILLUSTRATION NO. 143
Shows rear view
of back window framework
in the business coupe

ILLUSTRATION NO. 144
Shows similar view of the sport coupe

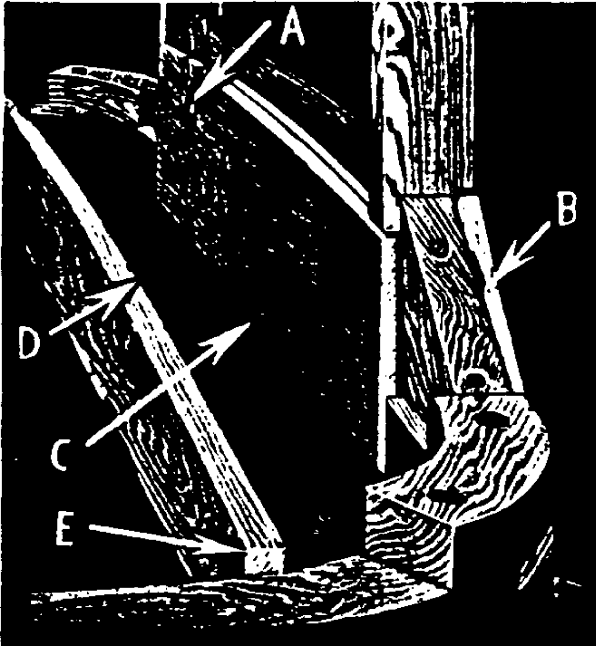


ILLUSTRATION NO. 145

Shows interior view of coupe seat compartment construction

coupe requires a window regulator (see A in Ill. No. 145). For this reason the sport coupe back window framework is milled to serve also as the back section of the rear belt rail.

Extra support is provided by separate corner blocks screwed to that part of the framework which is joined to the rear belt rail (see B in Ill. No. 145).

Below the window opening there are five filler strips on the inside of the frame which act as supports. These are also used as trim blocks for the seat compartment upholstery. The seat compartment in both types is formed by screwing a bottom board (C) to the underside of the rear belt rail. Another board (D) forms the front side of this compartment.

THE ROOF ASSEMBLY

The construction of the coupe roof assembly is identical in both body types. Recent improvements have provided additional strength and durability, as well as a more convenient method of servicing this assembly.

The roof bows and slats are nailed and set together with slow-drying, cold fish glue. The cold glue does not

COUPE SEAT COMPARTMENT

Inside views of the seat compartment and the back window frame of the coupe body are shown in Ill. No. 145.

The only difference in the construction of the two coupe body types is due to the fact that the adjustable back window of the sport

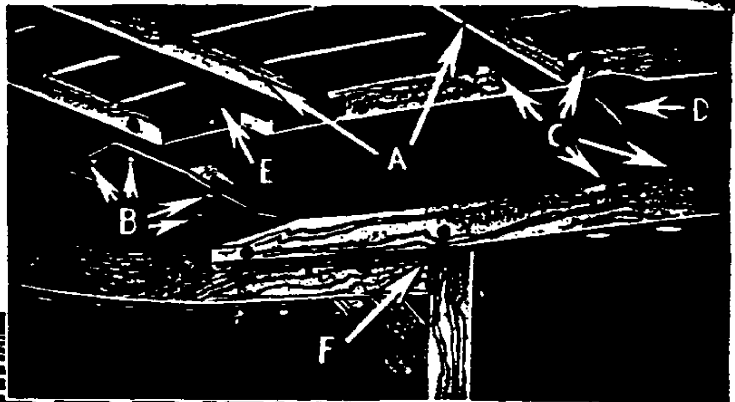


ILLUSTRATION NO. 147

Shows interior view of rear roof rail corner bracket

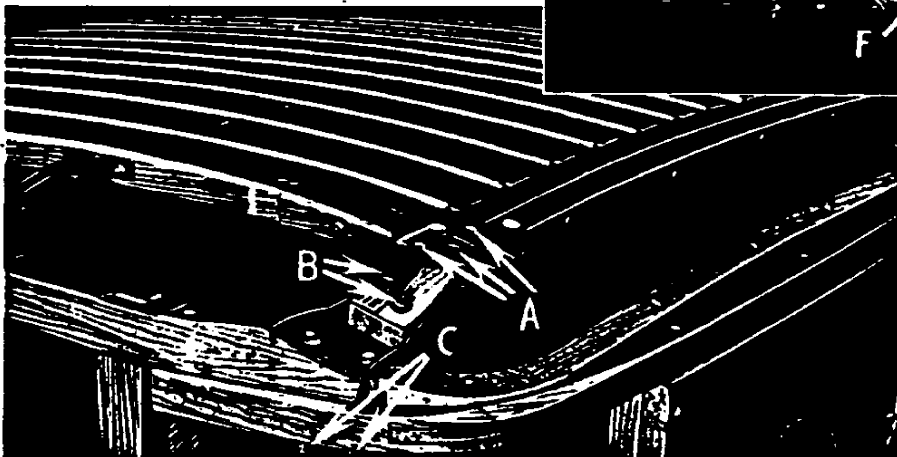


ILLUSTRATION NO. 146

Shows exterior view of rear roof rail corner bracket

until after the body is off the assembly line, consequently it provides a more rigid construction than the friction tape and quick-setting hot animal glue. This type of glue should be used in preference to quick-setting hot animal glue, because of its slow drying qualities, resulting in a more secure joint. If quick-setting hot animal glue is used, oftentimes the joint is fractured before the glue has set properly.

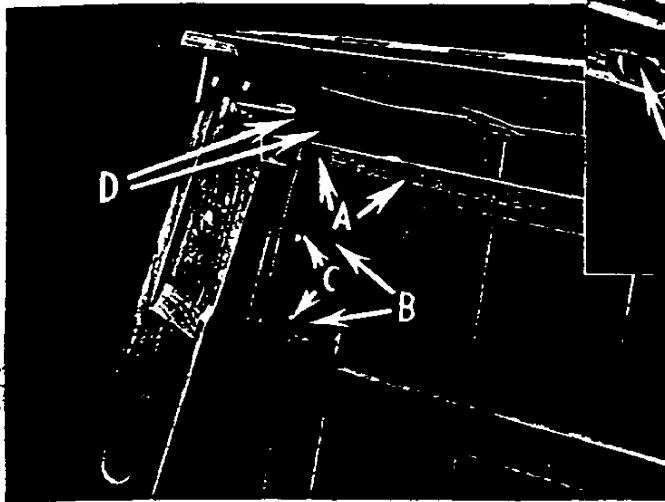


ILLUSTRATION NO. 148

Shows inside view of front roof rail corner bracket construction

REAR ROOF RAIL CORNER BRACKET

Instead of being secured at their several joints by bolts and screws without further reinforcement, the rear members of the roof assembly are now anchored more rigidly by the addition of a specially designed corner bracket.

Ill. No. 146 shows how the joints of the rear roof bow and the crown roof rail are reinforced by being bolted together to the rear corner bracket (at points A). The rear roof bow is also bolted to this iron bracket (at points B) instead of being joined directly to the side and rear roof rails, as in the former construction. At C are indicated two long bolts that secure the bracket to the rear and side roof rails. This construction adds so much strength and resistance to weaving that the metal strainers which formerly extended from the rear roof bow to the rear roof rail are no longer required.

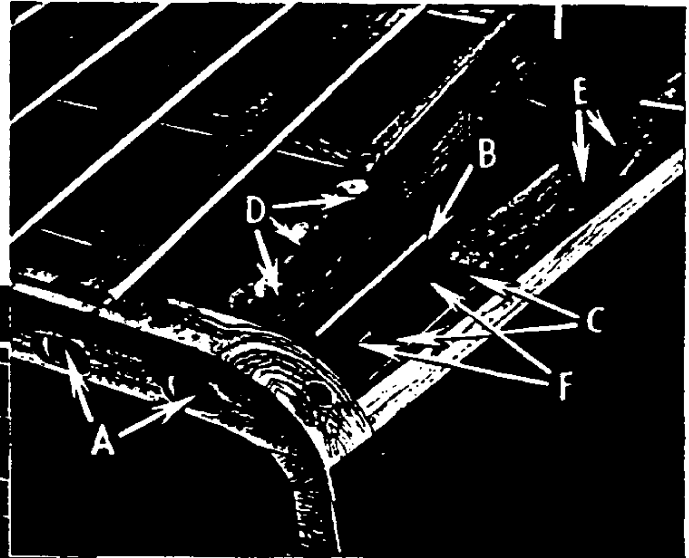


ILLUSTRATION NO. 149

Shows view from top of front corner roof rail bracket

Ill. No. 147 shows a view of the rear corner bracket from the inside of the body. It reveals how adjustments of bolts and nuts can be made after dropping the headlining. In this picture also are shown the bolts that secure the present type metal crown roof rail support strainers (C) and also the wood trim stick (D) to which the listing of the headlining is attached.

A new oblong corner block (see E) which is glued and bolted to the crown roof rail serves as a reinforcement, and replaces the triangular block formerly used. This block affords a straight-grained wood brace with more than twice the area of glued surface.

THE FRONT ROOF RAIL CORNER BRACKET

The front roof rail corner bracket secures and braces the following seven members of both the sedan and coupe bodies: the front, the side, and the crown roof rails; the front body hinge pillar; the windshield header bar; the windshield regulator board; and the front roof bow.

Because this bracket performs more functions than any other bracing member of the body, it has been ingeniously designed in a single unit to insure exceptional strength and durability.

This new bracket which is now standard on all Fisher bodies shows many improvements. Looking at it from the underside of the roof, as in *Ill. No. 148*, it will be seen that it braces the front, the side, and the crown roof rails and is attached to each of the seven members at various strategic angles. At *A* are shown the bolts that fasten the bracket to the front roof bow and the crown roof rail, and at *B* are also bolts through this bracket to the crown roof rail. Two additional bolt holes are at *C* to make the bracket adaptable to any model. The bracket is provided with a flanged arm to which is attached the windshield regulator board at *D*.

A view of this bracket through the top of the roof shows two bolts set in anchor plates which are inserted in cut-out slots on the front roof rail (see *A* in *Ill. No. 149*). This improvement overcomes any possible difficulty of adjustment at this point that may have formerly been caused by the nuts turning with the bolts.

Another important change in the construction of the bracket is shown at point *B* in *Ill. No. 149*. In the earlier design this bracket extended downward and was

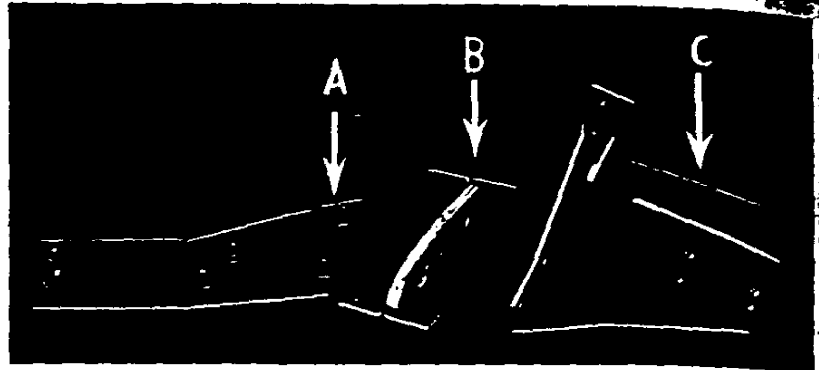


ILLUSTRATION NO. 148

Shows three improved brackets that greatly strengthen Fisher body roof construction, namely: *A*, rear roof rail bracket; *B*, crown roof rail support strainer; *C*, front roof rail corner bracket.

bolted to the inside face of the side roof rail, instead of at the top as at points *C*. Furthermore, there are bolts at *F* which extend through the side roof rail. This new brace provides greater support to both side roof rails, and, in addition, increases the strength of the entire roof assembly.

Ill. No. 149 also shows how the bolts are countersunk at points *D* in the crown rail so as not to interfere with the installation of the roof covering. *E* in *Ill. No. 149* clearly illustrates how the new metal strainers are secured to the side and the crown roof rails.

Service Requirements

Noise in seal compartment—If the trouble is in the bottom board, loosen the screws by which the board is attached to the underside of the rear belt rail and insert friction tape. If the screw holes are oversize, insert wood plugs dipped in hot glue before reinstalling screws. If the trouble is in the upright front board, take out the screws which are inserted diagonally at both ends of the board, for they are usually the cause of squeaks at that point (*E* in *Ill. No. 145*). Dip the screws in friction paste F.S. No. 604 before replacing.

Squeak at joint of body lock pillar and rear roof rail in coupe bodies—This trouble is usually caused by these members rubbing against each other at point *F* in *Ill. No. 147*. The remedy, after making sure that the two bolts of the rear roof rail are tight, is to insert a soft wood wedge, covered with friction paste F.S. No. 604,

between the two members and drive it in far enough to make the joint firm. Do not place undue strain on either member. Sometimes it is also necessary to remove the screws that hold the corner block at this point and apply fresh glue to the end surfaces that adjoin these two members. In every case where glue is applied, at least two hours should be allowed for drying to insure a permanent connection.

Crown roof rail support strainer—Occasionally the ends of the bolts (see *E* in *Ill. No. 149*) may contact with the side roof rail cover panel, causing a noise to develop at this point.

This may be remedied by either deflecting the bolt to one side with a pair of pliers, by applying friction tape at the point of contact, or by cutting off a portion of the bolt with a back saw.

Fisher Body Service Bulletin

VOLUME 2

Number 19

The Construction and Service of Panels in the Coupe Body Construction

The present bulletin describing the metal panels concludes the structural description of Fisher coupe bodies. It deals only with the panels back of the body lock pillar, as the construction in the front section of the body is similar to that of the sedan type which has been explained fully in *Bulletins No. 6 to 8, Vol. 2*.

However, a separate study of those panels which are designed for use in coupe bodies exclusively is important.

UPPER BACK PANEL

The upper back panel is stamped from one solid piece of sheet steel in a huge Fisher toggle press so as to conform accurately to the contour of the body framework. This stamping also includes the paneling of the back window reveal (see *A* in *Ill. No. 150*).

The upper back panel is nailed at the top to the rear roof bow (see *A* in *Ill. No. 151*) at the sides to the body lock pillar and around the bottom edges to the rear belt rail assembly. This panel is shown in *Ill. No. 150* without the aluminum rear quarter and back belt moulding which covers the joints between the upper back panel, the body lock pillar cover panel, and the rear quarter side panel (see *B* in *Ill. No. 150*). It is necessary to maintain a spacing between the panels to prevent any possibility of their rubbing together and causing a noise.

Ill. No. 151 at C shows a close-up of the joint of the upper back panel with the side roof rail cover panel. This joint is especially designed so as to give maximum strength and support. These panels are flash welded into one solid piece along the curved line at *C* in

Ill. No. 151. This weld is surfaced with solder, and then filed smooth to its proper contour. *Ill. No. 151 at D* shows where the side roof rail cover panel is cut out to provide for the curve of the roof crown moulding. It is nailed to the wood corner block at this point.

REAR QUARTER SIDE PANEL

BUSINESS COUPE BODY. The rear quarter side panel of the business coupe (see *Ill. No. 152*) covers the wood frame from the body lock pillar to the rear cross sill. The moulding effect which extends from the body lock pillar to the joint of the deck side rail and rear belt rail is also included in this stamping at *A* in *Ill. No. 152*. A projection of this panel extends upward on the body lock pillar about five inches. A narrow strip of sheet steel is attached at this point extending to side roof rail cover panel (see *E* in *Ill. No. 152*). This rear quarter side panel is so stamped as to provide for the wheel housing and a moulding effect at the bottom where the panel is attached to the body sill (see *C* in *Ill. No. 152*). The panel is flanged over and nailed to the inside face of the deck

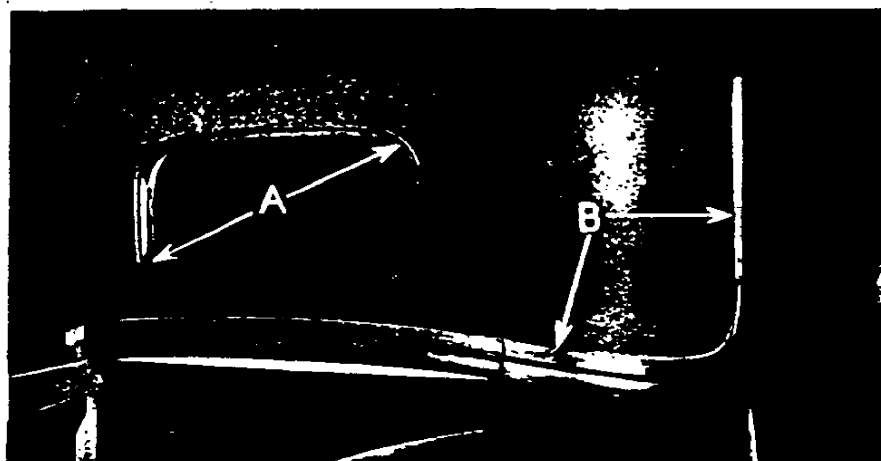


ILLUSTRATION NO. 150

Shows upper back panel of coupe body

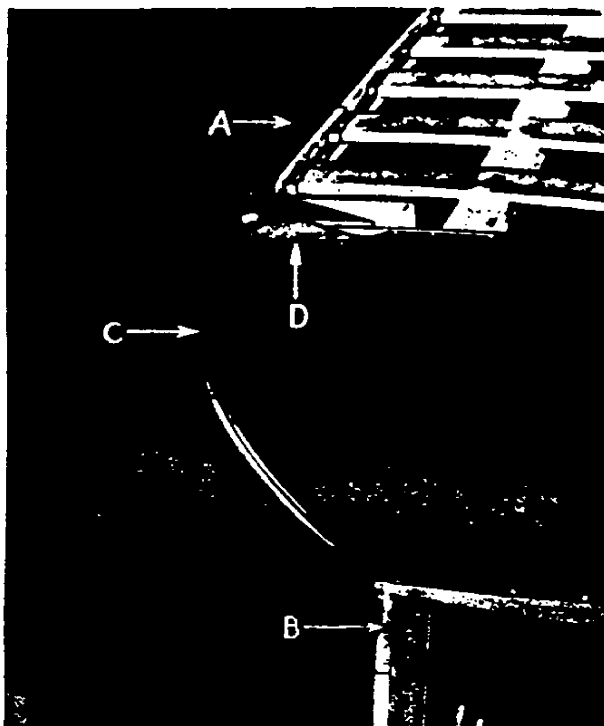


ILLUSTRATION NO. 151

Shows joint of upper back and side roof rail panel

side rail. At the lower edge it is flanged under and nailed to the main side sill (see *D* in *Ill. No. 152*). A flanged metal facing covers the inside of the deck side rails and also serves as a drain trough for the deck lid.

SPORT COUPE BODY. The construction of the rear quarter side panel in the sport coupe body is similar, except that an opening is provided for the right side compartment door (see *A* in *Ill. No. 153*). The panel for the door itself is clinched over flange irons which are attached to each member of the wood compartment door frame. This flange seals the opening between the door and the side compartment door frame.

COUPE DECK PANELS

BUSINESS COUPE BODY. *A* in *Ill. No. 154* shows deck panel upper which covers the back section of the rear belt rail assembly of business coupe body. It also shows the deck lid panel that is located just below it (at *B* in *Ill. No. 154*). Below the deck lid is the deck panel lower (at *C* in *Ill. No. 154*) which is flanged over and nailed to

the top of the deck lock bar and flanged under at the bottom and nailed to the rear cross sill. The joint between the deck panel lower and the rear quarter side panel (at *B* in *Ill. No. 154*) is covered with an aluminum moulding.

SPORT COUPE BODY. The corresponding panels in the deck of the sport coupe show several changes due to differences in construction (see *Ill. No. 155*). The deck panel upper which covers the rear belt rail (at *A* in *Ill. No. 155*) also extends over a portion of the deck itself, as the deck lid (at *B*) in this type does not extend up as far as the rear belt rail. The deck panel lower of the sport coupe (at *C* in *Ill. No. 155*) is flanged over the top of the flange iron that is screwed to the deck lower bar. This serves to cover the joint of the deck lid with the deck panel lower. This flange iron protrudes on the left deck side rail at *D*. The lower edge of the deck panel lower is flanged under and nailed to the rear cross sill. An aluminum moulding is nailed on at *E* in *Ill. No. 155* at the joint of the rear quarter side panel with the deck upper and lower panels as well as the edge of the rear quarter side panel at the deck lid opening.

Ill. No. 155 at *F* also shows the rear quarter and back belt moulding which is nailed over the joint of the rear quarter side panels, the upper deck, and upper back panels.

This is a solid aluminum moulding which starts at the joint of the upper back and side roof rail cover panel on one side, and is curved along the rear belt rail to the corresponding joint at the other side. Nail holes with a spun collar will be found at regular intervals along this moulding. It is installed by fitting it closely to the mouldings already stamped in the panels. After the moulding is securely nailed, the spun collars are swaged in over the heads of the nails and the surface filed to a smooth finish.

SERVICE REQUIREMENTS

Noise at top of upper back panel—If a squeak occurs at the top of the upper back panel, loosen the roof crown moulding and the roof covering, then remove the nails from the edge of the upper back panel where it is nailed across the rear roof bow. Raise the edge of the metal enough to insert friction tape between the metal and the wood framework. Renail panel, using slightly larger nails, reinstall roof covering and roof crown moulding. If a reasonable amount of care is taken so as not to bend

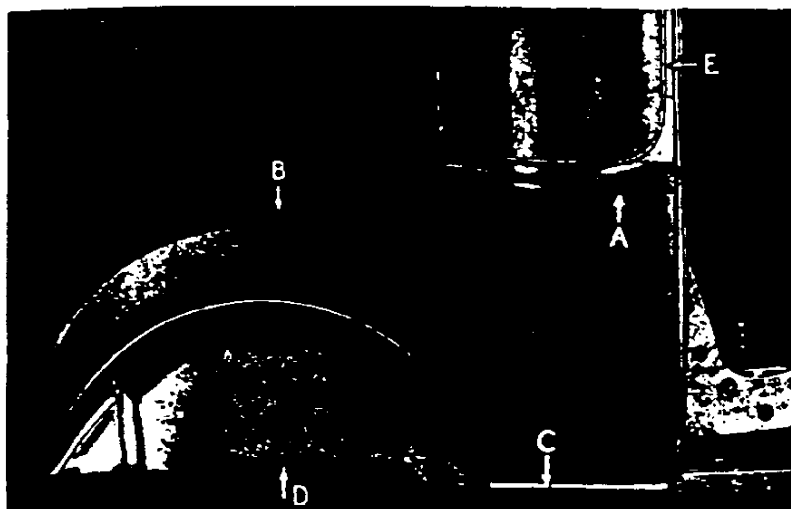


ILLUSTRATION NO. 152

Shows rear quarter side panel of business coupe body

ILLUSTRATION NO. 153
Shows rear quarter side panel of sport coupe body



rail, and body lock pillar panels—Remove rear belt rail moulding, loosen lower edge of the upper back panel, and insert friction tape, allowing the tape to lap over the edge of the rear quarter panel. Then when the rear belt moulding is reinstalled it will be insulated from the rear quarter panel. In locating this or any other apparent panel noise, test the body thoroughly to make sure that the noise actually has its source in the panels, before undertaking un-

or distort the roof crown moulding it can be reinstalled, but once it is twisted out of shape or kinked it is necessary to install a new moulding.

Squeaks at either right or left corner of upper back panel—Noise at this point is usually due to insufficient clearance between the wood and the metal. The remedy is to release the upper quarter trim and the headlining at that rear corner. Then, with a hack saw blade, cut away enough of this wood to allow clearance so that the metal will not rub against the wood. If the roof construction is of the new type which has a rear roof bow to side roof rail metal brace, make sure that the end of this brace is not rubbing against the panel. If such is the case, insert a thin wedge between the brace and the upper back panel to provide clearance through which may be inserted friction tape of sufficient thickness to prevent these metal parts from rubbing together. Then withdraw the wedge, taking care not to bulge or damage the metal panels.

Squeaks along lower edge of upper back panel, rear belt

necessary labor in removing the metal parts. If the noise is in the panels it can always be plainly felt, when riding the car, by placing your fingers over the metal. If you feel no vibration in the metal it would be better to look to the wood joints for the trouble.

Noise along the top of the deck side rail in the sport coupe body—Noise along the surface of the deck side rail is sometimes difficult to locate definitely. However, as it is invariably caused by the aluminum moulding that covers the edge along the deck side rail, the surest way to remedy it is to remove the entire moulding and re nail it securely.

Squeaks along lower edge of rear quarter panel—If the noise seems to come from points where the wheel housing portion of this panel joins the main side sill, drill three to five holes along the lower edge of the panel, evenly spaced. Install screws (1½" No. 12 flat-head steel) through the panel into the main side sill. This will draw the metal up tightly against the sill and will usually eliminate the noise permanently.

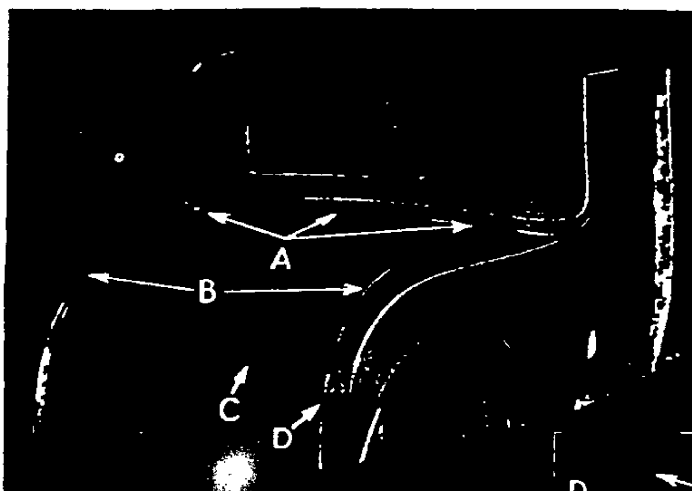


ILLUSTRATION NO. 154

Shows rear view of business coupe body panels

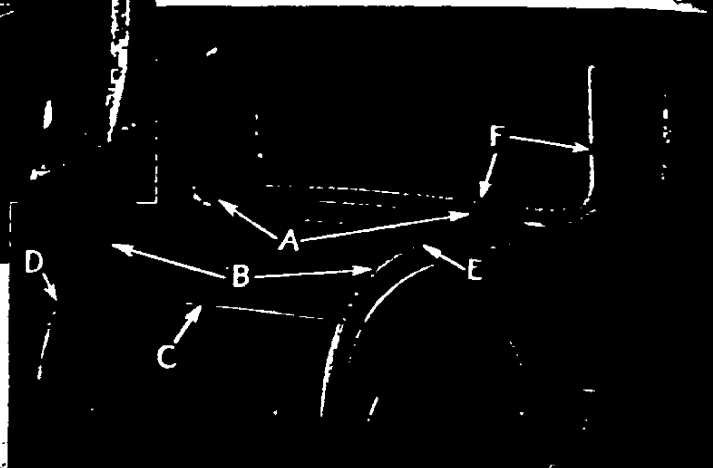


ILLUSTRATION NO. 155

Shows rear view of sport coupe body panels

Noise at joint of deck side rail and rear bell rail—This is often the most difficult of all noises to locate. It may seem to originate in the upper back panel at the roof or at the rear quarter under the window, in fact almost anywhere in the rear section of the belt line or above it. This joint is secured by a large bolt extending down through the belt rail and the deck side rail (see B in Ill. No. 154,

Bulletin No. 17). Simply tightening the bolt seldom offers a permanent remedy. It is necessary to remove the nut and drive in a soft wood wedge so as to separate the joint. Insulate the joint by applying friction paste or friction tape. Remove the wedge, and tighten the bolt.

To remove the bolt, first determine if the nut is accessible through the rear deck. If the head of the bolt is down it will be necessary to reach the nut from the inside of the body, which requires the loosening of the upper quarter trim assembly. Present type Fisher bodies have the bolts installed with the nuts down and are easily accessible through the rear deck.

Questions and Answers

Question—What is the easiest method to remedy a noise at the rear corner of the roof caused by the rear roof rail corner bracket and the upper back panel rubbing together?

Answer—As this panel is welded at approximately this point it is almost impossible to gain the necessary clearance by the use of a hack saw blade. The simplest method is to carefully insert a wedge between the panel and the bracket, driving it in sufficiently far to force the panel upward to a point that will allow the insertion of friction tape between these points of contact.

Question—Explain how repairs are effected on the cross sills, should they become loose or broken?

Answer—The repair or replacement of the rear cross sill is fully covered in *Bulletin No. 1, Vol. 2*. The remaining cross sills referred to are joined to the main side sills by means of mortise-and-tenon joints (*Bulletin No. 1, Vol. 2*). No difficulty will be experienced with these cross sills becoming loose at the joint, but they may become broken through an accident or some other mishap. The easiest and most satisfactory method of repair is to splice in a piece of sufficient size to replace the damaged portion. Follow directions for making this splice as given in *Bulletin No. 13, Vol. 1*, making the angle of the cut as great as possible.

A $\frac{1}{8}$ " x 1" strap of iron securely installed with screws at each side of cross sill will materially strengthen this joint.

Fisher Body Service Bulletin

VOLUME 2

Number 20

The Upholstery and Roof Coverings of Coupe Bodies

The present bulletin on upholstery and roof coverings completes the series on the construction and service of coupe bodies. As in the preceding bulletins, descriptions of coupe bodies will be confined to those assemblies which differ in their construction from the sedan type assemblies already described in *Vol. 2, Bulletins No. 11 to No. 15* inclusive.

In this connection, a careful review of these last mentioned bulletins is recommended. With the exception of the descriptions which immediately follow, the operations of removal, construction, and service are practically identical with the practice indicated for sedan bodies.

SEAT COMPARTMENT TRIM WITH VALANCE

The trim for the rear of the seat compartment is formed at one side by the under back window trim, at both ends by the rear quarter trim, and at the bottom by a board which is covered with a piece of plain stretched

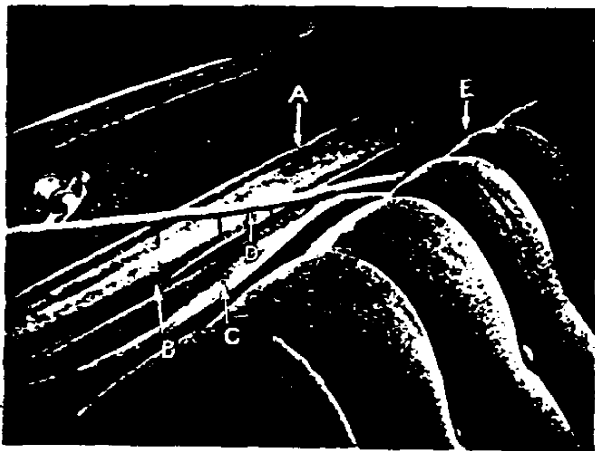


ILLUSTRATION NO. 156

Showing coupe seat valance extended for forward adjustment of seat and partially disassembled at left to show Randall moulding



ILLUSTRATION NO. 157

Coupe seat valance with skirt folded under

trim cut to fit and then tacked. The front side is also covered with plain stretched trim, tacked along its bottom edge and over the top edge of the section. *Ill. No. 156* shows the seat valance which is especially constructed to allow for the movement of the adjustable seat. This assembly is composed of a piece of buckram covered with upholstery and a "bellows skirt." The former piece is tacked to the upper edge of the front section of the seat compartment (at *A* in *Ill. No. 156*). To this is sewed a "bellows skirt" (at *C*) which is tacked to the top of the seat and covered with Randall moulding nailing strip (at *D* in *Ill. No. 156*). This skirt extends out flat to cover the space between the compartment and the seat, when the seat is adjusted to full forward position, as shown at *E* in *Ill. No. 156*. How the skirt folds under when the seat is moved back is shown in *Ill. No. 157*.

REAR DECK COMPARTMENT TRIM

The rear deck compartment trim in the sport coupe is

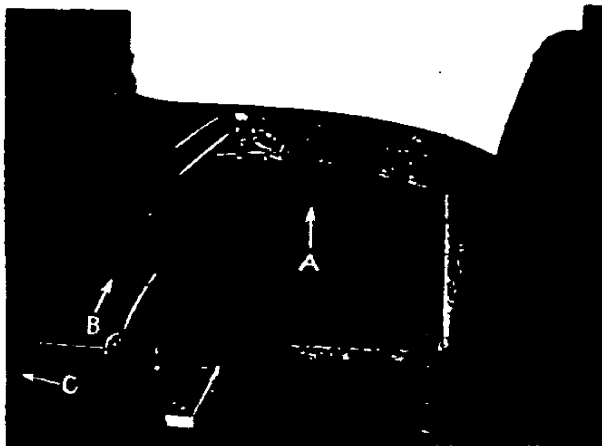


ILLUSTRATION NO. 158

Showing trim in rear deck compartment of sport coupe

made of embossed cardboard cut and fitted in four pieces to cover the insides of both the rear quarter side panels (A in Ill. No. 158), the right side compartment door (B in Ill. No. 158), and the back of the coupe seat in the direction of C in Ill. No. 158.

ROOF COVERINGS

In the coupe body types which have upper back and side roof rail metal panels, the construction and application of the roof covering are exactly the same as the sedan type bodies. However, some of the coupe bodies

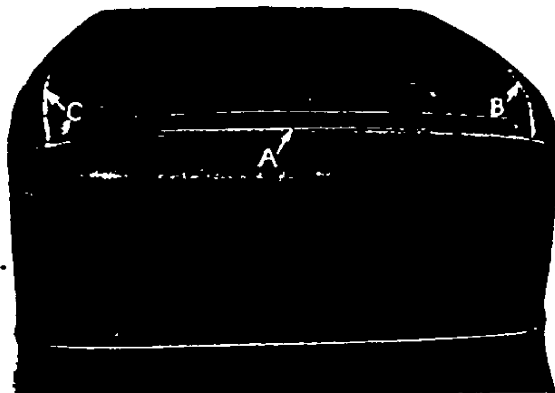


ILLUSTRATION NO. 159

Showing rear view of coupe with covering removed ready for installation of roof and outside quarters and back coverings

have leather outside quarters and backs, the installation of which is described in the following paragraphs.

OUTSIDE QUARTERS AND BACK COVERINGS

A coupe body is shown in Ill. No. 159 with its original covering removed, but with the stitched roof pad in place. The back and rear quarters are shown stripped to the panels and covered with an application of trimmer's cement, F. S. No. 730. After the Repstick sealing compound, F. S. No. 714 is applied along the slotted grooves (A, B, and C in Ill. No. 159) and the blue Lenox

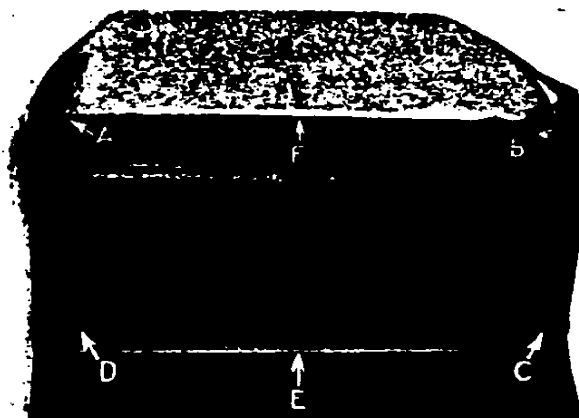


ILLUSTRATION NO. 160

Showing three-piece leather outside quarters and back covering stretched to place and stay-tacked

wadding is placed over the panels for a foundation, the body is ready for the installation of the coated fabric covering.

The covering assembly for the outside quarters and back is composed of three pieces. The back is sewed to the two rear quarters (at A to D and B to C in Ill. No. 160) and the juncture of these pieces is bound together by wings cut out of fibre board and shaped to the exact contour of the body.

This assembly is stretched over the panels and fitted for the stay-tacking operations in the following order (see Ill. No. 160): First, the exact centers at bottom (E) and top (F) are tacked, then each corner of the bottom edges at D and C and the top edges at A and B. Finally, it is tacked across the lower edge at the rear belt

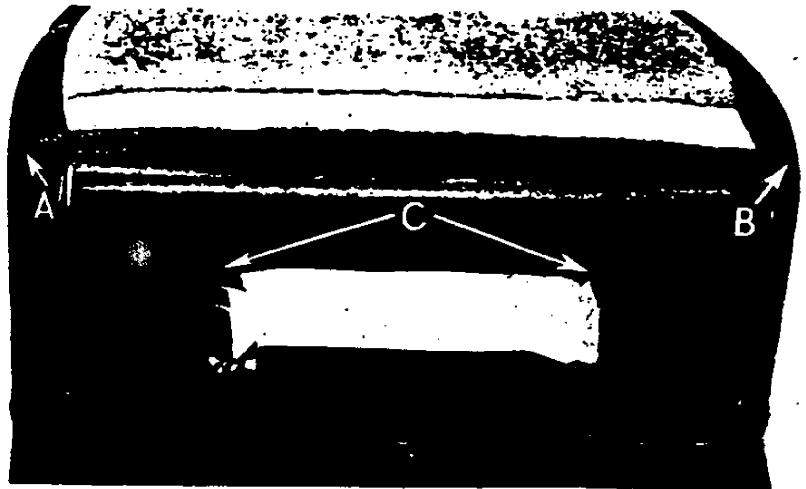
ILLUSTRATION NO. 161

*Showing final tacking
of covering with cloth cut and notched
for the window opening*

moulding, up the sides at the body lock pillar, and across the roof at the rear roof bow.

The next operation consists of stretching this assembly to eliminate all wrinkles of the covering, particularly at points *A* and *B* in *Ill. No. 160*. This is best accomplished as a two-man operation, as the covering must be pulled tightly and held taut, while the material is rubbed to a smooth fit by the trimmer. It may be necessary to repeat this operation several times before the desired smoothness is achieved. Then the cloth is securely tacked at points *A* and *B* in *Ill. No. 160*. The cloth is then slit on each side at points *A* and *B* in *Ill. No. 161*, to overcome the pucker in the covering at the curve of the roof.

The final tacking is now completed all around and the hole cut for the window opening (see *C* in *Ill. No. 161*). The fabric is cut at the corners in order to attain a smooth finish when the material is later turned in and



tacked to the inside of the window frame. The details of the next step, namely that of attaching the roof covering proper, are similar to those described in *Vol. 2, Bulletin No. 15*. The final operation is the installation of bindings and mouldings as follows (see *Ill. No. 162*): The Hidem binding which is finished off with an acorn metal tip and covers the joint across the rear roof bow (*A* in *Ill. No. 162*); the Hidem binding at the body lock pillar and around the rear belt moulding (*B* in *Ill. No. 162*) finished with a two-way metal "tip" to conceal the joint at *C*; and the roof drip moulding over the doors at *D* in *Ill. No. 162*.

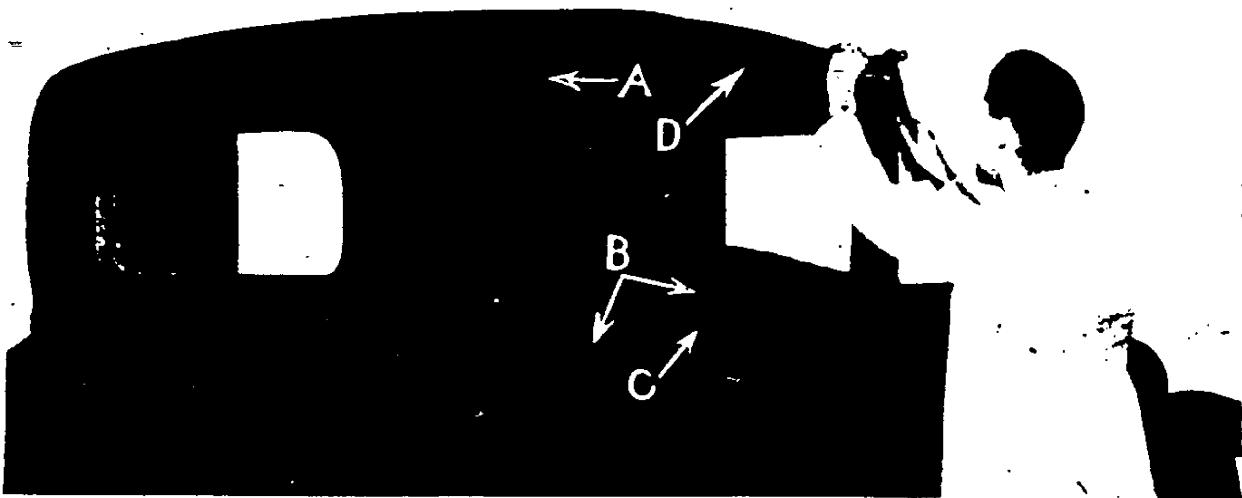


ILLUSTRATION NO. 162

Showing finished installation with applications of bindings and mouldings

Questions and Answers

Question—Please state what conditions may cause water leaks at the windshield or around the cowl?

Answer—There are a number of reasons for this condition. Following is a list of conditions that may permit the entry of either water or wind: If water seems to be entering directly under the windshield, the glass may not be setting properly on the lower weather strip. To detect this, place three or four sheets of paper at various points across the weather strip and close the glass tightly. Pull the paper toward you, and if you find that it comes out freely the windshield regulator board requires adjustment at the point thus indicated. To remedy this, remove the regulator board and back out the adjusting screw that will be found on the top of this board at both ends. One full turn of this screw will lower the regulator board $\frac{1}{8}$ inch and, accordingly, force the glass lower. Adjust the screw so as to obtain an even bearing entirely across the lower weather strip.

The following conditions may exist. In each case they may be corrected by following the instructions given.

If the front body hinge pillar cover outer is not sealed properly; or there is too large an opening between the top of the cover and the front roof cover panel; or between the bottom of the cover and the cowl and dash assembly, R & M Roof Joint Compound should be applied in the openings.

If there is too large an opening between the windshield header bar and front body hinge pillar assembly, R & M Roof Joint Compound should be applied in the openings.

If the windshield header bar is bowed, remove the garnish mouldings, regulator board, windshield glass, upper weather strip, and retainer. Then use a straight edge to determine the amount of bow in the header bar. Shim with $\frac{3}{8}$ -inch strips of linoleum or waterproof cardboard to remedy this condition.

If the hole for the wiper tube is not properly sealed, apply R & M Roof Joint Compound or rubber dough inside the hole.

If the windshield rubber glass channels are cut too short, split, loose, worn, improperly installed, or improperly sealed at corners, they should be replaced or sealed with R. & M. Roof Joint Compound.

If the windshield lower weather strip is too short, cracked, worn, or improperly sealed, it should be replaced or sealed with R & M Roof Joint Compound.

If the windshield weather strip retainer is loose or im-

properly sealed, tighten, replace screws, or seal with R & M Roof Joint Compound.

If the windshield glass is not cut to the proper contour to fit the windshield lower weather strip, raise the glass and windshield lower weather strip sufficiently to permit the insertion of a shim between the windshield lower weather strip retainer and windshield lower weather strip. This shim should be of sufficient thickness to remedy any irregularity on the contour of the glass.

If the windshield glass has too much side play, move the side garnish mouldings forward or insert $\frac{3}{4}$ of an inch friction tape, folded lengthwise, between the garnish moulding and the windshield glass run channel.

If the windshield glass has too much end play, remove the garnish mouldings, raise the glass, and loosen the glass run channels. Then insert a shim of waterproof cardboard between the windshield glass run channels and the front body pillars. Reseal the channel for at least 4 inches up from the bottom and retack to place.

If the screws are missing from the hood lacing on the cowl, they should be replaced. Holes that are improperly sealed should be resealed with R & M Roof Joint Compound.

If the cowl lamp moulding is loose; nuts and washers on moulding loose or missing; or the moulding not sealed properly, it should be tightened, replaced with new nuts and washers, or sealed.

If the holes for the cowl lamp conduit in the cowl are not properly sealed, apply R & M Roof Joint Compound.

If the grommet is missing, it should be replaced.

If the flash weld on top of the cowl is cracked, it should be welded, sunk, soldered, and refinished.

On early type bodies, if the cowl moulding below the windshield is loose, it should be sealed and renailed. On early models, if the cowl and dash is not properly sealed where it is nailed to the lower cross bar, remove the cowl moulding and renail the cowl flange. Then apply R & M Roof Joint Compound and replace cowl moulding.

If the bracket on the hood saddle is loose, tighten or replace missing bolts and washers. On models having a ventilator on top of the cowl, if the gasket is missing it should be replaced.

If the drain or drain hole is too small, drill out or replace with new drain pipe.

If the ventilator drain is pinholed on the edges, replace the ventilator drain assembly.

Crankshaft

The Crankshaft, Fig. 6, is of sturdy proportions, forged in final plane by means of specially designed forging dies. This forging method eliminates the usual twisting operation to bring the crank pins into proper position, which reduces the internal strains considerably.

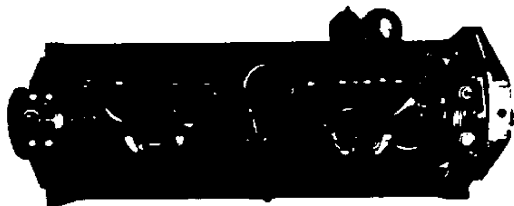


Fig. 6

The main bearings have a combined area of 11.9 square inches. They are bronze backed, babbitt lined, and are pressed into the case and caps to insure proper fit. Both halves of the Front and Rear Bearings and the lower half of the Center Bearing are securely doweled in place. The upper dowels are tubular, acting as stand pipes, feeding clean oil from pockets above, with ample space for sediment.

Connecting Rod

The Connecting Rod Fig. 7, is drop forged separately from the Cap. This feature permits the elimination of the heavy liner which was formerly interposed between the Rod and Cap. Both the Rod and Cap are lined with babbitt securely bonded to the Rod and Cap which are bolted together by means of two alloy steel Bolts and Castle Nuts locked by Cotter Pins.

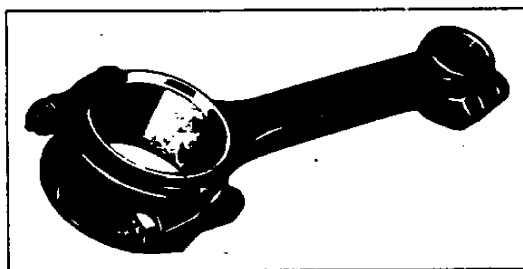


Fig. 7

The Piston Pin is clamped in the Rod, this having been proven the most effective method of Pin mounting. The Piston Pin is reinforced at the center to reduce distortion at the center, due to clamping, to a minimum.

The crank pin bearings are lubricated through a hole in the bottom of the Cap, through which oil is forced by the action of a specially designed stamped Dipper which dips $\frac{1}{4}$ " below the oil level.

Oiling System

The lubricating oil is carried in the Oil Pan in the usual manner. The joints around the Bearing Caps are sealed by cork rings. Individual troughs under each Rod Dipper are used. The oil is sucked through a screen from the bottom of the pan by a Vane Type Pump driven by the Camshaft. It is delivered by the Pump to the Oil Distributor. From the low pressure side of the Oil Distributor the oil is delivered to fittings inside the crankcase from where it is fed to the pockets above the three Crankshaft Bearings and the dipper troughs, the Camshaft Bearings being oiled through drilled holes communicating with the pockets. The overflow, from the pockets, drops to the Oil Pan.

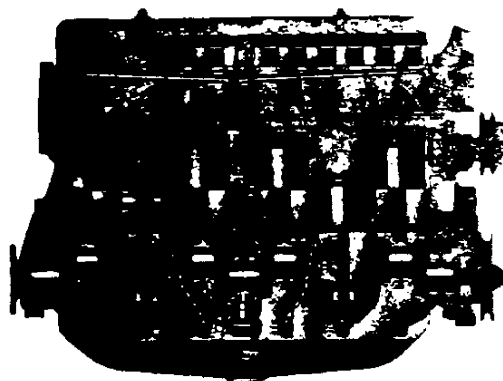


Fig. 8

The Oil Pan has baffles across the inside to prevent excess slushing, back and forth, of the oil.

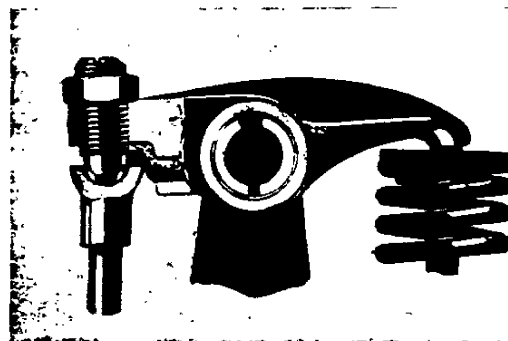


Fig. 9

From the low pressure side of the Oil Distributor another pipe carries oil to a connection between the Valve Rocker Shafts, maintaining a constant supply of oil in the hollow shafts to feed the Rocker Arm Bearings, Fig. 9. The excess oil from the rocker shaft compartment is returned to the crankcase through telescoping tubes, one of which is secured in the Cylinder Head and the other being a connection between the head and the case. The tubes also form the inlet passage for fresh air to the crankcase.

The lead to the Oil Pressure Gauge is taken off the high pressure side of the Oil Distributor.

Pistons

The Pistons used in the International Models are cast iron with a solid skirt with three ring grooves located above the piston pin holes.

The Piston Pin bosses are ribbed to insure stiffness and have holes drilled in the top at the side wall to allow oil, from splash and side walls, to feed into the Piston Pin. An Oil Groove is cut in the Piston Pin bosses for complete lubrication of the Piston Pin.

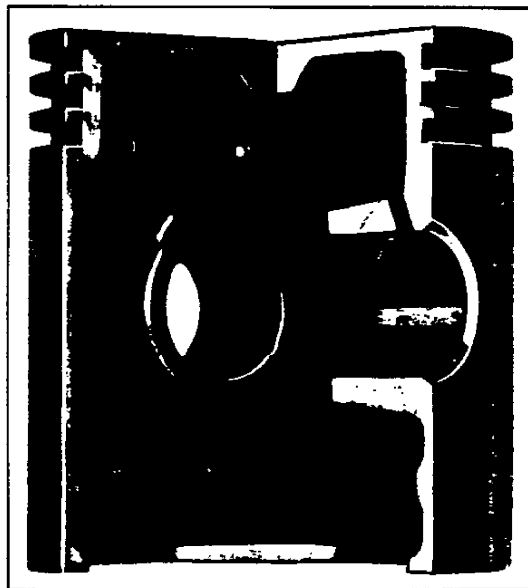


Fig. 10

The lower ring in the Piston is an Oil Control Ring which is slotted to allow excess oil, scraped from the cylinder walls, to be returned to the inside of the Piston by means of holes drilled in the Ring Groove.

After an exhaustive study, Chevrolet Motor Company has decided to service Pistons in the following oversizes, .003", .010" and .020".

The .003" oversize Pistons are for use in Motors where the standard Pistons have become slightly loose yet the cylinder bore is in such condition that it does not require reaming or honing operations.

The .010" Oversize Pistons were adopted for use in Motors where cylinder bores have become slightly out of round or tapered necessitating a reaming and honing operation. Use of this Oversize Piston permits the cleaning up of cylinder bores to assure round and true bores.

The .020" Oversize Pistons are to be used where the Motor requires a second overhauling or where the cylinder bore is scored, due to lack of oil and seizing of Piston, permitting removal of sufficient metal to assure a good job.

Fitting Pistons

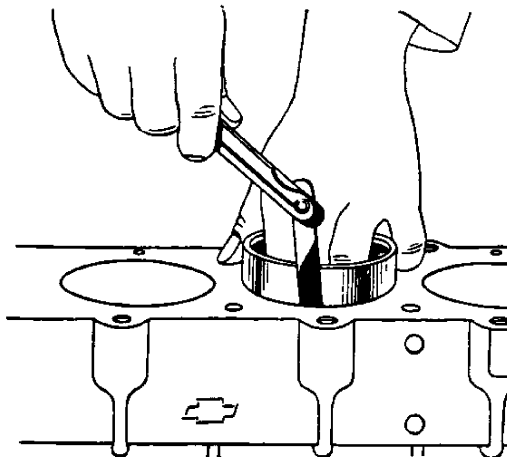


Fig. 11

The new cast iron Pistons should be fitted to cylinders with from .002" to .003" clearance between cylinder wall and piston. By this we mean that the Piston should fit tight on a .002" feeler and should lock on a .003" feeler.

Piston Pins

The Piston Pins, Fig. 12, are of new design and manufacture. They are made from solid bar stock, reinforced in the center to reduce distortion, due to clamping in the rod, to a minimum.

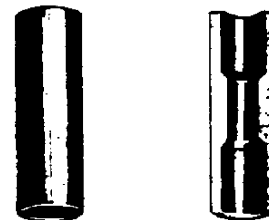


Fig. 12

In order to identify the 1929 Genuine Chevrolet Piston Pins, they will be marked with the Chevrolet Trade Mark at the center part of the Pin. The standard Pins will be marked with the Trade Mark only, while the oversize Pins will be marked with Trade Mark and oversize.



Fig. 13

Fig. 13, best describes what is considered a correct fit. Held in this position you should just be able to push Pin through both holes with some effort. This is known as a thumb push fit.

Carburetor

International Models are equipped with a Model RJH08 multiple jet plain tube Carburetor.

This Carburetor incorporates several new features which have proven very beneficial. The most important of these is the Accelerating Pump, Fig. 14, that aids in securing maximum acceleration and car performance. When the Throttle Valve is suddenly opened, from idling position, the Pump delivers an additional charge of fuel, over a short period of time, which increases acceleration.

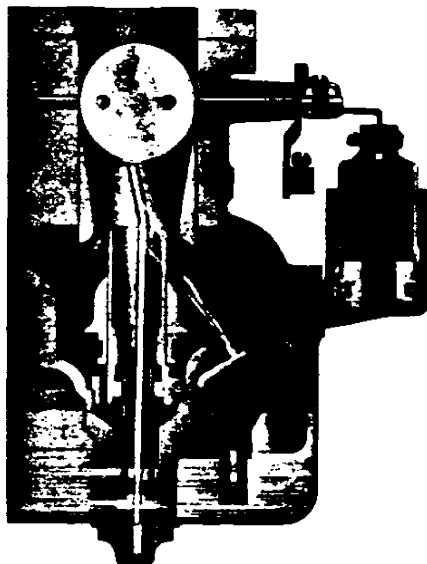


Fig. 14

Whenever a Car or Carburetors have been standing idle for any length of time it is advisable to oil the leather plunger in the Pump with a suitable oil. It is also necessary for the ball check to seat properly as any leak at these two points will cause a loss of efficiency.

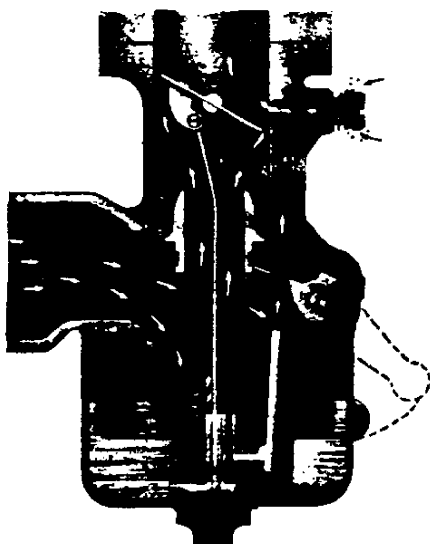


Fig. 15

An improved Venturi Choke, Fig. 15, has been added, which insures excellent starting in cold weather and even firing during the warming up period. This is accomplished by regulating the main air opening at the venturi throat instead of at the air intake as on former Carburetors. By regulating the amount of air entering the Venturi the mixture ratio may be varied anywhere from fourteen to one to four to one, as is desired, and due to the double venturi construction the fuel is always thoroughly atomized as it enters the Standpipe and enters the mixing chamber.

A fuel Metering Rod, has been attached to the Throttle Valve which regulates the size of the vertical jet. This gives the equivalent of a small vertical jet for part throttle running and a large vertical jet when throttle is wide open which gives maximum power for both speed and hill climbing.

The mixtures may be varied for different climates and fuels by changing the Well Jet in the base of the Carburetor Body. Standard Well Jet is No. 57; Rich Jet No. 56½; Leaner Jets No. 58, 59 and 60. These Jets may be used wherever a change in mixture ratio is deemed necessary.

Fuel Pump

Fuel is pumped from the Gasoline Tank by means of a diaphragm type Fuel Pump, Fig. 16, which is driven by an eccentric on the Camshaft.

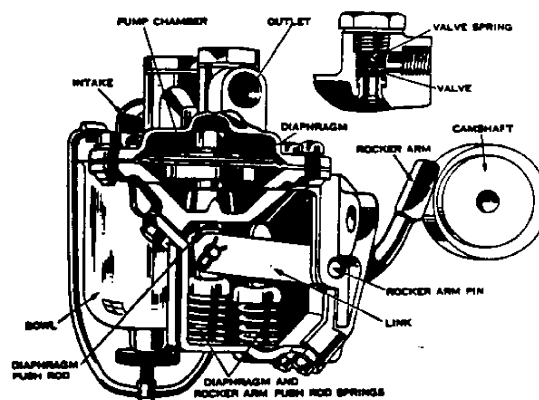


Fig. 16

The fuel enters at the rear end, passing through the Glass Bowl where sediment settles to the bottom. The clean fuel is then sucked to the upper outlet and to the Carburetor by means of the suction created by the movement of the diaphragm. When the Carburetor Bowl is filled the Float will shut off the Inlet Needle Valve, thus creating a pressure in the Fuel Pump chamber. This pressure will force the diaphragm downward where it will remain until the Carburetor requires fuel and the Needle Valve opens.

Distributor

The Distributor is of the semi-automatic type and is driven off the Camshaft by the same gear which drives the Oil Pump.

The Ignition Terminal on this Distributor is arranged for locking the ignition system by means of the Electrolock. The Condenser is also mounted on the Distributor.

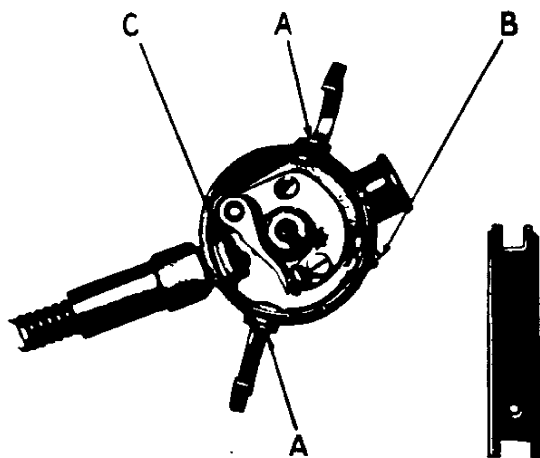


Fig. 18

In changing Breaker Points or replacement of Condenser the following operations are necessary:

- 1 Loosen Distributor Cap Spring Screws "A".
- 2 Loosen Breaker Plate Screw "B".
- 3 Tilt Breaker Plate down and remove Nut "C" using special wrench.

Head Lamps

The new Head Lamps are of the depressable beam type, the Bulb being provided with two separate filaments, one on the center of the Reflector which gives a bright light of long range for night country driving. The other filament, having

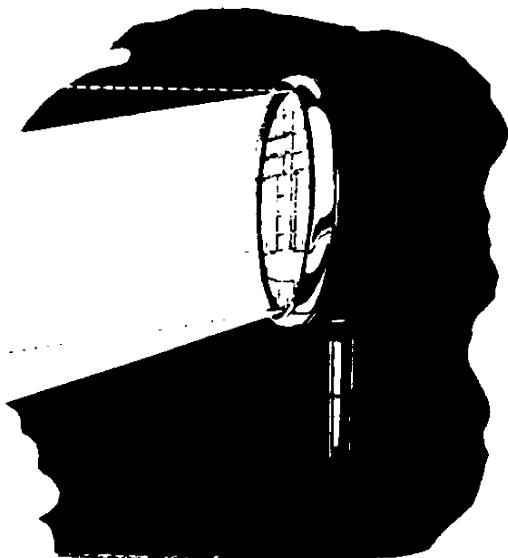


Fig. 19

the same candlepower as the central filament, is located slightly off the center of Reflector,

and while it gives as bright a light as the central filament, it depresses the beam downward so that the light falls considerably lower than when the central filament is in use.

The operation of the depressable beam is effected by means of a foot Switch, located on the Toe Board Riser just to the left of the Clutch Pedal.

Removal of Hub Caps

To remove the Hub Caps on International Model Cars, place jaws of Adjustable Wrench, which is furnished with Tool Kit, on octagon portion of cap.

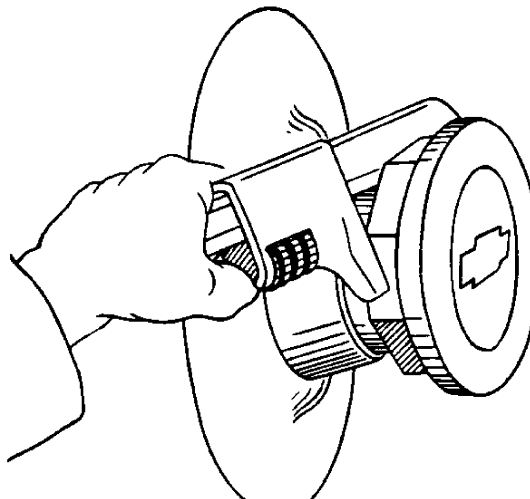


Fig. 20

Fig. 20, sloping upper side of wrench inward so that wrench will ride on cylindrical portion of cap then tighten jaws and turn toward the left.

Method of Removing Crank Hole Cover

Fig. 21 illustrates the proper method of removing the Starting Crank Hole Cover from Radiator Splash Guard.

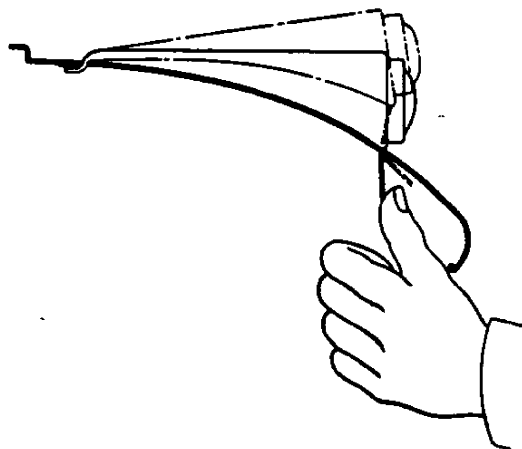


Fig. 21

To remove, push lock spring, which is located under Radiator Splash Guard, then lift Cover Assembly as shown in dotted lines and pull forward.

New Accessories for the Outstanding Chevrolet

For the International Model Car there is now available a group of accessories of exceptional merit, each item having been especially designed by Chevrolet engineers to exactly harmonize with the "Outstanding Chevrolet of Chevrolet History" in both appearance and performance.

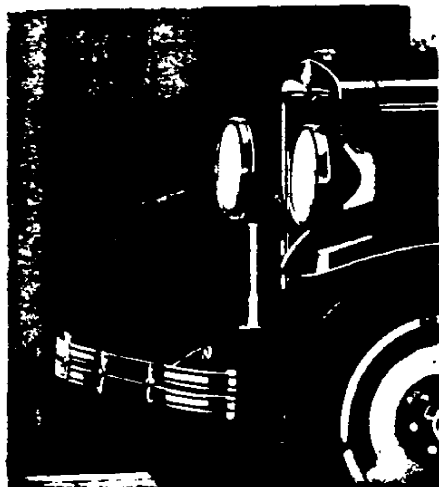


Fig. 22

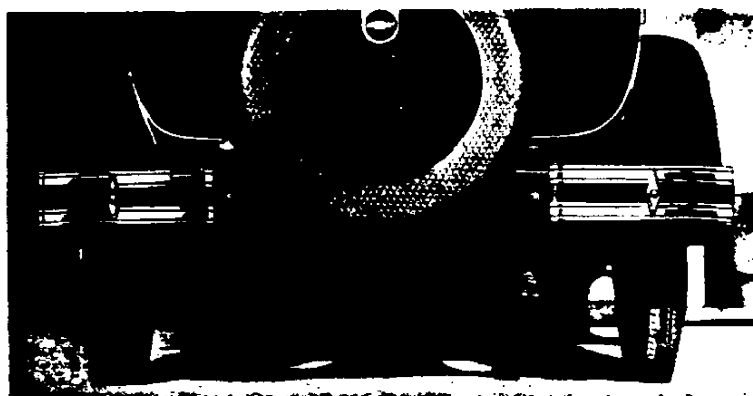


Fig. 23

THE NEW CHEVROLET BUMPER

The new Chevrolet bumper has full chromium-plated collision bars with narrow black enamelled channels, and eye bolts of polished non-rusting steel. It is particularly noteworthy in its beauty of proportions and finish and in its exact harmony with the lines of the new car.

Back bars of the front bumper are formed into a right angle arch which will allow a maximum absorption of shocks without damage to the car or riders. Both collision and back bars are of selected, uniformly tempered spring steel, sufficiently resilient to maintain their original shape under any ordinary stresses.

The fender guards are of bow-shaped design, so attached as to prevent flattening out on repeated blows. The distance between bars has been

increased on the fender guards so as to insure full contact with front bumper bars of other cars.

The front bumper is installed by inserting two bolts, Fig. 24—one on each of the two frame ends.

The mechanic removes the two screws at the ends of the frame, inserts bolts through clips, tightens bolts part way, adjusts bumper to level position, pulls bolts up tight and the front bumper is installed.

The rear fender guards go on just as easily. The screw on the end of the frame is removed, Fig. 25. A bolt is inserted through the fender guard. Another bolt goes in through the bracing bar, to the rear cross member.

These bumpers are priced at \$22.50 installed.

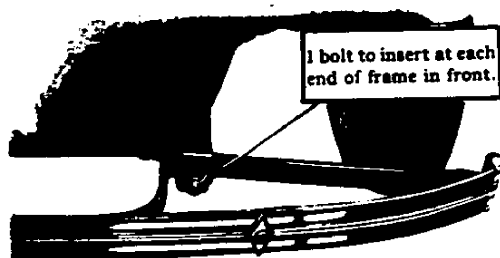


Fig. 24

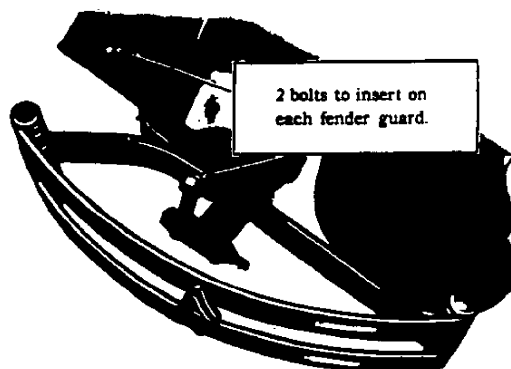
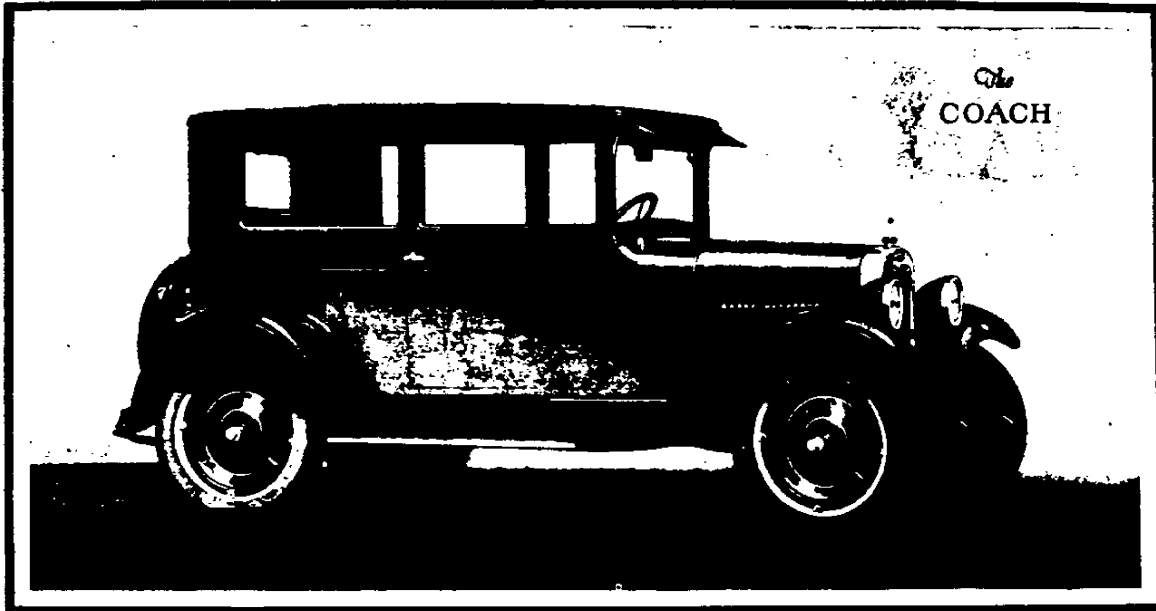


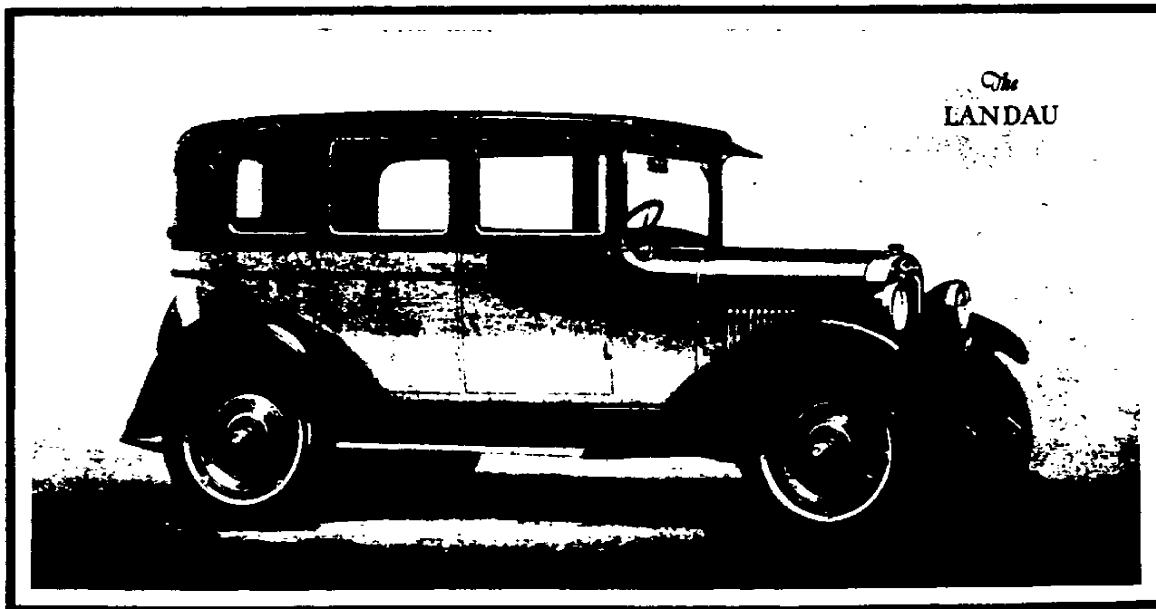
Fig. 25

The Most Beautiful Che



This car offers a marvelous combination of distinctive beauty and spacious comfort. The body by Fisher is finished in beautiful St. James gray Duo, handsomely striped, with upholstery in a fine

material of attractive green. All four windows can be raised or lowered with quick-action Tarnstedt window regulators. This is unquestionably the world's greatest closed-car value.



In this aristocrat of low-priced cars has been achieved a marked note of elegance. It is beautifully finished in Duo, with the lower panels and hood in Beige brown, striped with chrome yellow

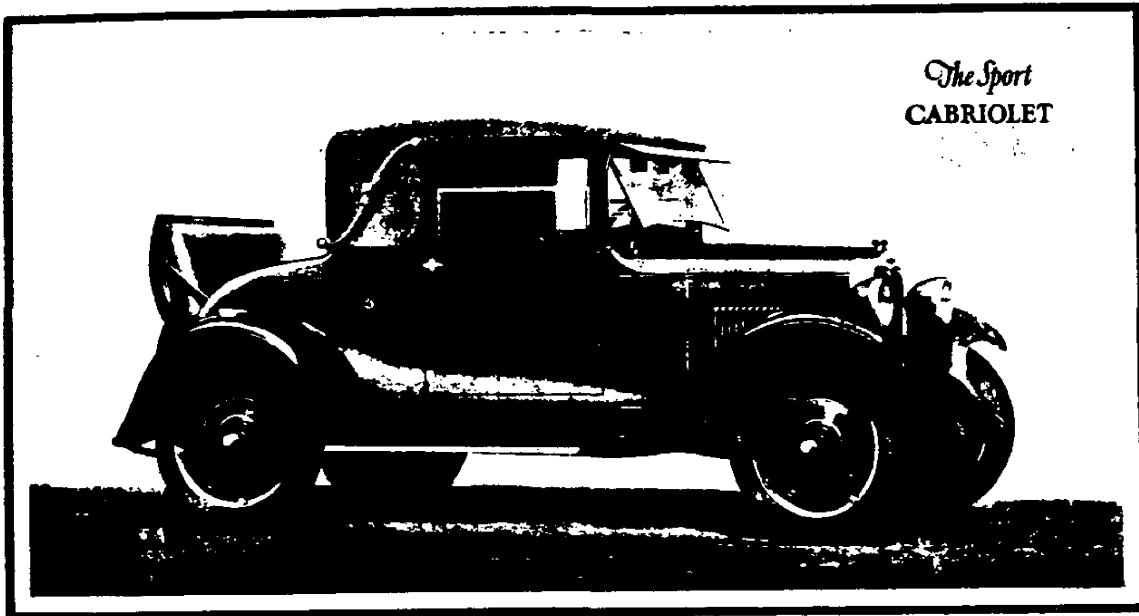
—upper panels in black, with a beautiful brown moulding around the windows—and brown plush upholstery. All windows may be lowered. There is custom-built distinction to this fine Fisher body.



NO

For your convenience this 4-page Car reference.

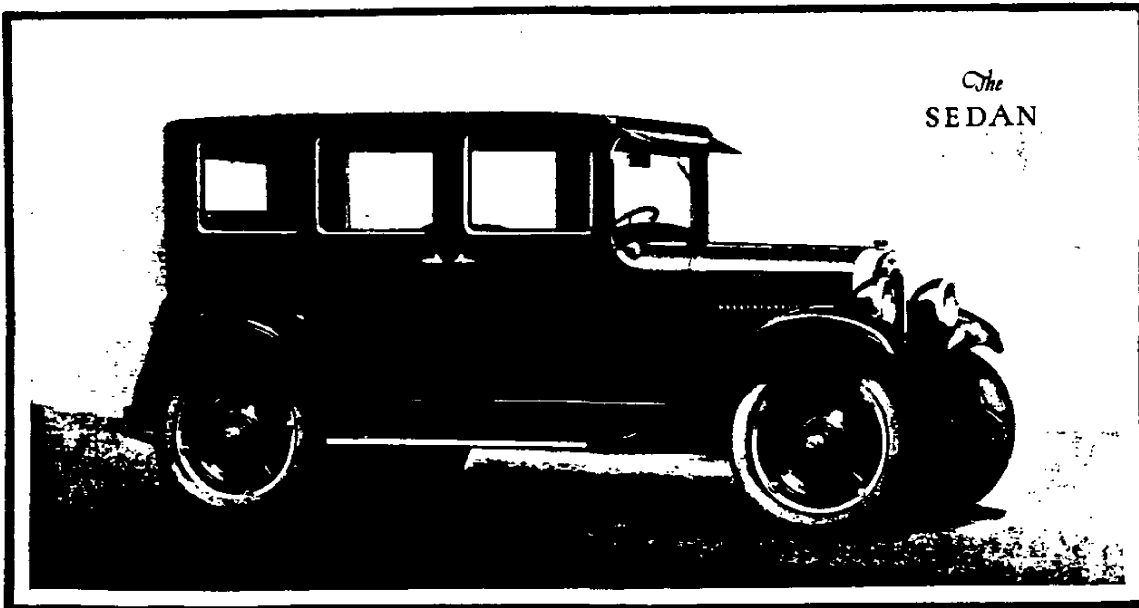
Chevrolet in Chevrolet History



The Sport
CABRIOLET

This is a strikingly beautiful rakish two and four passenger Sport Cabriolet with spacious rumble seat. It has a Fisher body of marked individuality finished in Royal Oak green Duco, tan whip-cord

top and tan upholstery of genuine grain leather, Landau irons, windshield frame, automatic wiper, door sills, and window sashes brilliantly and durably nickel-plated.



The
SEDAN

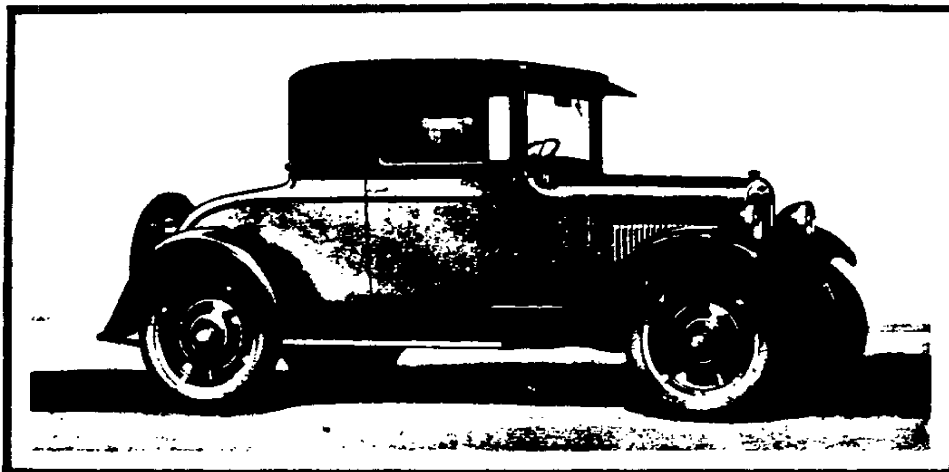
A beautiful example of fine car building, this Fisher Body Sedan has lower panels and hood finished in handsome Marine blue Duco with gold striping—upper panels in black, with Marine blue

moulding around the windows. The fine, durable upholstery is of handsome blue material over deep cushion springs. It easily seats five passengers in comfort.

CHEVROLET
of Transportation

NOTE:
—silence preserve
—noise for future

The Most Beautiful Chevrolet in Chevrolet History



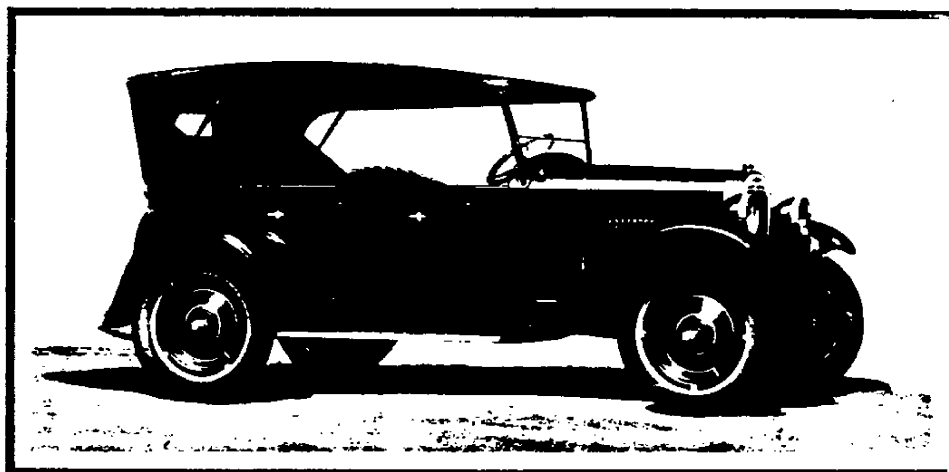
The COUPE

This fine car has a strikingly beautiful Fisher body with lower panels and hood finished in Beige brown Duco striped in chrome yellow. Upper panels are in black with brown moulding around windows. The upholstery is of fine quality durable blue material. At the rear is a very large watertight compartment affording abundant room for all sorts of luggage, grips, etc.



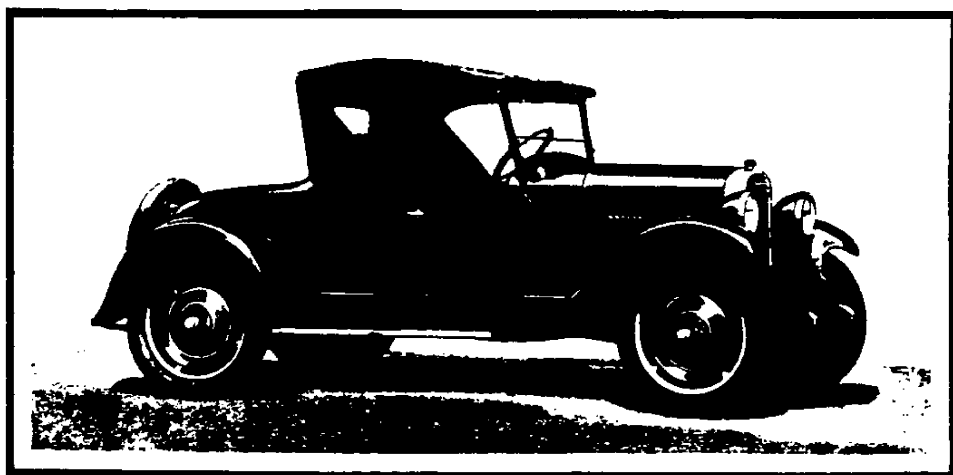
The TOURING CAR

This fine Touring Car has long, low, graceful lines emphasized by streamline moulding striped to contrast with the beautiful body finished in Falmouth gray Duco. Five people can ride in comfort on its deep, full-cushioned seats. It is equipped with carefully tailored side curtains that open with the doors. As illustrated, balloon tires and steel disc wheels are standard equipment.



The ROADSTER

Racy, full streamlines accentuated by a full-length bead moulding provide in this car a Roadster of smart, dashing appearance. It is finished in a beautiful Falmouth gray Duco. Carefully fitted curtains open with the doors. It has a deep, roomy rear compartment with watertight cover. Balloon tires and steel disc wheels are standard. The finest Roadster ever offered at low price.



QUALITY AT LOW COST

Improvements in Capitol Chevrolet

Important That All Service Men Become Familiar With These New Features

OIL FILTER

Keeping pace with modern design, Chevrolet has added an oil filter to the lubrication system of CAPITOL motors. The method in which rods, main bearings, etc., receive oil, however, remains unchanged.

valve, is then distributed to oil troughs and bearings. A feature of this system is that all of the oil which is filtered, is delivered directly to the bearings. Some filtering systems return this oil to the crankcase and the greatest benefit of filtering is not realized.

Here are the answers to certain questions which will come up concerning this oil filter and its operation.

First — Complete crankcase oil change is only necessary once every 3,000 miles in the summer and every 500 miles in winter. The reason for the more often oil change in winter is because of crankcase dilution, which is not remedied by the filter.

Second — When filter becomes inoperative, the complete unit is removed and replaced. This is

actually the most economical method, as well as convenient. The replacing of a filter bag in other types, is a very dirty and messy job. Filter unit change should only be necessary approximately every 15,000 miles.

Third — Filter action can be determined by opening test cock on outlet side. Providing the oil is passing through, it will show at this point. An accurate test cannot be made, however, unless motor is running and thoroughly heated, as cold oil will congeal and not pass through. A filter which will pass practically no oil at 35° might be perfectly satisfactory at 90°, and as most operation of the motor is at the higher temperature, test only when warm.

One of the main features which should be noted is that this filter will in no way, regardless of its condition, be detrimental to the oil

system. Should it become thoroughly inoperative, due to neglect or some unusual cause, all bearings and the balance of the motor will receive sufficient supply of oil under all conditions. This is taken care of by the valve in oil distributor.

A suggestion in connection with oil filters. They must be replaced at certain intervals, and it is to your advantage to get as much of this replacement business as possible. This is not only because of the profit in filter replacements, but your contact with the owner is always valuable and will aid you in keeping all of his repair work.

A very good way to follow this is to set up a record at time of sale and estimate the date owner should come in and have his filter tested. At that time write him a letter or, better, call him on the 'phone and suggest he drive in for a check on filter.

OIL PUMP

A new oil pump with blades in the place of gears is used on Capitol Chevrolet. Note the illustration of this in Fig. 2.

This pump is mounted and driven in the same manner as on Series K, V motors. The pressure developed is greater, to care for the addition of Oil Filter.

Pump operates in this manner. Oil enters through pipe in cover which extends into oil pan. By action of blades in rotor it is forced through and out pipe connection which leads to oil distributor. The path of oil is shown in illustration by arrows.

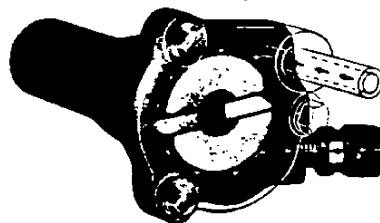


Figure 2

Notice the correct position of blades. In reassembling a pump this is important. The spring between blades must be in place and blades assembled exactly as shown. This will allow pump to function properly should sludge or particles of any material enter intake pipe.

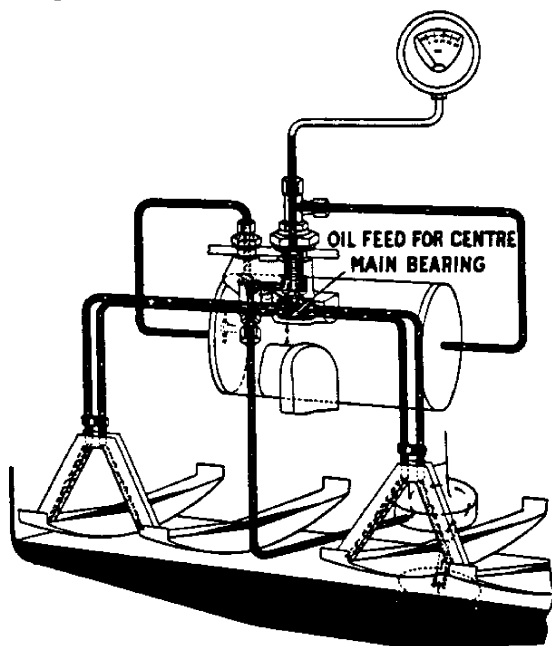


Figure 1

Refer to Figure 1, which illustrates the complete oil circulating system. Oil is taken from pan through screen by the pump, and delivered to upper part of oil distributor body. This distributor is similar to the Series V, with the addition of filter connection. From this point there are two passages the oil may take, one of which is out the top and into oil filter. The other passage is through distributor valve, which will open as soon as sufficient pressure is created and deliver oil to the lower half of distributor body. Pressure which exists at this point is registered on gauge as in previous models. Note that the oil does take both of these passages mentioned, the quantities in each direction depending upon conditions stated later.

That portion of the oil which goes through filter is returned to the lower half of distributor body and, together with oil coming through

Safety and Operating Economy are Featured in Capitol Chevrolet

STEERING AND IGNITION LOCK

The Capitol Chevrolet is equipped with a combined steering and ignition lock, located at the steering gear bracket on instrument panel. See Fig. 3. The former lighting and ignition switch on panel is now used for lighting only.

Normal operation of this new lock is by means of the key. Turning key to the right unlocks steering post and turns on ignition. Turning key to the left turns off ignition and locks steering post.

The advantage of this type of lock from owner's standpoint is that turning off ignition automatically locks car.

Another feature, primarily for service men, is incorporated to care for towing or pushing cars around shop floor, at which time steering gear must be unlocked but ignition should be turned off. Note lever shown in Fig. 3 behind instrument panel.

With switch operated by key this lever is normally at position "A" in the illustration. If desired to turn ignition off with steering gear unlocked, ignition lever should be pulled down to "B" position. This of course is only possible or necessary when key is turned to unlocked position.



Figure 3

To avoid running down batteries in the shop, remember this—*Never unlock car without starting the motor unless you pull ignition lever to "B" or down position.* This lever will return to "A" next time key is used.

Each key is numbered. This number does not show on lock. One key only is furnished with car.

To properly serve your car owner dealers are urged at time of sale to record the key number. In case of loss or need of an additional key, you can render service without delay.

Car owners should be cautioned concerning the turning of key with car in motion.

AIR CLEANER

Removal of road dust from air intake prolongs life of motor, and now Chevrolet uses an improved air cleaner. This is a self-contained, positive operating apparatus, needing no attention, but is shown here so you may become familiar with its construction.

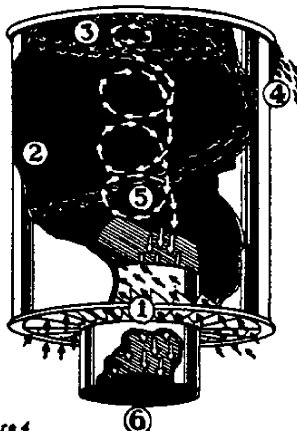


Figure 4

Fig. No. 4 shows path of air by means of arrows. Dirt, as fast as removed, is ejected from opening in top.

In case of damage this must be replaced as a unit.

An Index to Come

When sufficient issues of "Chevrolet Service News" are out, we are going to supply an index for your convenience. You may desire, for instance, to look up some data furnished on pistons in a previous issue. You will find this in the index under "Pistons" and can locate it without delay.

We want to make "Chevrolet Service News" most useful to you, and this is one of the ways we will do it. Save every copy in one of the binders illustrated, and keep them complete.

New Genuine Chevrolet Bumpers



The new bumpers are designed for use on CAPITOL Chevrolet only. With brackets furnished, they will not fit Series K, V Cars.

Anticipating that you may desire to install new bumpers on a Series V car, we call your attention to the fact that this may be done by using brackets 345239, 40, 54, and 55 in place of those furnished with bumpers.

Another condition that may exist is the need of using your stock of old bumpers on CAPITOL cars. First try to use all of the previous bumpers on used cars, but if impossible, get in touch with your zone Parts and Service Manager and obtain brackets allowing the use of these on new cars.

Here is a Binder for "Chevrolet Service News"



We know you will want to keep every issue of "Chevrolet Service News" for future reference and to make this convenient for you, each copy will be furnished to fit any standard 8½" x 11" three ring binder.

Also, knowing many will desire a binder specially designed for "Chevrolet Service News," we have purchased and will supply at a very low price one which is suitable for either office or shop use.

This binder pictured is a flexible, loose ring type, made of durable black DuPont Fabrikoid, and will lie flat when open.

Order one or more of these binders from your zone office at 60 cents each.

Fisher Body Service Bulletin

VOLUME 2

Number 14

The Removal and Replacement of Roof Coverings

No part of an automobile body is subjected to more wear or hard usage from the elements than roof coverings. Therefore, they must be selected from materials that will withstand the strains of road shock and weave, of wind and rain, as well as the expansion and contraction caused by quick changes in temperature. Moreover, with ordinary care these materials must remain waterproof over a satisfactory period.

The roof coverings used on Fisher bodies are of two different types: the coated, known as imitation leather, and the uncoated, called Burbank or Khaki material.

The uncoated type of roof covering is used chiefly on landaulets, cabriolets, sport sedans, roadsters, and touring cars, the installation of which will be treated in a later bulletin.

COATED FABRIC

The coated fabric for Fisher body roof coverings is made up of two layers of cloth which are cemented together into one piece by means of a rubberized solution. The outside surface of this fabric is coated with a composition which is rolled and grained with a glazed finish. This treatment renders the texture unusually tough, elastic, and durable and of even greater tensile strength than leather. It is water-repellent and will not absorb the moisture even at the edges of the fabric.

Coated fabrics used for roof coverings are furnished only in black for bodies of present production, although colored fabrics may be procured from service stock for older models.

Other colors or color tones are obtained by applying Duco of the desired shade. These roof coverings may be obtained in varying widths. In the standard sedans of present production the average width of the roof covering is approximately 46 inches.

This bulletin deals with the removal, replacement, and care of coated fabric roof coverings for standard sedans of current production which have side roof rail cover panels and roof crown mouldings.

REMOVAL AND INSTALLATION OF ROOF COVERINGS

REMOVAL. The first step is to remove the front roof crown moulding and then remove the adjoining side sections, working towards the rear. This operation is usually accomplished by prying off the moulding with a body spoon or chisel that is slightly turned up at the end. (See *Illustration No. 109.*) In this operation care should be taken to avoid damaging the side roof cover panel. Next, remove the tacks from the edges of the roof covering and



ILLUSTRATION NO. 109
Shows body chisel

inspect the exposed edge of the steel roof panels for tightness, insulation, protruding nails, etc. Remove all tacks. Scrape off surplus cement and clean off thoroughly. Now that the roof covering is removed, see that the padding over the roof slats is smooth and in good condition.

As a part of additional service one should now drive the car, if possible, for a short distance to locate any roof noises, squeaks, or rattles. After the roof covering has been removed, annoyances such as these can be very easily eliminated at a slight extra cost to the owner. (See *Bulletin No. 4, Vol. 2, on the construction and service of the framework.*)

At the edges of the roof panels, where the covering was attached, it will be noted that oblong-shaped slots have been punched lengthwise through the panels at regular intervals in order that the tacks which hold the roof covering and the nails in the crown moulding may be easily driven into the wood roof rail. Therefore, as a preliminary step to installation, it is advisable to mark the center of each of these slots with a piece of chalk (See

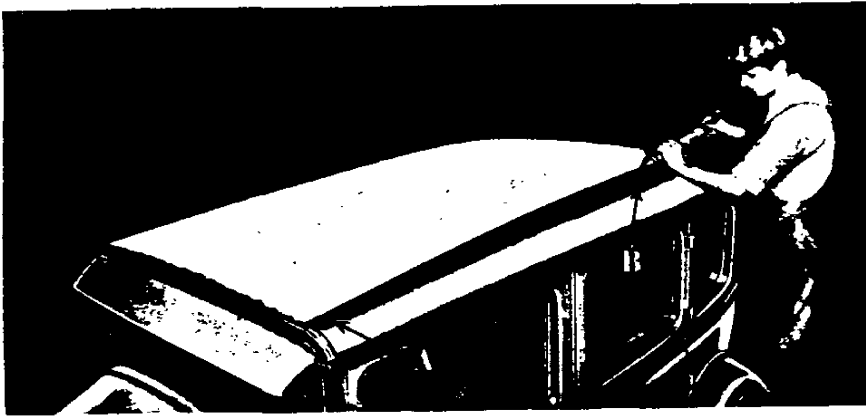


ILLUSTRATION NO. 110

Shows application of Repstick sealing compound over slots in roof panel before installing cover

A in Illustration No. 110) as a guide for the tacking and nailing later.

The next step is to apply Repstick sealing compound (F. S. No. 714) across the front and along the side and rear edges of the roof. This compound is applied either with a Repstick gun (See *B* in Illustration No. 110) or an ordinary oil can with the spout enlarged to allow the compound to flow freely.

INSTALLATION. After the roof has been thus prepared cut a new piece of roof material of the proper width and about 3 inches longer than the one removed. Then carefully lay it in place over the roof, allowing 1½ inches of surplus material at both ends. Stay tack the new roof covering at the center of the front roof rail (See *A* in Illustration No. 111) and at the upper back panel (See *B* in Illustration No. 111) with six or seven tacks about ½ inch apart, using 2½-oz. trimmer's tacks. Next stretch and stay tack one of the rear corners (See *C* in Illustration No. 111) and its diagonal opposite front corner (See *D* in Illustration No. 111). In a similar manner, stretch and tack the other two corners. Now finish tacking the roof covering completely across at the rear. Then stay tack the sides for their full length at intervals of about 10 inches to facilitate the later stretching and tacking. After this is accomplished, complete tacking across

the front roof rail and then finish tacking the sides, lifting the covering as the work proceeds to locate the slots in the panels. Drive a tack at each end of every slot.

For shipping convenience, roof crown mouldings are furnished from service in four sections, front, back, and the two sides that extend around the curve at the rear, instead of the three sections that are used in production.

To install the roof crown moulding, first nail the front section of the moulding to place through its holes with 1¼-inch No. 14 moulding nails, starting at the center and working toward the sides until the roof drip moulding is reached. Now saw off the surplus ends of the moulding with a hack saw so that its edges will fit evenly with the top edge of the roof drip moulding. Then drive all nails with a nail set, but not too deep or it may show a "ripple" effect after the tacking is finished. Now swage the cap over the heads of the nails with a wooden mallet, using for this purpose a U-grooved moulding block cut to fit the crown cap of the moulding. Next, either one of the side sections of the moulding is installed, starting at the rear curve of the roof, working toward the front. Make sure that the moulding covers all tack heads. Use the center marking at the slots in the panels as a guide for driving the nails through the moulding. After each side is finished, saw off enough moulding at the front end to form a perfect fit at the

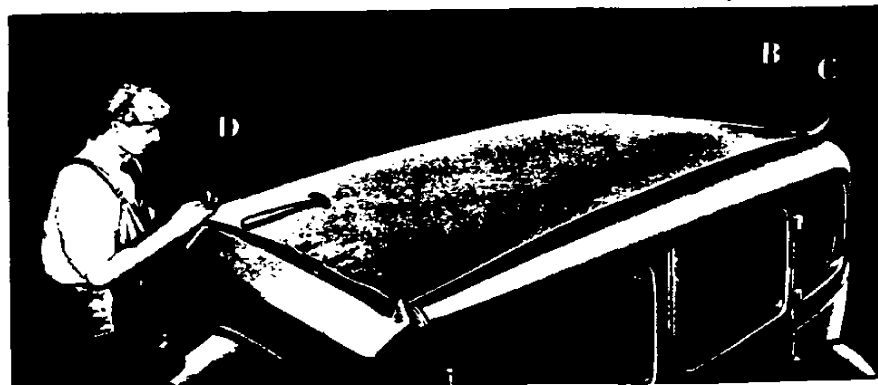


ILLUSTRATION NO. 111

Shows trimmer in the act of diagonally stretching and stay tacking right front corner of roof covering

ILLUSTRATION NO. 112

Shows installation of roof covering completed across front of roof and left side moulding nailed but not swaged

edge of the front roof crown moulding. Then measure and cut the back crown moulding section to make an even juncture with the curved ends of the sides and nail it to place. Now swage the caps of these sections in the manner described previously.

Finally, trim off, close to the outside of the moulding with a sharp knife, all surplus covering material and apply roof drip moulding cement (F. S. No. 626) to the inner edges of the moulding. Cement is not applied on the outside edges.

INSPECTION OF ROOF COVERING AND MOULDING

Whenever a car is brought in for service or replacement of any kind inspect the roof covering and the crown and drip mouldings. Examine the roof carefully for checks, cracks, or holes in the fabric, remembering that even a small leak may not only ruin the covering itself but may also allow water to seep through and rust the panels, rot the wood, and damage the upholstery in the body.

Also inspect the crown mouldings for looseness, improper sealing, or faulty installation. See that the cement around the edges of roof covering and mouldings is not cracked. In many cases small openings may be remedied by applying Roof Drip Moulding Cement (F. S. No. 626) at the juncture of the roof moulding and covering.

Thus far there is no method of permanently repairing a crack or hole in the roof covering and the only way to insure a satisfactory result is to install a new roof covering.

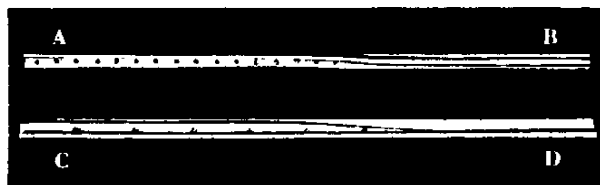


ILLUSTRATION NO. 113

TOP—Shows roof crown moulding with cap open at A and swaged down at B

BOTTOM—Shows roof drip moulding with cap open at C and swaged at D



Methods of inspection and suggestions for repair are covered in "Water Leaks" on the last page of Bulletin No. 8, Vol. 2.

CARE OF COATED FABRIC ROOF COVERINGS

Important factors to be considered in the care and cleaning of coated fabrics are the chemical actions of oils, greases, or other solvents on the composition of the fabric. For this reason water only is recommended for cleaning coated fabrics as the oil, grease, solvents, etc., contained in soap, cleaning compounds, or dressings may have a deteriorating effect on the fabric and its rubberizing compounds.

THE ONE-PIECE ROOF CROWN AND DRIP MOULDINGS

In replacements it is not advisable to try to reinstall either a roof crown or a drip moulding that has been removed. In fact, considering the low cost of the one-piece mouldings and the more satisfactory results obtained, it is much more economical to install new mouldings.

The one-piece roof crown moulding is an assembly of base and cap stamped in an integral unit instead of two separate pieces as were formerly used. The illustration shows nails in the base exposed with the cap open at A in Illustration No. 113 and with cap closed at B in Illustration No. 113.

The roof drip moulding has the base, cap, and drip channel in one piece. Illustration No. 113 shows the nails in the base exposed and cap open at C and the cap sealed over the nails at D. The method of swaging the cap over the nails in the base in one-piece moulding not only makes a better seal for the moulding but also simplifies the installation.

TRIM BINDINGS

Nos. 1 and 2 in Illustration 114 show the RANDALL MOULDING which is an assembly of upholstery cloth or manufactured lace and metal nailing strip and a half-round rattan or rubber core. The Randall moulding with the rattan core is used to cover the tacks and raw edges of the upholstery cloth along the top edge of the back of the front seat assembly. The Randall moulding with the rubber core is used to finish the roof covering on open bodies around the front bow and the rear roof bow where the roof cover material and the back curtain join.

No. 3 in Illustration 114. RANDALL MOULDING LACE is a strip of upholstery in which a design is worked with a selvage edge on both sides. It is used only to obtain contrast with the other trim.

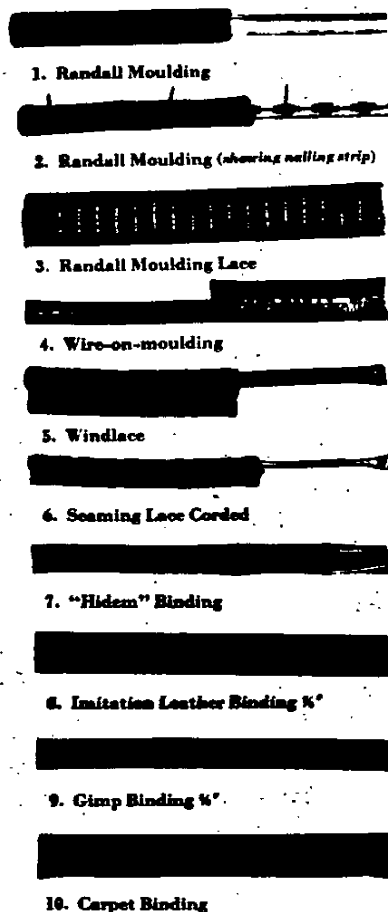


ILLUSTRATION NO. 114

Group of various bindings used in trim finish

No. 4 in Illustration 114. WIRE-ON-MOULDING is composed of a strip of imitation leather fabric and a half-oval filler with a wire woven crosswise in such a manner that when the skirt of the moulding is tacked to place the half-oval portion may then be pressed over the tacks, hiding them and making a sealed joint. It is used to finish off the joint of the outside back and back curtain assembly and in some cases has been used as a binding around the edges of the door trim pad assembly and at the edge of the rear body hinge pillar.

No. 5 in Illustration 114. WINDLACE is made up by sewing a piece of upholstery cloth or leather or imitation leather around a $\frac{1}{8}$ -inch rubber tubing in such a way as to leave a skirt for tacking purposes. It is used along the edges of the center body pillar, the rear door hinge pillar, and the front edge of the front door, and in some cases along the bottom edge of the doors. Its purpose is to close up the openings between the doors and the body pillars and prevent the entrance of wind and water.

No. 6 in Illustration 114. SEAMING LACE CORDED is made up in the same manner as the windlace except that the upholstery cloth or lace is sewed around a $\frac{1}{8}$ -inch fibre core. It is used in various places, depending on the type of body to be trimmed. It may be used where the side wall trim and the headlining join or where plain upholstery cloth and cloth with a design join. On later models it is sewed at the edges of the door trim pad for decorative purposes and also to supplement the windlace. In some cases it is used where two upholstery assemblies join together.

No. 7 in Illustration 114. "HIDEM" BINDING is usually made up of imitation leather with two folds toward the center that may be folded back while the tacks are being driven into place. Then the fold automatically closes over and hides the tack heads. This binding is used to cover the joint on some of the outside quarter and back curtain assemblies.

No. 8 in Illustration 114. $\frac{1}{8}$ -INCH IMITATION LEATHER TRIM BINDING is used for binding the edges of the rear quarter sides and the edges of the back curtains on the imitation folding top bodies.

No. 9 in Illustration 114. GIMP BINDING, $\frac{5}{8}$ inch wide, is used to cover the raw edges of the upholstery on the underside of seat cushions where it has been tacked.

No. 10 in Illustration 114. CARPET BINDING is used to bind the edges of carpets and is always cut on the bias to avoid bunching at corners.

ENGINEER CAR SPECIFICATIONS

(Form adapted from H.A.C.C.)

Make of Car: Chevrolet

Model: Universal

Name of Dealer: Chevrolet Motor Company

Address: Detroit, Michigan

Date: 12-7-29

ENGINE

Make: Gen

Model: Universal

No. of Cylinders: 6

Cylinder arrangement: In line

Bore: 3-5/16

Stroke: 3-3/4

Rated h.p.: 26.3

Piston Displacement: 194 cu.in.

Maximum h.p.: 50

Rated r.p.m. (at max.h.p.): 2600

Compression ratio: 5.07 to 1

No. of points suspension: 3

Type of head (valve arrangement):

Valve-in-Head.

Is head detachable: Yes

No. of cylinders cast on block: 6

Crankcase integral: Yes

Crankcase material Upper Half: Cast Iron.

Crankcase material Lower Half: Sheet Metal.

CAMSHAFT DRIVE

Chain Drive: No.

Gear Drive: Yes

Location of Non-Metallic Gear:
Camshaft.

Make of Gear:

Material: Micarta, Formica or
Celoron.CAMSHAFT BEARINGS

First of Number One Bearing

Third Bearing

Diameter: 1-13/16

Diameter: 1-5/8

Length: 1-13/16

Length: 2-11/32

Second Bearing:

Diameter: 1-85/32

Length: 1-1/8

VALVESInlet Valve

Make: Own
 Material: Extruded Steel
 Head diameter nominal: 1-11/32
 Stem length: 4-27/32
 Stem diameter: 5/16
 Style of stem end: Key
 Tappet clearance: .006 Hk
 Spring pressure: 45 lbs. Valve closed
 Valve lift: .277
 Are stem guides removable: No
 Are oversize valve stems made: No
 Overhead valve lubrication: Yes

Exhaust Valve

Make: Own
 Material: Extruded Steel
 Head diameter nominal: 1-11/32
 Stem length: 4-27/32
 Stem dia.: 5/16
 Style of stem end: Key
 Tappet clearance: .005 Hk
 Spring pressure: 45 lbs. valve closed
 Valve lift: .277

VALVE TIMING

(With .010 clearance at cam)

Intake opens: 4 degrees after U.D.C.
 Intake closes: 42 degrees after L.D.C.

Exhaust opens: 47 degrees before L.D.C.
 Exhaust closes: 4 degrees after U.D.C.

CRANKSHAFT

No. of Main Bearings: 3
 Main Bearing clearance: .0005 - .0025
 Main Bearings material: Bronze & Babbitt-
 Steel and Babbitt: Optional
 Which takes thrust: Center
 Front or Number One Bearing

Number Two Bearing
 Diameter: 2
 Length: 2

Number Three Bearing

Diameter: 2-1/16
 Length: 2-3/16

Amount of Crankshaft offset: None
 Counter balances used: No
 Torsional vibration damper used: No
 Amount of end play: .002 - .006
 Crankshaft gear make: Own
 Material: Steel

CONNECTING RODS

Material: Steel

Make: Own

Weight:

Center to center length: 7"

Crankpin diameter: 2"

Crankpin length: 3-11/16"

Lower End Bearing

Diameter: 2"

Length: 1-3/8"

Material: Babbitt

Make: Own

Clearance: .000 - .001

Poured or separate: Poured

Type of shims: Steel or
BrassPISTONS

Material: Cast Iron - Bronze Bushed

Make: Own

Features: Pin clamped in Rod.

Weight: 1.81 lbs.

Length: 3-11/16"

Pin center to top of head: 1-7/8"

Distance between bosses: 1-1/16"

Set screw hole size: None

Clearance on diameter, top land: .011

Second land: .011

Third land: .011

Fourth land: ---

Skirt: .002 - .003

Lower groove drilled radially: Yes

Depth of grooves: .150

PISTON RINGS

No. of rings used: 3

No. of compression rings: 2

Width: 5/32"

No. of oil rings: 1

Width: 5/32"

Make of rings: Various

No. of rings above pin: 3

Top clearance: .002 - .014

PISTON PINS

Pin bearing in: Piston

Diameter: .9900 - .9895

Length: 2-7/8"

Pin Bushings: Yes

Bushings Length: 15/16"

Bushings Material: Bronze

LUBRICATION SYSTEM

Type: Splash
 Pressure to Main Bearings: Positive Press.
 Pressure to Connecting Rods: No
 Wrist Pins: No
 Crankshaft Bearings: No
 Timing Gears: No
 Splash: Yes
 Oil Pump Type: Vane
 Oil Cleaner Type: Sediment pockets built in motor.
 Make of Rectifier: None
 Make of Oil Filter: None
 Crankcase oil capacity: 5 qts.
 Type of oil recommended: Med. A030.
 Normal pressure, pounds: 12 lbs.
 At miles per hour: 30 M.P.H.
 Pressure gauge make: A.C.
 Type of oil level gauge: Rod
 Type of oil drain: Plug
 Drain oil when: 500 miles winter -- 3000 miles summer.

COOLING SYSTEM

Water circulation type: Pump	Make of Radiator: Harrison
Pump type: Centrifugal	Core Type: Honeycomb
Make: Own	Core Make: Harrison
Thermostat control used: No	Shell Material: Brass
	Radiator Shutter used: No

Capacity of cooling system: 10 qts.
 Fan make: Own
 Fan Bearing type and size: Plain Bearing
 Fan bolt type: "V"
 Make: Various
 Length: 37-1/8
 Width: 21/32
 Type of couplings: One piece
 Radiator Hose:
 Upper, diameter: 1-1/4
 Upper, length: 9-3/8
 Lower, diameter: 1-1/4
 Lower, length: 4-5/8 (2 pieces).

FUEL SYSTEM

Carburetor: Carter
 Make: Carter
 Model: J120S - 120 - 3
 Size: 1"
 Mixture heater make: A.C.
 Air cleaner type: -
 Make: A.C.
 Mixture heating, how: Heated Air
 Heat adjustment: No
 Electrical mixture heating: No
 Fuel Feed
 Type: Mechanical Pump
 Make: A.C.
 Tank capacity: 11 gals.
 Make of tank: Own

EXHAUST SYSTEM

Exhaust pipe diameter: 2"
 Muffler make: Own

IGNITION SYSTEM

Make: Delco Remy
 Model number: 6330
 Current source: Generator
 Spark control type: Semi-Automatic.
 Manual retard, degrees: 15 degrees
 Automatic advance, degrees: 26 degrees
 Firing order: 1-5-3-6-2-4
 Timing, Spark advanced: 12° B.T.D.C.
 Distributor interrupter point opening: .030
 Distributor upper bearing type and size: C. Iron
 Distributor lower bearing type and size: C. Iron

Condenser make: Delco Remy
 Coil -

Make of Coil: Delco Remy
 Amps. drawn, engine stopped: 4
 Amps. drawn, engine running: 1.9 @ 40 H.P.H.
 Ballast resistance: None
 Ignition Switch make: Delco Remy
 Ignition Cable make: Delco Remy
 Spark Plug make
 Size of type: A-9 - 2140 series
 Recommended gap: .015

STARTER MOTOR

Make: Delco Remy
 Model: 714-J
 Drive type: Direct
 Normal amp.: 15
 Normal speed: 1200 R.P.M.
 Normal torque: 100 in. lbs.
 Lock torque: 250 in. lbs.
 Voltage: 6 V.
 Amps.: 15
 No. of teeth on fly wheel: 104
 Voltage: 6 V.
 Amps.: 15
 Bearing type and size:
 Commutator end: C. Iron
 Drive End: Bushing
 Outboard: Yes
 Overrunning Clutch: No
 Pinion mesh front or rear: Front
 No. of teeth on fly wheel: 104
 Width of tooth face: 3/4

GENERATOR

Make: Delco Remy
 Model: 943-J
 Normal charging rate, hot: 12 Amp. Max.
 Normal charging rate, cold: 15 Amp. Max.
 Rated R.P.M.: 2100
 Corresponding car speed: 25 M.P.H.
 Voltage regulation: 3rd. Brush
 Field fuse amps.: None
 Temperature at which thermostat opens: None
 Rated Voltage: 6.2
 Generator Pulley: "V" Type
 Make: Delco
 Material: Cast Iron
 Output: Yes
 Make: Delco Remy
 Voltage to plates: 7.2
 Car Speed: 15 M.P.H.
 Armature speed: 150
 Amps. to open: 1 amp.
 Car Speed: 5 M.P.H.
 Generator bearing type and size:
 Commutator end: Bronze
 Drive end: Ball Bearing

BATTERY

Make: Willard - Buick - Oldsmobile - Delco Remy
 Model: WCB-13 - WCB-13 - XY-13-5 - 133 CU
 Length: 8-15/16 - 8-11/16 - 8-15/16 - 8-15/16
 Width: 6-7/8 - 6-3/4 - 6-7/8 - 6-27/32
 Height: 6-1/2 - 6-1/2 - 6-1/2 - 6-1/2
 Volts: 6 - 6 - 6 - 6
 Amp. hour capacity: 30 on all
 Cell arrangement: Side to Side.
 Shipped wet or dry? Drive only wet - All others dry.
 Charging rate, Start: 4-1/2 amp.
 Charging rate, Run: 4-1/2 amp.
 Which terminal is grounded: Neg.
 Where is battery mounted: Frame - Right Side

LIGHTING SYSTEM

Headlamp make: Remy - T.J. Corcoran
 Headlamp reflector make: Remy - T.J. Corcoran
 Type: Two Beam
 Headlamp Lens: Monogram - Twilite
 Diameter: 9-9/32
 Make: Monogram
 Headlight bulb: Double filament
 Mazda number: 1110
 Candle power: 21 - 21
 Two filament bulb: Yes
 Dimmer Bulb: No
 How are head lights dimmed: Depressed Beam
 Side or Cowl Light: On Sport Coupe & Sedan only.
 Tail Light make: Remy
 Tail Light Bulb: Yes
 Tungsol number: T-63
 Candle power: 3
 Instrument board light make: Chevrolet
 Tungsol number of bulb: T63
 Candle power: 3
 Are bulbs single or double contact: Single
 Tail and Instrument Board light in series: No.
 Ammeter make: AVO.
 Lighting Switch make: Remy

WASH

Make: Delco Remy
 Type: Motor Driven

Amps. drawn: 8

CHASSIS

Model designation: Universal
 Wheelbase: 107
 Rear Axle to Front of Dash: 76-5/8"
 Chassis Weight:
 Lubricating system type: Pressure - Gun
 Make: Alomite
 Overall length: 150-5/8
 Max. speed: 60 M.P.H.

Serial numbers: Plant No. AL-1001
 Locating of serial numbers:
 (Right Front Seat Frame on Pass
 Dash on Trucks -
 (Under Carpet at Right Seat or
 Coach)

TRANSMISSION

Make: Chevrolet
 Location: Unit Power Plant
 Number of forward speeds: 3 Forward and 1 Reverse.
 Gear Ratio:
 Low Speed: 3.32 - 1
 Second Speed: 1.77 - 1
 High Speed: Direct
 Reverse: 4.2 - 1
 Gearshift type: Selective
 Bearing make and model or size: New Departure
 Pocket:
 Reverse Idler: Bronze
 Main Shaft Front: #1207
 Main Shaft Rear: #1306
 Countershaft Front: Bronze
 Countershaft Rear: Bronze
 Does Countershaft rotate: No

CLUTCH

Make: Chevrolet
 Type: Single Plate Dry
 Number of driving discs: One - } Single Plate Clutch
 Number of driven discs: One - }
 Facing material: Woven Asbestos
 Type: Disc
 Make: Own
 Inside Diameter: 6-1/4"
 Outside Diameter: 9"
 Thickness: .125 - .135
 Number of pieces: Two
 Bearing make and model or size: U.S. Graphite Co.
 Thrownut: Carbon Composition #1 Mixture
 Thrust: Cast Iron
 Type of lubricant: Self Contained
 Clutch Adjustable: Yes
 Clutch Brake: No
 Clutch Brake adjustable: No
 Clutch Shaft Universals: No

UNIVERSALS

Front -

Type - Metallic Make
Make - Chevrolet

Rear -

Type - None
Make - None

Number of plates: Two

TYPE OF DRIVEPropulsion: Through Springs
Torque: Torque TubeREAR AXLE

Make: Chevrolet

Type: Pressed Steel Housing - Semi-Floating.

Gear Ratio: 4.1 to 1

Final drive type: Spiral Bevel

Minimum road clearance: 8-7/8

Clearance for Jack: 12-7/16

Differential make: Chevrolet

Pinion adjustment: Yes - Shim

Pinion Bearing Adjustment: Yes

Mounting: Outboard

Bearing make and model or size: New Departure

Pinion Shaft, front: 5206 Double Row

Pinion Shaft, rear: 1307 Single Row

Pinion Shaft, thrust: Front Bearing

Differential, R.H.: N.D. 902100

Differential, L.H.: N.D. 902100

Axle Shaft Bearing: 1307 Single Row.

FRONT AXLE

Make: Chevrolet

Axle Section type: Modified I Beam

Clearance for Jack: 9

King Pin transverse inclination: 7 degrees - 10'

Spindle transverse inclination: 1 degree - 30'

Caster Angle: 2 degrees - 15'

Toe in: Min. 0 degrees - 7' - 10" - Max. 0 degrees - 10" - 45'.

Axle and type: Reverse Elliott

Bearing make and model or size.

Pin: 1/2" x 1/2" x 1/2" - Split Bronze Bushing
Pin: 1/2" x 1/2" x 1/2" - Split Bronze Bushing
Pin: 1/2" x 1/2" x 1/2" - Split Bronze Bushing

SERVICE BRAKE

Location: Front and Rear
Make: Chevrolet
Total braking area: 101 sq.in.
Rear drum diameter: 11-1/2" Internal
Front drum diameter: 11-1/2" Internal
Method of application: Foot Mechanical

Brake Lining: Intervenor Asbestos
Length per wheel, Front: 15-13/16
Length per wheel, Rear: 15-13/16
Width of lining:
Width, Front Wheel: 1-1/2
Width, Rear Wheel: 1-1/2
Thickness of lining:
Thickness, Front Wheel: 3/16
Thickness, Rear Wheel: 3/16
Clearance of lining, Front Wheel: .010
Clearance of lining, Rear Wheel: .010

WHEEL BRAKE

Type: Internal expanding
Location: Rear wheels
Length per wheel: 15-1/2
Width: 1-3/4
Thickness: 3/8
Clearance of lining: .010

Type: Disc on all except Sport Coupe and Sport Roadster
Make: Chevrolet
Type: Wire - Sport Coupe and Sport Roadster
Make: Kelsey

Ford made headlines in 1928 with its Model A. Now, it was Chevrolet's turn. And headlines it made, with its new 6-cylinder engine, advertised as "A Six for the price of a four." The engine was one of tremendous longevity, and would later become affectionately known as "The Cast Iron Wonder." The success of the new block was such that on June 25, Chevrolet produced its 6-millionth car — just about 18 months after the 5-millionth was run off the line.

The new engine, which cost little more to manufacture than the old 4-cylinder model, developed 46 horsepower at 2600 RPM from 194 cubic inches. It used overhead valves and a bore and stroke of 3 5/16 x 3.75 inches. Cost was kept down through the use of cast iron pistons and a non-pressurized lubrication system.

The crank rode in three main bearings, with gravity oil feed to the main and cam bearings, and splash to the rods. The crankshafts were not drilled, and therefore the rods could not be pressure lubricated — a design that Chevrolet would maintain through the 1953 Six, exclusive of the Powerglide model. This was also the first Chevrolet to use a fuel pump to feed the updraft Carter carburetor, and was the first model to use an accelerator pump on the carburetor.

Well designed water jackets offered none of the cooling and oil consumption problems found in the cars of its major competitor, the Model A Ford. More than any

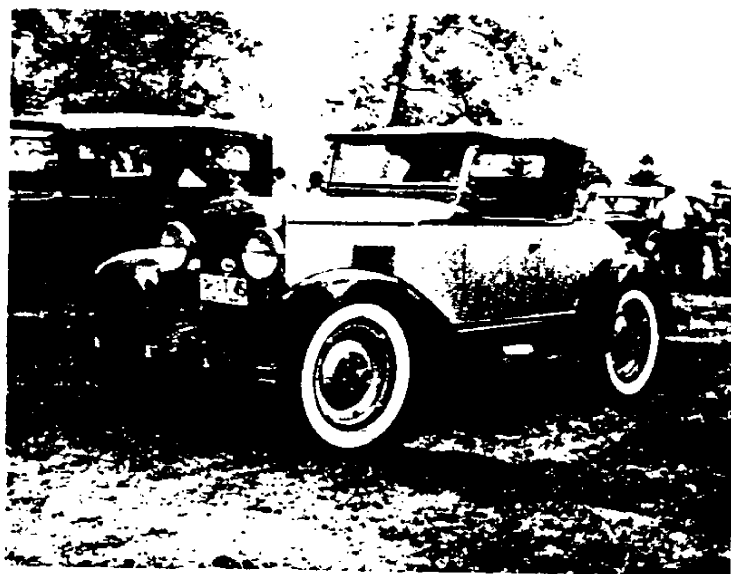
other engine, it was the Chevy 6 that prompted Ford's famous statement, "If its cylinders they (the buyers) want, then we'll give them cylinders." This resulted in the crash program from which evolved the famous Ford V-8 of 1932.

The new Chevrolet 6 was placed in a slightly redesigned car known as the International Series. The series used the 107-inch wheelbase that had been brought out on the National Series, but it was given a more modern and lower look through various changes, especially the reduction of wheel and tire from 30 x 4.5 to 20 x 4.5. In fact, this was the only Chevrolet ever used a 20-inch wheel, as the wheel would drop to 19 inches in 1930. This also was the year that Chevrolet would use the now-archaic external contracting rear wheel brakes. Its front wheel brakes were internal expanding, and in 1930, all four drums would be of the internal expansion type.

Model year production reached 856,384, and annual production is listed at 1,238,605. However, 1929 production was 1,967,741 and again Henry's iron was the run-away sales leader.

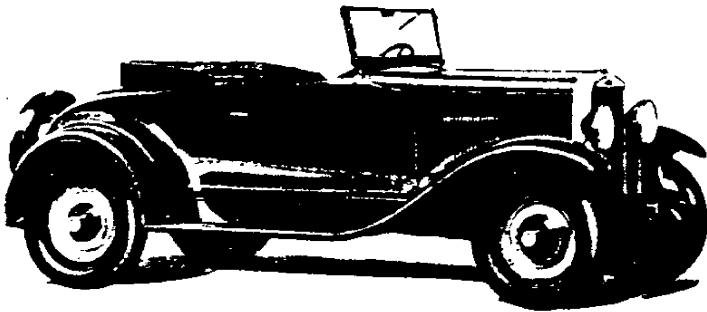
In the truck department, Chevrolet began to offer separate series. They were the AC 1 1/2-ton Series and the LQ 1 1/2-ton Series. Chevrolet built a closed cab for the LQ Series, but all bodies had to be purchased from outside firms. Both series used fenders, hoods, headlights identical to those on the cars, and the radiator shell was the same as that used on the cars. For the first time, the truck series used disc wheels in departure from the wood spoke wheels that had been used on all commercial chassis until now. Engines and clutches in both series were the same as used in the cars, and the 1 1/2-ton AC used the car's transmission while the 1 1/2-ton LQ used the 4-speed transmission introduced with the LP series. The LQ also was equipped with a standard bumper, though this was still an accessory on the cars. All vehicles this year had a foot switch control high and low headlight beams.

The major change on the LQ trucks was the increase in wheelbase, from 124 inches that had been used on the Series R of 1925, to a new length of 131 inches. Of course, most of this additional length wound up in the hood and cowl area, where it was necessary to accommodate the new 6-cylinder engine. But, the overall effect was of a longer, more stylish truck, with excellent riding qualities due to the axles being seven inches further apart. The trucks continued to run on 30 x 5 tires all around, though some pieces of Chevrolet material indicate that 32 x 6 tires were used on the rear. Existing photos do not substantiate the use of larger tires on the rear, so these might have been an option or a late-year addition. The same holds true for dual rear wheels. They were officially offered in 1930, but some 1929 reference material would indicate such items were available in 1929, though no photographic material supports this.

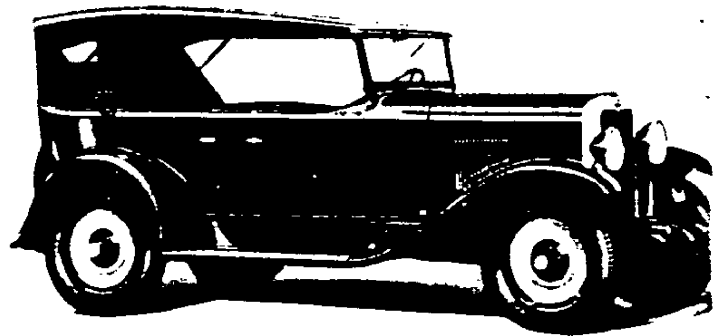


Right down at the bottom of the list in production was the very pretty International Series AC Roadster, of which only 27,988 were built. This restored model, owned by T.C. Taylor of Urbana, Ohio, has the car's most popular accessory — bumpers. Other accessory items are the windwings, white walls and step plates. The car weighs 2,175 pounds and in base form cost \$525. At mid-year, the Sport Roadster was introduced. This was basically the roadster fitted with a rumble seat instead of a trunk. Because of its late introductory date, only 1,210 were produced before the model-year closed.

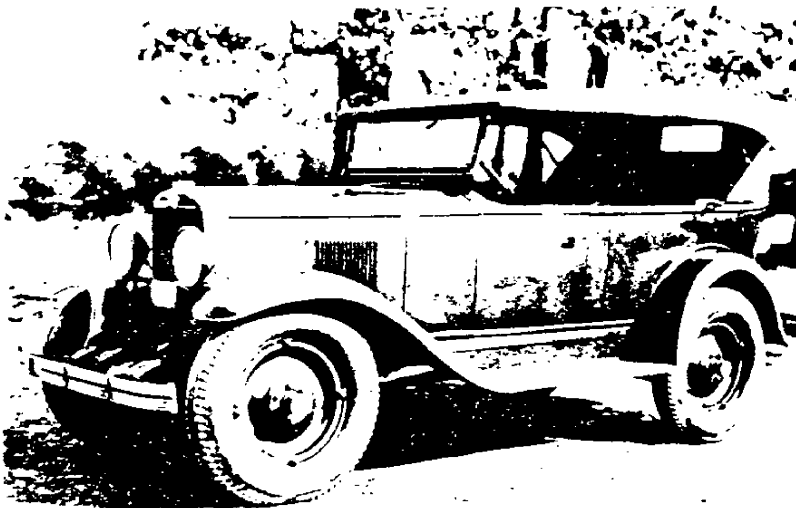
1929



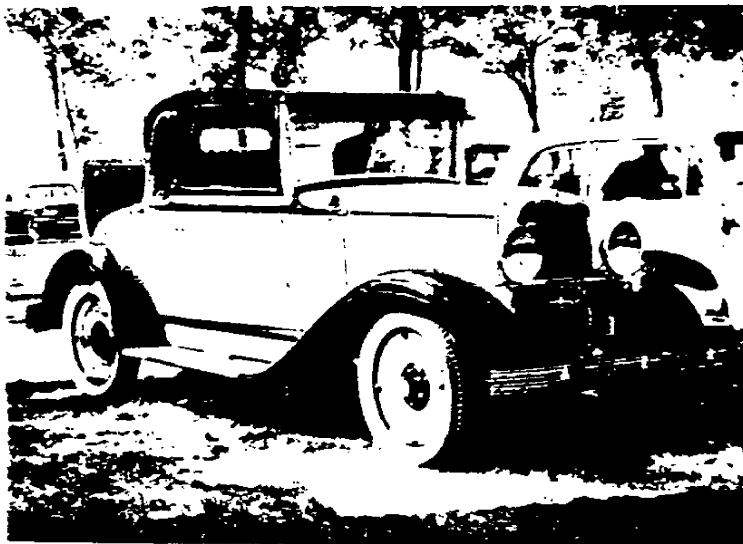
Shown with the top lowered is the International Series AC Roadster in plain factory form. Its most popular color was dark gray with light gray belt and wheels and red striping. Black fenders and aprons were still standard. Equipment included a top boot, outside door handles, rear view mirror, storm curtains, and hand-powered wiper.



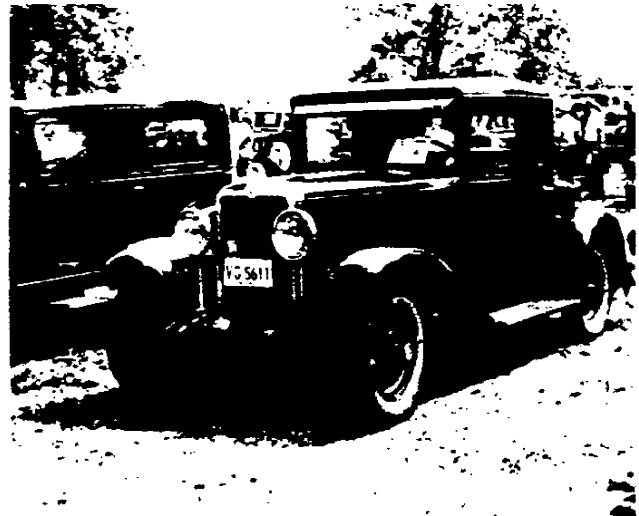
Rapidly plummeting in popularity was the touring car, probably the most beautiful automobile design ever conceived, yet one of the most uncomfortable cars possible on a year-around basis. Only 8,632 were produced in the International Series AC. It cost \$525 and weighed 2,240 pounds. Its most popular color was dark green with light green moulding and wheels, ivory striping, black interior and black canvas top.



The Army staff car shown here was one of Chevrolet's 1929 AC International Phaeton models, which carried a commercial price of \$525. The Army purchased a large fleet of these open tourers, and they saw very hard service although many were still in service at the outbreak of WW II. Using Chevrolet's new 194 cubic inch inline six-cylinder engine and three speed transmission, they were fitted with oversized 7.00x20 tires for better cross-country performance. The concept of the bodyless "cross-country car" had been abandoned, and these tourings served multiple roles including cross-country travel.

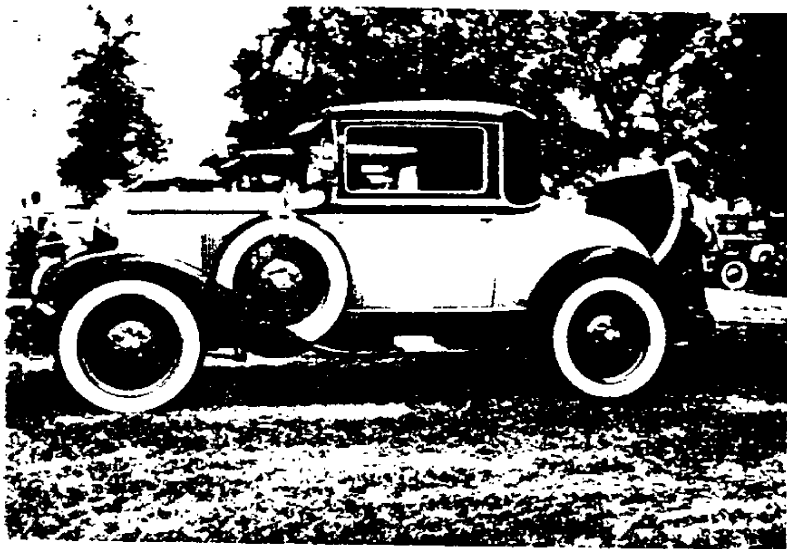


Gaining in popularity was the International Series AC Sport Cabriolet, a rumble seat equipped convertible that drew 45,956 orders. The landau irons were functional and the windshield visor was standard, but the bumpers and step plates are accessories. In base form, the car cost \$695 and weighed 2,440 pounds.



A rather significant style change was made in the 2-passenger coupe, in that it now had a steel rear quarter, and the dummy landau irons were gone. The popular car cost \$595 and weighed 2,425 pounds. Its most popular color was medium blue with a light blue belt and wheels and orange-red stripe. It was upholstered in taupe corduroy. This model is owned by R. King of Palos Heights, Ill.

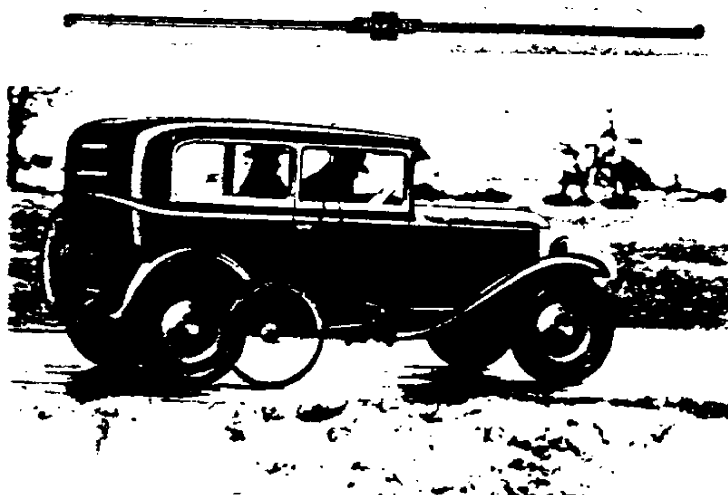
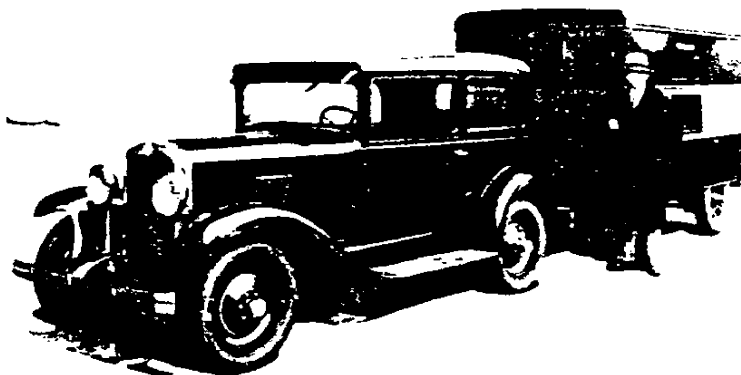
1929



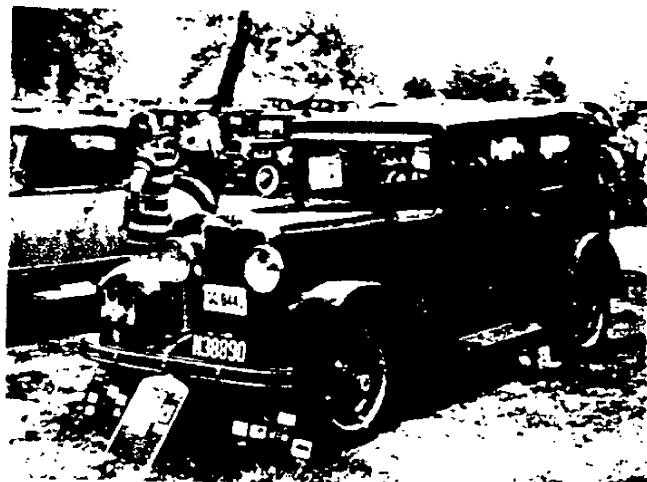
What's a Model A doing in a Chevy book? Surprise — surprise, it's the newly introduced International Series AC Sport Coupe with two highly unusual and seldom seen options — wire wheels and sidemounts. This extremely attractive example is owned by Len Clark of Portage, Mich. The Sport coupe in standard form sold for \$645 and weighed 2,470. In its production figures, no distinction was made between the 2-passenger coupe and the rumble seat equipped sport coupe, but 157,230 coupes of both type were produced.



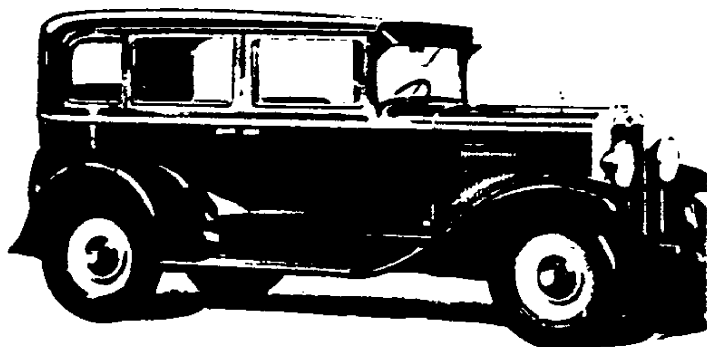
An unidentified early-day traveler poses beside his new car-trailer outfit. The car is the International Series AC Coach, which apparently had sufficient power and traction to haul what appears to be a rather heavy and clumsy trailer.



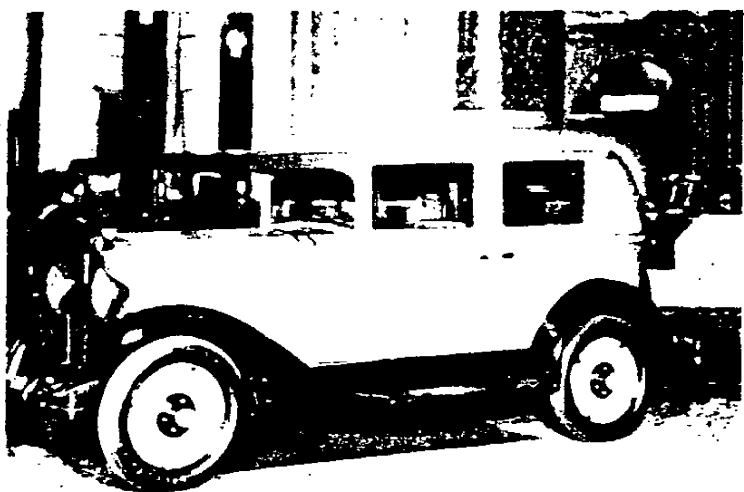
Chevrolet's most popular car, the 2-door coach, is seen here making a speedometer accuracy test on the General Motors test track. The fifth wheel was connected to a master speedometer accurate to 1:10 of a mile per hour.



Continuing its top sales popularity was the 2-door Coach, which in the International Series drew 367,360 orders. It cost \$595 and weighed 2,500 pounds. Robert Nelson of Spring Lake Heights, N.J., owns this prize winning example. It features a rare accessory trunk.

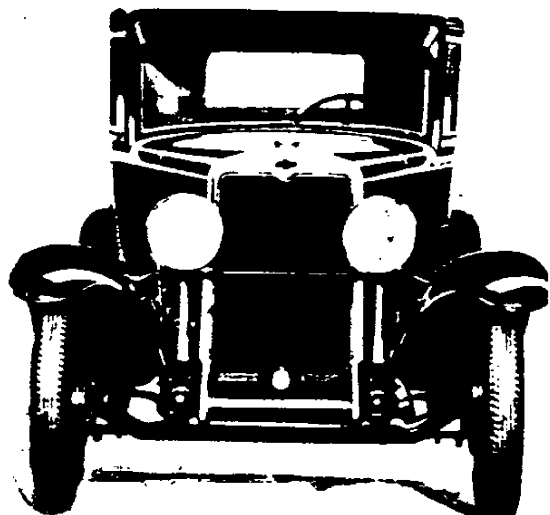


Ranking second in popularity was the International Series AC 4-door Sedan, of which 196,084 were produced. It cost \$675 and weighed 2,585 pounds. Its most popular color was dark green with light green belting and wheels and ivory trim. It was upholstered in green corduroy. All models could be ordered with single or dual sidemounts, which required welled fenders. Apparently very few customers took advantage of this option, probably because of the cost involved coupled to the fact that Chevrolet buyers were happy to have enough money for the basic car, let alone pretentious accessories.

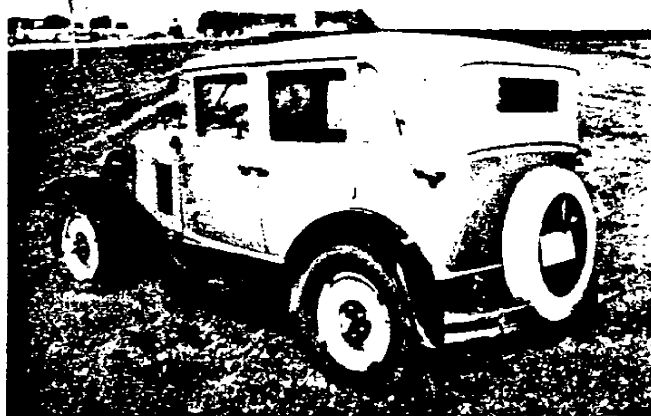


Chevrolet's prestige vehicle was the Imperial Sedan, a nice looking car featuring blanked-in rear quarters, dummy landau irons, and a canvas covered solid roof. It was quickly introduced after top management had fears that the unusual and pretentious Convertible Landau was not going to sell as well as expected. With the introduction of the Imperial Sedan, the convertible model was dropped. Production of the Sedan was an unexpectedly high 41,983. The car, shown here at the 1929 New York Auto Show, cost \$695 and weighed 2,555 pounds.

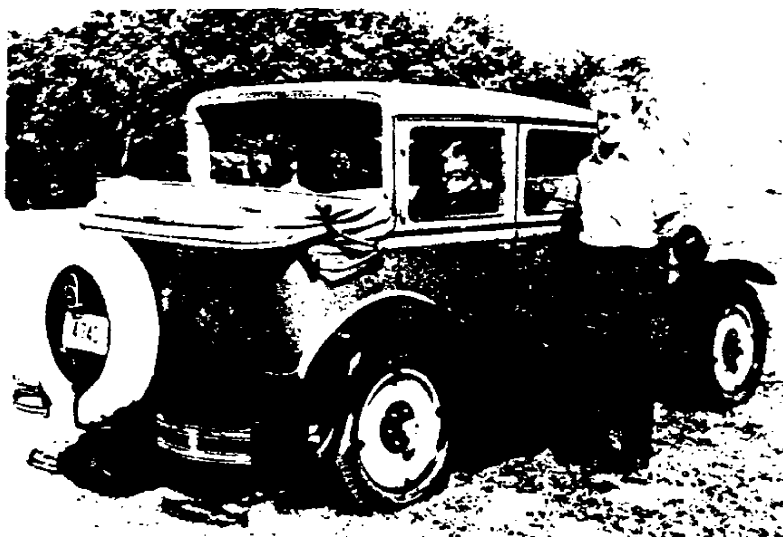
W. Gene Davis of Excelsior Springs, Mo., seems proud of his International Series AC Convertible Landau. He has good reason to be because the car is the most rare, most unusual, and most sought after 1929 Chevrolet. Approximately 300 were built before management became worried that the car was too pretentious for the average Chevrolet customer, and discontinued it in favor of the Imperial Sedan. The landau model had a convertible rear quarter, and functional landau irons, but the large steamer trunk and luggage rack on this example are accessories. Surprisingly, though only 300 were built, there are at least 16 still known to be in existence.



The new vertical lines of the radiator shell and the lack of parking lamps are obvious on this head-on view of the International Series AC. The fender cross brace was painted black, but the interesting headlight support stands were nickel plated. Bumpers were still not considered standard equipment.

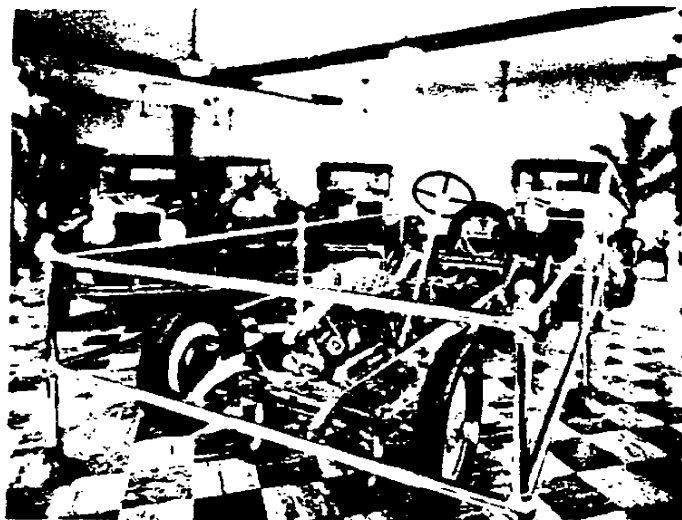


Shown with its top raised and without the accessory trunk and rack is this Convertible Landau, owned by H.W. Montgomery of Garner, Ia. The car cost \$725 in standard form, and weighs 2,560 pounds. It was available only in Crockett brown with a gray belt and orange striping. Upholstery was in mohair. Though similar, the body was not the same as that used on the 4-door sedan. The Landau and Imperial Sedan had a front door 1.75 inches wider than the sedan, while the rear door was 1.75 inches smaller than those on the 4-door sedan. The Convertible Landau was also known as the Imperial Landau.

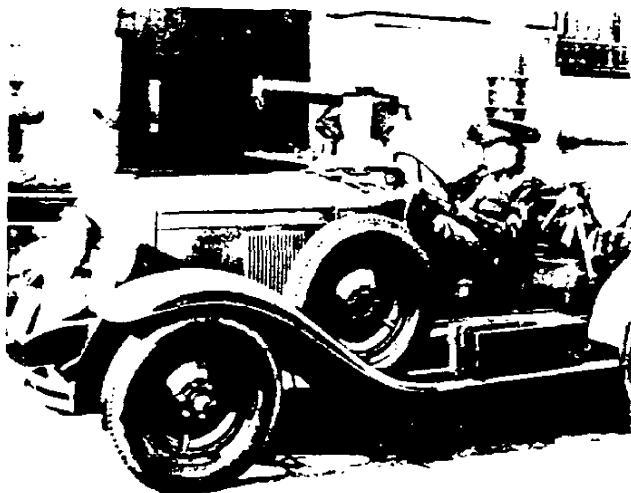


Creating world wide automotive headlines was Chevrolet's new 6-cylinder engine. Besides just adding pistons, Chevrolet designed a new and much stronger crankshaft, fabric timing gear, crankcase ventilating system, and added a new fuel pump and filter to feed the Carter updraft carburetor. Displacing 194 cubic inches, the engine developed 46 brake horsepower at 2,600 R.P.M., which was more than double the horsepower of the 1927 and earlier models. Fuel consumption was rated at 19 miles per gallon in normal driving.

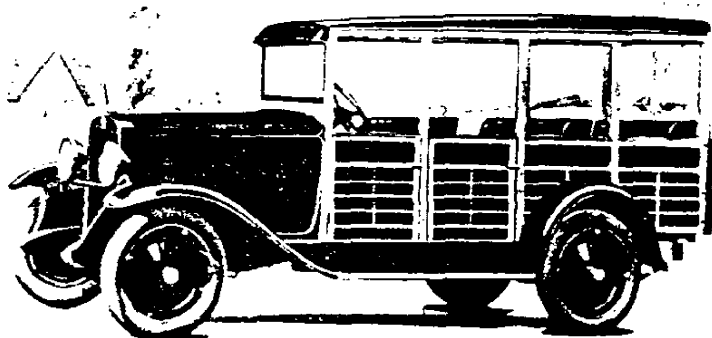




Capitalizing on the wide publicity given the new International AC Series, Commonwealth Chevrolet of Boston set up this attractive display of a cutaway chassis in its salesroom. Notice that the horn lives between the frame and the oil pan.



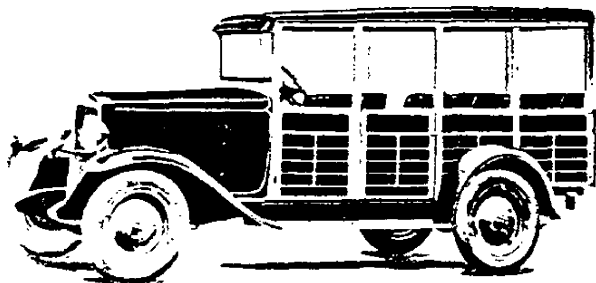
The US Marine Corps used the 1929 Chevrolet AC as the basis for their scout and reconnaissance car. A M. water-cooled caliber .30 machine gun was mounted on pedestal just ahead of the right front seat, and ammunition and tool boxes, rifle racks, armored protection for the tank, and provisions for a second rear-mounted completed the modifications. The engine and drive train standard Chevrolet.

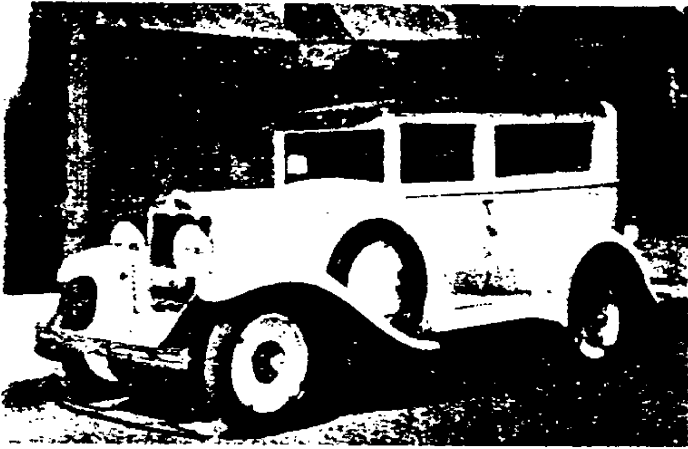


Identical to the Mifflinburg body in dimensions and styling was this station wagon body offered by Springfield Body Co. Obviously one company was manufacturing the bodies for the other, or one was building the bodies under license from the other's designs. The only difference between the two units seems to be in the name. Springfield calling its body the Bar Harbour Suburban. Both bodies featured a non-opening plate glass windshield, hand operated wiper, and rearview mirror. Rubber floor mats were standard on both. This year, all Chevrolet commercial units were factory painted in Bluebell Blue Dulux unless straight primer finish was specified.

Station wagons still played a small but important part in Chevrolet's chassis-only sales. Almost all of these units were mounted this year on the new Series AC 1-ton commercial chassis. Shown here is the 7-passenger unit developed by Mifflinburg Body Co. of Mifflinburg, Pa. Designated Model 32-C Suburban Body, it had a width of 44 inches, and a height from floor to ceiling of 50 inches. With the two sets of rear seats removed, it offered 69 inches of flat floor space from tailgate to front seat back. Side curtains continued to provide weather protection.

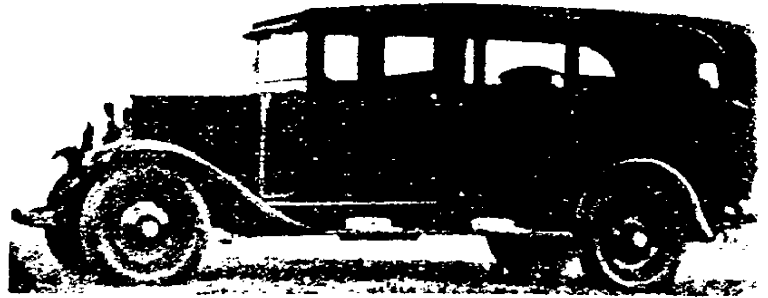
One of several Chevrolet types to enter military service in 1929 was this wood-bodied station wagon which was used by the Signal Corps as a service vehicle for pigeons. Although both telephonic and wireless communications were achieving much popularity, the pigeon was still considered to be one of the safest ways to send classified messages. In fact pigeons had been cited during WW I for heroic action when they carried the messages through despite the extreme risks. A longer hood graced the 1929 Chevrolets, which concealed the overhead valve six-cylinder engine which had been introduced that year.



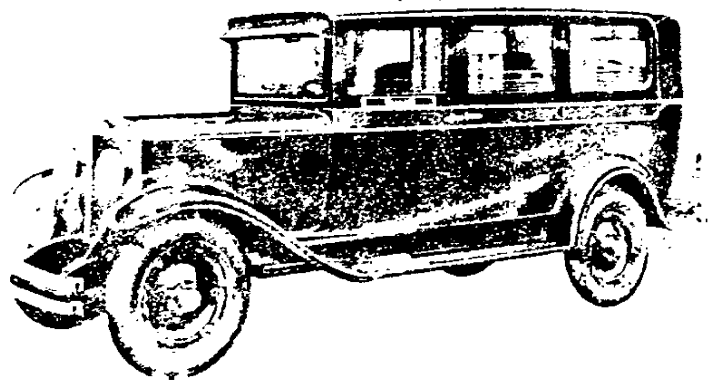


Apparently converted from the International Series AC Sedan Delivery was this interesting little vehicle. It was built for and used as a child's hearse, and reportedly was the first vehicle ever put to such use in the south, though the exact location is not known. Large plate glass windows have been fitted into the rear compartment, and this compartment was fully upholstered. A flower tray can be seen above the window sill, while the casket compartment was below. The rear section has been modified somewhat, probably to accommodate the large rear door.

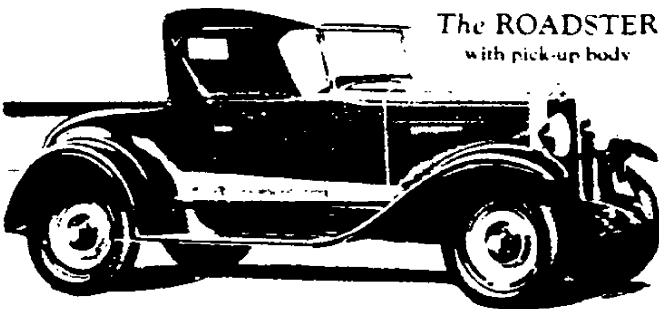
The Gardner Motor Co. of St. Louis had been producing a fine line of cars since 1919, and since 1927 had also produced an excellent line of hearses in conjunction with the St. Louis Coffin Co. However, the depression had hit the company hard, and in its struggle to stay alive, Gardner this year turned to Chevrolet and came out with an economy hearse priced at \$1,750, or a full \$1,200 below their own units. Although the vehicle was obviously a Chevrolet, Gardner changed the emblems, and marketed it under the Gardner name. The cars were not chassis units, but were built-up from stretched and modified Series AC 4-door Sedans. Despite the low price, Gardner quality was evident throughout, with the upholstered rear compartment being separated from the front compartment by a windowed panel, and the casket area nested below a full-length flower tray, which was accessible from either of the rear doors. This particular unit, bearing a "Wallace" nameplate on the door, was sold to A.N. Wallace of Price, Utah, who drove it home from St. Louis.



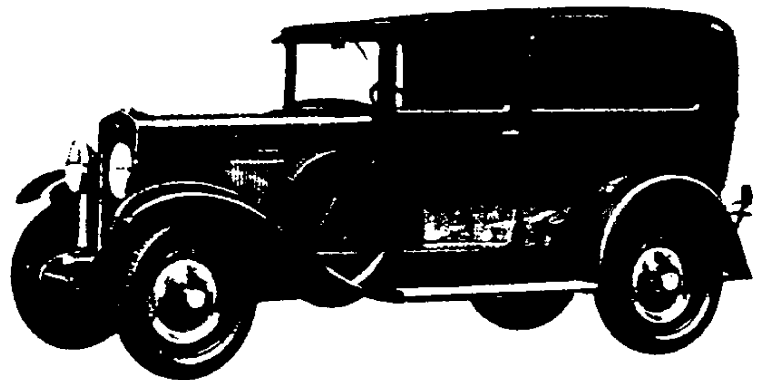
The Lagerquist Auto Co. of Des Moines constructed this economy-type hearse on a stretched version of the International Series AC chassis. Lagerquist termed the vehicle one of the greatest hearse values ever built. The body itself appears to be all Lagerquist, with no parts borrowed from Chevrolet. Note the graceful curve on the rear window. The arched affair showing through the windows is the flower tray, which was mounted above the casket area. This was strictly a rear-loading hearse, though the rear side doors were functional, and allowed access to the rear compartment.



The ROADSTER
with pick-up body

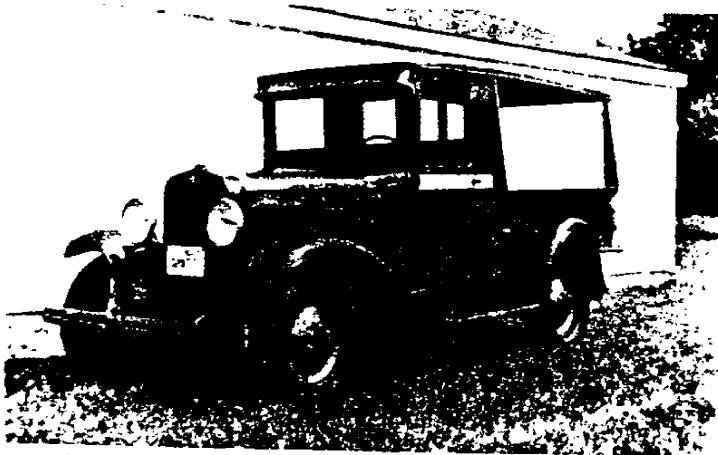


Chevrolet's smallest truck was the new International Series AC Roadster Pickup, which was rated as a 1/2-ton truck, but which was simply the AC Roadster with a small removable pickup bed stuck in the trunk area. Since it was considered a truck, it had a welled left front fender and sidemounted spare. A few car buyers liked the sidemounts enough to request them on their passenger cars, but this option was neither widely accepted nor was it encouraged by Chevrolet dealers. Apparently, Chevrolet did not separate the production figures of its Roadster Pickup from its AC Roadster, but judging by the fact that only 1,210 roadsters were built this year, production of the pickup version had to have been very low.

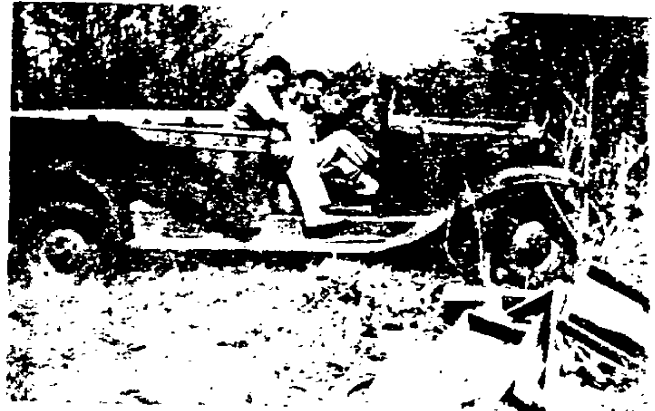


Quickly getting the attention of small truck users was the International Series AC Sedan Delivery, a style introduced late in 1928. This year, it drew 9,640 orders. Its standard equipment included a side mounted spare and welled fender, and since the truck's fenders were interchangeable with those of the cars, these could be installed if a buyer insisted on a sidemount for his car. Most of Chevrolet's light commercial bodies were now being built by the Martin-Parry Co. of Indianapolis. In fact, this company was doing so much business with Chevrolet that negotiations were underway between the company and GM executives for a total GM takeover of the plant. The negotiations were successful, and in 1930, Martin-Parry would be absorbed into the total GM complex.

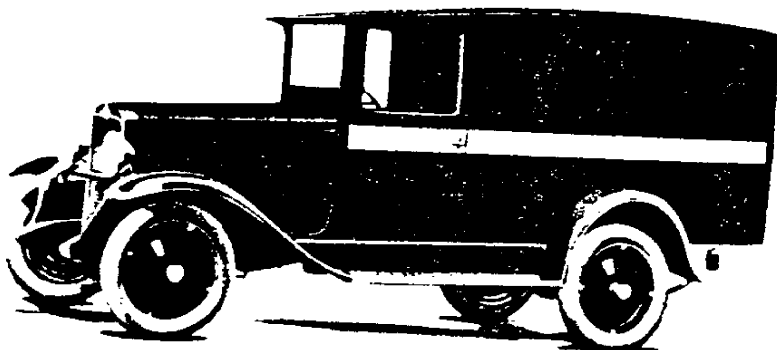
1929



Springfield Body Co. of Massachusetts designed this canopy express body for the Series AC 1½-ton chassis. Unlike the cars, the truck models did not use a front pan or crank tunnel between the forward frame horns. This restored truck is owned by James F. Duckworth of Hartford, Conn.

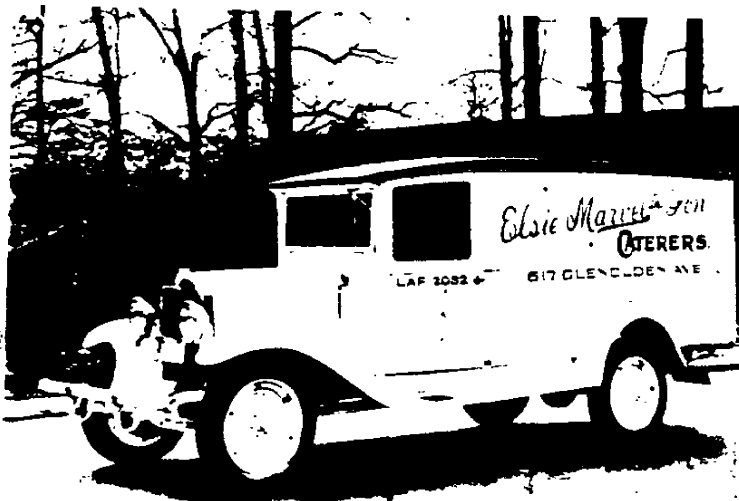
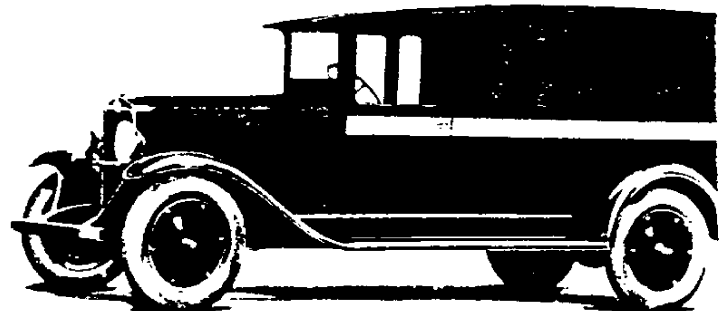


The author's first motorized vehicle, bought in 1948 for total of \$20, was this Series LQ 1½-ton panel delivery, which had been open-faced from the windshield back at belt level. The author, shown behind the wheel, and his friend, the late Jack Spear, bought the truck in partnership for \$10 each, and used it primarily as an off-road vehicle for about six months — until it finally quit out of sheer exhaustion.

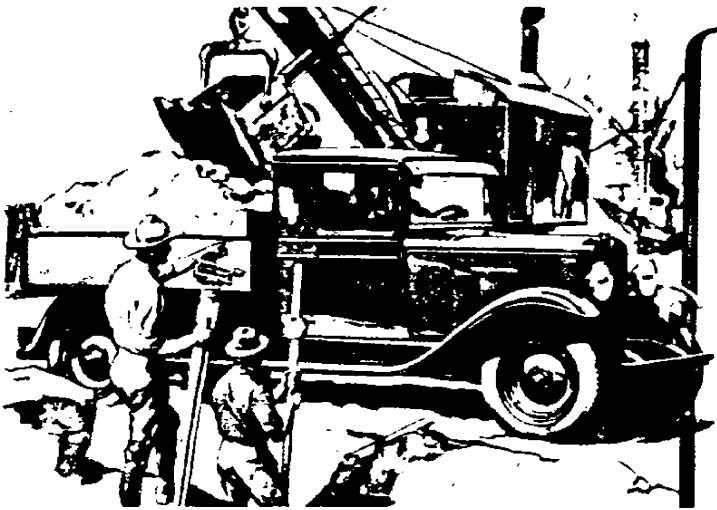


Designed especially for the 1½-ton AC Series chassis was this panel delivery body by Geneva Body Co. of Geneva, N.Y. Called the Ambassador, the body featured wood framing and steel outer paneling, with upholstery in black imitation Spanish leather. Load space was 72 inches long, 44 inches wide, and 49 inches high. All Geneva panel bodies were painted medium-light blue on the upper portions, dark blue lower portions, and had an orange belt band. The hood, fenders, and wheels were black.

Geneva Body Co. of Geneva, N.Y., developed a new line of attractive panel bodies for both the AC and LQ Series. This model, called the Big Ambassador, is mounted on the 1½-ton LQ Series chassis. Its load space was 98 inches by 52 inches wide and 52 inches high. Wood framing was used, but the exterior panels were of steel. Upholstery and trim was in Spanish leather.

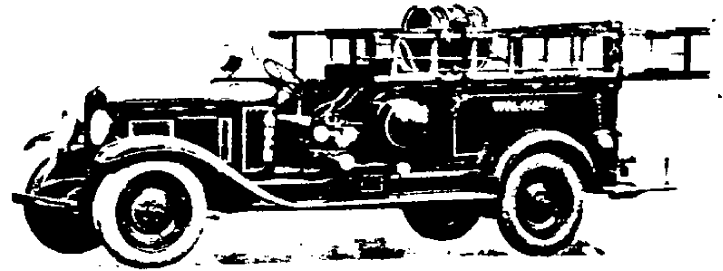


Attempting to appeal to those truck buyers who wanted an eye-catching vehicle, Chevrolet contracted with an unidentified body company to run off a limited number of DeLuxe Panel Deliveries in the new 1½-ton LQ Series. The trucks used many of the passenger car dress-up pieces, such as nicked radiator shell, elongated front pan and crank cover, and large hub caps. Another addition, and one that would have been attractive on the passenger cars as well, was the nickel plated parking lamps and cowl molding. The single tube-type bumper is exclusive to this vehicle. This view gives a look at the new truck hubs. While the standard six-lug hubs were used on the front wheels, the rear wheel hubs of the LQ models had 10 lugs. Wheel rims on LQ trucks were of the six-lug type, while the AC cars and trucks used four-lug types. A variation exists on the standard tires for the LQ Series. Some references state the trucks used 30x5 tires all around, while others indicate 30x5 tires were used on the front only, while the rears were 32x6.

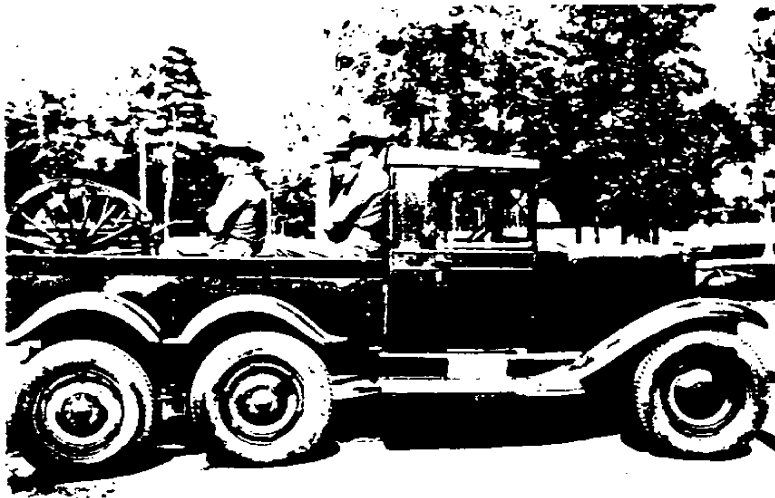
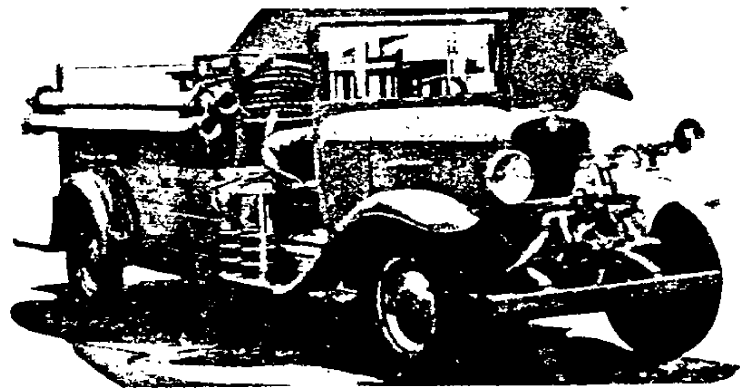


The new 1 1/2-ton Series LQ truck is shown here with Chevrolet's production all-steel cab and a dump body. The chassis and cab sold for \$650. For the first time, Chevrolet used disc wheels on all of its commercial vehicles.

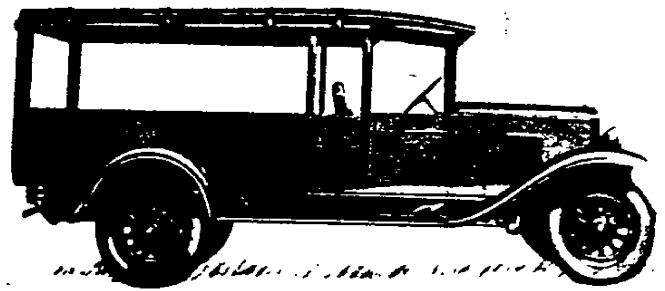
The new Chevrolet LQ line of commercial chassis caught the eye of some independent manufacturers, such as the unknown builder of this attractive little fire engine. Obviously it was built for a very small fire department — the Sacred Heart Fire Dept., location unknown — by a small builder, probably a local outfit. The unit features a front-mounted Model U-34 Barton pump, double lengths of hard suction hose on each side, twin foam fire extinguishers, and probably a good length of soft hose in the bed. The well-padded bucket seats indicate a high degree of professionalism in the construction.



In Canada, one of the major fire engine builders was quick to notice the new Chevrolet Series LQ chassis. Bickel Fire Engines Ltd. of Woodstock, Ontario, built both custom-chassis units under its own name, and also put together lighter units on commercial chassis, including Chevrolet and Ford. This was one of their offerings on a Chevrolet chassis. Registered as a Bickel-Chevrolet, it was classified as a 350 gallon-per-minute triple combination pumper. Note how the gold leaf striping enhances the unit's hood and cowl, giving an impression of much greater length.

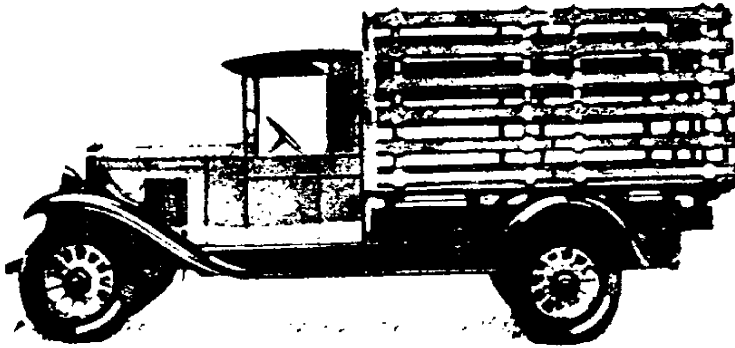


The Army had Chevrolet build a small fleet of these six wheel cross-country trucks, and used them as machine gun carriers in training exercises in the United States. The 1929 truck chassis was used, and the Dual Duty Company of Alma, Michigan built the dual drive bogie assemblies, fitting them with oversized 7.00x20 Goodrich Silvertowns. A 50 mile per hour top speed was claimed, and the new overhead valve six-cylinder, 194 cubic inch, 46 horsepower engine was used without modification.



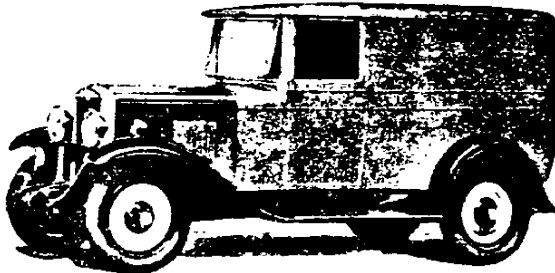
An interesting Australian truck is this canopy delivery, built on the 1 1/2-ton commercial chassis and using the new 6-cylinder engine. The cab was constructed of Australian lumber, kiln-dried to a maximum of 7% moisture. All joints were mortised, glued, and screwed. Note that the upper body sides were extended out over the fenders, thus providing space for seats or extra cargo. Weather protection was by side curtains. Balloon tires were used on all Australian trucks, according to the catalog.

1929

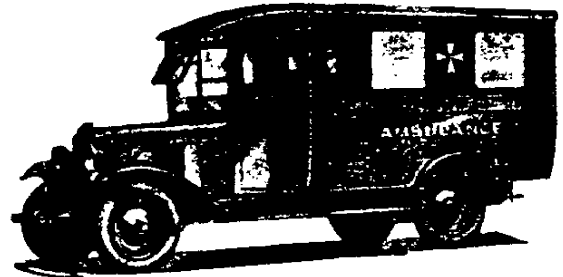


While American commercial body builders were busy supplying bodies for Chevrolet chassis, a similar activity was going on in other parts of the world. In both England and Australia, both the Series AC and Series LQ trucks were receiving an excellent reception, and custom body shops were turning out a wide variety of designs not seen in the U.S. A few of these are shown below.

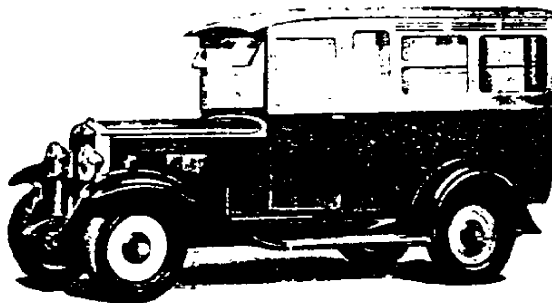
In Australia, the first 6-cylinder Chevrolet trucks were rated at 1½ tons, and were quite popular. As in the U.S., Chevrolet made only the running gear and front sheet metal, while the cabs and bodies were produced elsewhere. This high rack model was designed for both cattle and cargo hauling. Although the cab has a roof, doors, and rear panels, there is no provision for windows.



Called the Traveler's Brougham, this panel body was fitted to the 1½-ton AC Series chassis. The style was designed for traveling or route salesmen who wanted an attractive vehicle for their wares. The entire exterior was covered with fabric of a canvas type, available in several different colors. For some reason, fabric covered bodies became popular in Europe during the 1920s and 1930s, but the concept never caught on in the U.S.



Also featuring a fabric covered body was this 2-stretch ambulance, mounted on a Series LQ 1½-ton chassis. The body had interior lights, large frosted glass windows, and ventilators above each window. It could be ordered with either one or two rear doors.



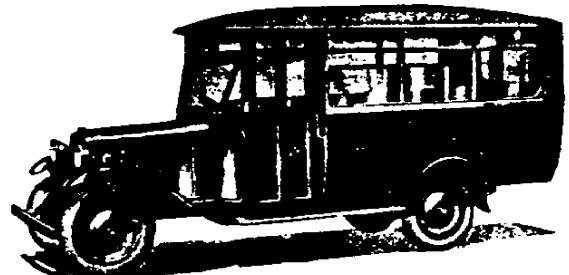
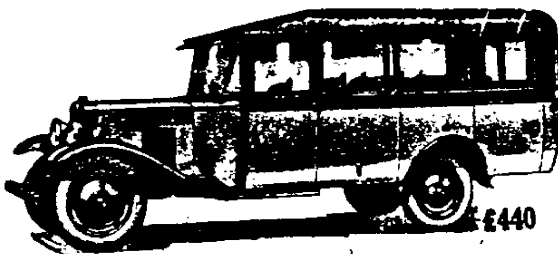
Fitted to the AC Series 1½-ton chassis is this truck-bus combination, designed for sparsely settled rural areas. The rear portion would accommodate eight passengers on two bench type folding seats running lengthwise. When cargo was to be carried, one or both of the seats could be folded out of the way.

The 14-passenger Touring Bus was an interesting style on the Series LQ chassis, in that the canvas roof portion could be folded back into the rear compartment for open-air driving in good weather. The top rode back on rails, but the top frames remained in place. The windows could be lowered flush with the body sides.



A popular British truck was the Series LQ 1½-ton lorry, which could be put to any number of uses. As shown, with canvas top in place, it made an attractive van. The top and racks could be removed when an open express body was desired, and the same body could be ordered with a dump mechanism to convert it into a "tipper" for grain, coal, sand, etc. The cab on this truck was a Chevrolet production model which may explain why a rearview mirror and windshield wiper are included.

Designed for in-city bus service was this body, mounted on the Series LQ 1½-ton chassis. It is interesting to note that despite the high percentage of wet days in England, only the lorry is shown with a windshield wiper. British law mandated the fender mounted parking lights.



COMPARATIVE TRUCK SPECIFICATIONS

	<u>1929</u>	<u>1930</u>
<u>BRAKE CONNECTIONS</u>		
Cross Shaft (Standard equipment)	Straight	Arched
Brace mounting	To transmission case	To pedal shaft thru stop
Brace adjustment	Slots and friction	Threaded rod and nut
Front brake connections	Rods and idler lever	Rod, cable and frame bracket
<u>SPRINGS</u>		
Front Spring Shackles	Conventional	Tryon
Front Spring Tension Plates	Yes	Yes
<u>FRONT AXLE</u>		
King Pin inclination under load	$3\frac{1}{2}^{\circ}$	$3\frac{1}{2}^{\circ}$
Tie Rod - type	Double helical spring	Single spiral spring
<u>FRONT BRAKES</u>		
Diameter	$10\frac{1}{2}$	$11\frac{1}{2}$
Operation	Horizontal lever, rod and cam	Cable, rod, cross-head and cam
Lining thickness	$9/64$	$3/16$
Adjustment	Lever and nut	Balls and screw
<u>REAR AXLE</u>		
Gear ratio	4.875:1	5.428:1
Drive Gear - No. of teeth	39	38
Drive Pinion - No. of teeth	8	7

1930 OPEN BODY CHANGES

Front seats $1\frac{1}{2}$ " lower and back tilted.

Deeper and more comfortable cushion and back springs.

Top material - Brown and white, whipcord inside - gray teal outside.

Gray Spanish grain fabricoid trim - buttons in seat cushions.

Separate back curtain on Roadster.

New colors.

Steering wheel 1" lower.

CLOSED BODY CHANGES

Sloping windshield.

More comfortable front seat cushions.

New colors.

New upholstery.

Steering wheel $1\frac{1}{2}$ " lower.

NEW BODY TYPE - SPORT ROADSTER

Flush type rumble seat.

Step plates.

Gray Spanish grain fabricoid trim - buttons in seat cushions.

Accessory Group.

Bumper.

Tire Locks.

" Covers.

New Tools.

Weight

Increase from 2950 to 3000 lbs.

WHEELS19291930

Brake drums

Inside diameter - front

10 $\frac{1}{2}$ 11 $\frac{1}{2}$

Thickness - front

.120

.156

Flange - front

5/8 curled

7/8 radial

Inside diameter - rear

10-11/16

11 $\frac{1}{2}$

Flange - rear

None

7/8 radial

Material - rear

#1010 Steel

#1025 Steel

SHEET METAL

Hood bumper

Mounted on fender
skirtMounted on fender
skirtELECTRICAL AND INSTRUMENTS

Instrument shapes

Elliptical

Round

Temperature indicator

Magel-electrical

A.C. Thermogage-pressure

Light switch handle operation

Rotary

Push and pull

BODY

Instrument panel

Elliptical beaded

Plain round
individual holes

Pedal closure

Stationary rubber
padsSoft rubber -
bellows type

<u>ENGINE</u> (Continued)	<u>1929</u>	<u>1930</u>
Carburetor venturi dia.	7/8	15/16
Horsepower at 1000 R.P.M.	23.5	24.5
Maximum horsepower	46 at 2600 R.P.M.	50 at 2600 R.P.M.

ENGINE CHANGES

Lock Washers on Rear Motor Support Bolts.

New Oil pan.

Heavier Main Bearing Caps?

Thermostat at Northern Assembly plants.

Oil grooves in Connecting Rod Bearings?

<u>TRANSMISSION</u>	<u>1929</u>	<u>1930</u>
No. of splines in main shaft	10	6 (Passenger)
Hand brake lever length	15-3/8	17-3/8
Improved oiling of Mainshaft Pilot Bearing		

UNIVERSAL JOINT

Rear yoke spline O.D.	1.022	1.062
Speedometer gear ratio	4:10	5:14
Speedometer gear ratio Error	Passenger 7% fast	Passenger 4.5% fast
Truck (30 x 5 tires 4.6% fast	(30 x 5 tires .2% sl
(32 x 6 tires 1.2% fast	(32 x 6 tires 3.6% sl

FUEL SYSTEM

Gasoline gauge indicator location	On tank	On instrument panel
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STEERING GEAR

Adjustment	Screw plug	Cap screw and plain plug?
Steering Connecting Rod type	Double helical spring	Single spiral spring
Lever ball neck diameter	9/16	5/8

EMERGENCY BRAKES

	<u>1929</u>	<u>1930</u>
Diameter	10-11/16	11 $\frac{1}{2}$
Lining width	1 $\frac{1}{4}$	1 $\frac{1}{2}$
Lining thickness	5/32	3/16
Adjustment	None	Balls and screw

ENGINE

Timing (.010 theoretical lash)

Inlet opens	40 after U.D.C.	
Inlet closes	42° after L.D.C.	
Exhaust opens	47° before L.D.C.	
Exhaust closes	40 after U.D.C.	
Cam ramp	.00025 per degree for 20° .0005 per degree for 10°	
Intake valve O.D.	1-13/32	1-15/32
Exhaust valve O.D.	1-13/32	1-11/32
Intake port diameter	1-1/16	1-1/8
Intake port insert I.D.	15/16	1-1/32
Piston wall thickness	.080	.062
Piston pin bushings	None	Phos. bronze
Manifold type	Heated riser	Heated Tee
Push Rod Cover	Open at spark plugs	Sealed
Rocker Cover	Sealed	Ventilated
Air Cleaner	Rear inlet	Front inlet Free flow
Center bearing	Bronse back	Steel back high quality
Center bearing lubrication	Gravity feed	Pressure feed and Gravity

REAR AXLE

	<u>1929</u>	<u>1930</u>
Gear ratio	3.818:1	4.10:1
Drive gear - No. of teeth	42	41
Drive pinion - No. of teeth	11	10
Drive gear - pitch diameter	8.625	9.375
Drive pinion - pitch diameter	2.257	2.286
Drive gear and pinion face	1-1/8	1-17/64
Drive gear and pinion - diametral pitch	4.870	4.373
Drive pinion - type	Loose	Integral
Differential gear - pitch dia.	3.200	3.360
Differential pinion - pitch dia.	2.000	2.100
Differential pinion face	11/16	3/4
Differential gear and pinion - diametral pitch	5.000	4.762
Differential bearing I.D.	1.574	1.693
Differential pinion shaft dia.	3/4	13/16
Drive pinion bearing I.D.	.9843	1.1811
Ball diameter	3/8	11/32
No. of balls	22 (2 rows)	26 (2 rows)
Propeller shaft spline O.D.	.997	1.031
Axle Shaft Spline	1.130	1.225

REAR SERVICE BRAKES

Type	External Con- tracting	Articulated shoe Internal Expanding
Diameter	11	11½
Operation	"Timken" lever	Cam
Lining width	2"	1½"
Adjustment	Nuts	Balls and screw

COMPARATIVE SPECIFICATIONS

	<u>1929</u>	<u>1930</u>
<u>BRAKE CONNECTIONS</u>		
Cross Shaft	Double	Single
Mounting	Stationary metal brackets	Oscillating rubber- bushed brackets
Bearings	Die cast	O. and S.
Proportioner ratio	40% front 60% rear	50% front 50% rear
Brace mounting	To transmission case	To pedal shaft thru stop
Brace adjustment	Slots and friction	Threaded rod and nut
Front Brake connections	Rods and idler lever	Rod, cable and frame bracket
<u>SPRINGS</u>		
Front spring rate (per inch)	385#	345#
Tension plates - front and rear	Yes	No
Shock Absorbers	None	Delco-Lovejoy
Shackles	Conventional	Tryon
<u>FRONT AXLE</u>		
King pin inclination under load	3 $\frac{1}{2}$ °	2 $\frac{1}{2}$ °
Tie rod - type	Double helical spring	Single spiral spring
<u>FRONT BRAKES</u>		
Diameter	10 $\frac{1}{2}$	11 $\frac{1}{2}$
Operation	Horizontal lever, rod and cam	Cable, rod, cross head and cam
Lining thickness	9/64	3/16
Adjustment	Lever and nut	Balls and screw

CAR	1929 CHEVROLET
WHEELBASE	107
TIRES Size	4.50 - 20
Rolling Cir.	7.33
Make & Pressure	Goodyear at 35 lbs.
ROAD CLEARANCE	8-13/32
TURNING RADIUS, R. & L.	19-3/4
WEIGHTS Front	1210
Rear	1400
Total Road	2610
SPRINGS Front	Semi-El1. 36 x 1-3/4
Rear	Semi-El1. 54 x 1-3/4
ENGINE Size	6-3-5/16 x 3-3/4
Displacement	194
Weight	479-1/2 dry
Max. B.H.P.	46 at 2400
Max. B.M.E.P.	98.5 at 800
Max. Torque	125 at 800
Compression Ratio	5.018
Cylinder Offset	None
Balancer	No
Counterbalanced	No
Main Bearings Length	1-3/4 - 2 - 2-3/16
Main Bearing Dia.	1-15/16 - 2 - 2-1/16
Conn. Bearings L. & Dia.	1-3/8 x 2
Connecting Rod Length	7
Piston Material	Cast Iron
Valves: Head Diam	1-13/32
Port Diam.	1-17/64
Seat Angle	45°
Lift	.277
Lash	In. .006 Ex. .008
Valve Timing: IO	4° ATC
IC	42° ABC
EO	47° BBC
EC	4° ATC
Initial Spark Setting	16° BTC
Firing Order	1-5-3-6-2-4
Carburetor Make & Size	Carter 1"
Oil Capacity	5-1/2qts. - 5 qts. refill
Water Capacity	10 qts.
GEAR RATIOS: Low	*18-27 *3.32:1
Second	25-20 1.77:1
Reverse	14,18,15 - 31,19,27 4.2:1
Rear Axle	11-42 3.818:1

NOTES: Engine weight includes everything attached to engine less transmission and clutch. Car weights of two door five passenger sedan including gas, oil and water with spare tire but no passengers from Chevrolet
*Gear Ratios: First figures are number of teeth in driver to number of teeth in driven gears, second figures are gear ratios, B.H.P., B.M.E.P. and torque values from curves in this book.

DATA from Chevrolet Engineering Department, July 1929.

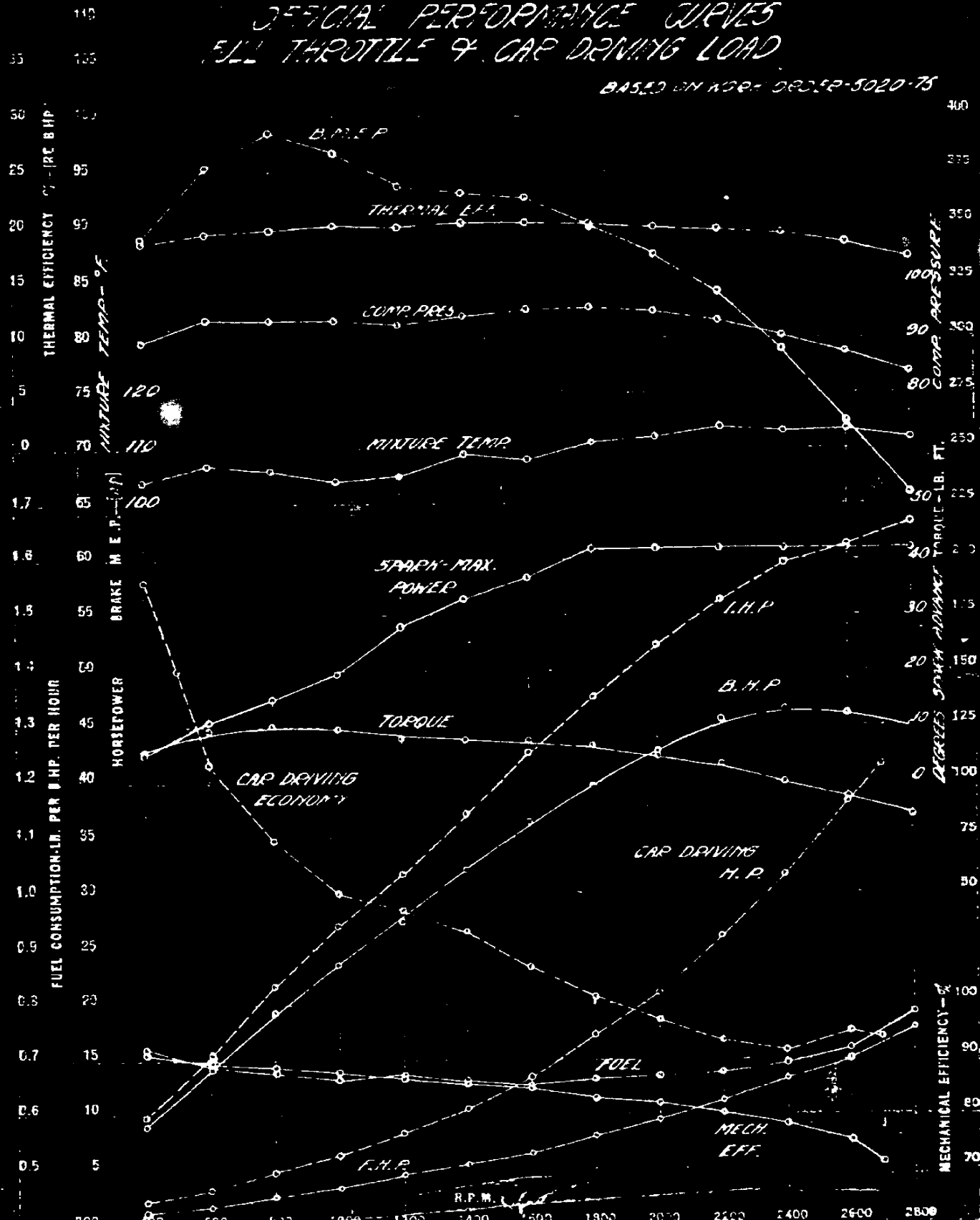
S.A.E. ENGINE TESTING FORMS — CURVE SHEET — D

NAME AND MODEL 1929 INTERNATIONAL CHEVROLET #1589 DATE OF TEST 12-1-28
 NO. CYLS. 6 BORE 3 1/16 IN. STROKE 3 3/4 IN. DISPL. 93.9 CU IN. FUEL RED CROWN GASOLINE

For details see specification sheet and log sheet. ASSUME 19000 B.T.U./LB.

OFFICIAL PERFORMANCE CURVES FULL THROTTLE & CAR DRIVING LOAD

BASED ON AOR-30252-5020-75



SPECIFICATIONS

Chassis Wheelbase	109 inch	131 inch	157 inch
Engine	6 cylinder valve-in-head	6 cylinder valve-in-head	6 cylinder valve-in-head
Brake Horsepower ..	50 @ 2600 R.P.M.	50 @ 2600 R.P.M.	50 @ 2600 R.P.M.
Bore and Stroke	3 1/4 x 3 1/4 inches	3 1/4 x 3 1/4 inches	3 1/4 x 3 1/4 inches
Fuel Pump and Air Cleaner	AC	AC	AC
Lubrication	Pump and splash	Pump and splash	Pump and splash
Cooling	Centrifugal Pump	Centrifugal Pump	Centrifugal Pump
	2 blade fan	4 blade fan	4 blade fan
Brakes	4 wheel articulated shoe type	4 wheel articulated shoe type	4 wheel articulated shoe type
Front	11 1/2 inch drums	11 1/2 inch drums	11 1/2 inch drums
	1 1/2 inch lining	1 1/2 inch lining	1 1/2 inch lining
Rear	11 1/2 inch drums	16 inch drums	16 inch drums
	1 1/2 inch lining	2 1/2 inch lining	2 1/2 inch lining
Emergency	Separate on rear wheels	Separate on rear wheels	Separate on rear wheels
Transmission	3 speeds forward 1 reverse	4 speeds forward 1 reverse	4 speeds forward 1 reverse
Clutch	Single plate dry disc	Special single plate dry disc—10 inch disc	Special single plate dry disc—10 inch disc
Rear Axle	Spiral bevel gear semi-floating	Extra heavy spiral bevel gear semi-floating	Extra heavy spiral bevel gear semi-floating
Ratio	4.10-1	5.43-1	5.43-1
Frame	Steel channel 153 3/4 inches long 5 inches deep	Steel channel 187 1/4 inches long 6 inches deep	Steel channel 215 1/4 inches long 7 inches deep
Wheels	Disc	Single—disc Dual—pierced disc	Dual—pierced disc
Maximum Body Length	72 inches	108 inches	144 inches
Chassis Shipping Weight:			
Single Wheel.....	1880 lbs.	2560 lbs.
Dual Wheel.....	2760 lbs.	2890 lbs.
Average Closed Cab.	335 lbs.	335 lbs.	335 lbs.
Maximum Gross Allowable Loaded Weight—Includes Chassis, Cab, Body Driver and Pay Load.	4000 lbs.	7300 lbs. single 8000 lbs. duals	8000 lbs. duals

TIRE EQUIPMENT

Chassis	Front Tires	Rear Tires	Standard or Optional
Half ton 109" Wheelbase	4.75-19 Four Ply Balloon	4.75-19 Four Ply Balloon	Standard
1 1/2 Ton 131" Wheelbase	30x5 Six Ply Truck Type Cord	32x6 Eight Ply Truck Type Cord	Standard
1 1/2 Ton 151" Wheelbase	30x5 Six Ply Truck Type Cord	30x5 Six Ply Truck Type Cord	Optional +25 extra
1 1/2 Ton 157" Wheelbase	30x5 Six Ply Truck Type Cord	30x5 Six Ply Truck Type Cord on Dual Wheels	Standard
1 1/2 Ton 157" Wheelbase	30x5 Six Ply Truck Type Cord	30x5 Six Ply Heavy Duty Truck	Optional No Extra Cost

<u>REAR AXLE</u> - (Continued)	<u>1929</u>	<u>1930</u>
Differential Case Bearing - I.D.	2.165	2.284
Pitch diameter of balls	3.069	3.127
Axle Shaft - Spline O.D.	1.547	1.634
Thread	1" - 14	1-1/8 - 12
Diameter at small end of taper	1.235	1.411

ENGINE

Timing (.010 Theoretical lash)

Inlet opens	4° after U.D.C.	
Inlet closes	42° after L.D.C.	
Exhaust opens	47° before L.D.C.	
Exhaust closes	4° after U.D.C.	
Cam ramp	.00025 per degree for 20°	
	.0005 per degree for 10°	
Intake Valve O.D.	1-13/32	1-15/32
Exhaust Valve O.D.	1-13/32	1-11/32
Intake Port diameter	1-1/16	1-1/8
Intake Port Insert I.D.	11/16	
Piston wall thickness	.060	.062
Piston pin bushings	None	Phos. bronze
Manifold type	Heated riser	Heated tee
Push Rod Cover	Open at spark plugs	Sealed
Rocker Cover	Sealed	Ventilated
Air Cleaner	Rear inlet	Front inlet free flow
Center Bearing	Bronze back	Steel back high quality

<u>REAR AXLE</u> - (Continued)	<u>1929</u>	<u>1930</u>
Drive Gear - Pitch diameter	11-1/8	11 1/4
Drive Pinion - Pitch diameter	2.252	2.163
Drive Gear and Pinion - diametral pitch	3.905	3.234
Drive Gear - rivet circle	7 1/2	7-7/8
Differential Gear - pitch diameter	4.213	4.550
Differential Pinion - pitch dia.	2.575	2.781
Differential Gear diametral pitch	4.272	3.955
Differential Gear face	13/16	7/8
Differential Gear spline length	2-1/32	2-3/32
Differential Pinion - bearing length	1-1/16	1-5/32
Differential Pinion Shaft - diameter	.809	.920
length	6-15/32	7-3/32
Differential Carrier - overall length	15 1/2	16-1/16
Distance - center to bearing face	5-5/8	5-31/32
Lead at front end	None	7/16 x 3-11/16 dia.
Torque tube attachment	Riveted	Slug welded
Differential Case and Cover - O.D.	9-3/8	10
Bolt Circle	5-9/16	6-7/32
Flange	240°	360°
Spherical diameter	5.0	5.4
O.D. at pinion shaft	6-13/32	7-1/32
Cover ribs	4	6
Better provision for lubrication		

STEERING GEAR - (Continued)

	<u>1929</u>	<u>1930</u>
Steering Connecting Rod type	Double helical spring	Single spiral spring
Lever ball neck diameter	9/16	5/8

WHEELS

Front brake drum - I.D.	10 $\frac{1}{4}$	11 $\frac{1}{4}$
Thickness	.120	.156
Flange	5/8 curled	7/8 radial

SHIRT METAL

Knee Bumper	Mounted on fender skirt	Mounted on fender skirt
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ELECTRICAL AND INSTRUMENTS

Instrument shapes	Elliptical	Round
Temperature Indicator	Magnet-electrical	A.C. Thermogage-pressure
Light Switch handle operation	Rotary	Push and pull

BODY

Instrument Panel	Elliptical beaded	Plain round individual holes
Pedal Closure	Stationary rubber pads	Soft rubber - bellows type

ENGINE - (Continued)

	<u>1929</u>	<u>1930</u>
Center Bearing lubrication	Gravity feed	Pressure feed and gravity
Carburetor venturi diameter	7/8	15/16
Horsepower at 1000 R.P.M.	23.5	24.5
Maximum horsepower		

ENGINE CHANGES

Lock washers on rear support belts.

New Oil Pan.

Heavier Main Bearing Caps?

Oil grooves in connecting rod bearings?

Thermostat at northern assembly plants.

TRANSMISSION

	<u>1929</u>	<u>1930</u>
No. of splines in main shaft	10	10
Hand Brake lever length	15-3/8	17-3/8
Improved lubrication of Main Shaft Pilot Bearing		

UNIVERSAL JOINT

Speedometer Gear Ratio	4:12	4:14
Speedometer Gear Ratio Error	30 x 5 tires 4.6% fast 32 x 6 tires 1.2% fast	30 x 5 tires .2% slow 32 x 6 tires 3.6% slow

FUEL SYSTEM

Gasoline Gauge indicator location	None	On instrument panel
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STEERING GEAR

Adjustment	Screw plug	Cap screw and plain plug
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