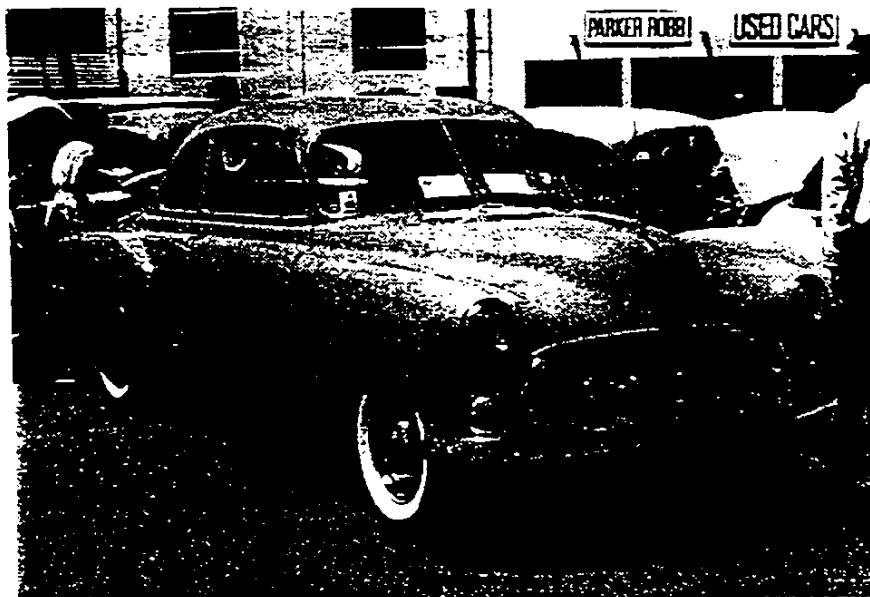


---

---

# CHEVROLET



1952 Chevrolet, Styleline Deluxe two-door Sport Coupe, 6-cyl

## 1952

---



---

ORIGINAL COPY

**CHEVROLET  
1952  
SPECIFICATIONS**

ISSUED TO

---

---

Prepared  
by  
**ENGINEERING DEPARTMENT—TECHNICAL DATA GROUP  
CHEVROLET—CENTRAL OFFICE  
DIVISION OF GENERAL MOTORS CORPORATION  
DETROIT 2, MICHIGAN  
Lithographed in U.S.A.**

---

---

## CONTENTS

	Page	Page
Introduction .....	4-5	
Abbreviations and symbols .....	6	
<b>PASSENGER CAR SPECIFICATIONS</b>		
Model Identification .....	8	
Serial Numbers .....	9	
Vehicle Weights .....	10	
Exterior Dimensions .....	11	
Body Interior Dimensions .....	12-19	
Equipment and Colors .....	20-23	
Regular Equipment .....	20-21	
Body Glass .....	21	
Exterior-Interior Color Combinations .....	21-22	
Interior Upholstery and Color Combinations .....	23	
Chassis Frame .....	24	
Front Suspension .....	25	
Rear Suspension .....	26	
Rear Axle and Drive .....	27	
Drive System Splines .....	28	
Brakes .....	28	
Engine .....	29-36	
Engine General .....	29	
Engine Performance .....	30	
Cylinder Case and Head .....	31	
Crankshaft and Bearings .....	31	
Camshaft and Bearings .....	31	
Piston-Pin-Rings .....	32	
Connecting Rods .....	32	
Valve Train .....	33	
Engine Lubrication System .....	34	
Fuel and Exhaust Systems .....	34	
Engine Cooling System .....	35	
Engine Electrical System .....	35-36	
Clutch .....	37	
Transmission .....	38	
Steering .....	39	
Wheels and Tires .....	39	
Lights .....	40	
Horns .....	40	
Tool Kit .....	40	
Chassis General Information .....	40	
Accessories .....	41	
Regular Production Options .....	42	
Automatic Transmission Option - Supplement .....	43-50	
Pages for additional information .....	51-54	
<b>TRUCK SPECIFICATIONS</b>		
Models .....	56	
Serial Numbers .....	57	
Chassis and Body Dimensions .....	58-122	
Vehicle Weights and Load Distribution .....	58-122	
Standard Equipment .....	59-123	
Optional Equipment .....	59-123	
Chassis Treads and Overall Widths .....	124	
Cowl Dimensions .....	125	
Cab Exterior Dimensions .....	125	
Driver Compartment and Seat Dimensions .....	125	
Exterior Appearance and Color .....	126	
Frame .....	127	
Front Axle .....	128	
Front Wheel Alignment .....	128	
Front Suspension .....	129	
Rear Axle .....	130-131	
Rear Suspension .....	132-133	
Two-Speed Rear Axle .....	134	
Universal Joints and Propeller Shafts .....	135	
Drive System Splines .....	136-137	
Brakes and Brake Equipment .....	138	
Engine .....	139-150	
Engine General .....	139	
Engine Performance .....	140-143	
Cylinder Case and Head .....	144	
Crankshaft and Bearings .....	144	
Camshaft and Bearings .....	144	
Piston-Pin-Rings .....	145	
Connecting Rods .....	145	
Valve Train .....	146	
Engine Cooling System .....	147	
Fuel System .....	147-148	
Exhaust System .....	148	
Engine Lubrication System .....	148	
Crankcase Ventilation and Oil Filter .....	148	
Engine Electrical System .....	149-150	
Power Plant Mounting .....	150	
Clutch .....	151	
Transmission .....	152	
Steering Gear .....	153	
Turning Diameters .....	153	
Tires-Tubes-Wheels .....	154	
Load Capacity Chart .....	155	
Bumpers .....	156	
Lights and Horn .....	156	
Instruments .....	157	
Speedometer Gears and Adapters .....	157	
Tools .....	157	
Accessories .....	158	
Regular Production Options .....	159	
Anti-Friction Bearings .....	160	
Index .....	161-162	

## INTRODUCTION

### AUTOMOBILE SPECIFICATIONS

In the automobile industry, a specification is defined as any item in a detailed description of a mechanism. Usually the description is composed of separate specifications arranged in a tabular question and answer form.

Specifications of this nature, however, are not required in the manufacture of an automobile. All the information necessary for this process is given by the Engineering Department to the manufacturing and assembling plants in the forms of drawings and parts lists. But drawings and parts lists usually are not made available to other people who require information of the vehicle, since these records must be interpreted. Moreover, they and other engineering records are much too numerous or voluminous for convenient reference. Therefore, a special interpretation is made by the Engineering Department in the form of a specifications list or book, the contents of which are determined by the nature of questions people ask the Engineering Department concerning the vehicle.

As has been the experience of most manufacturers, originally the questions asked were few in number and were answered individually at the time they were asked. Through the years, however, many questions were asked quite frequently and, for convenience, the answers were recorded in the form of specifications. Others, which arose because of heightened interest and because of advancements in design were added from time to time. As the automobile grew into a necessary means of transportation --- as its component units were advanced in design and as new ones were added --- and as manufacturers were forced to make more detailed comparisons of their vehicles with those of their competitors to satisfy an increasingly technically minded public --- more and more questions concerning the characteristics of vehicles were answered in the form of specifications.

### THE PURPOSE OF CHEVROLET SPECIFICATIONS

The Chevrolet Engineering Department has always been willing to answer questions of a technical nature concerning Chevrolet products and for the past years has endeavored to anticipate such questions by preparing a specifications book each new model year.

This book has been prepared to answer all the questions concerning the current Chevrolet products that we believe may be asked.

It is intended primarily as a convenient and authoritative source of information for Chevrolet executives, engineers, sales and service representatives, plant managers, and other personnel who must be in a position to answer such questions, and also as a common source of those Chevrolet specifications that are needed in advertisements, vehicle comparisons, trade publications, license applications and in correspondence with governments, firms, educational institutions, and individuals throughout the world who require a wide variety of information about Chevrolet products for diverse purposes.

### VEHICLES AND EQUIPMENT SPECIFIED

The specifications are those of all standard left drive passenger cars, delivery cars, trucks, and school bus chassis which have been designed to be manufactured for the domestic (U.S.A.) open market. Included also are the specifications of the RPO (Regular Production Option) units which are intended for use with these vehicles. All data are for vehicles with regular equipment, except where noted as RPO.

No information is furnished concerning right drive vehicles or equipment manufactured for export, nor any vehicles or equipment built on COPO's (Central Office Production Orders) or any other special orders. Accessories released through the Parts and Accessories Department, however, are listed although specifications are not included.

CONTINUED

## INTRODUCTION—Continued

This book is separated into two parts--one for passenger cars with a supplement for vehicles equipped with automatic transmission and one for trucks.

Except where noted, all information was derived directly from official Chevrolet Engineering Department drawings, parts lists, and test reports, or was calculated from these records.

### ABBREVIATIONS

The condensed tabular form in which the data are presented necessitates the use of abbreviations or symbols in some cases. These are shown on a separate page.

### DIMENSIONS

The dimensions shown are of three types:

Type #1. Those dimensions where very accurate fits are essential in the parts concerned, such as bearing surfaces and splines, and where dimensions usually are expressed on drawings in decimals with very close limits.

Type #2. Those dimensions where accuracy of fit is of less importance, as in structural members such as frame parts, I-beam axles, or in fuel tanks; also, dimensions for the purpose of identification, such as cylinder bore, or wheel cylinder piston diameter, where dimensions are expressed in fractions or integers with fractions and to which fairly large tolerances ( $\pm 1/64$ ,  $\pm 1/32$ ,  $\pm 1/16$ ) are applied.

Type #3. Those dimensions, such as wheelbases, ground clearances, body size dimensions, and turning diameters, which are subject to large manufacturing variations.

In this book, the dimensions of type #1 are quoted with limits exactly as on the drawings while the dimensions of types #2 and #3 are quoted without manufacturing tolerances.

Unless specified otherwise all dimensions are in inches.

### LOCATION OR POSITION OF PARTS

When referring to the location or position of

any engine part or vehicle unit, the practice throughout the automotive industry is that such reference is made from the driver seat position. Any views shown or references made, which are contrary to the above rule, are clearly labelled or explained in the text of the specifications.

### ORGANIZATION OF BOOK

Every effort has been made to facilitate the finding of information. The sequence followed in presenting the information is that of the G. M. Uniform Parts Classification major groups, modified to facilitate usage by the reading majority who are unacquainted with this classification. The table of contents lists the subjects in the order in which they occur. The subject headings are reprinted at the bottom of each page beside the page number. The index at the rear of the book lists the details covered by the subject headings.

To provide for reorganizing or incorporating additional information without disturbing the page number sequence, blocks or numbers are assigned to the ends of the passenger and truck sections.

### REVISIONS

All revisions and the dates on which they are made will be indicated at the bottom of the page on which they occur. Where it is necessary to indicate a change in an individual specification, a symbol will be placed in the proximity of the revised specification. This symbol also will be repeated at the bottom of the page with a description of the revision. The following symbols have been established for this purpose:  $\odot$ ,  $\times$ ,  $\diamond$ ,  $\nabla$ ,  $\star$ ,  $-$ . They may be used singly, in multiples or in combinations.

Subsequent revisions on a revised page will be made in the same manner as described above. However, to emphasize and clarify the later changes, all symbols and descriptions pertaining to previous revisions will be removed from the page and a note including the previous date of change preceded by the word "Revised" will be added.

ADDRESS ALL INQUIRIES TO  
Technical Data Department  
Room 3-113, General Motors Building  
Detroit 2, Michigan  
OR CALL  
TRinity 2-4600, Extension 8127



**ABBREVIATIONS**

AC ----- AC Spark Plug Division  
 act ----- acting  
 adj ----- adjustment  
 amp ----- ampere  
 approx ----- approximately  
 assy (assys) ----- assembly  
 aux ----- auxiliary  
 avg ----- average

bak ----- baking  
 bar. ----- barometric  
 BC ----- bottom center  
 brg ----- bearing  
 BTC ----- before top center  
 bush. ----- bushing

cap. ----- capacity  
 Chev (Ch) ----- Chevrolet  
 COE ----- cab-over-engine  
 col ----- column  
 com ----- commercial  
 conn ----- connecting  
 conv ----- conventional  
 COPO ----- Central  
 Office Production Order  
 ----- candle power  
 ft ----- cubic feet  
 cu.in. ----- cubic inches  
 cyl ----- cylinder

dbl ----- double  
 DLO ----- daylight opening  
 dia ----- diameter  
 dimen ----- dimension  
 displ ----- displacement  
 DR ----- double row  
 Dul ----- Dulux

eff ----- effective  
 eng ----- engine  
 equip. ----- equipment  
 ext ----- exterior

F ----- Fahrenheit  
 fab ----- fabric  
 fr ----- front  
 ft ----- feet  
 ft lb ----- foot pounds  
 ft/mi ----- feet per mile

gal ----- gallon  
 gen ----- generator

**ABBREVIATIONS AND SYMBOLS**

GM ----- General Motors  
 gov ----- governor  
 GVW ----- gross vehicle weight

HD ----- heavy duty  
 Hg ----- mercury  
 HR ----- hot rolled  
 hr ----- hour  
 Hy ----- Hyatt

ID ----- inside diameter  
 i.e. ----- that is  
 im ----- imitation  
 in. ----- inches  
 in<sup>3</sup> ----- inches cubed  
 in<sup>4</sup> ----- inches to fourth power  
 incl ----- included  
 instr ----- instrument

lb (lbs) ----- pounds  
 lea. ----- leather  
 LH ----- left hand

matl ----- material  
 max ----- maximum  
 mbrs ----- members  
 mf ----- microfarads  
 mi ----- mile  
 min ----- minute & minimum  
 mm ----- millimeter  
 mod ----- modulus  
 MPH ----- miles per hour

ND ----- New Departure  
 neg ----- negative  
 No. (no.) ----- number

OD ----- outside diameter  
 oz ----- ounce

pass. ----- passenger  
 pc ----- piece  
 PD ----- pitch diameter  
 pr ----- ply rating  
 press. ----- pressure  
 proj ----- projected  
 prop. ----- propeller  
 PSI ----- pounds per square inch  
 pt ----- pint  
 qt ----- quart

R ----- Roller

rad ----- radiator  
 reg ----- regular  
 ret ----- retaining  
 rev ----- revolutions & reverse  
 rev/mile ----- revolutions per mile  
 RH ----- right hand  
 RPM ----- revolutions per minute  
 RPO ----- regular production option  
 rr ----- rear

SAE ----- Society  
 of Automotive Engineers  
 Sag. ----- Saginaw  
 Sed Del ----- Sedan Delivery  
 SFE ----- Society of Fuse Engineers  
 sq ----- square  
 sq.in. ----- square inches  
 SR ----- single row  
 st ----- stainless  
 stl ----- steel  
 strg ----- steering  
 St Wagon ----- Station Wagon

Tim ----- Timken  
 TC ----- top center  
 trans ----- transmission

U.S. ----- United States Rubber Co.

Var ----- Various

w ----- watt  
 w/s ----- windshield  
 wt ----- weight



**SYMBOLS**

# ----- pounds, number  
 + ----- plus  
 - ----- minus  
 & ----- and  
 x ----- by, times  
 : ----- to (ratio)  
 - ----- to (range)  
 / ----- per cent  
 % ----- per cent  
 ¢ ----- centerline  
 ° ----- degrees  
 ' ----- minutes  
 " ----- seconds, inches  
 ÷ ----- divided by  
 @ ----- at












# **PASSENGER CARS**

2-29-52

### MODEL IDENTIFICATION

De Luxe - Series 2100		FLEETLINE Name and Description	Special - Series 1500	
Vehicle Type	Model		Model	Vehicle Type
	2152 52-1007 *	<u>2-DOOR SEDAN</u> 6-passenger, 5-window sedan with luggage compartment in rear	1552 52-1207 *	 <sup>θ</sup>

θ - Released by engineering, but not scheduled for production.

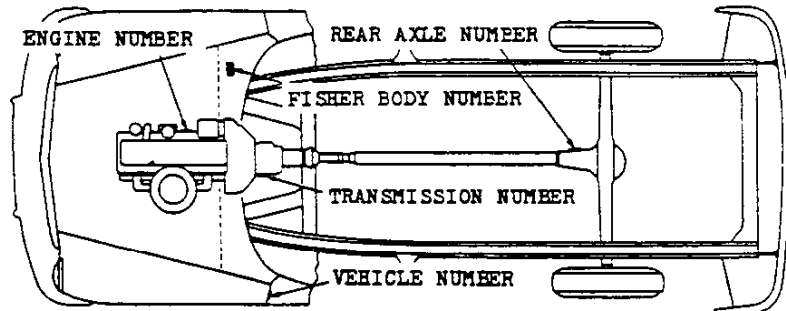
De Luxe - Series 2100		STYLELINE Name and Description	Special - Series 1500	
Vehicle Type	Model		Model	Vehicle Type
	2103 52-1069 *	<u>4-DOOR SEDAN</u> 6-passenger, 5-window sedan with luggage compartment in rear	1503 52-1269 *	
	2102 52-1011 *	<u>2-DOOR SEDAN</u> 6-passenger, 5-window sedan with luggage compartment in rear	1502 52-1211 *	
	2124 52-1027 *	<u>SPORT COUPE</u> 6-passenger, 2-door, 5-window coupe with luggage compartment in rear	1524 52-1227 *	
		<u>BUSINESS COUPE</u> 3-passenger, 2-door 5-window coupe with luggage compartments behind seat and in rear	1504 52-1227B *	
	2134 52-1067TX*	<u>CONVERTIBLE COUPE</u> 5-passenger, 2-door, 5-window coupe with folding top; luggage compartment in rear		
	2154 52-1037 *	<u>BEL AIR COUPE</u> 6-passenger, 2-door, 5-window coupe with hardtop; luggage compartment in rear		
	2119 52-1062 *	<u>STATION WAGON</u> 8-passenger, 4-door, 7-window, all-steel body with drop and lift gates in rear		
		<u>SEDAN DELIVERY</u> 2-passenger, 3-door, 3-window panel delivery	1508 52-1271 *	

\* - Fisher Body style number.

2-29-52

## SERIAL NUMBERS

**SERIAL NUMBER LOCATIONS**  
(See descriptions below.)



NOTE: Serial numbers except body number were obtained from Standards Department.

### VEHICLE SERIAL NUMBER

Description ----- Combines symbols for assembly plant, model year, model, and month of manufacture, in that order, followed by serial number for each vehicle. Example: 5JK-A 2322

Assembly plant designation:

Flint, Mich. -----	1
Tarrytown, N.Y. -----	2
St. Louis, Mo. -----	3
Kansas City, Mo. -----	5
Oakland, Calif. -----	6
Atlanta, Ga. -----	8
Norwood, O. -----	9
Baltimore, Md. -----	14
Los Angeles, Calif. -----	20
Janesville, Wis. -----	21

Model year designation ----- K

Model designation:

Special -----	J
De Luxe -----	K

Calendar month designation:

January -----	A
February -----	B
March, etc. -----	C, etc.

Starting serial number ----- 1001 and up, at each assembly plant and for each series.  
Location ----- Stamped on plate attached to left front body hinge pillar.

### ENGINE SERIAL NUMBER

Description ----- Combines symbols for each model year, passenger car engine, and manufacturing plant, in that order, followed by serial number for each engine. Example: KAA-6375

Model year designation ----- K

Passenger car designation ----- A

Plant designation: Flint Tonawanda

Regular engine -----	A	M
RPO 227 heavy duty clutch ---	C	P

Starting serial number -----

----- 1001 and up, at each engine plant.

Location ----- Stamped on right hand side of cylinder block to rear of distributor.

### TRANSMISSION SERIAL NUMBER

Description ----- Combines symbols for model year, and type and plant, followed by the serial number for each transmission. Example: KB-1764

Model year designation ----- K

Plant designation: Saginaw Muncie Toledo

Regular transmission --	A	B	C
-------------------------	---	---	---

RPO 316 heavy duty transmission } --	G	H	J
--------------------------------------	---	---	---

Starting serial number -----

----- 1001 and up, at each transmission plant.

Location ----- Stamped on left side of case at front edge of cover.

### REAR AXLE SERIAL NUMBER

Description ----- Combines symbols for model year, and type and plant, followed by number of rear axle. Example: KB-507

Model year designation ----- K

Plant designation: Gear & Axle Buffalo

Axle (4.11:1 ratio) -----	A	B
---------------------------	---	---

Serial Number -- The first one or two digits represent the month; the last two, the day of month.

Location ----- Stamped on front, right side of differential carrier.

### FISHER BODY NUMBER

Description -- Consists of separate numbers and symbols for body style, body number, trim type, and paint combination. Controlled by body source.

Location ----- Stamped on plate on right hand shoulder of cowl, under the hood.

**VEHICLE WEIGHTS  
FLEETLINE**

Vehicle Type		Shipping			Curb		
Model	Description	Front	Rear	Total	Front	Rear	Total
2152	De Luxe 2-Door Sedan	1705	1405	3110	1730	1510	3240
1552	Special 2-Door Sedan *	1710	1365	3075	1735	1470	3205

**STYLELINE**

Vehicle Type		Shipping			Curb		
Model	Description	Front	Rear	Total	Front	Rear	Total
2102	De Luxe 2-Door Sedan	1705	1405	3110	1730	1510	3240
1502	Special 2-Door Sedan	1700	1385	3085	1725	1490	3215
2103	De Luxe 4-Door Sedan	1715	1430	3145	1740	1535	3275
1503	Special 4-Door Sedan	1710	1405	3115	1735	1510	3245
2124	De Luxe Sport Coupe	1710	1390	3100	1735	1495	3230
1524	Special Sport Coupe	1700	1350	3050	1725	1455	3180
1504	Special Business Coupe	1700	1345	3045	1725	1450	3175
2134	De Luxe Convertible Coupe	1820	1560	3380	1845	1665	3510
2154	De Luxe Bel Air	1750	1465	3215	1775	1570	3345
2119	De Luxe Station Wagon 0	1690	1785	3475	1715	1890	3605
1508	Special Sedan Delivery	1670	1430	3100	1695	1535	3230

\* - Estimated weight.

0 - All models are equipped with 6.70-15-4 pr tires except De Luxe Station Wagon which is equipped with 6.70-15-6 pr tires.

**VEHICLE WEIGHT CONDITIONS**

**SHIPPING WEIGHT:** This weight is established by the Traffic Department. It is the weight of the basic vehicle with all regular equipment and with grease and oil wherever required. It does not include the weight of gasoline or water.

**JRB WEIGHT:** This is the weight of the empty vehicle ready to drive. It is the shipping weight plus the weights of gasoline (99 pounds) and water (31 pounds).

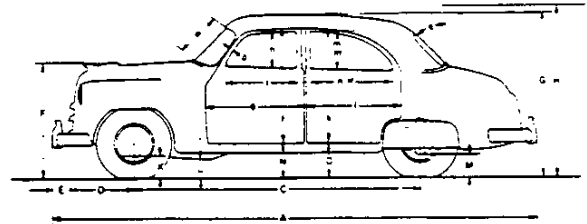
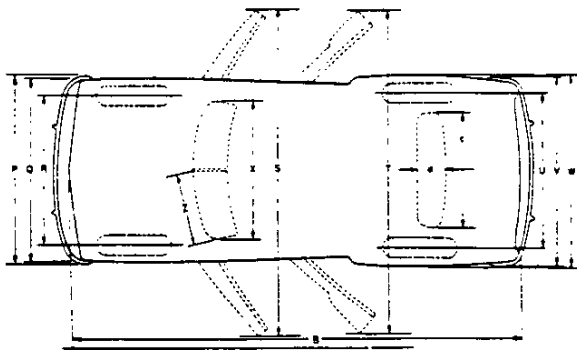
**PERFORMANCE WEIGHT:** This is the curb weight of the lowest price 4-door Sedan with regular equipment plus 600 pounds for passengers. Representative vehicles are:

Styleline De Luxe 4-Door Sedan ----- 3875

Styleline Special 4-Door Sedan ----- 3845

2-29-52

**EXTERIOR DIMENSIONS**



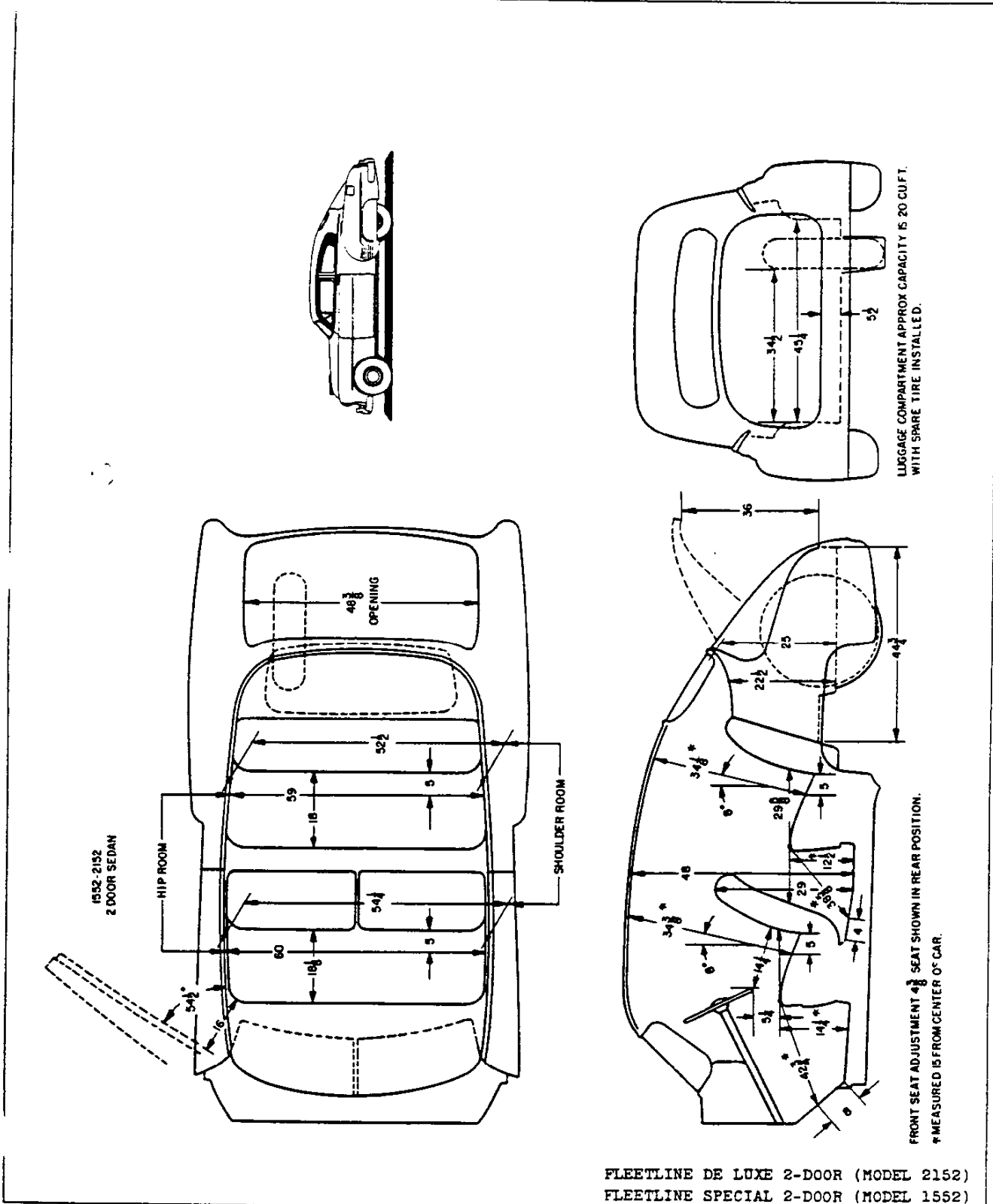
DESCRIPTION		KEY	FLEETLINE			STYLELINE			
			1552 2152	1502 2102	1503 2103	1504-24 2124	2134 2154	2119	1508
Vehicle length	Overall	A	197-5/8			197-1/2		196-1/2	
	Grille to rear fender	B	184			185-5/8		183-1/2	
	Wheelbase	C	115						
	Grille to front wheel	D	28-1/2						
	Grille to bumper guard fr	E	5-5/16						
Vehicle height	Over ornament, loaded	F	45-7/8						
	Over roof, loaded	G	62-3/4	63-5/8		61-15/16	66-13/16	64-3/4	
	Over roof, no load	H	64-7/8	65-3/4		64-1/16	70-1/8	67-5/8	
Road clearance	Under front spring seat	K	7-3/4						
	Under exhaust pipe	L	7-1/2 all except 2134 which is 7-5/16						
	Under rear axle center	M	8						
Door step height	Front door, no load	N	16						
	Rear door, no load	O	16-1/8			16-1/8			
Vehicle width	Over front bumper	P	71-5/8						
	Over front fenders	Q	70-1/2						
	Front wheel tread	R	56-11/16						
	Over front doors, open	S	148-1/2	147-1/4	134	145-1/2	141-1/2	134	
	Over rear doors, open	T	132			133-1/2			
	Rear wheel tread	U	58-3/4						
	Over rear bumpers	V	73-3/16						
Over body maximum	W	74-3/4, 2100 except 2119; 73-15/16, 1500 and 2119							
Wind-shield	Width between pillars	X	50-1/4						
	Width, each half	Z	27						
	Height on 45° slope	a	15-3/4	16-3/4		15	18-5/8	16-3/4	
	Corner post on diagonal	b	2-15/16			3		2-15/16	
Rear window	Width	c	38-7/16	43-15/16	43-1/4	54-3/4	44-1/2	30-5/8	
	Height on slope	d	17	15		12-13/16	13-1/4	12-1/2	10-1/2
	Slope angle	e	62° 30'	45°		47°	21° 30'	27°	
Front door	Opening height	f	41-1/4	42-1/4		41-3/4	43-1/2	42-1/4	
	Opening width	g	43	43	36-1/8	43	36-1/8	36-1/8	
	Window DLO height	h	12-1/2	13-3/4		12-3/4	14-1/8	13-3/4	
	Window DLO width	j	35-3/4	36	29	36	35-3/4	27-7/8	29
Rear side door	Opening height	k	40-1/4			44		For rear door see page 19	
	Opening width	l	32-7/8			32-11/16			
	Window DLO height	m	13-5/8			14-3/8			
	Window DLO width	n	29-1/8			31			
Rear quarter	Window DLO height	m'	12	13-3/8	12		14-3/16		
	Window DLO width	n'	29-1/8	28	18-1/2	17-3/4	32		

\* - Under design load conditions: Curb weight of model 2103, plus five passengers (150 lb each). The design height of frame from ground, thus established, is used for all other models. @ - At curb weight height. @ - Road clearance based on static conditions of tires and springs under design load (see \*). § - DLO, measured on surface of glass. @ - For 2134 only. See page 17 for 2154 rear window visibility area.  
 β - Convertible height, top down: 61-5/8 no load, 59-7/8 loaded.

2-29-52

### BODY INTERIOR DIMENSIONS

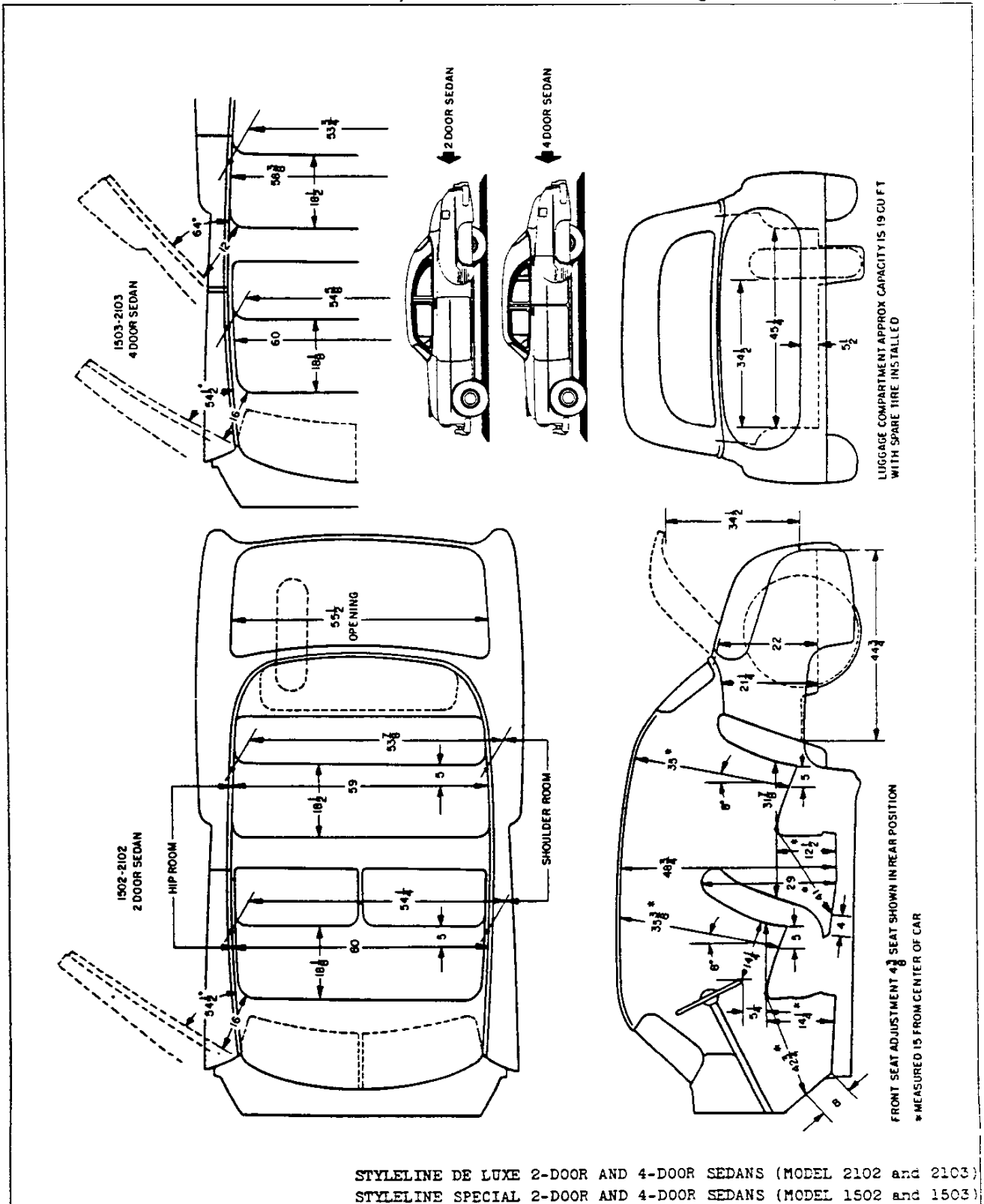
Trim and hardware differences between Special and De Luxe models are not considered in these dimensions. However, these differences are never greater than 5/8.



FLEETLINE DE LUXE 2-DOOR (MODEL 2152)  
FLEETLINE SPECIAL 2-DOOR (MODEL 1552)

**BODY INTERIOR DIMENSIONS—Continued**

Trim and hardware differences between Special and De Luxe models are not considered in these dimensions. However, these differences are never greater than 5/8.



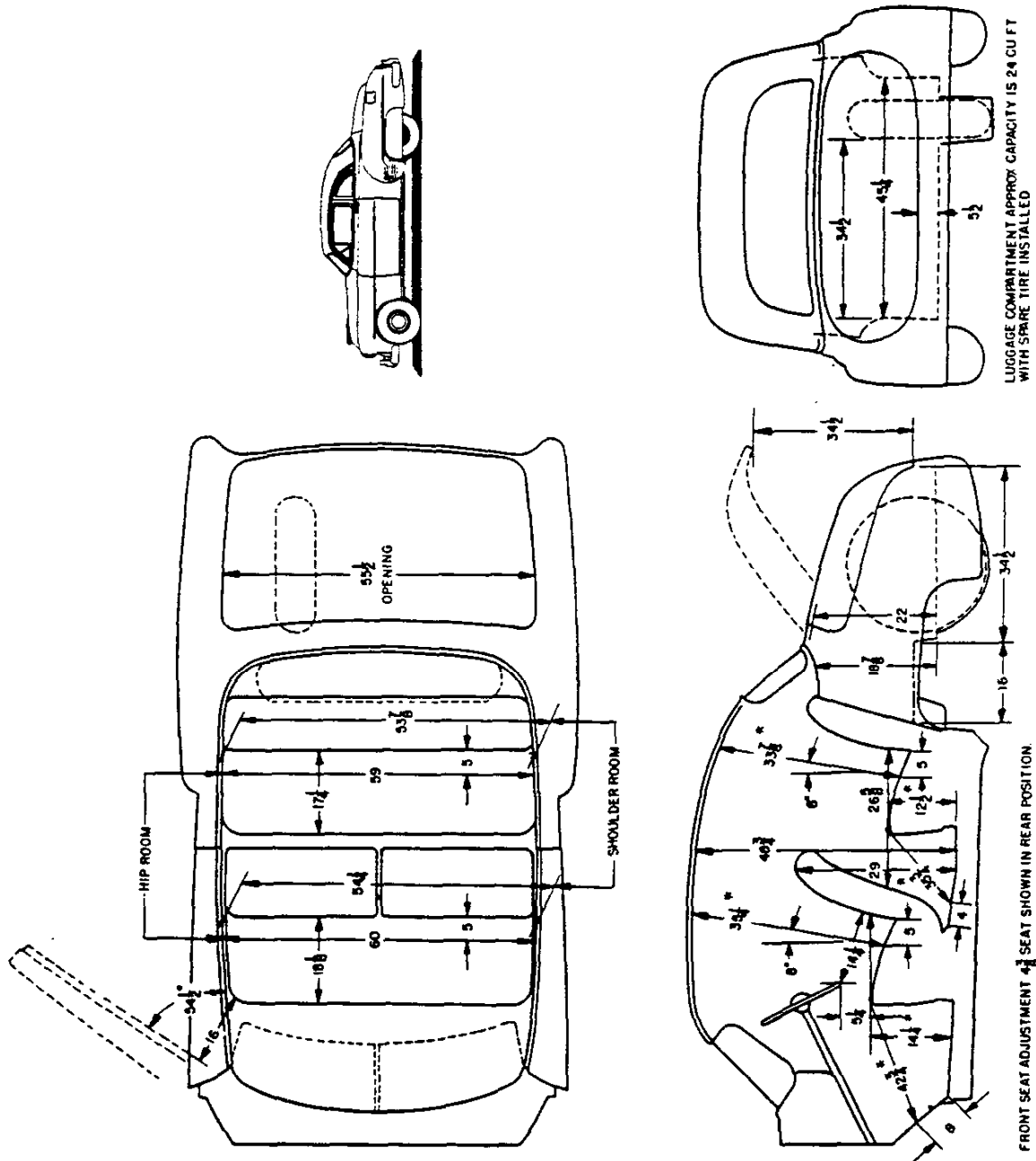
STYLELINE DE LUXE 2-DOOR AND 4-DOOR SEDANS (MODEL 2102 and 2103)  
 STYLELINE SPECIAL 2-DOOR AND 4-DOOR SEDANS (MODEL 1502 and 1503)

CONTINUED



**BODY INTERIOR DIMENSIONS—Continued**

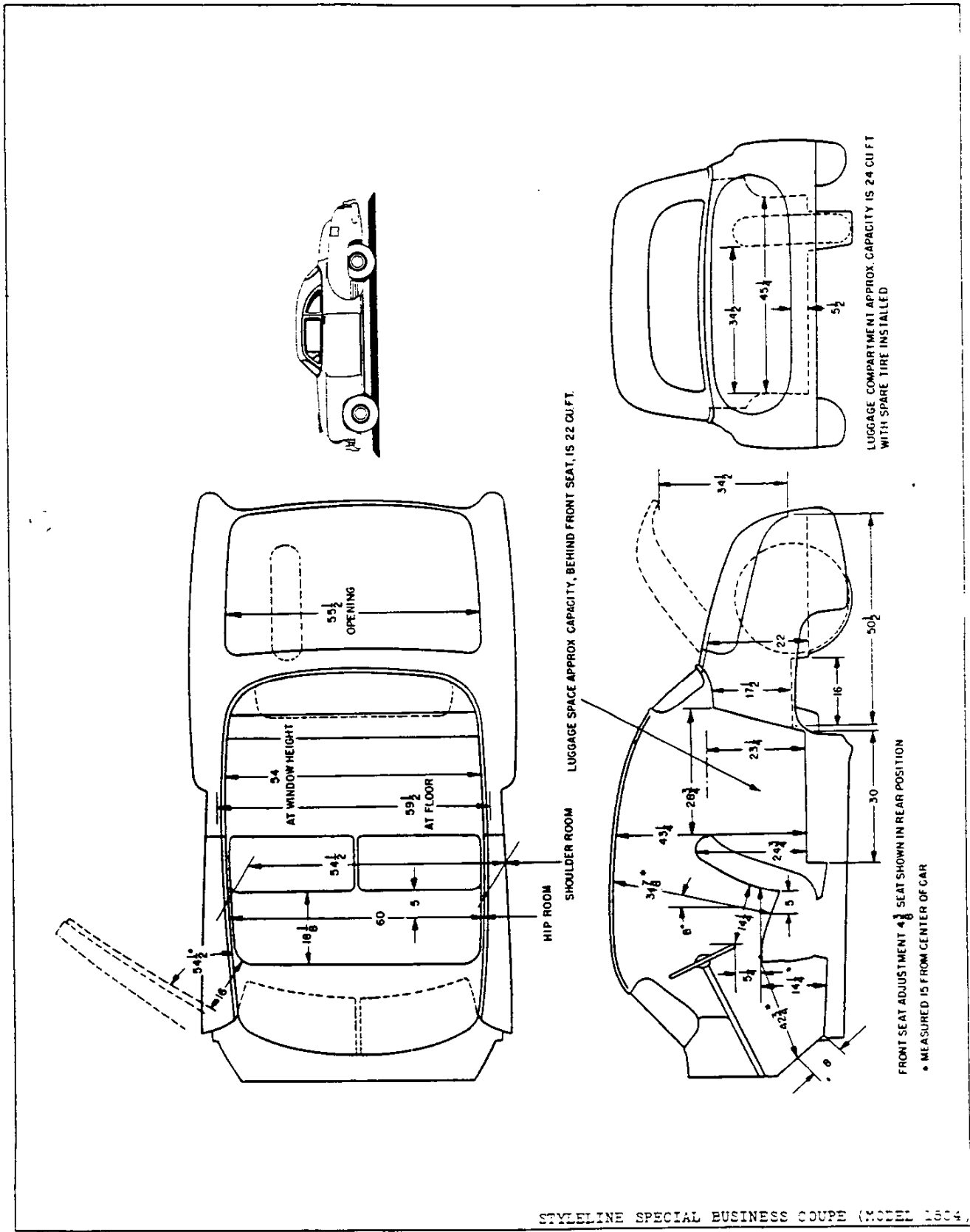
Trim and hardware differences between Special and De Luxe models are not considered in these dimensions. However, these differences are never greater than 5/8.



STYLELINE DE LUXE SPORT COUPE (MODEL 2124)  
 STYLELINE SPECIAL SPORT COUPE (MODEL 1524)

CONTINUED

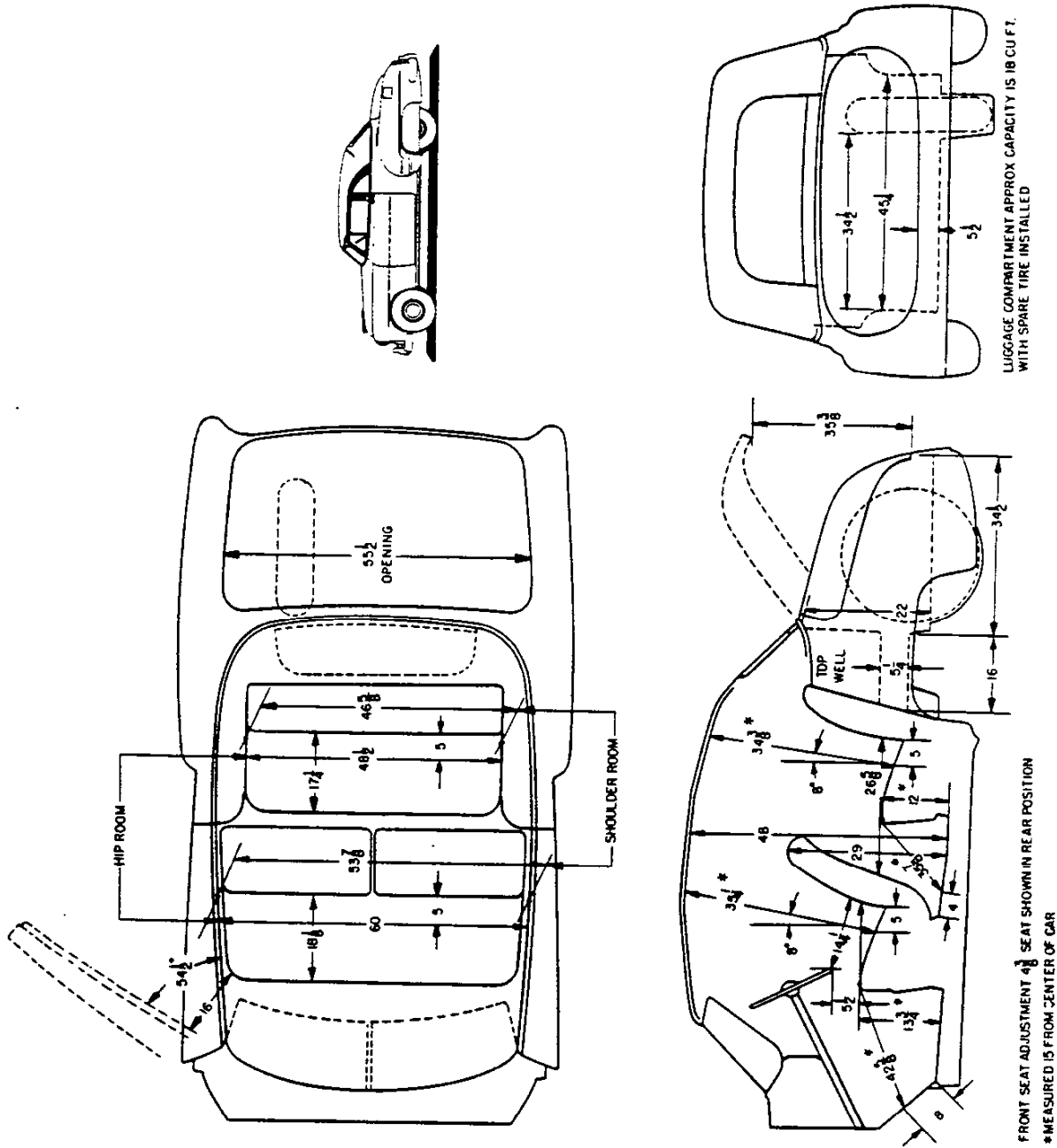
**BODY INTERIOR DIMENSIONS—Continued**



STYLELINE SPECIAL BUSINESS COUPE (MODEL 1504)

CONTINUED

# BODY INTERIOR DIMENSIONS—Continued



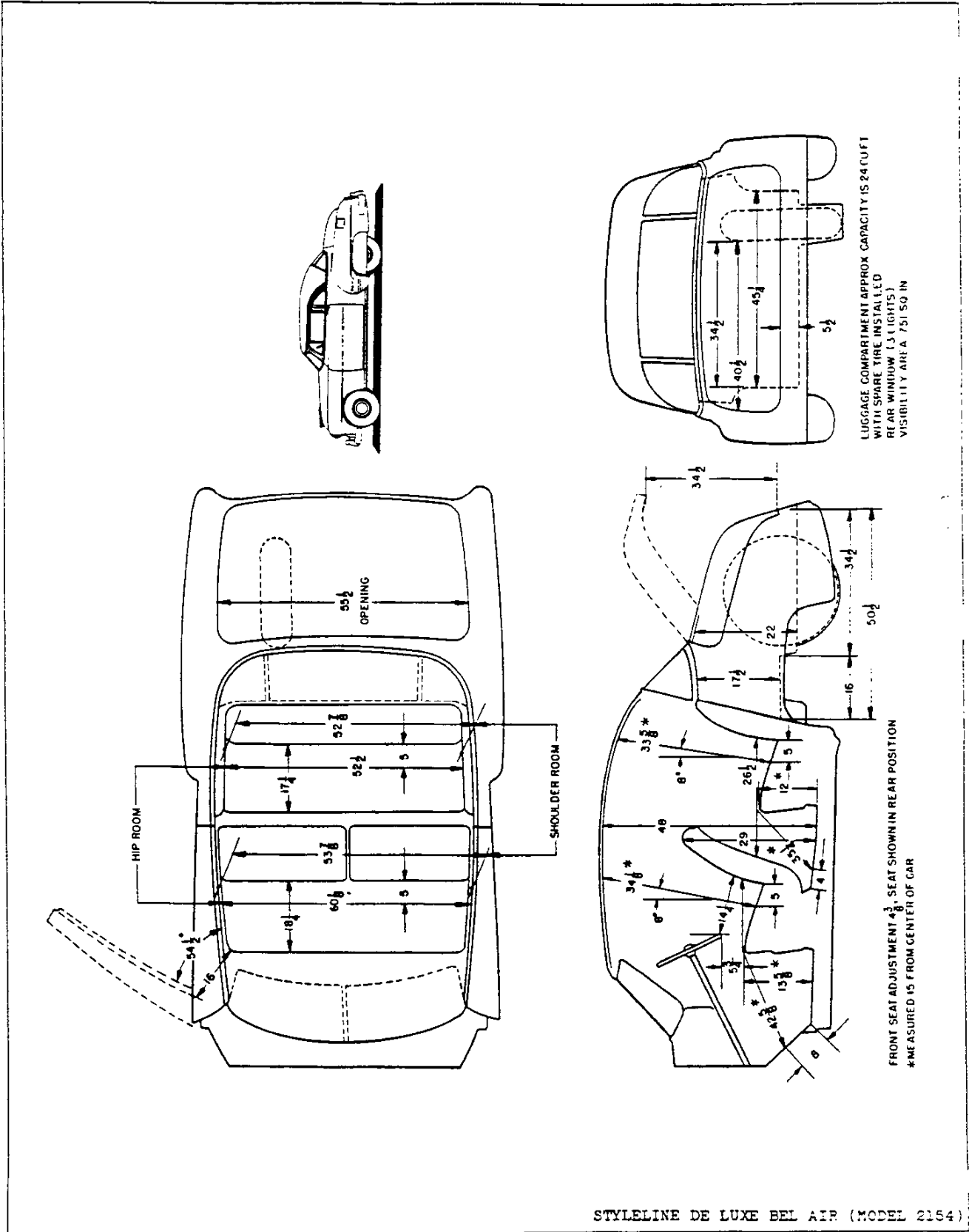
LUGGAGE COMPARTMENT APPROX CAPACITY IS 18 CU FT. WITH SPARE TIRE INSTALLED

FRONT SEAT ADJUSTMENT 16 1/2 SEAT SHOWN IN REAR POSITION  
 \*MEASURED 15 FROM CENTER OF CAR

STYLELINE DE LUXE CONVERTIBLE COUPE (MODEL 2134)

CONTINUED

**BODY INTERIOR DIMENSIONS—Continued**



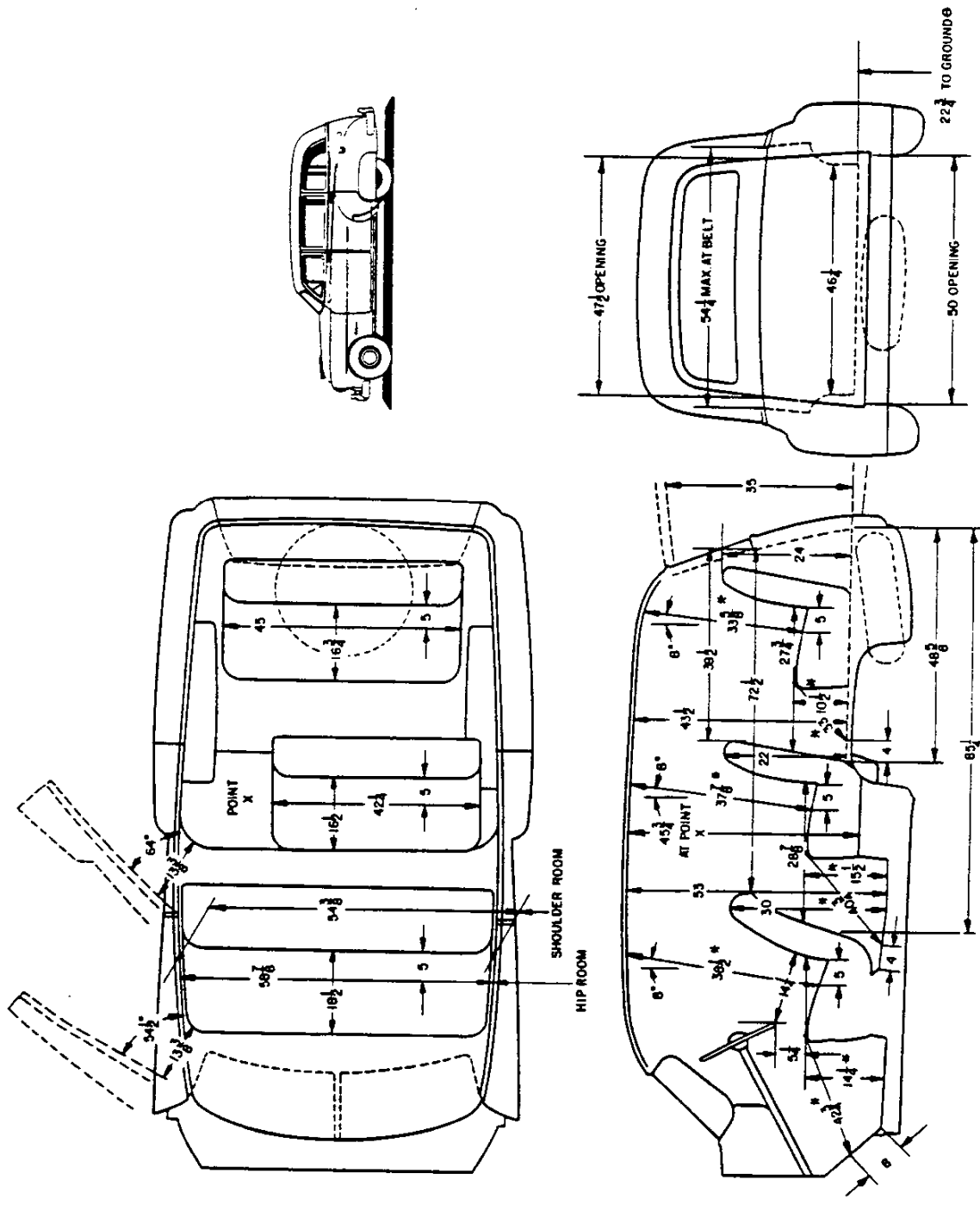
LUGGAGE COMPARTMENT APPROX. CAPACITY IS 24 CU FT WITH SPARE TIRE INSTALLED. REAR WINDOW (3 LIGHTS) VISIBILITY AREA 7.51 SQ IN.

FRONT SEAT ADJUSTMENT 4 1/2". SEAT SHOWN IN REAR POSITION. \*MEASURED 15" FROM CENTER OF CAR.

STYLELINE DE LUXE BEL AIR (MODEL 2154)

CONTINUED

**BODY INTERIOR DIMENSIONS—Continued**

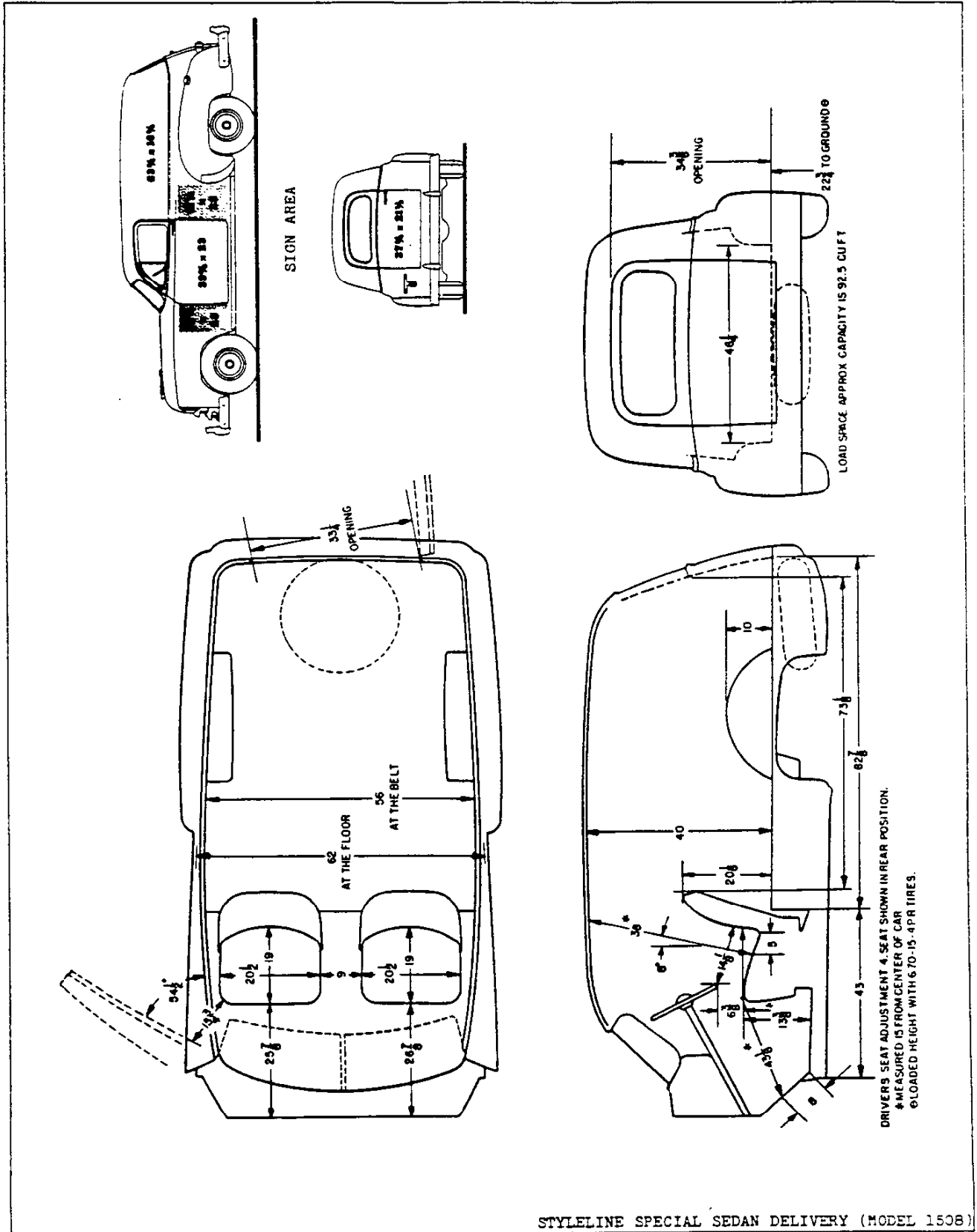


FRONT SEAT ADJUSTMENT SEAT SHOWN IN REAR POSITION  
 \* MEASURED IS FROM CENTER OF CAR  
 † LOADED HEIGHT WITH 6 70-15 6 PR TIRES

STYLELINE DE LUXE STATION WAGON (MODEL 2119)

CONTINUED

**BODY INTERIOR DIMENSIONS—Continued**



2-29-52

**REGULAR EQUIPMENT**

ITEM		MODELS	
Exterior	Bumpers and dual bumper guards, front and rear		
	Front license guard		
	Hood ornament and emblem		
	Chrome plated headlight rims and doors		
	Dual windshield wipers		
	Dual horns		
	Outside key locks, front doors and luggage compartment		
	Bumper gravel deflectors, front and rear		
	Rear fender shields	Black rubber	1500
		Stainless steel	2100
	Rear fender panels		
	Rear deck lid wing emblem with finger grip		
	Locking T handle on lift gate, name plate on tail gate		
	Dual tail and stop lamps		
	One license light in rear gravel deflector		
	Bright metal moldings	Belt	All; 2119 has short section of
		Sill	belt molding on front doors only
		Front and rear fenders and doors, with the word "De Luxe" in script on rear fenders.	2100 except 2119 which has the word "De Luxe" on front fenders and no molding on sides of rear fenders
		Rear fender full length crown	1508, 2119
		Windshield divider	All
		Rear window dividers	2154
		Drip molding	
		Reveals	Windshield 1508, 2100 Side window 2100 except 2119 Rear window 1508, 2100 except 2119-34
Outside rear view mirror, left hand			
Ventipane drip shields			
Bonderized body and sheet metal			
Interior (Also see page 23, INTERIOR UPHOLSTERY & COLOR COMBINATIONS)	Instrument panel	Glove box lock and light	2100; lock only on 1500
		Clock, stem wind	2100; a removable panel covers each space on 1500
		Cigarette lighter	
		Ash tray	2100
		Stainless steel inserts in control knobs (light, choke, and wiper)	2100; plain plastic on 1500
		Radio grille, chrome plated	All
		3-position ignition switch	
	Steering wheel	Two-tone finish	2100; plain gray on 1500
		3-spoke with horn button	1500
		2-spoke with full horn ring	2100
	Dual sunshades		
	Inside rear view mirror		
	Passenger compartment light		
	Automatic passenger compartment light switches		
	Two coat hooks		
	Assist straps		
	Robe cord		
	Arm rests, both fr doors & rr doors or quarter panels		
	Foam rubber seat cushion pads 1-1/4 thick, front & rear		
	Extra roof insulation		
	Rear seat ash tray	In front seat back	2103
		In quarter panel arm rests	2102-24-34-52-54
	Package shelf ahead of rear window		
Package shelf molding			

**REGULAR EQUIPMENT—Continued**

ITEM		MODELS	
Interior continued	Dual ventilators in dash	All	
	Adjustable front seat		
	Movable ventipanes		
		Front doors	2103
		Rear doors	
	Movable quarter windows	1502, 2102-19-24-34-52-54	
	Stainless steel inserts in window regulator knobs	2100	
	Etched aluminum step plates	2100, painted on 1500	
	"Body by Fisher" on front door step plates	2100, emblem on front seat of 1500	
Luggage compartment lighted by window in each tail light	All except 1508, 2119		
Seat springs	Continuous-S-shaped springs	All front; rear on sedans and coupes	
	Coil springs	Rear seats on 2134, 2154, 2119	

**BODY GLASS**

ITEM	1503	2103	1502 2102-24-52	1504-24	1508	2134	2154	2119
Windshield	Laminated safety plate, curved, 2 panes							
Front door	Ventipanes	Laminated safety plate						
	Windows							
Rear door	Ventipanes	Safety Solid plate						
	Windows							
Quarter windows			Laminated safety plate	Safety Solid plate			Laminated Safety plate	
Rear window			Safety solid plate, curved			Plastic	Safety Solid plate	

**EXTERIOR-INTERIOR COLOR COMBINATIONS**

Models 1502-03-04-08-24-52, 2102-03-24-52

Exterior Color	Onyx Black	Dusk Gray	Birch Gray	Admiral Blue	Twilight Blue #	Emerald Green	Spring Green	Sahara Beige	Regal Maroon
Instrument Panel Upper, Garnish Moldings, and Lock Buttons *	Dusk Gray	Dusk Gray	Dusk Gray	Admiral Blue	Admiral Blue	Emerald Green	Emerald Green	Dusk Gray	Regal Maroon
Trim Combination *	Gray	Gray	Gray	Blue	Blue	Green	Green	Gray	Gray
Wheel Stripes	Argent Silver	Argent Silver	Onyx Black	Argent Silver	Onyx Black	Argent Silver	Onyx Black	Onyx Black	Argent Silver

Models 1502-03-04-24, 2102-03-24

Exterior Color	Dusk Gray over Birch Gray	Emerald Green over Spring Green	Admiral Blue over Twilight Blue	Onyx Black over Regal Maroon
Instrument Panel Upper, Garnish Moldings, and Lock Buttons *	Dusk Gray	Emerald Green	Admiral Blue	Regal Maroon
Trim Combination *	Gray	Green	Blue	Gray
Wheel Stripes	Onyx Black	Onyx Black	Onyx Black	Argent Silver

\* - All 1500 Series have a two-tone gray interior.

# - Not available for Sedan Delivery.

Model 2154 Bel Air

Exterior Color	Onyx Black	Twilight Blue	Emerald Green	Honeydew	Spring Green over Emerald Green	Onyx Black over Regal Maroon	Onyx Black over Birch Gray	Onyx Black over Honeydew
Instrument Panel Upper, Garnish Moldings, and Lock Buttons	Regal Maroon	Admiral Blue	Emerald Green	Onyx Black	Emerald Green	Regal Maroon	Regal Maroon	Onyx Black
Trim Combination	Red and Gray	Blue	Green	Black and Gray	Green	Red and Gray	Red and Gray	Black and Gray
Wheel Stripes	Argent Silver	Onyx Black	Argent Silver	Onyx Black	Argent Silver	Argent Silver	Onyx Black	Onyx Black



**EXTERIOR-INTERIOR COLOR COMBINATIONS—Continued**

Model 2154 Bel Air (Continued)

Exterior Color	Beach White over Bittersweet	Birch Gray over Admiral Blue	Birch Gray over Twilight Blue	Birch Gray over Spring Green	Sahara Beige over Saddle Brown	Sahara Beige over Regal Maroon	Saddle Brown over Sahara Beige
Instrument Panel Upper, Garnish Moldings, and Lock Buttons	Bittersweet	Admiral Blue	Admiral Blue	Emerald Green	Saddle Brown	Regal Maroon	Saddle Brown
Trim Combination	Coral and White	Blue	Blue	Green	Brown and Tan	Red and Gray	Brown and Tan
Wheel Stripes	Bittersweet	Argent Silver	Onyx Black	Onyx Black	Argent Silver	Argent Silver	Onyx Black

Model 2134 Convertible

Exterior Color	Onyx Black	Birch Gray	Admiral Blue	Twilight Blue	Emerald Green
Top and Top Boot Color	Black	Blue	Gray	Blue	Tan
Instrument Panel Upper, Garnish Moldings, and Lock Buttons	Regal Maroon	Admiral Blue	Admiral Blue	Admiral Blue	Emerald Green
Trim Combination	Red and Gray	Blue	Blue	Blue	Green
Wheel Stripes	Argent Silver	Onyx Black	Argent Silver	Onyx Black	Argent Silver

Exterior Color	Spring Green	Sahara Beige	Saddle Brown	Cherry	Honeydew
Top and Top Boot Color	Green	Black	Tan	Black	Black
Instrument Panel Upper, Garnish Moldings, and Lock Buttons	Emerald Green	Saddle Brown	Saddle Brown	Onyx Black	Onyx Black
Trim Combination	Green	Brown and Tan	Brown and Tan	Black and Gray	Black and Gray
Wheel Stripes	Onyx Black	Onyx Black	Argent Silver	Argent Silver	Onyx Black

Model 2119 Station Wagon

Exterior Color, painted areas (remaining areas, simulated wood grain)	Emerald Green	Sahara Beige	Regal Maroon	Saddle Brown
Instrument Panel Upper, Windshield Garnish Molding	Emerald Green	Saddle Brown	Regal Maroon	Saddle Brown
Trim Combination	Brown and Tan			
Wheel Stripes	Argent Silver	Onyx Black	Argent Silver	Argent Silver

## INTERIOR UPHOLSTERY AND COLOR COMBINATIONS

### 1500 SERIES

#### SEDANS AND COUPES

Seats: Light gray checked pattern cloth, with plain light gray flat cloth on front seat back and sides except dark gray leather fabric on front seat back in Business Coupe.

Doors and quarter panels: Leather fabric in two shades of gray, with dark upper and lower panels and light center panel. Dark gray simulated leather fiber board quarter panels and rear partition in Business Coupe.

Instrument panel and garnish moldings: Metallic medium gray paint with light gray stripe across base of side window garnish moldings except quarter windows of coupes.

Steering column and wheel: Metallic dark gray paint.

Headlining and sunshade: Light gray cloth, with dark leather fabric grip and binding on sunshade.

Floor covering: Front and rear, wide rib pattern, gray rubber. Luggage compartment - black rubber.

#### SEDAN DELIVERY

Seats, (bucket type) and side doors: Dark gray leather fabric.

Headlining and sunshade: Light gray leather fabric. Headlining extends full length of body interior.

Load space side walls: Light gray fiber board.

Rear door inner panel: Steel, painted light gray.

Floor covering: Driver compartment floor area - black, wide rib pattern rubber. Load space - plywood, painted black.

### 2100 SERIES

#### SEDANS AND COUPES

Seats: Light tone chevron pattern cloth with the backrest lower panel covered with a dark tone broadcloth. Plain light tone flat cloth on front seat back and sides.

Doors and quarter panels: Plain light tone flat cloth covering with dark tone leather fabric scuff pads. On both top and bottom of the flat cloth is a stainless steel molding.

Arm rests: Dark tone leather fabric upper with a light tone plastic base.

Headlining and sunshades: Light tone plain napped cloth with dark tone leather fabric binding and grip on sunshades.

Instrument panel upper, garnish moldings and package shelf molding: See page 21.

Instrument panel lower: Light gray metallic paint

Steering column and wheel: Light gray metallic paint on column, gearshift lever, and wheel spokes. Black rim and hub ornament background.

Floor covering: Front - dark tone, wide rib pattern rubber. Rear - dark tone, moresque carpet. Luggage compartment - black rubber.

Floor covering: Front - brown rubber, wide rib pattern. Center seat floor area - brown rubber. Rear seat floor area and back to tail gate - brown linoleum. Bright metal skid strips on tail gate.

#### CONVERTIBLE

Seats (cushion and back rest), and arm rest tops (front seat): Genuine deep buff leather.\*

Front seat back and sides, doors and quarter panels, windshield pillars and header, scuff pads, rear seat arm rests, and inside of top well: Leather fabric.\*

Instrument panel upper and garnish moldings: See page 22.

Steering wheel rim and hub ornament: Same as instrument panel upper. (See page 22)

Instrument panel lower, steering column, and steering wheel spokes: Painted the color of light leather trim.

Side window frames: Bright metal finish.

Floor covering: Rubber, same color as dark leather trim.

#### BEL AIR

Seats (cushion and back rest): Novelty pattern cloth with genuine deep buff leather on bolsters and front arm rest tops.\*

Front seat back and sides, doors and quarter panels, windshield pillars and header, scuff pads, and rear seat arm rests: Leather fabric.\*

Package shelf: Fiber board with simulated leather finish in dark tone of interior color.

Headlining and sunshades: Light tone plain napped cloth with dark tone leather fabric binding and grip on sunshades.

Instrument panel upper and garnish moldings: See page 21.

Steering wheel rim and hub ornament: Same as instrument panel upper. (See page 21)

Instrument panel lower, steering column, and steering wheel spokes: Painted the color of light tone leather fabric.

Floor covering: carpet, same color as leather trim.

#### STATION WAGON

Seats and arm rests: Tan leather fabric with pigskin finish. Arm rest base is brown plastic.

Doors and quarter panels: Mahogany plywood with brown leather fabric scuff pads on doors.

Headlining and sunshades: Tan leather fabric with wood-grain finish.

Instrument panel upper and windshield garnish molding: See page 22.

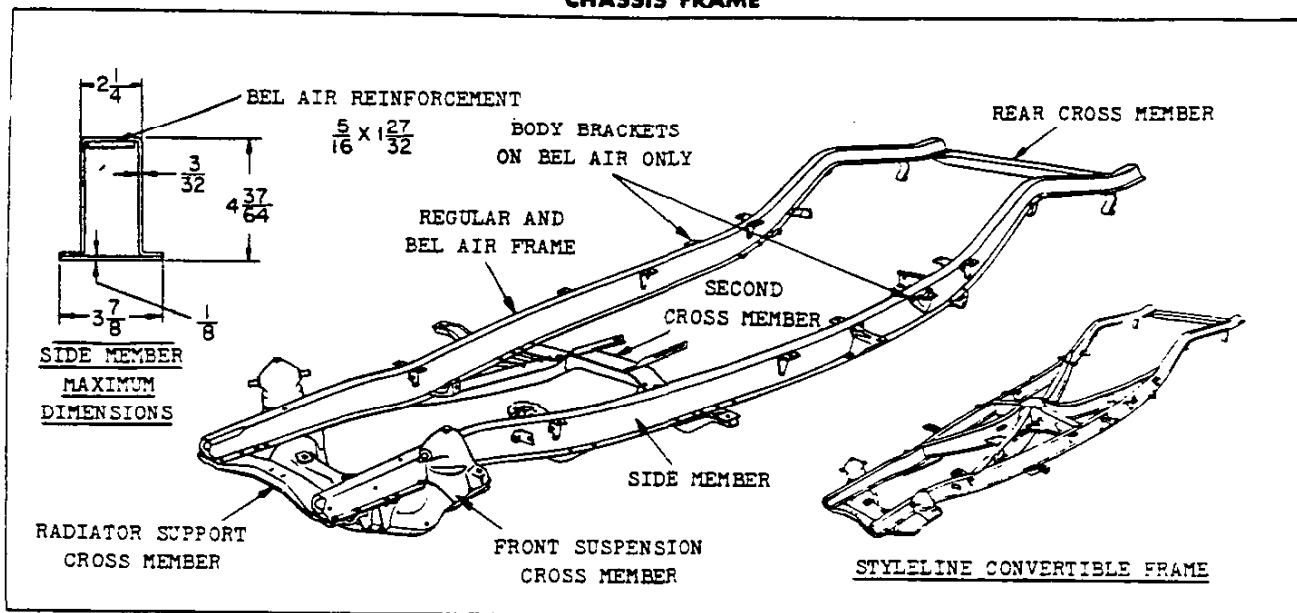
Steering wheel rim and hub ornament: Same as instrument panel upper. (See page 22)

Instrument panel lower, steering column, and steering wheel spokes and hub: Light tone of exterior color except when the exterior is Regal Maroon the color is light gray.

Window garnish moldings, roof bows, and rear gates: Light ash wood-grain finish.

\* - See page 21 for Interior - Exterior Trim and Color Combinations.

## CHASSIS FRAME



Make ----- Own  
 Type ----- Box girder  
 Construction:

Side members ----- Box girder, full length, deep flanged channel, with reinforcing plate across full width of channel flanges. The Bel Air is reinforced with steel plates 5/16 x 1-27/32, full length, welded to inside top of box section.  
 Radiator support cross member ----- Flanged channel section  
 Front cross member ----- Flanged semi-tubular type with a flat steel bottom plate across diametral width of the section.

Second cross member ----- Box girder, with box section braces to the side members.  
 Rear cross member ----- Box girder  
 Maximum overall length ----- 171-7/16  
 Maximum width (over side member flanges) ----- 47  
 Material ----- Hot rolled steel, pickled  
 Material yield point ----- 33,000 lb per sq.in.  
 Material elongation ----- 25% min in 2 inches  
 Side member section: 

	<u>Bel Air</u>	<u>All others</u>
Modulus (in. <sup>3</sup> ) -----	3.245	1.725
Moment of inertia (in. <sup>4</sup> ) -----	7.775	4.90

### CONVERTIBLE COUPE FRAME

The second cross member is replaced by a crossed X or VK structure of I-beam section members.

## FRONT SUSPENSION

Make ----- Own  
 Type ----- Independent SLA (short and long arm wishbone type), assembled and aligned as a complete suspension unit  
 Rated capacity ----- 2300 lb

### WHEEL TRAVEL

Vertical, loaded conditions --- 3-5/8 up, 4 down  
 Wheel to spring ratio ----- 1.65:1  
 Wheel travel for steering ----- 37° to 39° 30' from neutral to stop

SPRING BUMPERS  
 Type ----- Rubber (2, compression and rebound)

SHOCK ABSORBERS

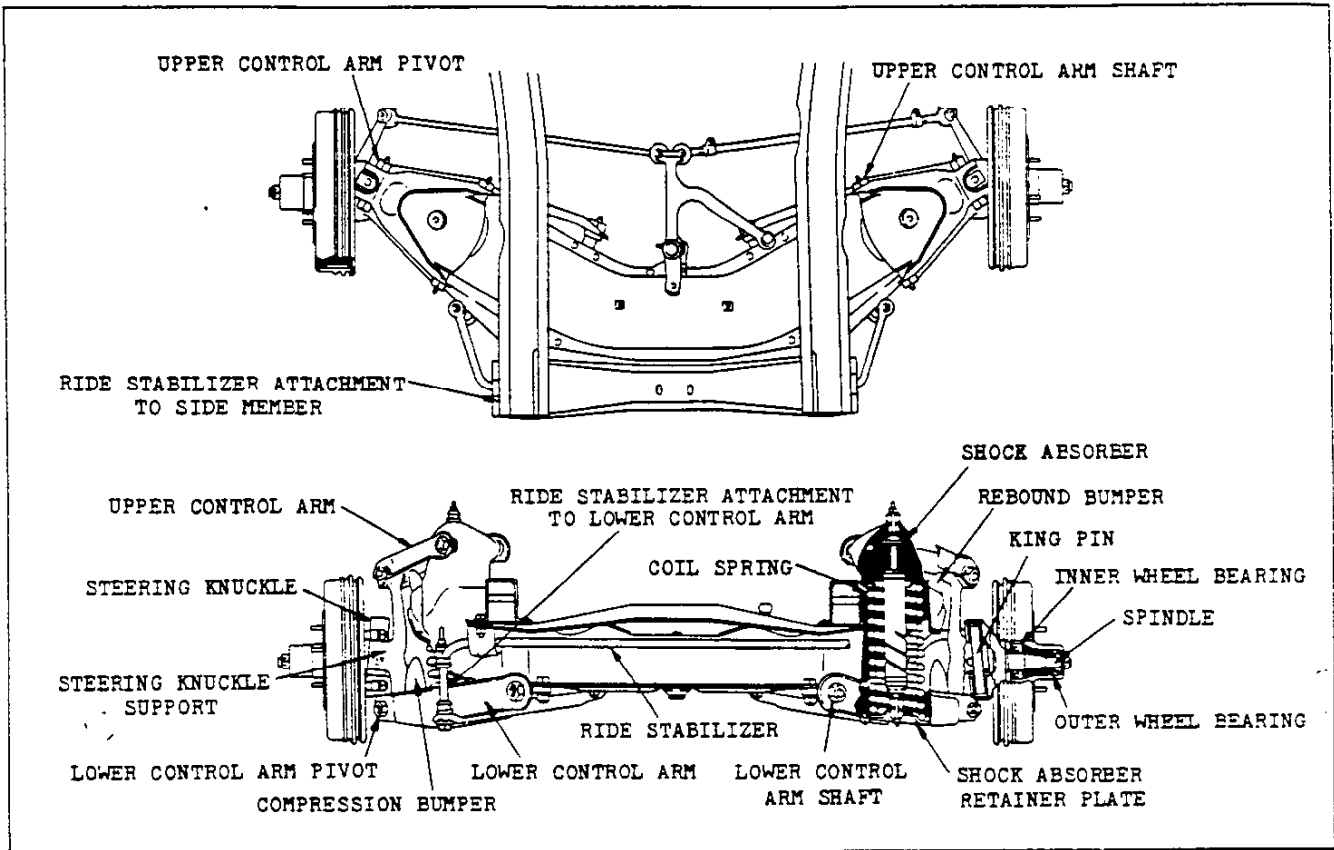
Make ----- Delco  
 Type ----- Direct, double-acting, hydraulic  
 Mounting ----- Vertically, from lower control arm through coil spring to dome of spring housing.  
 Model number ----- 536F  
 Valve code ----- 3C6/OL/L1  
 Piston diameter and travel ----- 1 x 4-11/16

SPRINGS		2134 and TAXICAB	ALL OTHERS
Make and type		Own, right hand helical coil	
Material and gauge		Chrome alloy steel .594-.598	Chrome alloy steel .586-.590
Number of coils		Total 11-1/4 - Active 9.45	Total 10.8 - Active 9
Diameters		Outside 4.390 - Pitch 3.802	Outside 4.390 - Pitch 3.796
Height		Free 14-3/8, Working 9-5/8 at 1550 lb	Free 14, Working 9-5/8 at 1400 lb
Height under curb weight		10-3/16	10
Capacity at ground (lbs)		1150	1060
Deflection rate	At spring	340 lb per in.	340 lb per in.
	At wheel	125 lb per in.	125 lb per in.

CONTINUED

2-29-52

**FRONT SUSPENSION—Continued**



**RIDE STABILIZER**

Type ----- Torsion bar  
 Attachment ----- Rubber-insulated, attached with brackets to bottom plates of frame side members, and rubber-insulated link bolts to brackets on front suspension lower control arms

**FRONT WHEEL ALIGNMENT (Service Data)**

Camber, caster - means of adjustment -----  
 ----- Upper pivot bolts  
 Camber ----- 0° - 1°  
 Caster ----- 0° - 1°  
 King pin inclination ----- 3°30' - 4°30'  
 Toe-in ----- 0 - 1/8  
 Toe-out on turns:  
 Outside wheel ----- 20°  
 Inside wheel ----- 22° - 26°

**STEERING KNUCKLE**

Type ----- Reverse Elliott  
 Spindle diameters:  
 At inner bearing ----- 1.2801-1.2806  
 At outer bearing ----- .7490-.7495

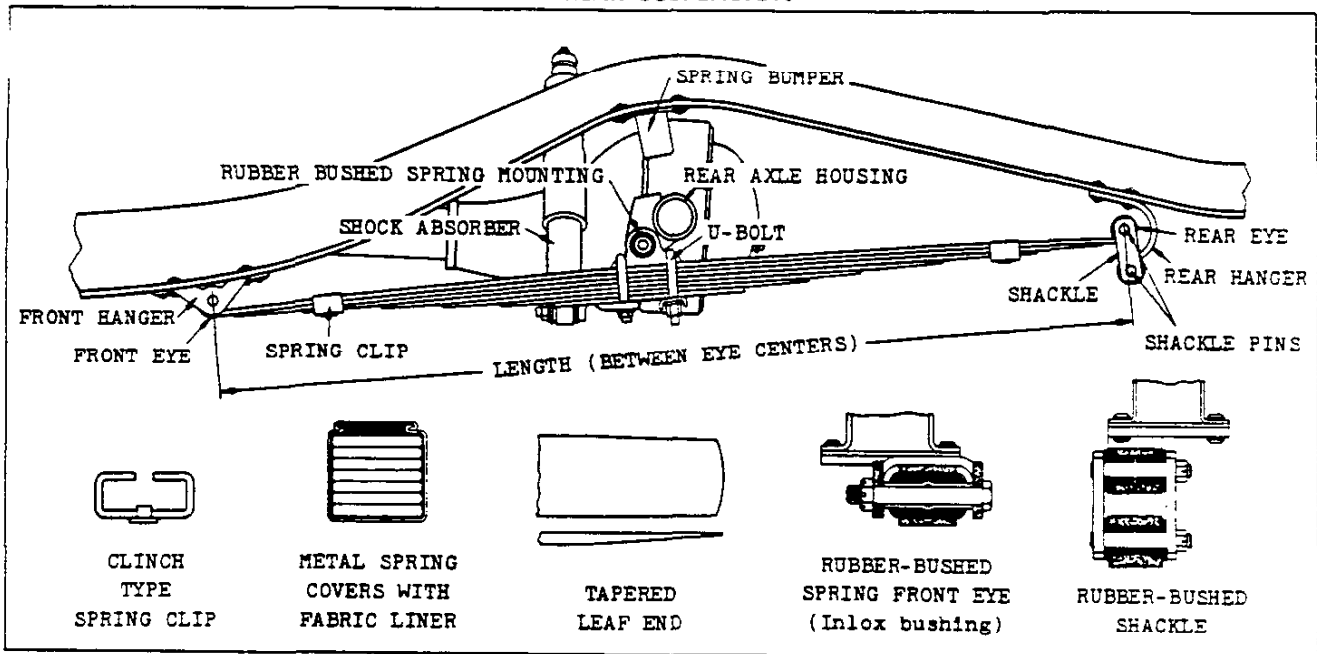
**KING PIN**

Diameter ----- .8660-.8665  
 Bushings:  
 Inside diameter ----- .867-.868  
 Length ----- 1-5/16

Wheel bearing lubricant -----  
 ----- High melting-point grease  
 Anti-friction bearings ----- See page 160

FRICTION BEARINGS	UPPER CONTROL ARMS				LOWER CONTROL ARMS				
	Pivot Bolt	Bolt Bushings	Shaft Bushings	Shaft Ends	Pivot Bolt	Bolt Bushings	Shaft Bushings	Shaft Ends	
Type	Threaded steel bushings								
Type of thread	11-pitch, special								
Thread major diameter	Front	.644-.662	.694 minimum	.774 minimum	.736-.740	.714-.732	.774 minimum	.889 minimum	.852-.862
	Center					.724-.742			
	Rear	.644-.662				.738-.756			
Mounting	Clamp lock							Self-locking threads	Bolted
Seal	Synthetic rubber, self-sealing								

### REAR SUSPENSION



### SPRINGS

Make and type ----- Own, semi-elliptic  
 Material ----- Chrome alloy steel  
 Length x width ----- 49 x 1-3/4  
 Spring clips ----- 2, clinch type  
 Spring covers ----- Metal with fabric liner

Item	All models except 1504-08, 2119		1504	1508 (RPO 254 on all others except 2119)	2119	RPO 254 on 1508 2119
	Number of leaves	7			8	
Thickness of leaves	#1-2-3-4			.237		
	#5-6-7			.214		
	#8			.262		
Total thickness	1.590			1.804	1.896	1.996
Avg design load at camber height	825 lb	750 lb		920 lb	1250 lb	1365 lb
Camber height at design load	5/8 negative	1 neg		5/8 negative		1-1/4 neg
Avg rate of deflection (lb/in)	108			115	145	165
Leaf end type	Tapered			Flat		
Capacity at ground (lb)	1075	945		1180	1455	1600

### SPRING MOUNTING

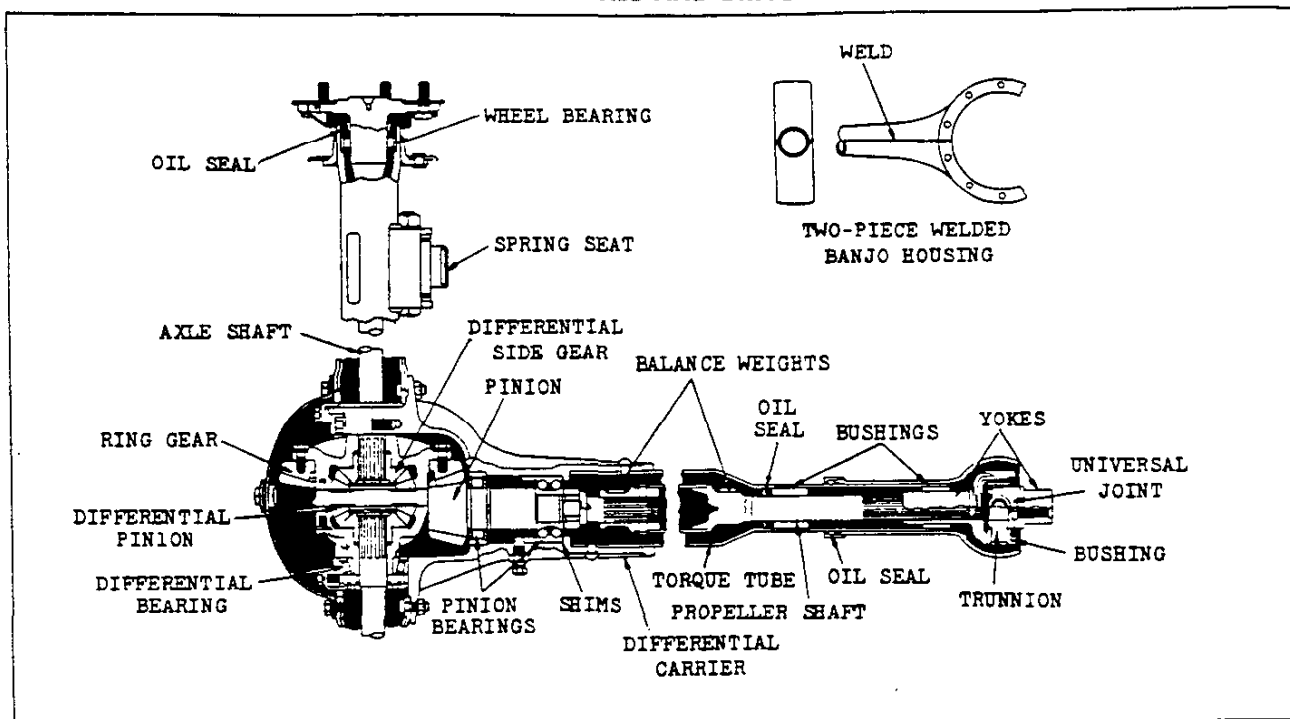
Type ----- Parallel, 45-1/4 between centers  
 Front eye bolt diameter ----- .500-.504  
 Front eye bolt bushing, type and size ----- Rubber-bushed, .505 min I D x 2.400-2.410 long  
 Shackle mounting ----- In tension from rear hanger  
 Shackle type ----- Rubber-bushed  
 Shackle pin O D ----- .498-.502  
 Shackle bushing size --- .850-.860 OD x 1.125-1.145; two per shackle pin; 2 in. long when assembled  
 Spring to axle attachment ----- 2 U-bolts (1/2 dia) to rubber bushed seat on rear axle housing

### SHOCK ABSORBERS

Make and type ----- Delco, hydraulic, direct double-acting  
 Model number ----- 561-V  
 Valve code ----- 4E6/OH/1  
 Piston diameter and travel ----- 1 x 8-3/16

2-29-52

## REAR AXLE AND DRIVE



REAR AXLE

Make ----- Own  
 Type ----- Semi-floating with torque tube drive through fully enclosed universal joint and propeller shaft  
 Rating ----- 3000 pounds  
 Drive medium ----- Chassis rear springs  
 Torque taken by ----- Torque tube  
 Housing type ----- Pressed steel banjo, 2-piece welded with pressed steel inspection cover  
 Lubricant capacity ----- 3-1/2 pints  
 Lubricant recommended ----- SAE 90 passenger car hypoid lubricant or "Multi-Purpose" lubricant  
 Final drive gears:

Type ----- Spiral hypoid  
 Ratio ----- 4.11:1  
 Teeth, ring gear and pinion ----- 37 and 9  
 Gear backlash ----- .005-.008

**Pinion gear:**

Mounting ----- Overhung  
 Thrust taken by ----- Pinion front bearing  
 Adjustment ----- Shims (average .033) in differential carrier forward of front bearing

ITEM	1st	2nd	3rd	rev
Total gear reduction *	12.08	6.90	4.11	12.08
Axle shaft torque (ft lb)@	1746	997	629	1746

Lock sleeve lock screw torque ----- 26-30 ft lb  
 Pinion fr brg ret nut torque ----- 200-240 ft lb

**AXLE SHAFT**

Type and material ----- Forged steel with

\* - Axle ratio x transmission ratio

@ - Gear reduction x engine maximum net torque x efficiency factor (.90 in direct drive, .85 all others)

wheel drive flange forged integral with shaft  
 Minimum diameter ----- 63/64  
 Oil seal ----- Steel-encased spring-loaded synthetic rubber seal  
**DIFFERENTIAL**  
 Type ----- Two-pinion, with malleable iron case and carrier  
 Bearing cap bolt torque ----- 65-80 ft lb  
**UNIVERSAL JOINT**

Make ----- Own  
 Type ----- Yoke and spider (trunnion)  
 Trunnion material -- Drop forged steel, hardened  
 Trunnion pin diameter ----- .5835-.6845  
 Bushing ID and length ----- .687-.688 x 17/32  
 Lubrication ----- From transmission

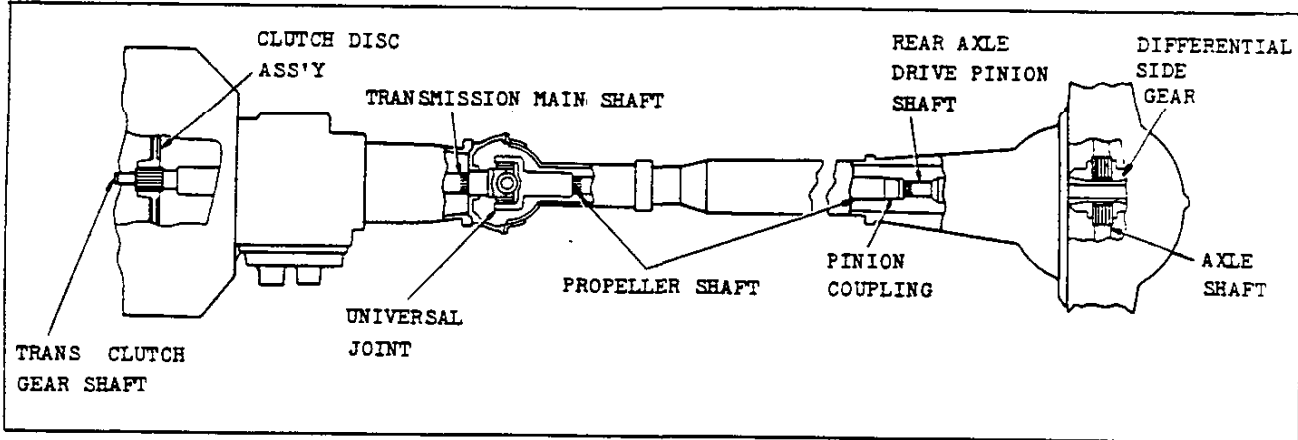
**PROPELLER SHAFT**

Make and type ----- Own, tubular  
 Tube OD ----- 1.995-2.005  
 Tube wall thickness ----- .062-.068  
 Shaft OD at inner bushing ----- 1.0642-1.0657  
 Torque tube bushings:  
 Matl --- Ball indented bronze in steel sleeve  
 Front, inner ID x length -- 1.0675 min x 1-13/32  
 Front, outer ID x length -- 1.3465 min x 1-1/8  
 Oil seal ----- Steel-encased spring-loaded synthetic rubber seal

**BEARINGS**

Anti-friction bearings ----- See page 160

## DRIVE SYSTEM SPLINES

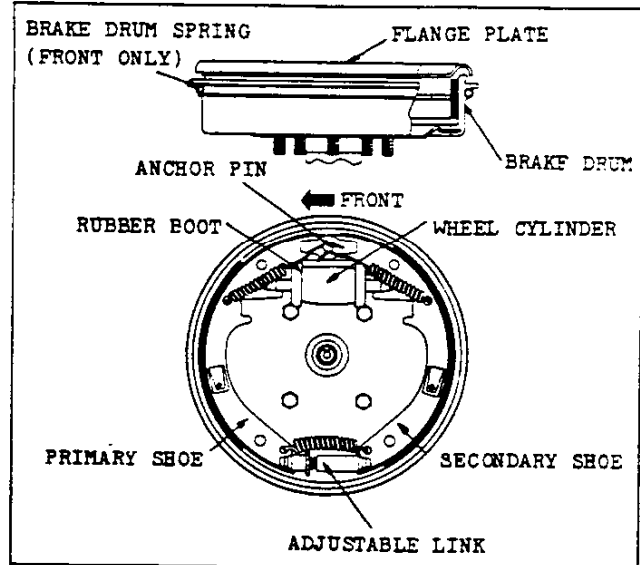


FUNCTION OF SPLINES	NUMBER AND TYPE OF SPLINES
Clutch disc hub to transmission clutch gear shaft	10 straight side
Transmission main shaft to U-joint front yoke	10 involute
U-joint rear yoke to propeller shaft front end	17 involute
Propeller shaft rear end to rear axle drive pinion shaft	17 involute
Differential side gears to rear axle shafts	10 straight side

## BRAKES

### SERVICE BRAKES

Make	Own
Type	Servo, four-wheel, hydraulic
Brake drum:	
Type	Composite (Cast alloy iron rim and pressed steel web)
Diameter, front and rear	11
Distribution of braking effort (theoretical):	
On front wheels	56%
On rear wheels	44%
Brake lining:	
Material	Full-molded asbestos composition
Width, front brakes	2
Width, rear brakes	1-3/4
Thickness (before grinding)	.202-.222
Length, per wheel	21
Length, primary shoe	9-5/16
Length, secondary shoe	11-11/16
Method of attachment to shoe	Bonded
Clearance	Adjust to light drag and back off fourteen notches
Total effective area	158 sq.in.
Main cylinder:	
Diameter	1
Piston travel	1.343
Wheel cylinder:	
Inside diameter, front	1-1/8
Inside diameter, rear	1
Piston travel	.148
Braking ratio:	
Pedal	4.85 to 1
Hydraulic	9.06 to 1
Total overall	43.95 to 1



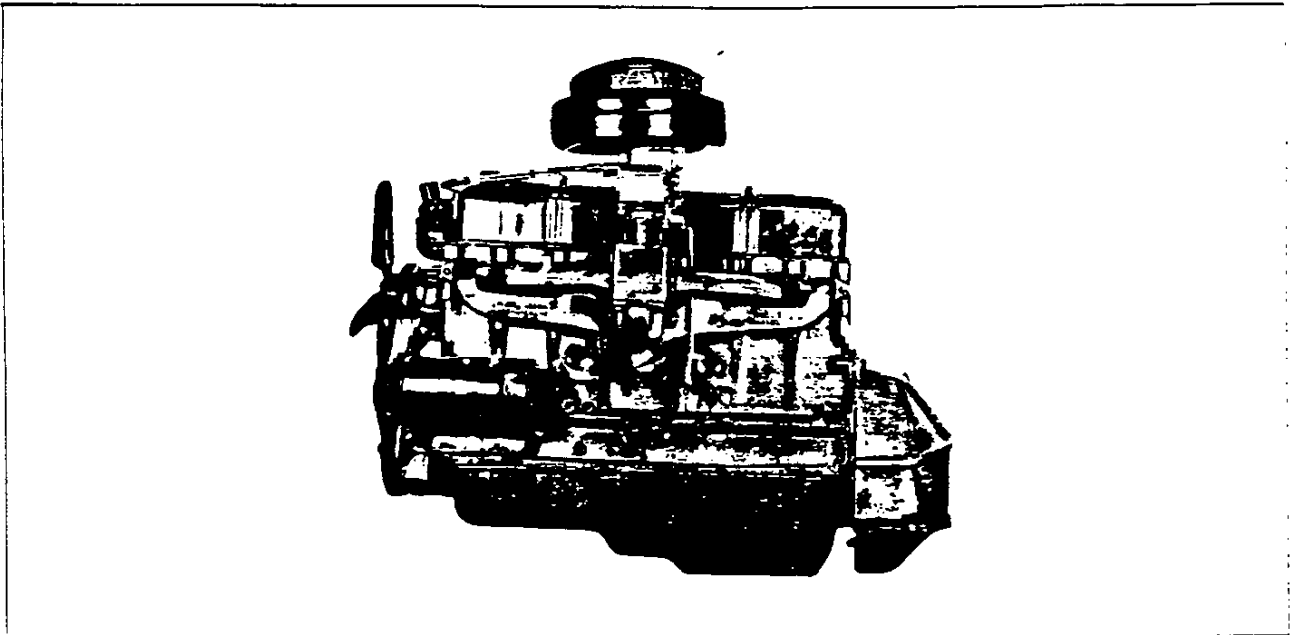
Foot pedal:	
Travel	6-17/32
Mounting	With main cylinder to frame
Pad cover material	Rubber
Brake system fluid capacity	.70 pint approx
Brake fluid recommended	Delco Super #9
Vacuum booster	None

### PARKING BRAKE

Make and type	Own, mechanical. Pull rods and cables operate the two rear service brakes.
Total effective lining area	74 sq.in.
Control	L-handle on ratchet-rod (pull to apply, turn 60° clockwise to release), mounted below instrument panel at right of steering column.

2-29-52

## ENGINE—GENERAL



### BASIC DESIGN DATA

Type ----- Valve-in-head  
 Number of cylinders ----- 6  
 Bore and stroke (nominal) ----- 3-1/2 x 3-3/4  
 Piston displacement (cu.in.) ----- 216.5  
 Compression ratio (no option) ----- 6.6:1  
 Taxable (SAE) horsepower ----- 29.4  
 Idling speed (RPM) ----- 450-500  
 Compression pressure at cranking speed, engine hot (PSI) ----- 110 at 125 RPM

### ENGINE SPEED AND PISTON TRAVEL

Rear axle ratio	4.11:1	
Tires	6.70-15	
Crankshaft revolutions per mile	3074	
Crankshaft	1st	151
RPM at one	2nd	66
mile per hour	3rd	51
Piston travel (feet per mile)	1921	

### ADVERTISED MAXIMUM ENGINE PERFORMANCE

Gross brake horsepower ----- 92 at 3400 RPM  
 Net brake horsepower ----- 85 at 3300 RPM  
 Gross torque (ft lb) --- 176 at 1000 to 2000 RPM  
 Net torque (ft lb) ----- 170 at 1000 to 2000 RPM

### DRY WEIGHTS

Engine and clutch (pounds) ----- 575  
 Engine, clutch and transmission (pounds) -- 631

### ADVERTISED CAR PERFORMANCE

The following information is based on the lowest-priced four-door sedan in each line, with each vehicle at performance weight (curb weight, plus 600 pounds to represent four passengers):

#### STYLELINE

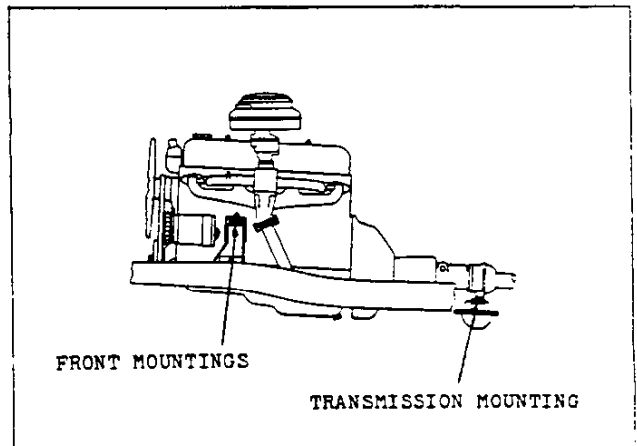
Performance weight (pounds)----- 3875  
 Pounds/gross horsepower ----- 42.11  
 Pounds/cu.in. piston displ ----- 17.90  
 Gross horsepower/cu.in. displ ----- .42  
 Power displacement (cu. ft/mile)\* ----- 193  
 Displ factor (cu. ft/ton mile)@ ----- 99.4

\* -  $\frac{\text{Crankshaft rev/mile} \times \text{piston displ}}{1728}$

@ - Power displacement ÷ performance weight in tons.

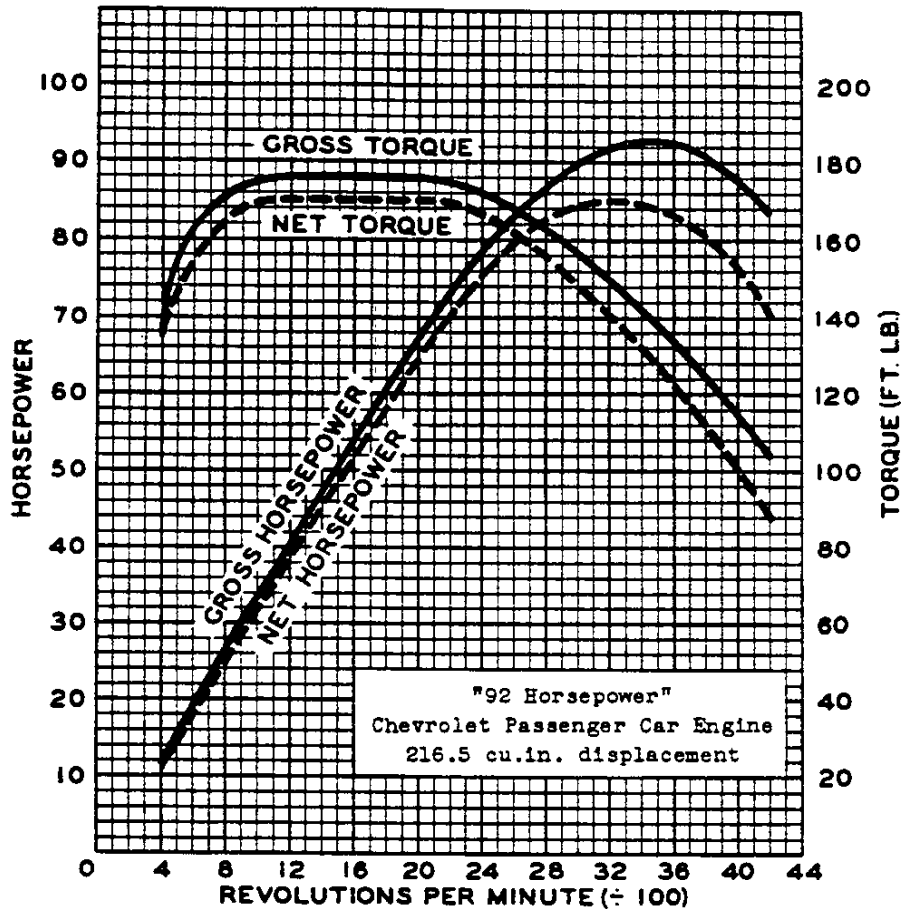
### POWER PLANT MOUNTING

Type ----- Rubber-cushioned, three-point support, with high side front mountings





## ENGINE PERFORMANCE



The engine performance curves shown on this sheet are taken from Chevrolet engine test report 16042-35. They represent the full throttle performance of a 92 Horsepower Chevrolet passenger car engine (216.5 cu.in. displacement) as obtained from dynamometer test data which were corrected to the standard barometric pressure of 29.92" Hg. and the standard temperature of 60° F.

GROSS POWER and TORQUE were obtained in a regular dynamometer test with the dynamometer exhaust system, no fan, generator not charging, and optimum spark advance.

NET POWER and TORQUE were obtained from a dynamometer test simulating actual operating conditions when the engine is in its vehicle. It includes the use of the regular muffler and pipes, the fan in operation and automatic spark advance. The generator is not charging.

February 22, 1952  
The data on this sheet are true as represented.  
CHEVROLET - CENTRAL OFFICE - ENGINEERING DEPT.  
DIVISION OF GENERAL MOTORS CORPORATION

*W. T. Burwell*  
W. T. Burwell  
Design Engineer

State of Michigan  
County of Wayne

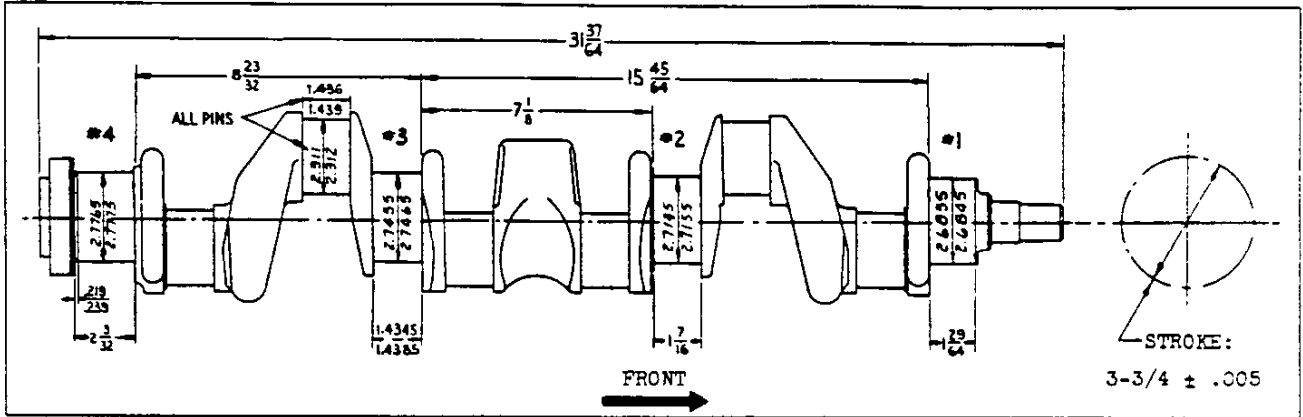
On this 22nd day of February 1952 personally appeared before me, W. T. Burwell, known to me to be such, who makes oath that the data on this sheet are true as represented.

*H. W. Woodward*  
Notary Public, Wayne County  
My commission expires August 2nd, 1953

### CYLINDER CASE AND HEAD

Material ----- Cast alloy iron    Bore diameter ----- 3.4995-3.5015  
 Offset ----- None    Cyl head bolt torque (service) ----- 70-80 ft lb

### CRANKSHAFT AND BEARINGS



#### CRANKSHAFT

Material ----- Drop-forged steel  
 Weight ----- 70 lb.  
 End play ----- .003-.009  
 Counterweights ----- 7

#### HARMONIC BALANCER (Vibration Dampener)

Type ----- Oscillating (Rubber-floated)  
 Fan drive pulley diameter ----- 6-1/32

#### MAIN BEARINGS

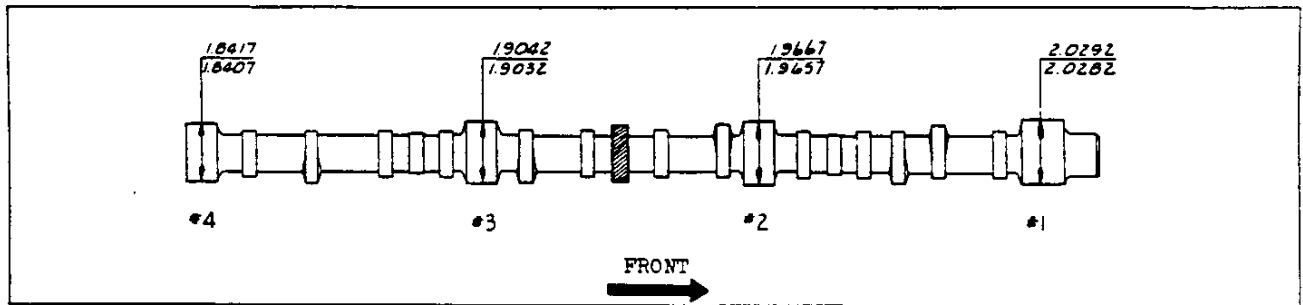
Material ----- .003-.007 babbitt on steel shell  
 Type ----- Precision interchangeable

Removable ----- From below  
 Necessary to align ream? ----- No  
 Clearance ----- .0007-.0028 fit with solid shims  
 End thrust against ----- #3 bearing  
 Bearing cap bolt torque -----  
 ----- 100-110 ft.lb. with ciled threads

Brg.	Inside dia.	Length	Proj. Area@
#1	2.6850-2.6866	1-3/16	2.758 sq.in.
#2	2.7160-2.7176	1-1/8	2.595 sq.in.
#3	2.7470-2.7486	1.4295-1.4315	2.793 sq.in.
#4	2.7780-2.7796	1-5/8	4.071 sq.in.

\* - Based on effective length, i.e. overall length shown above, less oil groove and chamfers.

### CAMSHAFT AND BEARINGS



#### CAMSHAFT

Material ----- Drop-forged Steel  
 Minimum diameter ----- 1-3/32  
 End play ----- Free to .003 maximum  
 Ramp-inlet ----- .0111  
 -exhaust ----- .014

#### DRIVE

Make ----- Own  
 Type ----- Helical gear  
 Driven gear (on camshaft) material -----  
 Bakelite and fabric composition with steel hub  
 Drive gear (on crankshaft) material ----- Steel

#### BEARINGS

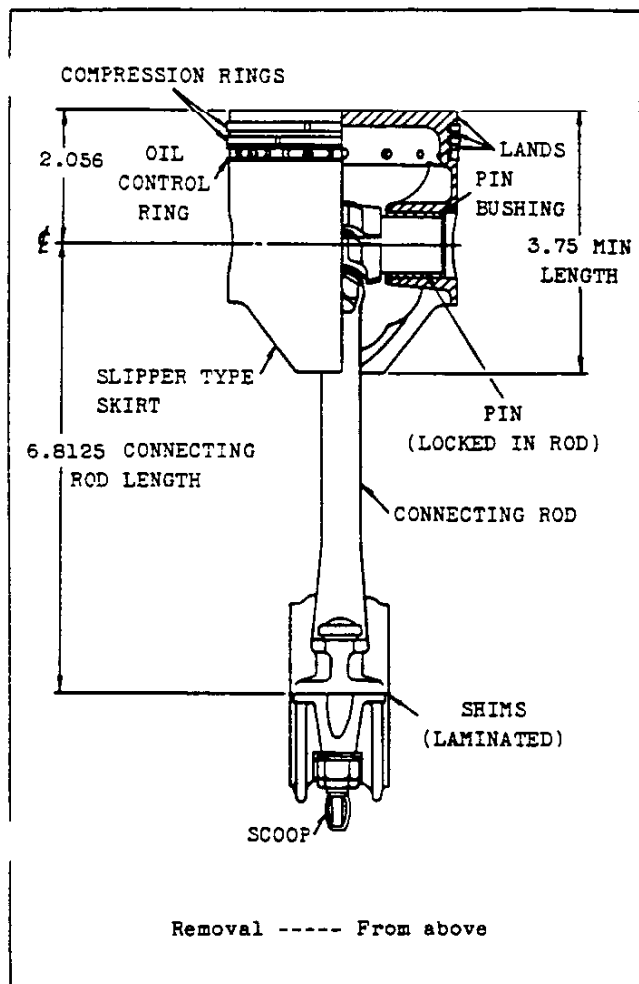
Material ----- Steel-backed babbitt  
 Clearance on diameter ----- .0015-.0035  
 Thrust taken by ----- Thrust plate between driven timing gear and camshaft #1 journal front face

Brg	Inside Dia	Length	Proj Area@
#1	2.0307-2.0317	1-1/8	2.225 sq.in.
#2	1.9682-1.9692	15/16	1.846 sq.in.
#3	1.9057-1.9067	15/16	1.787 sq.in.
#4	1.8432-1.8442	15/16	1.725 sq.in.

@ - Based on overall length shown above.

2-29-52

## PISTON-PIN-RINGS



Compression ring groove depth ----- .157-.164  
 Oil ring groove:  
   Depth ----- .170-.177  
   Holes-number and size ----- 14, 5/32 drill  
 Head thickness at center ----- .180-.190  
 Piston pin bushings:  
   Type ----- Pressed into piston  
   Material ----- Cast bronze  
   Inside diameter ----- Slip fit on pin  
   Length (each) ----- 15/16  
   Finish ----- Diamond bored  
 Weight of piston less bushings ----- 1.75 lb  
 Weight of piston and bushings (assy) --- 1.862 lb  
 Weight of piston, bushings, rings, pin and connecting rod upper end x 6 (units/eng) -- 16.66 lb

### PISTON PIN

Material ----- Chromium steel (file hard case)  
 Diameter ----- .8645-.8650  
 Length ----- 3.135-3.185  
 Taper limit in full length ----- .0002  
 Weight ----- .312 lb.  
 Clearance in bushing ----- Slip fit

### COMPRESSION RINGS

Material ----- Cast alloy iron, surface-treated with a wear-resistant coating  
 Type ----- Taper face  
 Number per piston ----- Two  
 Width ----- .1235-.1240  
 Wall thickness ----- .155 max.  
 Gap clearance ----- .005-.015  
 Ring clearance in groove ----- .0015-.003  
 Weight (each) ----- .05-lb.

### PISTON

Make ----- Own  
 Features ----- Flat head, oval, slipper skirt  
 Material ----- Cast alloy iron, surface-treated with wear-resistant coating  
 Skirt clearance in cylinder bore --- .0012-.0020  
 Feeler gage fit --- pass on .0015, hold on .0025  
 Diametrical relief at lands ----- .015-.023

### OIL CONTROL RING

Material ----- Cast alloy iron  
 Type ----- Wide-slot  
 Width ----- .1860-.1865  
 Wall thickness ----- .155 max.  
 Gap clearance ----- .005-.015  
 Ring clearance in groove ----- .0020-.0035  
 Weight ----- .05 lb.

## CONNECTING RODS

Type ----- Rod clamps piston pin  
 Material ----- Drop-forged steel  
 Assembly center of gravity -- 5.325 from piston pin  
 Rod width at piston pin ----- 1.125-1.127  
 Rod width at crankpin ----- 1.4275-1.4315

Clearance on diameter ----- .0003-.0013  
 Projected area per rod -- (based on effective length) ----- 2.490 sq.in.

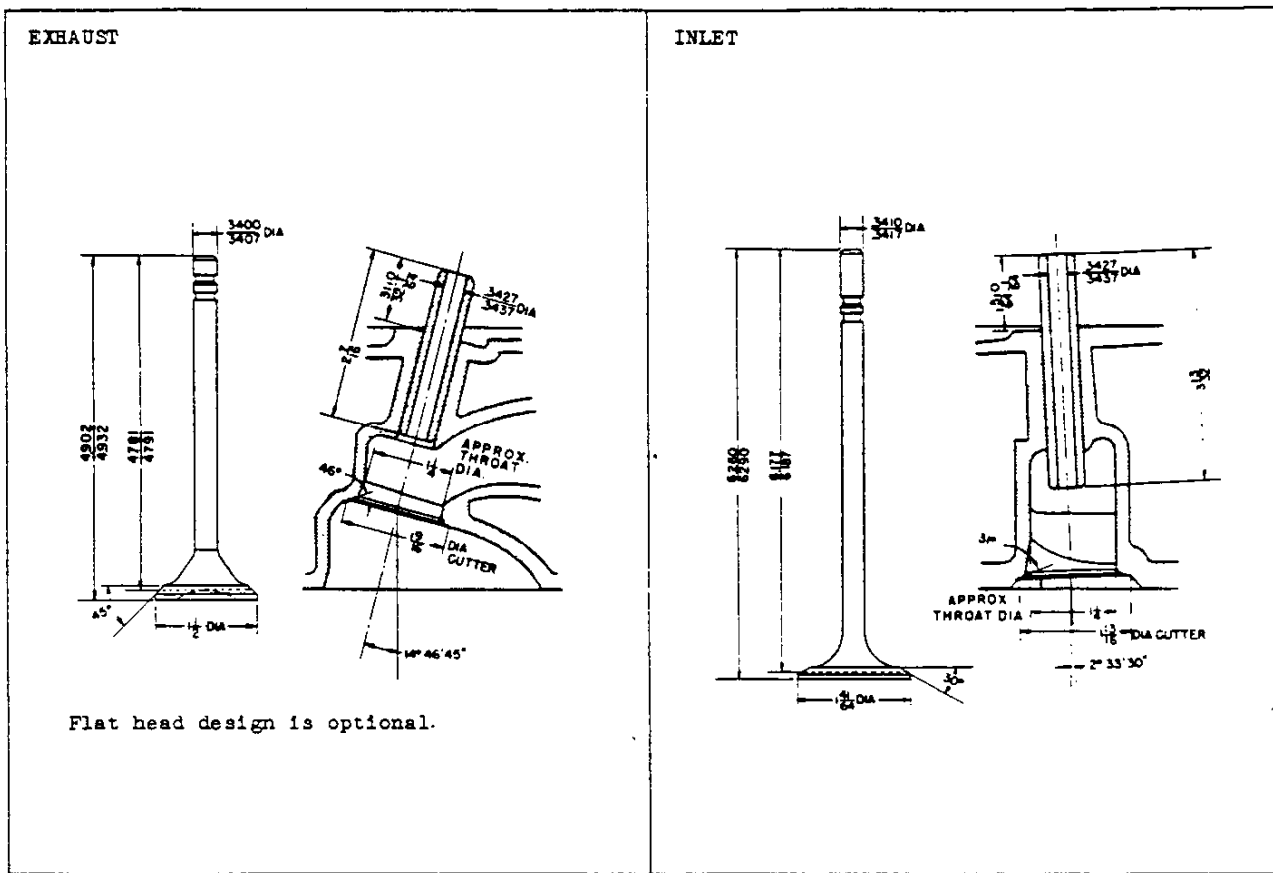
### Crankpin bearing:

Type ----- Spun (Centrifugally cast)  
 Material ----- High lead babbitt  
 Diameter ----- 2.3135-2.3140  
 Effective length---- (overall length less oil groove and chamfers) ----- 1.076

Assembly weight ----- 1.95 lb.  
   Upper end weight ----- .45 lb.  
   Lower end weight ----- 1.50 lb.  
 Total rotating weight of connecting rods (weight of lower end x 6) ----- 9.00 lb.  
 End play ----- .004-.012  
 Recommended nut torque, with oiled threads ----- 40-50 ft.lb.

2-29-52

## VALVE TRAIN



### VALVES

Make ----- Own  
 Material: Exhaust valve ----- Silchrome steel  
 Inlet valve -- Silchrome or Nickel-chrome stl  
 Stem end style --- Grooved for keys and oil seal  
 Lift: Exhaust valve ----- .3118  
 Inlet valve ----- .2941  
 Face angle: Exhaust valve ----- 45°  
 Inlet valve ----- 30°  
 Distance between valve centers -----  
 --- 1-21/32 (measured along centerline of engine)  
 Valve lash (engine normalized):\*  
 Exhaust ----- .013  
 Inlet ----- .006  
 \* - To normalize engine, run it at fast idle (approximately 600 RPM) until a constant oil temperature is maintained for a period of five minutes

### VALVE SEATS

Material ----- Cast alloy iron (cylinder head)  
 Inserts ----- None  
 Angle: Exhaust seat (in head) ----- 46°  
 Inlet seat (in head) ----- 31°  
 Width in head: Exhaust seat ----- .062-.093  
 Inlet seat ----- .035-.060  
 Cooling ----- Jets of water under pressure

2-29-52

### TAPPETS

Type ----- Cylindrical  
 Material ----- Cast alloy iron  
 Outside diameter ----- .989-.990  
 Lift: Exhaust ----- .2111  
 Inlet ----- .1991  
 Clearance ----- Selective fit  
 Hydraulic valve lifters ----- None

### VALVE STEM GUIDES

Type ----- Removable  
 Clearance with stem: Exhaust ----- .002-.0037  
 Inlet ----- .001-.0027

### VALVE ROCKER ARMS

Material ----- Cast malleable iron  
 Ratio (cam lift to valve lift) ----- 1.477:1  
 Torque of valve rocker shaft support bolts and nuts ----- 25-30 ft lb  
 Bearing: Type ----- Machined in rocker arm  
 Inside diameter ----- .7922-.7935  
 Length ----- 15/16

### VALVE SPRINGS

#### LENGTH AND PRESSURE

Valve closed ----- 1.821 at 53-63 lb  
 Valve open ----- 1.505 at 124-140 lb  
 Free (out of engine) length ----- 2-1/8

## ENGINE LUBRICATION SYSTEM

### METHOD OF LUBRICATION

Type ----- Chevrolet "Specialized" (pressure, pressure stream and splash)  
 Main bearings --- Direct pressure through drilled passages in the cylinder case to the bearings  
 Camshaft bearings ----- Direct pressure through passages from main bearings  
 Timing gears ----- Sprayed by nozzle which is fed oil from the camshaft front bearing  
 Connecting rod bearings ----- Pressure streams directed against connecting rod scoops  
 Cylinder bores and piston pins ----- Splash  
 Valve mechanism ----- Pressure:  
 Oil flows from the main oil gallery through drilled metering passage, past pressure relief hole (to regulate pressure), through metering hole in pipe fitting, piped through water jacket (for temperature conditioning) to rocker shaft and arms. Valve stems, springs and push rod ends are gravity fed from rocker arms.

### OIL PUMP

Type and drive ----- Gear, from camshaft  
 Capacity (gallons per minute, hot oil) -----  
 ----- 7.16 at 4000 engine RPM  
 Normal oil pressure ----- 14 PSI at 2000 engine RPM (equivalent to 39 MPH, high gear)

### FUEL TANK

Type ----- 2 stamped pans, seam-welded together  
 Capacity ----- 16 gallons  
 Mounting --- Supported by two straps attached to underbody below luggage compartment on sedans and coupes, and between the rear axle and spare tire well on Sedan Delivery and Station Wagon  
 Filler: Location ----- In left rear fender  
 Type -- Vented with overflow signal, all models except the Sedan Delivery and Station Wagon  
 Protection ----- Door in fender, all models except the Sedan Delivery and Station Wagon  
 Fuel gauge, tank unit, make and type -- AC, electric

### FUEL PUMP

Make, model ----- AC, model AF  
 Type ----- Mechanical (diaphragm) "high reserve"  
 Drive ----- From camshaft  
 Arm movement ----- 1/4 at camshaft  
 Air dome ----- Yes (inlet and outlet)  
 Filter ----- 120 mesh screen in dome  
 Pressure at carburetor ----- 3-1/2 to 4-1/2 PSI

### FUEL AND VACUUM PUMP - RPO 340

Make, model ----- AC, model DB  
 Pressure at carburetor ----- 3-1/2 to 4-1/2 PSI  
 Other fuel pump specifications ----- See above  
 Vacuum pump type --- Operates only when manifold vacuum is insufficient for windshield wiper action

Oil pressure relief valve opens at ----- 60 PSI  
 Cleaner type ----- 20 mesh, .015 non-corrosive steel wire screen, with by-pass

### MISCELLANEOUS

Oil filler ----- Through valve rocker cover  
 Crankcase oil level gauge type ----- Rod  
 Oil pressure gauge ----- In instrument cluster  
 Crankcase ventilator type ----- Suction  
 Oil filter (RPO 237):  
 Make ----- AC  
 Capacity (dry) ----- 1 qt  
 Flow ----- Approximately 20 gal/hr  
 Oil cooler ----- None

### OIL PAN

Capacity ----- 5-1/2 qt, dry; 5 qt, for refill  
 Drain ----- Drain plug in rear of pan  
 Torque, corner bolts ----- 12-1/2 - 15 ft lb  
 Torque, flange screws ----- 6 - 7-1/2 ft lb

### LUBRICANT RECOMMENDED

Temperature	Grade
Not lower than 32°F -----	20W or SAE 20
As low as 10°F -----	20W
As low as minus 10°F -----	10W
Below minus 10°F -----	5W when available, or 10W plus 10% kerosene

## FUEL AND EXHAUST SYSTEMS

### CARBURETOR

Make, model ----- Rochester Products, 7004477  
 Type --- Single adjustment, balanced, downdraft  
 SAE flange (nominal size) ----- 1-1/4  
 Size (main venturi throat ID) ----- 1-7/32  
 Choke ----- Manual, with fast idle link  
 Idle adjustment, number of turns ----- 1 - 2-1/2  
 Float level --- 1-5/16, bottom of float to cover

### INTAKE MANIFOLD

Manifold heat control ----- Automatic (thermostatic)

### OCTANE SELECTOR

Type --- On distributor assy, manual, 20° range

### AIR CLEANER

Regular or RPO	Regular	216C	216F
Flame arrester	Yes		
Silencer	Yes		
Filter element	Copper ribbon	Cactus fiber	
Oil bath	No	1 lb dirt cap.	
Used with gov	No	No	Yes

### EXHAUST SYSTEM

Muffler: Make ----- Various  
 Type -- Diffusion and resonance, reverse flow  
 Size (body outside) --- 5-1/16 x 7-5/16 (oval) x 16  
 Exhaust pipe: Type ----- Unitized, welded to muffler  
 Outside diameter ----- 1-7/8  
 Tail pipe inside diameter ----- 1-11/16  
 Mounting ----- Two point rubber suspension

2-29-52

## ENGINE COOLING SYSTEM

### METHOD OF COOLING

Cylinder cooling ----- Full stroke length water jacket with water completely around each cylinder  
 Valve seat cooling ----- "Nozzle jet" system directs water under pressure against seats  
 Cooling system capacity ----- 15 qt  
 Pressurized cooling system ----- Yes

### RADIATOR CORE

Make and type ----- Harrison, ribbed cellular  
 Material ----- All copper  
 Size ----- .250 x .560 x 2  
 Frontal area ----- 408.08 sq. in.  
 Radiator pressure cap ----- 3-1/2 to 4-1/2 lb  
 Drain cocks:  
 Number used and size ----- Two, 1/4 (one at bottom of radiator - right front side, and one at rear of cylinder block - left side)

### RADIATOR HOSE

Item	Inlet	Outlet
Location	Cyl head to rad	Rad to water pump
Quantity	1	1
Type	Molded elbow	Compound curve
ID	1-1/4	1-1/2
Length	6-3/4 (developed)	16-1/2 (developed)
Material	Fabric reinforced rubber	
Spring Re-inforcement	None	Brass coil spring 12-5/8 long

### WATER THERMOSTAT

Make ----- Harrison  
 Type ----- Bellows operated poppet valve  
 Location ----- In cylinder head water outlet  
 By-pass for recirculation ----- None  
 Action of thermostat valve at 29" Hg barometric pressure:  
 Starts to open, °F ----- 148-156  
 Fully open, °F ----- 176

### ENGINE FAN

Make and type ----- Own, 4 staggered blades  
 Diameter ----- 15-3/4  
 Pulley size ----- 28°V x 4-21/64 outside dia  
 Fan to engine speed ratio ----- 1.405:1  
 Fan belt: Material, size --- 1-piece, reinforced rubber, 11/16 width, 42-7/8 outside length  
 Angle of V ----- 34°-36° wrapped molded, 30°-32° cut molded

### WATER PUMP

Type and drive -- Centrifugal, driven by fan belt  
 Location ----- On front of cylinder and case  
 Capacity ----- 47 gal/minute at 4000 engine RPM  
 Impeller type ----- Vane  
 Water pump and fan, bearing and shaft assembly:  
 Lubrication ----- Permanently lubricated  
 Bearing, anti-friction ----- See page 160  
 Seal -- Molded rubber, sealed with rubber cement  
 Seal adjustment --- Automatic, by spring tension

## ENGINE ELECTRICAL SYSTEM

### GENERATOR

Make and model -- Delco-Remy, 1102749 or 1102790  
 Type ----- 2-brush, shunt-wound  
 Rated voltage ----- 6-8  
 Ventilation ----- By fan in generator pulley  
 Driven by ----- Fan belt  
 Pulley size ----- 28°V x 3-11/32 dia  
 Speed ratio (gen to engine) ----- 1.83:1  
 Generator RPM/MPH ----- 93.7  
 Maximum output (controlled charging rate) hot:  
 Amperes ----- See current regulator  
 Volts ----- See voltage regulator  
 Generator RPM ----- 2400 and up  
 Car MPH (high gear) ----- 25.2 and up  
*Field Current @ 6 Volts 1.75 to 1.95 amps at 80°F*  
*Output @ 8 volts (cold); RPM's 2050, Amps 30*  
 Bearings: Commutator end Drive end  
 Number ----- 812823 Anti-friction  
 Type ----- Bronze bushing bearing,  
 ID ----- .562-.563 see page  
 OD ----- .783-.784 160  
 Width ----- 51/64  
 Brush spring tension ----- 24 - 32 oz  
 Rotation (drive end) ----- Clockwise

### VOLTAGE AND CURRENT REGULATOR

Make and model ----- Delco-Remy, 1118720  
 Location ----- On wiring access door in dash  
 Type ----- Vibrator  
 Voltage regulator:  
 Volts ----- 7.4  
 Temperature ----- Operating  
 Average air gap ----- .075  
 Current regulator:  
 Amperes ----- 37  
 Temperature ----- Operating  
 Average air gap ----- .075  
 Cutout relay:  
 Point opening (amperes) ----- 0 - 4  
 Point closing: Volts ----- 6.4  
 Generator armature speed ----- 800 RPM  
 Car MPH (high gear) ----- 8.4  
 Average air gap, and point gap ----- .020

### RPO 326 GENERATOR EQUIPMENT (45 and 50 amp)

On all except RPO 330; no 50 amp on 2134

Rating	Delco-Remy Model No.	
	Generator	Regulator
45 amp	1102786	1118725
50 amp	1105001	1118722

CONTINUED

2-29-52

## ENGINE ELECTRICAL SYSTEM—Continued

### BATTERY

Make, model and SAE number -- Delco, 15AA6-W, IM  
 Size ----- 9-1/32 long x 7 wide x 8-11/16 high  
 Voltage ----- 6  
 Capacity ----- 100 ampere hours at 20-hour rate  
 Bench normal charging rate ----- 7 amp  
 Cell arrangement ----- 3, side-to-side  
 Plates per cell ----- 15  
 Terminal grounded ----- Negative  
 Location ----- At right side under hood

### STARTING

Starting device ----- Solenoid operated, positive shift (push-button on dash)  
 Starting operation -----  
 - With ignition switch ON, depress push-button  
 Pinion meshes ----- From front of flywheel  
 Pinion teeth ----- 9  
 Flywheel teeth ----- 139, 1/2 wide, 13.9 PD  
 Flywheel bolt torque (service) --- 50-65 ft lb  
 Gear ratio (starter to flywheel) ---- 15.44:1  
 Normal engine cranking RPM (60°F air) --- 125

### STARTING MOTOR

Make and model -- Delco-Remy, 1107102 or 1107075  
 Rotation (front view) ----- Counter-clockwise

Bushings	Commutator end	Drive end
Type	Rolled bronze with graphite-filled ball indentations on inside surface	
I D	.5625-.5635	.499-.501
O D	.6245-.6255	.5615-.5625
Width	.812	.781

Testing:	Lock test	No load test
Amperage draw -----	525	65
Volts -----	3.4	5
Torque -----	12 ft lb	-----
RPM -----	-----	5000
Brush spring tension -----	24-28 oz	

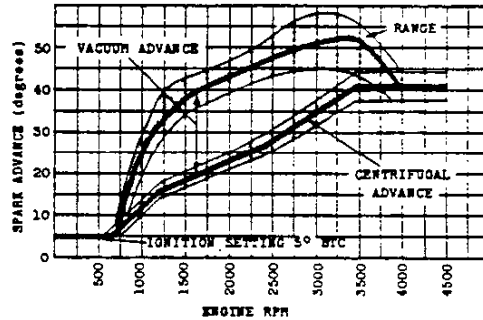
### IGNITION SYSTEM

Type ----- High intensity spark, engine ground return system; separate units: distributor with centrifugal and vacuum spark advance; oil-filled, hermetically sealed coil  
 Ignition lock: Make ----- Delco-Remy  
 Type ----- Three  
 position: on, locked off, or unlocked off

### DISTRIBUTOR

Make and model ----- Delco-Remy, 1112362  
 Current source ----- Generator or battery  
 Breaker contact opening and nominal cam angle:  
 With new breaker lever ----- .018-.024, 34°  
 With worn breaker lever ----- .015-.022, 39°  
 Breaker arm tension ----- 17-21 oz  
 Vacuum control part number ----- 1116043  
 Condenser: Part no. and cap. ---- 1869704, .2 mf

Automatic spark advance	Advance begins	Full advance
Vacuum control	7" to 6.5" Hg	18° to 22° at 16.5" to 18.5" Hg
Centrifugal	550 to 750 RPM	32.5° to 39.5° at 3450 RPM and up



### COIL

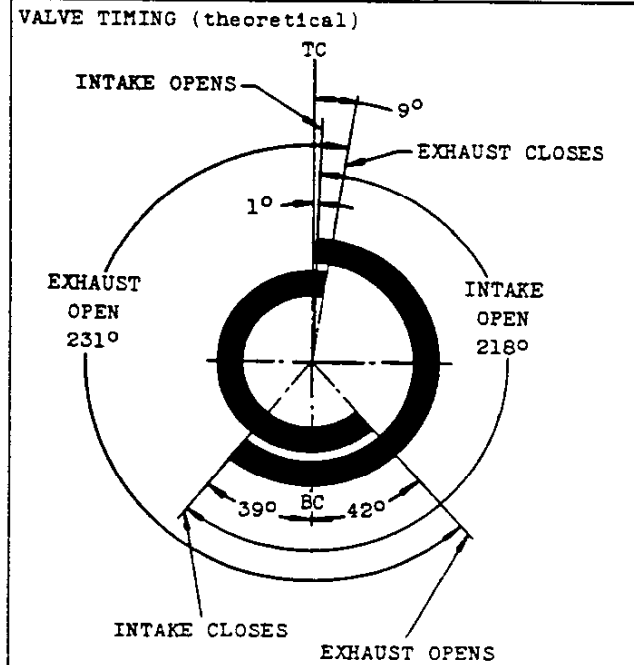
Make and model ----- Delco-Remy, 1115380  
 Location ----- Engine right side  
 Amperes drawn -- 4.5, engine stopped; 2.5, idling

### SPARK PLUGS

Make and model ----- AC, 46-5  
 Thread size ----- 14 mm  
 Recommended gap ----- .035  
 Recommended torque (service) ----- 20-25 ft lb

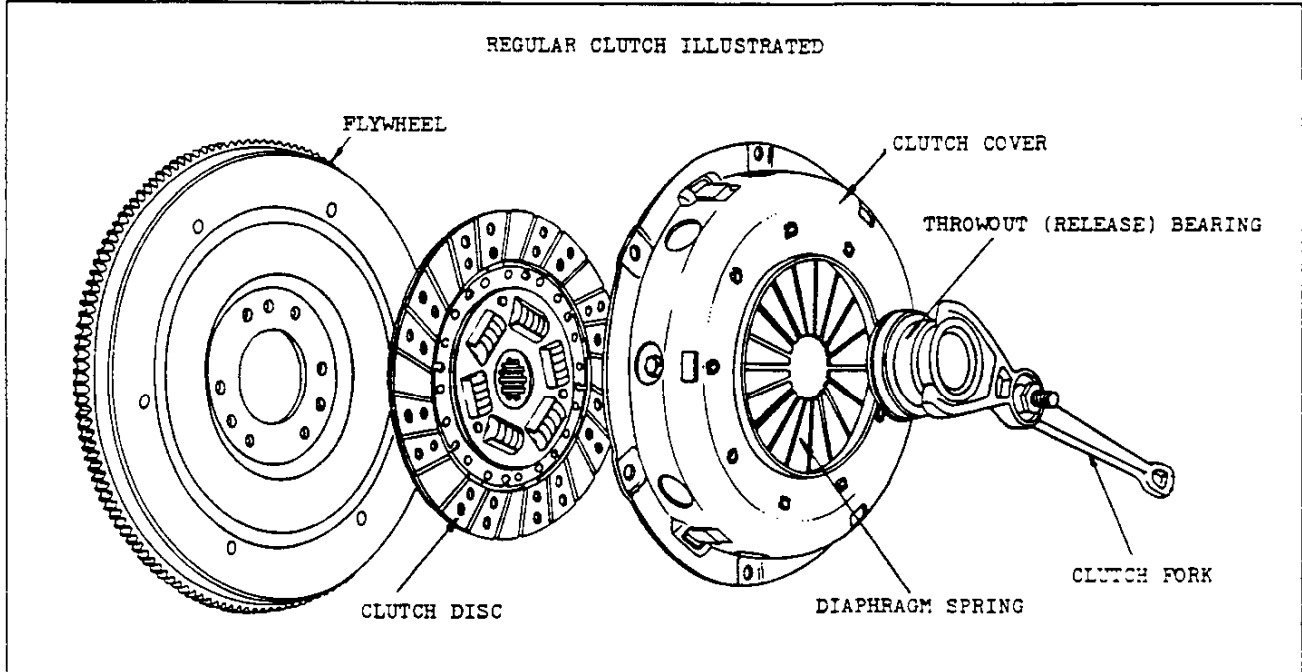
### ENGINE TIMING

Timing spark advance (initial setting) -- 5° ETC  
 Timing marks location ----- On flywheel  
 Firing order ----- 1-5-3-6-2-4



## CLUTCH

REGULAR CLUTCH ILLUSTRATED

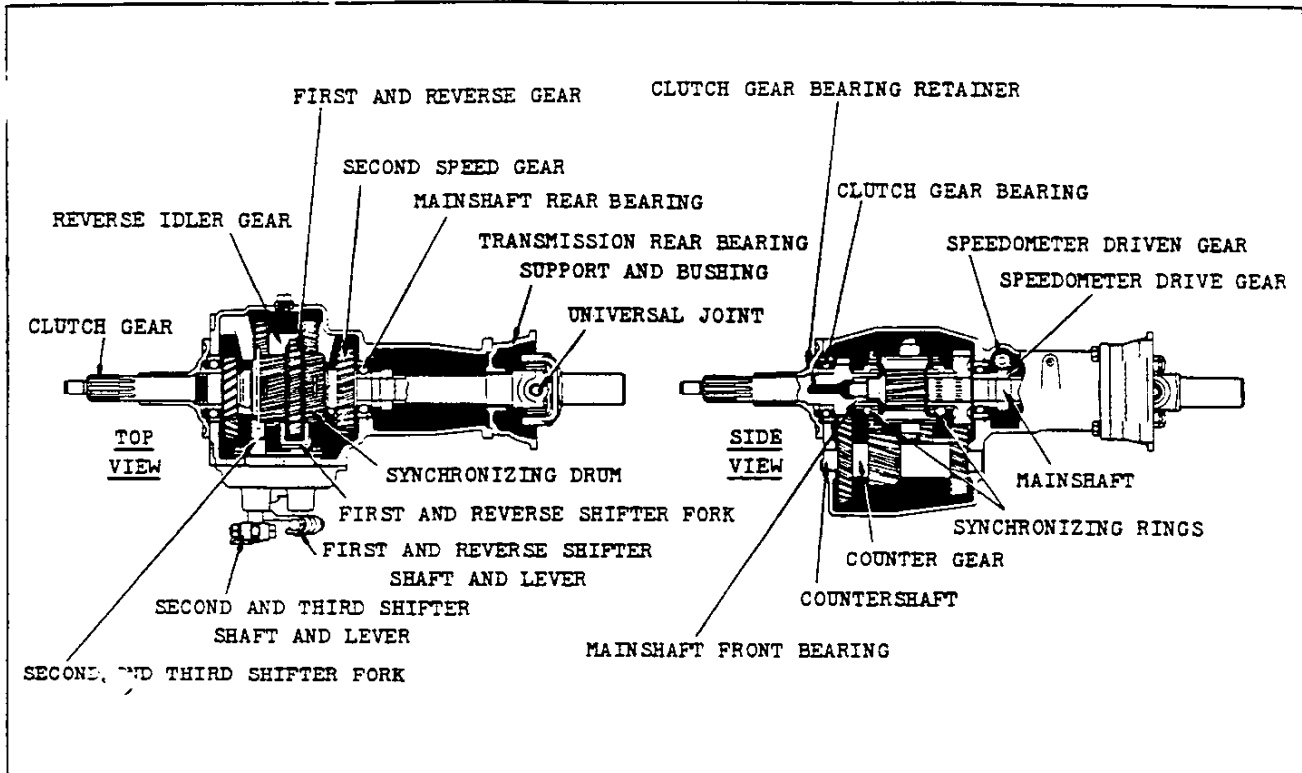


ITEM		REGULAR CLUTCH	HEAVY DUTY TRUCK TYPE, RPO 227A	
Type		Single dry plate		
Rated torque capacity		210 ft lb		
Semi-centrifugal?		No		
Vacuum control or fluid coupling		None		
Drive		Direct to flywheel face		
Ventilation		Vaness cast in pressure plate		
Diaphragm spring	Pressure in flat position	1100 to 1225 pounds	1175 to 1275 pounds	
	Material	Spring steel, heat treated		
	Pressure levers	18, integral with spring		
Driving members		Two (flywheel and pressure plate)		
Driven disc	Type	One, spring cushioned plate with two molded facings		
	Vibration insulation	6 cushion springs in hub		
	Facings	Material	Woven or molded asbestos composition	
		Outside diameter	9-1/8	10-3/4
		Inside diameter	6-1/8	7
		Area	71.86 sq.in. (both facings)	104.6 sq.in. (both facings)
Thickness		.132-.138	.137-.143	
Bearings	Throwout (Release)	Type, make, number	Anti-friction bearings, See page 160	
		Lubrication	Packed for life	
	Pilot (in rear end of crank-shaft)	Make and number	Chev 412562	
		Type	Sintered graphite-bronze bushing. Oil-impregnated	
		ID	.5905-.5920	
		OD	1.0935-1.0945	
		Width	.740-.760	
	Lubrication	Self		
Controls	Clutch fork type	Drop-forged (pivot mounted on ball)		
	Pedal mounting	On brake main cylinder		
Flywheel	Material	Cast alloy iron		
	Flywheel bolt torque	50-65 ft lb		
	Weight (with ring gear)	30 pounds		
	Ring gear type	Steel, shrunk on		
	Ring gear teeth	139, 1/2 wide, 13.9 PD (9 teeth on starter pinion)		
Clutch attachment to flywheel		6 bolts	9 bolts	

2-29-52



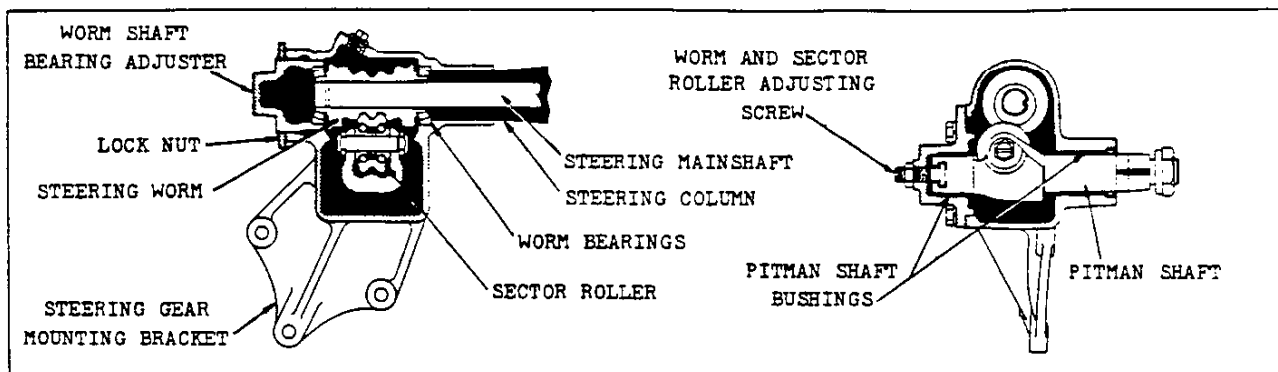
## TRANSMISSION



ITEM		Regular	Heavy Duty RPO 316	
Make and type		Own, 3-speed synchro-mesh, manual shift		
Shift control - type and location		Remote, mounted on steering column		
Input torque capacity		210 ft lb		
Gears	Type	All helical		
	Material	Forged steel, hardened		
	Synchronized speeds	2nd and 3rd		
	Constant mesh speeds	2nd		
	Sliding gears	1st and reverse		
	Ratios	Forward	1st	2.94:1
			2nd	1.68:1
			3rd	Direct
Reverse		2.94:1		
Bushings	Reverse idler	Optional materials	Rolled sheet bronze, ball-indented	
		No. used and size	2 - .7515-.7525 I D x 3/4 long	
	Transmission rear bearing support	Optional materials	Rolled sheet bronze, ball indented	
		Size	1.439-1.440 I D x 7/8 long	
	Countershaft	Material and type	Steel backed bronze, ball indented	Anti-friction bearings See page 160
		I D	.8772-.8782	
O D		Push fit in ring gauge 1.008 dia		
	Length	1-1/4		
2nd gear bearing	Type	Gear I D honed, turns on mainshaft		
	Size	1.062-1.063 I D x 1-3/4 long		
Speedometer gears	Tooth pitch	26		
	Teeth driving and driven	6 and 18		
Lubricant	Type recommended	SAE 90 transmission or mineral oil lubricant		
	Capacity	1-1/2 pt		
Anti-friction bearings		See page 160		

2-29-52

## STEERING



Type ----- Centerpoint

### STEERING GEAR

Make and type ----- Saginaw, Semi-reversible, hour glass worm and ball bearing roller sector  
 Ratio ----- 19.4:1  
 Anti-friction bearings ----- See page 160  
 Steering mainshaft diameter ----- 3/4  
 Steering column diameter ----- 1-3/4  
 Lubricant recommended ----- Steering gear or "Multi-Purpose" gear lubricant  
 Worm and sector adjustment ----- Fully adjustable  
 Sector mounting type ----- Straddle mounted  
 Pitman shaft:

Material ----- Drop forged steel  
 Mounting ----- Straddle mounted

### PITMAN SHAFT BUSHINGS

ITEM	INNER	OUTER
Material	Steel backed bronze or cast bronze	
ID	1.124-1.125	
OD	1.2500-1.2505	1.2520-1.2535
Length	1-3/8	27/32

### STEERING LINKAGE

Tie rods ----- Left, adjustable; Right, fixed

Pitman arm type and material -----

----- One piece, drop forged steel

Steering connecting rod (drag link) ----- Yes

Steering idler and third arm:

Material -- One piece, drop forged, alloy steel

Mounting ----- pivot bracket mounted to front suspension cross member

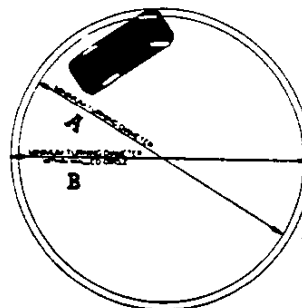
### STEERING WHEEL

Diameter ----- 17-1/4

Special models -- Three spoke "T" with horn button

De Luxe models -- Two spoke with horn blowing ring

Number of turns of wheel for full right to left travel of front wheels ----- 4.05



### TURNING DIAMETERS

A

Right turn 37 ft

Left turn 38 ft

B

Right turn 40 ft

Left turn 41 ft

Nominal figures based on tests made at General Motors Proving Ground

## WHEELS AND TIRES

WHEELS									
Make and type	Own, short spoke disc				WHEEL AND HUB CAP DESIGN (ALL MODELS)				
Attachment to hub	5 bolts, 7/16-20								
Bolt circle diameter	4-3/4								
Offset and rim size	9/16, 15 x 5K								
Paint and striping	See Exterior Colors and Finishes								
Hub cap	Stainless steel with blue trademark								
TIRES									
TIRE SIZE AND PLY RATING	REGULAR OR RPO EQUIPMENT	TIRE AND RIM ASSOCIATION STANDARDS *							
		LOADED ROLLING RADIUS	LOADED REV PER MILE	LOAD PER TIRE		RECOMMENDED PRESSURE		TUBE	VALVE
6.70-15-4 @	Reg except 2119	13.30	746	925	925	24	24	6.70	15
6.70-15-6	Reg 2119 RPO All others	13.40	748	970	1055	26	30		

\* - U.S. Rubber Co. standards shown. Tires furnished are U.S., Goodrich, and Firestone.

## LIGHTS

### HEADLIGHTS

Make and type ----- Guide, sealed beam  
 Location ----- In front fender faces  
 Sealed beam unit diameter ----- 7  
 Dimmed by ----- Foot switch (depresses beam)  
 Beam indicator location ---- In speedometer face

### PARKING LIGHTS

Location -- Below headlights; enclosed by the outer ends of the radiator grille horizontal bars  
 Bulb replacement ----- Behind radiator grille

### TAIL AND STOP LIGHTS

Make and type ----- Guide, tail and stop light combined in one unit  
 Number and location:  
 Sedan Delivery -----  
 ----- One, on left rear quarter panel, clear window in top illuminates license plate  
 Station wagon ----- One on center of tail gate (linkage automatically adjusts light for tail gate position), clear window in bottom illuminates license plate  
 All others ----- Two, one in each rear fender, with clear window in side for illumination of luggage compartment  
 RPO 249:  
 Sedan Delivery -----  
 --One additional, on right rear quarter panel  
 Station Wagon ----- Two additional, one on each rear quarter panel  
 Are tail and instrument cluster lights wired in series? ----- No

### REAR LICENSE LIGHT

Station Wagon and Sedan Delivery -----  
 ----- Rear license plate is illuminated by a clear window in tail lamp body  
 All others -- Separate light is imbedded in rear gravel deflector and protected by metal housing

### PASSENGER COMPARTMENT LIGHTS

Dome light ----- One, all models except Bel Air  
 Rear compartment lights ---- Two in Bel Air, one on each rear side quarter panel at belt line

### LIGHTING SWITCHES

Make ----- Delco Remy  
 Main switch ----- Three position "pull" type switch mounted on instrument panel. Main switch has a rheostat operated by rotating the switch knob which controls the brightness of the instrument panel lights  
 Stop light switch ----- Mechanical, on toe board  
 Dome light switches:  
 Manual -- At left side of rear seat in Bel Air and Convertible. At light in all other models  
 Automatic ----- In both front door body hinge pillars on De Luxe models -- Operated by opening door --- None on Special models  
 Glove compartment light switch ----- In De Luxe models --- Operated by opening compartment door

### CIRCUIT BREAKER

Type and location ----- Bi-Metal thermal element, incorporated in main lighting switch  
 Capacity ----- 30 amperes

BULBS									
Used in		Quantity	Trade No	Power	Used in		Quantity	Trade No	Power
Head-lights	Upper beam	2	2400 CC *	45 w	License plate light	Tail	1	63	3 cp
	Lower beam			35 w					
Parking lights		2	63	3 cp	and stop lights	Tail	1	63	3 cp
Instrument cluster		4	55	2 cp		Stop	1	1129	21 cp
Beam indicator		1	51	1 cp	RPO Sedan Delivery	Tail	1	63	3 cp
Ignition lock		1	51	1 cp		Stop	1	1129	21 cp
Glove compartment		1	55	2 cp	RPO Station Wagon	Tail	2	1154*	3 cp
Clock		1	63	3 cp		Stop			21 cp
Dome light	Bel Air	2	82	6 cp	All others	Tail	2	1154*	3 cp
	Convertible coupe	1	55	2 cp		Stop			21 cp
	All others	1	88	15 cp		* - Single bulb, double filament			

### HORNS

Make ----- Delco Remy  
 Type ----- Vibrator  
 Number and location --- 2, behind radiator grille  
 Relay in circuit ----- Yes  
 Current: High note ----- 17-19 amperes  
 Low note ----- 19-21 amperes

### TOOLS

Jack:  
 Capacity ----- 1200 lb  
 Raised height ----- Approx 29  
 Lowered height ----- Approx 6  
 Wheel wrench ----- Designed to serve also as jack handle and hub cap remover

### CHASSIS GENERAL INFORMATION

Chassis lubrication ----- High pressure gun

2-29-52

## ACCESSORIES

Definition: Items made available at extra cost through the Parts and Accessories Department and installed by the customer or his dealer.

ITEM		MODELS	
Alarm	Parking brake	All	
Antenna	Radio, fender, LH	All	
Arm rest	Door, front (or rear on 4-door sedans)	1500 except 1508	
Ash tray	Instrument panel	1500	
Block	Junction, wiring	All	
Cap	Gasoline tank filler, locking		
Clock	Electric wind	1500	
	Hand wind		
Condenser	Radiator overflow	All	
Cover	Accelerator pedal		
	Steering wheel		
	Seat		
	Plastic	All except 1504-08, 2119	
	Rayon	All except 1504-08, 2119-34	
	Fiber		
	Installation Kit	All	
Cover panel	Rear wheel	1500 except 1508	
Deflector	Rain	Front and rear	1502-03-52, 2102-03-52
		Front only	1504-24, 2124
Disc	Wheel trim, stainless steel	All	
Dispenser	Tissue		
Extension	Muffler tail pipe		
Filter	Gasoline		
	Cooling system		
Frame	License plate		
Guard	Front fender (on outer end of bumper)		
	Rear fender (on outer end of bumper)		
	Trunk (across top of rear bumper guards)		
	Gasoline tank filler door, fender		All except 1508, 2119
Guides	Front fender	All	
Heater and defroster	Recirculating, with outside air provision		
	Outside air type		
Hook	Coat	All except 1508, 2119-34-54	
Lamp	Auxiliary driving (fog), dual	All	
	Back-up, (pair)		
	Portable spot (plugs in cigarette lighter)	2100, 1500 with cigarette lighter	
	Under hood	All	
	Glove compartment	1500	
	Luggage compartment	All except 1508, 2119-34-54	
	Spot, LH, Guide, with bracket and mirror	All except 2119	
Lighter	Cigarette, with lamp	1500, replacement for 2100	
Mirror	Rear View	Door-front, clamp type	All except 1508
		Door-top, clamp type	All except 2134-54
		Non-glare (prismatic), inside	All except 1508
	Visor vanity	All	
	Visor vanity (lighted electrically)	All except 2134-54	
Molding	Rear fender, top	All except 1508-2119	
	Wheel, stainless steel		
Radio	Colonial (manual tuning), and antenna	All	
	Delco (push-button tuning), and antenna		
	Speaker, auxiliary rear seat	All except 1504-08-24, 2119-24-34-54	
Reflector	Reflex, 4 inch, red	All	
Shaver	Electric		
Shield	Front fender, pair		
	Windshield glare	All except 1508, 2119	
Signal	Direction, self-cancelling	All (use only with RPO 249 on 1508, 2119)	
Sunshade	Right hand	1500 except 1508	
Sun visor	Outside type	All except 2119-34	
Tool kit	Bag with tools	All	
Trim ring	Wheel, white plastic		
Viewer	Traffic light		
Washer	Windshield		
Wheel	Steering, ornamental		

### REGULAR PRODUCTION OPTIONS

Definition: Items released by the Engineering Department for installation at the assembly plant at the customer's request, in addition to or in place of regular equipment, and usually at extra cost.

GROUP	RPO	ITEM	MODEL
Exterior and Interior Color Combinations	235	Exterior colors. See page 21	All, except 2119-34-54
	236	Exterior and interior color combinations. See page 22	2134
Body glass	238	Exterior and interior color combinations. See pages 21-22	2154
	435	Body interior trim combinations. See page 21	2102-03-24-52
	437	Exterior and interior color combinations. See page 22	2119
Taxicab equipment	398	Body glass equipment, tinted (E-Z Eye glass)	All, except 1508
	330	Heavy-duty clutch 45% larger than standard clutch, equipped with a special heavy pull back spring	1503
		HD transmission with special countershaft roller bearings	
		Special rear axle assembly incorporating a special pinion shaft double row ball bearing	
		Special service front springs	
		Special 45 amp generator and voltage and current regulator	
		Special clutch and brake pedal shaft lubrication fittings	
		Special fast filling gasoline filler signal	
		330E Gray knobby pattern cloth trim	
Suspension	254	Heavy rear springs	All
	237	Oil filter	
Engine	340	Vacuum booster fuel pump	All, except RPO 317
	241	Governor (RPO 216 air cleaner mandatory with RPO 241)	
	216	Air cleaner, oil bath (one pound dirt capacity)	
	326	Generator equipment	
50 amp			All, except 2134 & RPO 330
Clutch	227	Heavy-duty	All, except RPO 317 and 330
Transmission	316	Heavy-duty	2100
	317	Automatic (Powerglide). See supplement - pages 43-50	2119
Lights	249	Dual tail and stop lamp equipment (tail and stop lamp in one unit)	One, RH *
			Two, LH and RH *
Tires with reg wheels	288	6.70-15-6 ply (five)	All, except 2119
	283	7.10-15-4 ply (five)	2134 with RPO 317, only

\* - Number of lamps indicated are in addition to regular equipment.

**AUTOMATIC TRANSMISSION OPTION—Supplement**

POWERGLIDE  
AUTOMATIC TRANSMISSION  
SUPPLEMENT

Regular Production Option #317

Supplementing the data given in the preceding "Passenger Car" section of this book, the following information shows those specifications that are peculiar to passenger car models equipped with POWERGLIDE automatic transmission.

**AUTOMATIC TRANSMISSION OPTION—Supplement**

**ENGINE SERIAL NUMBER**

Plant designation: Flint Tonawanda  
 2100, RPO 317 engine --- D ----- Q

**BODY**

Floor mat, front ----- Clutch pedal hole omitted  
 Toe pan, clutch pedal hole -----  
 ----- Sealed with felt and cemented  
 Exterior identification -----  
 "POWERGLIDE" name plate above rear deck handle

**TRANSMISSION SERIAL NUMBER**

Plant designation: Cleveland  
 RPO 317, automatic transmission ----- T  
 A letter and numeral following the serial number  
 indicate date of manufacture ----- Letter  
 A January, B February, etc indicates the month  
 Numeral 1, 2, 3 etc indicates day of the month  
 Location ----- Stamped on case at top rear

**REAR AXLE AND DRIVE**

Final drive gears:  
 Ratio ----- 3.55:1  
 Teeth ----- 11 & 39  
 Total torque multiplication (final drive gears,  
 transmission and torque converter):  
 Drive ----- 3.55:1 to 7.81:1  
 Low ----- 6.46:1 to 14.21:1  
 Reverse ----- 6.46:1 to 14.21:1  
 Axle shaft torque, max (ft lb):E  
 Low ----- Not available  
 Drive ----- Not available  
 Reverse ----- Not available  
 E - Engine max net torque x total torque multi-  
 plication x efficiency factor. (Data to compute  
 these values not available at the present time).

**REAR AXLE SERIAL NUMBER**

Plant designation: Gear & Axle Buffalo  
 RPO 317, 3.55:1 ratio --- J ----- K

**UNIVERSAL JOINT**

Lubrication ----- Pressure, from transmission

**FRONT SUSPENSION**

Front spring ----- All models, same  
 as regular spring for model 2134. See page 24

**SPEEDOMETER GEARS**

Drive gear ----- 5-tooth, 22 pitch, mat-steel  
 Driven gear ----- 13-tooth, 22 pitch, mat-nylon  
*Speedometer Assy  
 At 1001 RPMs @ 60 mph.*

**VEHICLE WEIGHTS**

FLEETLINE G							
Vehicle Type		Shipping			Curb		
Model	Description	Front	Rear	Total	Front	Rear	Total
2152	De Luxe 2-Door Sedan	1805	1435	3240	1830	1540	3370

STYLELINE G							
Vehicle Type		Shipping			Curb		
Model	Description	Front	Rear	Total	Front	Rear	Total
2102	De Luxe 2-Door Sedan	1805	1430	3235	1830	1535	3365
2103	De Luxe 4-Door Sedan	1810	1455	3265	1835	1560	3395
2124	De Luxe Sport Coupe	1805	1415	3220	1830	1520	3350
2134	De Luxe Convertible Coupe G	1920	1590	3510	1945	1695	3640
2154	De Luxe Bel Air	1855	1515	3370	1880	1620	3500
2119	De Luxe Station Wagon *	1790	1815	3605	1815	1920	3735

**PERFORMANCE WEIGHT (Curb weight plus 600 pound passenger load)**

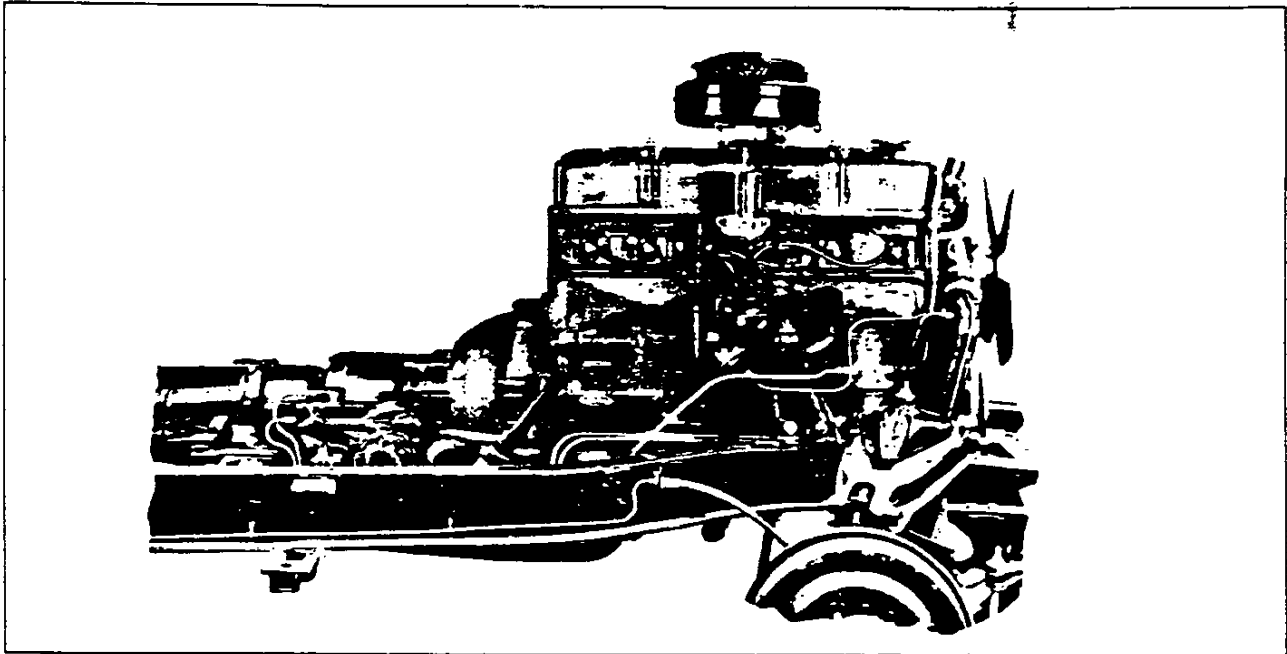
**STYLELINE**

De Luxe 4-Door Sedan ----- 3995 Pounds

- \* - Equipped with 6.70-15-6 pr tires as regular equipment.
- G - Equipped with 7.10-15-4 pr tires as mandatory RPO equipment.
- T - For vehicle weight definition see page 10 Passenger Car Section.

2-29-52

## AUTOMATIC TRANSMISSION OPTION—Supplement



### ENGINE BASIC DESIGN DATA

Type ----- Valve-in-head  
 Number of cylinders ----- 6  
 Bore and stroke (nominal) ----- 3-9/16 x 3-15/16  
 Piston displacement (cu.in.) ----- 235.5  
 Compression ratio (no option) ----- 6.7:1  
 Taxable (SAE) horsepower ----- 30.4  
 Engine idling speed (RPM) ----- 430-450

### ADVERTISED MAXIMUM ENGINE PERFORMANCE

Gross brake horsepower ----- 105 at 3600 RPM  
 Net brake horsepower ----- 98 at 3500 RPM  
 Gross torque (ft lb) ----- 193 at 2000 RPM  
 Net torque (ft lb) ----- 186 at 2000 RPM

### ADVERTISED CAR PERFORMANCE

The following information is based on the lowest-priced four-door sedan in each line, with each vehicle at performance weight (curb weight, plus 600 pounds to represent four passengers):

	<u>STYLE-</u> <u>LINE</u>
Performance weight (pounds) -----	3995
Pounds/gross horsepower -----	38.04
Pounds/cu. in. piston displ -----	16.96
Gross horsepower/cu. in. displ -----	.45
Power displ (cu ft/mile)*-@ -----	180.7
Displ factor (cu ft/ton mi)@-@ -----	90.44

\* -  $\frac{\text{Crankshaft rev/mile} \times \text{piston displ}}{1728} + 2$

@ - Power displ + performance weight in tons.

@ - These data are computed assuming zero slippage in the torque converter.

### ENGINE SPEED AND PISTON TRAVEL

Rear axle ratio		3.55:1
Tires		6.70-15 or 7.10-15
Crankshaft revolutions per mile		2652
Crankshaft RPM per MPH	Low	60
	Drive	44
Piston travel (ft/mi)		1740

### DRY WEIGHTS

Engine (pounds) ----- 541  
 Engine and automatic transmission (pounds) -- 751

### CYLINDER HEAD

Cyl head bolt torque (service) ---- 90-100 ft lb

### CYLINDER CASE

Bore diameter ----- 3.5620-3.5640

### CRANKSHAFT

Stroke ----- 3-15/16 ± .005  
 Weight ----- 71 lb

### FLYWHEEL

Material ----- Steel stamping with reinforcement  
 Ring gear type ----- Steel, welded to flywheel  
 Weight (with ring gear and reinforcement) --- 7.1 lb

### CAMSHAFT

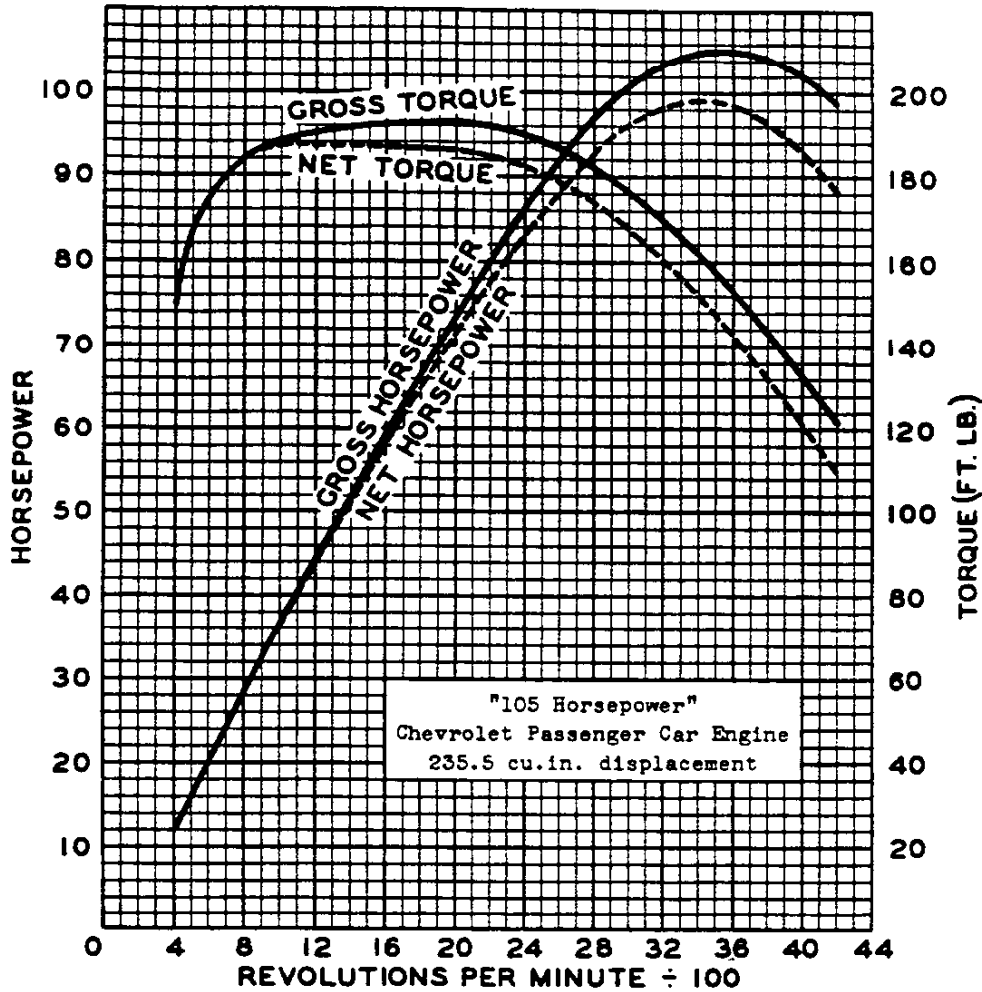
Ramp, inlet and exhaust ----- .0051, 23° long

### PISTON

Diametrical relief at lands ----- .014-.022  
 Upper compression ring groove depth --- .161-.188  
 Lower compression ring groove depth --- .158-.165  
 Oil ring groove depth ----- .176-.183  
 Head thickness at center ----- .200-.210  
 Weight of piston and bushing assy ---- 2.112 lb  
 Weight of piston, bushing, rings, pin, and connecting rod upper end x 6 ----- 18.12 lb



**AUTOMATIC TRANSMISSION OPTION—Supplement**



The engine performance curves shown on this sheet are taken from Chevrolet engine test report 16230-2. They represent the full throttle performance of a 105 Horsepower Chevrolet passenger car engine (235.5 cu. in. displacement) as obtained from dynamometer test data which were corrected to standard barometric pressure of 29.92" Hg. and the standard temperature of 60°F.

GROSS POWER and TORQUE were obtained in a regular dynamometer test with the dynamometer exhaust system, no fan, generator not charging, and optimum spark advance.

NET POWER and TORQUE were obtained from a dynamometer test simulating actual operating conditions when the engine is in its vehicle. It includes the use of the regular muffler and pipes, the fan in operation and automatic spark advance. The generator is not charging.

February 22, 1952

The data on this sheet are true as represented.  
 CHEVROLET - CENTRAL OFFICE - ENGINEERING DEPT.  
 DIVISION OF GENERAL MOTORS CORPORATION

*W. T. Burwell*  
 W. T. Burwell  
 Design Engineer

State of Michigan  
 County of Wayne

On this 22nd day of February 1952 personally appeared before me, W. T. Burwell, known to me to be such, who makes oath that the data on this sheet are true as represented.

*W. H. Woodward*  
 Notary Public, Wayne County

My commission expires August 2nd, 1953

## AUTOMATIC TRANSMISSION OPTION—Supplement

### UPPER COMPRESSION RING

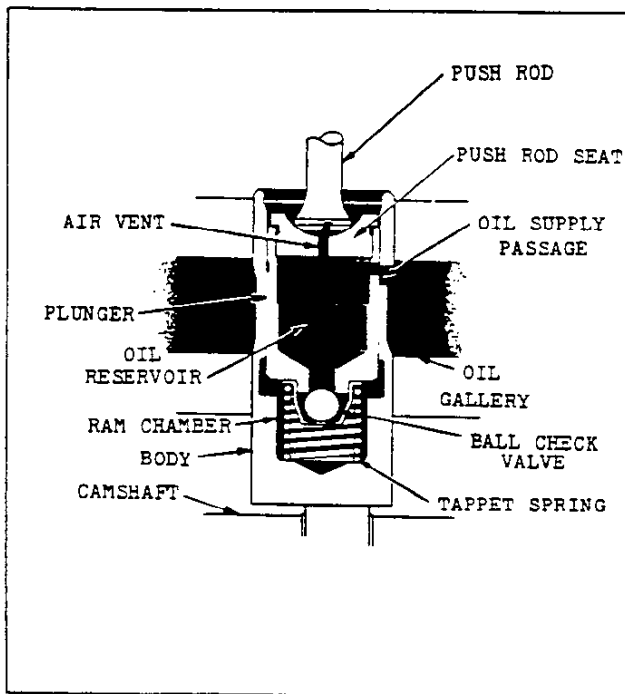
Type ----- Deep-section, twist  
 Number per piston ----- One  
 Width ----- .0930-.0935  
 Wall thickness ----- .168-.178  
 Gap clearance ----- .007-.017  
 Weight (each) ----- .042 lb

### LOWER COMPRESSION RING

Number per piston ----- One

### OIL CONTROL RING

Wall thickness ----- .160 max



### HYDRAULIC VALVE LIFTERS

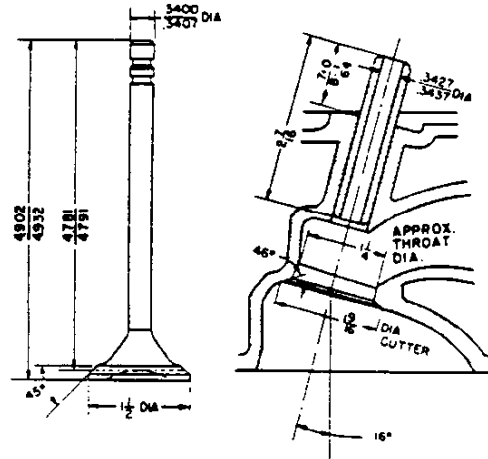
Make ----- Own  
 Material: Lifter body ----- Cast iron  
 Lifter plunger and push rod seat ----- Steel  
 Lift: Exhaust and inlet ----- .2217  
 Oil flow ----- Oil enters the valve lifter oil gallery through a drilled passage from the camshaft rear bearing where it flows to the hydraulic lifters. Oil enters the valve lifters through holes in the side of the lifter body and plunger. Air trapped in the oil, bleeds through the passage between the push rod end and seat. Oil enters the ram chamber around the steel ball.

### VALVE SPRINGS

#### LENGTH AND PRESSURE

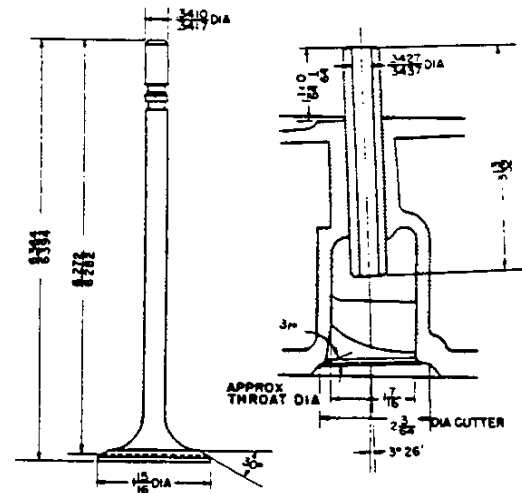
Valve closed ----- 1.821 at 62-68 lb  
 Valve open ----- 1.505 at 155-165 lb  
 Free (out of engine) length ----- 2-5/32

### EXHAUST



Flat head design is optional

### INLET



### VALVES

Lift: Inlet and exhaust valve ----- .3275  
 Distance between valve centers -----  
 -- 1-35/64 (measured along centerline of engine)  
 Valve lash (hydraulic lifter):  
 At time of assembly ----- Basic adjustment  
 During operation ----- Self-adjusting

### VALVE SEATS

Cooling jets of water ----- No

## AUTOMATIC TRANSMISSION OPTION—Supplement

### ENGINE LUBRICATION SYSTEM

Valve Mechanism -----  
 ----- Oil under pressure flows from rear of valve lifter oil gallery through restricted pipe fitting and pipe to valve rocker arms.  
 Oil cooler (transmission) ----- See page 49

### ENGINE OIL PUMP

Normal oil pressure ----- 14 PSI at 2000 engine RPM (Equivalent car speed: Variable)

### CARBURETOR

Make and model ----- Rochester Products, 7003526  
 Type ----- Single adjustment, downdraft SAE flange (nominal size) ----- 1-1/2  
 Size (main venturi throat ID) ----- 1-11/32  
 Choke ----- Automatic

### THROTTLE RETURN CHECK

Make and model ----- Rochester Products, 7003220

### AIR CLEANER

Optional, extra cost ---- RPO 216C oil-bath type

### EXHAUST SYSTEM

Muffler size (body outside) -----  
 ----- 4-25/32 x 8-17/32 (oval) x 18 long  
 Exhaust pipe (outside diameter) ----- 2  
 Tail pipe (inside diameter) ----- 1-13/16

### ENGINE COOLING SYSTEM

Valve seat cooling "Nozzle Jet" ----- No  
 Pressurized cooling system ----- Yes

### RADIATOR CORE

Size of air cells ----- .200 x .560 x 2  
 frontal area ----- 407.36 sq.in.  
 Radiator pressure cap ----- Yes  
 Pressure setting ----- 3-1/2 - 4-1/2 PSI

### RADIATOR HOSE

Item	Outlet	
Location	Rad to oil cooler	Cooler to water pump
Quantity	1	1
Type	Straight	
ID	1-1/2	
Length	4-15/16	2-5/8
Material	Fabric reinforced rubber	
Spring reinforcement	None	

### GENERATOR

Generator RPM/MPH ----- Variable  
 Maximum output (controlled charging rate):

Car miles per hour ----- Variable

### VOLTAGE AND CURRENT REGULATOR

Cutout: Car MPH when points close ----- Variable

### STARTING MOTOR

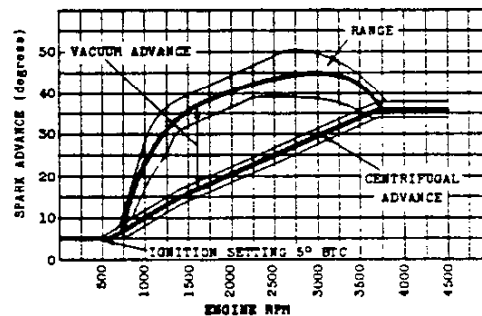
Circuit (push button on dash) -----  
 Switch is wired in Series with the neutral safety switch located on the lower end of the steering column control and permits operation of the starting motor with the transmission control in "Neutral" or "Park" positions only.  
 Starting operation ----- With ignition switch on, transmission control in "Neutral" or "Park" position, depress starter push-button

2-29-52

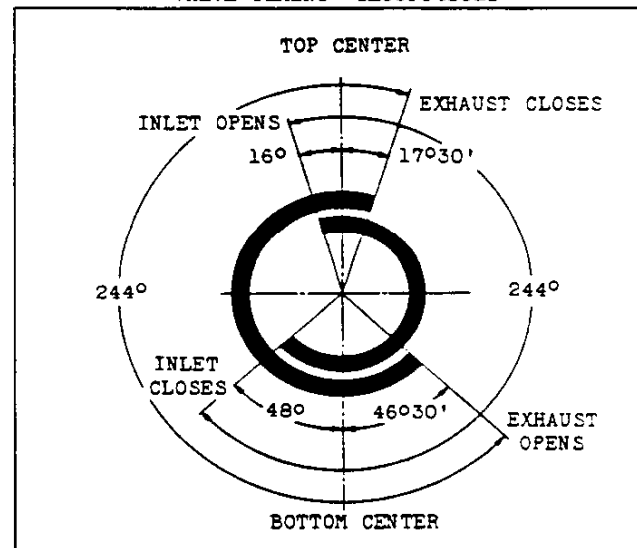
### DISTRIBUTOR

Make and model ----- Delco Remy, 1112363

Automatic spark advance	Advance begins	Full advance
Vacuum control	7" to 8.5" Hg	18° to 22° at 16.5" to 18.5" Hg
Centrifugal	450 to 750 RPM	29° to 33° at 3700 RPM and up



### VALVE TIMING - Theoretical



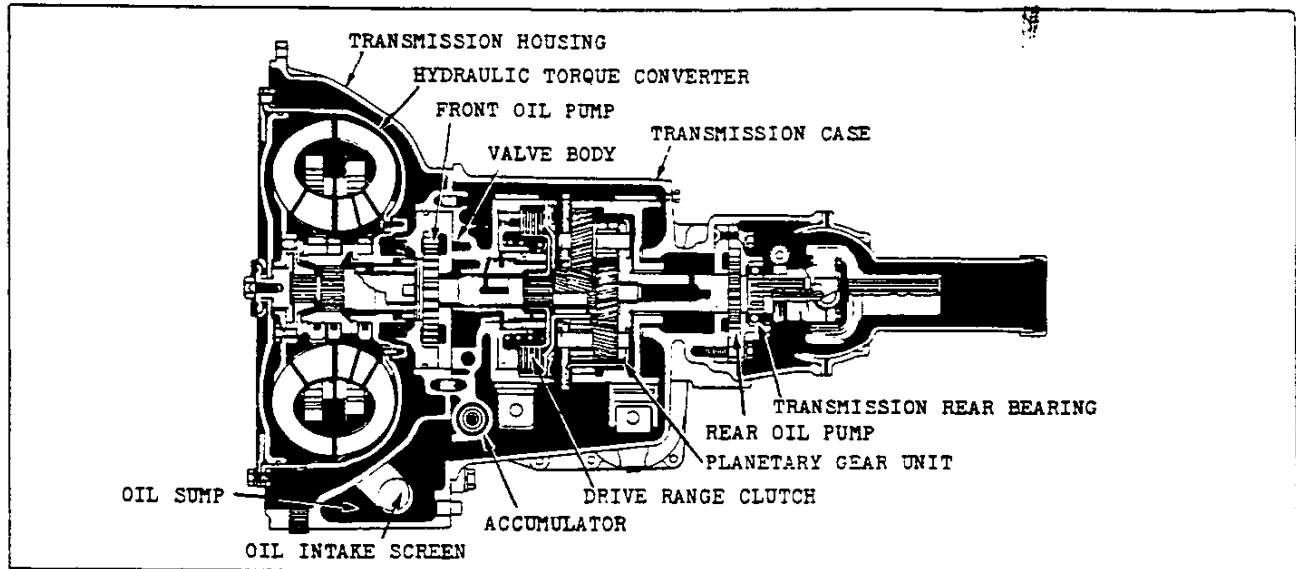
### REGULAR PRODUCTION OPTIONS

RPO 283, 5 tires 7.10-15-4 pr -----  
 ----- 2134 only (mandatory)  
 RPO 288, 5 tires 6.70-15-6 pr -----  
 ----- All except 2119 and 2134

The following passenger car RPO's cannot be used on units equipped with the automatic transmission option (RPO 317):

RPO 241 ----- Governor  
 RPO 216F ----- Air cleaner, oil-bath type  
 RPO 227 ----- Heavy-duty clutch  
 RPO 316 --- Heavy-duty synchro-mesh transmission

## AUTOMATIC TRANSMISSION OPTION—Supplement

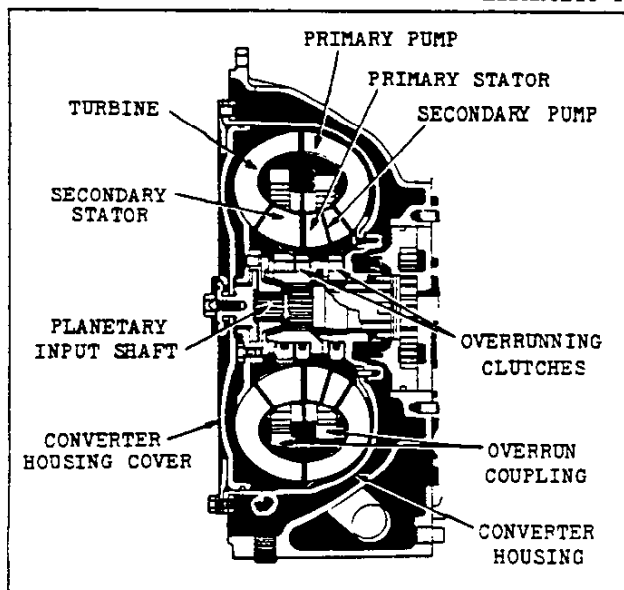


### AUTOMATIC TRANSMISSION - GENERAL

Make and type ----- Own, automatic hydraulic torque converter with planetary gear system for reverse and emergency low  
 Rated torque capacity ----- 186 ft lb (input)  
 Converter maximum torque ratio (at stall)--2.2:1  
 Total transmission torque multiplication (converter x planetary gear ratio):  
     Drive range ----- 2.2:1 to 1:1  
     Low range ----- 4.0:1 to 1.82:1  
     Reverse range ----- 4.0:1 to 1.82:1  
 Oil type -- Automatic transmission fluid, type A  
 Oil capacity ----- 9 quarts (refill)  
 Oil level gauge and filler tube:  
     Location ----- On right side of trans-

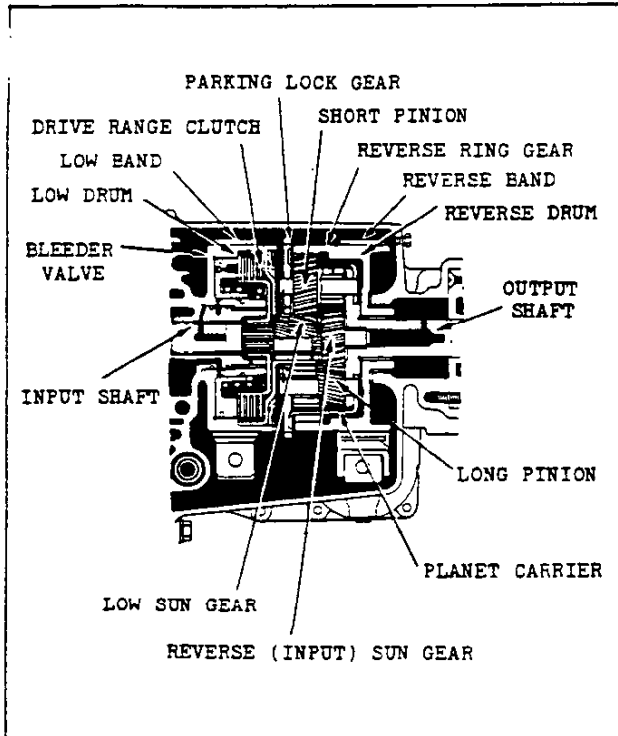
mission, accessible from engine compartment  
 Gauge type ----- Bayonet, mounted in breather type filler tube cap  
 Oil cooler make and location ----- Harrison, located in engine cooling system between radiator outlet and water pump inlet  
 Selector lever: Location ---- On steering column  
 Operation ----- Actuates manual valve in hydraulic control system  
 Positions ----- Five, (left to right) Park - Neutral - Drive - Low - Reverse  
 Parking lock: Type ----- Pawl and gear  
 Operation ----- Applied by selector lever through positive linkage

### HYDRAULIC TORQUE CONVERTER



Type ----- Polyphase, with overrun coupling and consisting of the following five major elements:  
 Primary pump ----- Driving member, spot-welded to torque converter housing and bolted to flywheel (6 bolts).  
 Secondary pump ---- Driving member, supported on primary pump hub by overrunning clutch.  
 Turbine ----- Driven member, supported by torque converter housing cover. Turns independently of housing. Splined to input shaft.  
 Primary and secondary stators ----- Reaction members, each supported on a stationary sleeve by overrunning clutch.  
 Material and construction of converter elements ----- Pressed steel, vaned type, spot-welded and copper brazed assembly  
 Overrunning clutches:  
     Number and use ----- Three, secondary pump, primary stator, secondary stator  
     Type ----- Cam and roller  
     Number of rollers per clutch ----- Eight

## AUTOMATIC TRANSMISSION OPTION—Supplement



### PLANETARY GEAR UNIT

Type ----- Compound planetary  
 Gear ratios: Drive range ---- 1:1 (Direct drive)  
 Low range ----- 1.92:1  
 Reverse ----- 1.82:1  
 Input shaft: Material ----- Steel, heat treated  
 Splines -- External; turbine - 17 teeth, clutch  
 hub - 19 teeth, reverse sun gear - 19 teeth  
 Output shaft: Material ----- Steel, heat treated  
 Splines ----- External, 10 teeth  
 Low sun gear: Material ---- Steel, case hardened  
 Gear teeth ----- 23, external  
 Splines ----- External, 23 teeth  
 Reverse (input) sun gear: Material -----  
 ----- Steel, case hardened  
 Gear teeth ----- 28, external  
 Splines ----- Internal, 19 teeth  
 Long pinions: Number used per assy ----- Three  
 Material ----- Steel, case hardened  
 Gear teeth ----- 18, external  
 Short pinions: Number used per assy ----- Three  
 Material ----- Steel, case hardened  
 Gear teeth ----- 28, external  
 Parking lock gear: Material -----  
 ----- Steel with induction hardened teeth  
 Gear teeth ----- 61, external  
 Planet carrier: Construction -----  
 ----- Steel stamping, riveted to output shaft  
 Reverse gear and drum: Material ----- Cast iron  
 Gear teeth ----- 79, internal  
 Reverse brake band -----  
 Same as low brake band (see DRIVE RANGE CLUTCH)

### DRIVE RANGE CLUTCH

Type ----- Multi - disc  
 Discs (plates):  
 Driving, number and type -----  
 ----- Four, steel with molded metallic facing  
 Driven, number and type ----- Five, steel  
 Drum: Material ----- Cast iron  
 OD ----- 5.867-5.872  
 Bleeder valve: Location ----- In front face of  
 clutch piston  
 Type ----- Ball  
 Hub: Material ----- Stamped steel  
 Splines ----- Internal, 19 teeth  
 Flange: Material ----- Stamped steel  
 Splines ----- Internal, 23 teeth  
 Spring: Type and ID ----- Coil, 2.750 - 2.800  
 Length and pressure ---- Approx 3-1/4 (free),  
 1-3/8 at 142-166 lb, 1-1/16 at 163-203 lb  
 Piston type and material ----- Annular,  
 aluminum alloy die casting  
 Size ----- 4.982-4.978 OD, 2.498-2.500 ID  
 Low brake band: Material -- Malleable iron casting  
 Lining -- Molded metallic, bonded and grooved

### HYDRAULIC CONTROLS

Oil intake screen: Type ----- Tubular  
 double screen, outer - 60 x 50 mesh, inner - 8 mesh  
 Location ----- Transmission housing oil sump  
 Oil pumps: Type ----- Internal-external gear  
 Location ----- Front - in rear of transmis-  
 sion housing; Rear - in rear of transmission case  
 Number of teeth ----- Front - 31 internal,  
 25 external; Rear - 25 internal, 20 external  
 Transmission rear bearing: Make and type -----  
 ----- New Departure 3205, single row ball  
 Valve body: Material ----- Cast iron  
 Location - Bolted to rear of transmission housing  
 Manual valve: Material and type -----  
 ----- Hardened steel, land and groove sliding  
 Operated by -- Selector lever through linkage  
 Check valve: Material ----- Flat spring steel  
 Type ----- Two passage check, hairpin shaped  
 Accumulator: Type ----- Spring-loaded piston  
 Starts to fill ----- 55 PSI  
 Pressure regulator valve:  
 Type ----- Land and groove sliding  
 Pressure range  
 Drive ----- 40 to 100 PSI  
 Low and reverse ----- 125 to 200 PSI  
 Neutral ----- 85 to 170 PSI  
 Park ----- None  
 Modulator: Location ---- Servo cover, right side  
 Type ----- Vacuum and hydraulic  
 Low band servo: Type -- Piston, 1 release spring  
 Adjustment ----- Threaded anchor bolt  
 Reverse band servo: Type ----- Piston  
 with release spring and inner cushioning spring  
 Adjustment ----- Threaded anchor bolt  
 Thermostatic by-pass valve: Location -- Servo cover  
 By-pass closes ----- 240°F