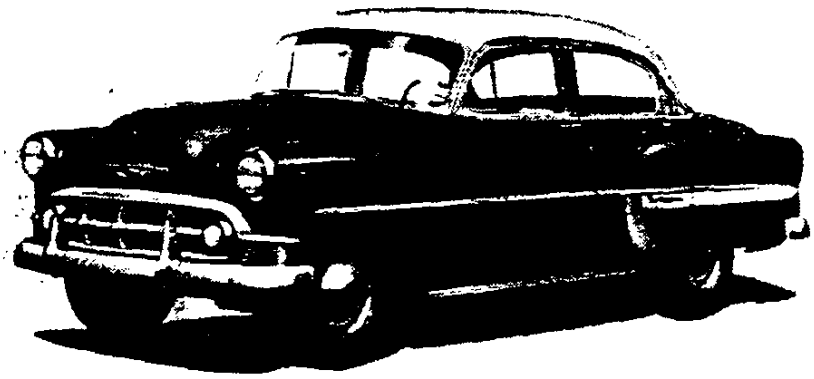
CHEVROLET



1953 Chevrolet, Bel Air four-door sedan, 6-cyl (AA)

1953

Passenger Car

CHEVROLET
1953
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

GENERAL

PASSENGER CAR SPECIFICATIONS

TRUCK SPECIFICATIONS

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 in 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 various 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 thirty years has endeavored to anticipate such questions by preparing a specifications book each new model year.

This current book has been prepared to answer all the questions concerning the Chevrolet 1953 products that we believe may be asked.

It is intended primarily as a convenient and authoritative source of information for all 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 and 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.

As in 1952, this book is in 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 data are presented in a condensed tabular form which necessitates the use of abbreviations or symbols in some cases. These are shown on a separate page.

CONTINUED

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 diameter of the wheel cylinder piston, 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 groupings, 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 lists the details covered by the subject headings.

To provide for reorganizing or incorporating additional information without disturbing the page number sequence, blocks of 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: ●, x, ♦, ▼, *, -. 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 and a note added including the previous date of change preceded by the word "Revised".

ADDRESS ALL INQUIRIES TO
Technical Data Department
Room 106, Curtis Building
Detroit 2, Michigan
OR CALL
TRinity 2-4600, Extension 8662

ABBREVIATIONS

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

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

cap. ---------- capacity
COE ---------- cab-over-engine
col ---------- column
com ---------- commercial
comp. ---------- compression
conn ---------- connecting
conv ---------- conventional
COPO ---------- Central Office Production Order
cp ---------- candle power
cu ft ---------- cubic feet
cu. in. ---------- cubic inches
cyl ---------- cylinder

dbl ---------- double
DLO ---------- daylight opening
dia ---------- diameter
dimen ---------- dimension
displ ---------- displacement
DR ---------- double row
distr ---------- distributor
ea ---------- each
eff ---------- effective
eng ---------- engine
equip ---------- equipment
ext ---------- exterior

F ---------- Fahrenheit
F (weights) ---------- front
fr ---------- front
ft ---------- feet
ft lb ---------- foot pounds
ft/mi ---------- feet per mile

gal ---------- gallon
gen ---------- generator
GM ---------- General Motors
gov ---------- governor
GVW ---------- gross vehicle weight

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

ID ---------- inside diameter
i. e. ---------- that is
in. ---------- inches
in^3 ---------- inches cubed
in^4 ---------- inches to fourth power
incl ---------- included
instr ---------- instrument

lb (lbs) ---------- pounds
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
R (weights) ---------- rear
rad ---------- radiator
reg ---------- regulator & 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
SFE --- Society of Fuse Engineers
sq ---------- square
sq. in. ---------- square inches
SR ---------- single row
st ---------- stainless
stl ---------- steel
strg ---------- steering

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

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

Var ---------- Various

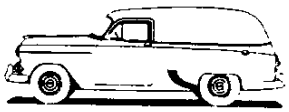
w ---------- watt
w/s ---------- windshield
wt ---------- weight

SYMBOLS

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

PASSENGER CARS

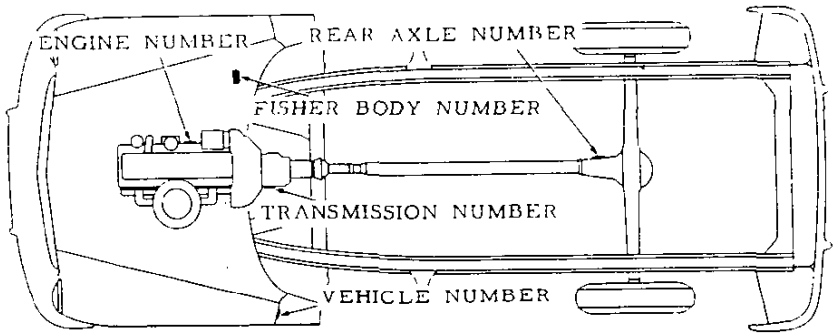
MODEL IDENTIFICATION

Name and Description	One-Fifty - Series 1500	Two-Ten - Series 2100	Bel Air - Series 2400
4-DOOR SEDAN 6-passenger, 5-window sedan with luggage compartment in rear			
MODEL	1503; 53-1269 *	2103; 53-1069W *	2403; 53-1069WD *
2-DOOR SEDAN 6-passenger, 5-window sedan with luggage compartment in rear			
MODEL	1502; 53-1211 *	2102; 53-1011W *	2402; 53-1011WD *
CLUB COUPE 6-passenger, 2-door, 5-window coupe with luggage compartment in rear			
MODEL	1524; 53-1227 *	2124; 53-1027 *	
BUSINESS COUPE 3-passenger, 2-door, 5-window coupe with luggage compartments behind seat and in rear			
MODEL	1504; 53-1227B *		
SPORT COUPE 6-passenger, 2-door, 5-window coupe with hardtop; luggage compartment in rear			
MODEL		2154; 53-1037 *	2454; 53-1037D *
CONVERTIBLE 5-passenger, 2-door, 5-window coupe with folding top; luggage compartment in rear			
MODEL		2134; 53-1067TX *	2434; 53-1067DTX *
STATION WAGON (HANDYMAN) 6-passenger, 4-door, 7-window, all-steel body with drop and lift gates in rear			
MODEL	1509; 53-1262F *	2109; 53-1062F *	
STATION WAGON (TOWNSMAN) 8-passenger, 4-door, 7-window, all-steel body with drop and lift gates in rear			
MODEL		2119; 53-1062 *	
SEDAN DELIVERY 2-passenger, 3-door, 3-window panel delivery			
MODEL	1508; 53-1271 *		

* - Fisher Body style number

SERIAL NUMBERS

SERIAL NUMBER LOCATIONS
(See descriptions below.)



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

VEHICLE SERIAL NUMBER

Example: A 53 T 001025

Series — Model Year — Assembly Plant — Unit Number

A "One-Fifty"	T Tarrytown
B "Two-Ten"	F Flint
C Bel Air	S St. Louis
D Sedan Delivery	K Kansas City
	O Oakland
	A Atlanta
	N Norwood
	B Baltimore
	L Los Angeles
	J Janesville

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

ENGINE SERIAL NUMBER

Example L A A - 6375

Model Year — Passenger Series — Plant and Type Designation — Unit Number

Plant		Type
Flint	Tonawanda	
A	M	Regular Engine
C	P	RPO 227 or RPO 330
	Q	RPO 313
E	R	RPO 324
F		RPO 219 (except 1508)
	S	RPO 313 and 324
G	T	Sedan Delivery - Regular
J	V	Sedan Delivery - RPO 227

Starting unit number ---------- 1001 and up, at each engine plant
Location ---------- Stamped on right hand side of cylinder block to rear of distributor.

TRANSMISSION SERIAL NUMBER

Example: M 11 26 •

Plant & type desig. — Month — Day of Month

Prefix	Plant	Type
M	Muncie	3-speed
S	Saginaw	3-speed
C	Cleveland	Powerglide

To identify heavy duty 3-speed transmission the letter "H" will be used as a suffix to production date.
Location ---------- Conventional; stamped on left side of case at front edge of cover. Powerglide; on rear face of case.

REAR AXLE SERIAL NUMBER

Example: L B - 507

Model Year — Plant and Type Designation — Unit Number

Plant		Type
Gear & Axle	Buffalo	
L	M	All models except 508 Axle 3.70:1 ratio
A	B	Model 1508 Axle 4.11:1 ratio
S	T	RPO 313 Axle 3.55:1 ratio

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

3-16-53. Revised: 7-1-53, • - Serial numbers changes effective 7-1-53.

VEHICLE WEIGHTS

1500 Series

Vehicle Type		Shipping			Curb			Loaded		
Model	Description	Total	Front	Rear	Total	Front	Rear	Total	Front	Rear
1502	2-Door Sedan	3160	1745	1415	3290	1770	1520	4190	2095	2095
1503	4-Door Sedan	3205	1765	1440	3335	1790	1545	4235	2115	2120
1504	Business Coupe	3125	1745	1380	3255	1770	1485	3705	2020	1685
1508	Sedan Delivery	3160	1690	1470	3290	1715	1575	4000	1725	2275
1509	Station Wagon (Handyman)	3450	1745	1705	3580	1770	1810	4480	2070	2410
1524	Club Coupe	3135	1755	1380	3265	1780	1485	4165	2130	2035

2100 Series

2102	2-Door Sedan	3180	1750	1430	3310	1775	1535	4210	2100	2110
2103	4-Door Sedan	3225	1765	1460	3355	1790	1565	4255	2115	2140
2109	Station Wagon (Handyman)	3475	1755	1720	3605	1780	1825	4505	2080	2425
2119	Station Wagon (Townsman) ⊕	3590	1745	1845	3720	1770	1950	4920	2010	2910
2124	Club Coupe	3170	1760	1410	3300	1785	1515	4200	2135	2065
2134	Convertible	3410	1855	1555	3540	1880	1660	4290	2180	2110
2154	Sport Coupe	3280	1800	1480	3410	1825	1585	4310	2160	2150

2400 Series

2402	2-Door Sedan	3215	1765	1450	3345	1790	1555	4245	2115	2130
2403	4-Door Sedan	3250	1770	1480	3380	1795	1585	4280	2120	2160
2434	Convertible	3440	1860	1580	3570	1885	1685	4320	2185	2135
2454	Sport Coupe	3295	1800	1495	3425	1825	1600	4325	2160	2165

⊕ - All models are equipped with 6.70-15-4pr tires except Townsman Station Wagon which is equipped with 6.70-15-6pr tires.

SHIPPING WEIGHT: This 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 and water.

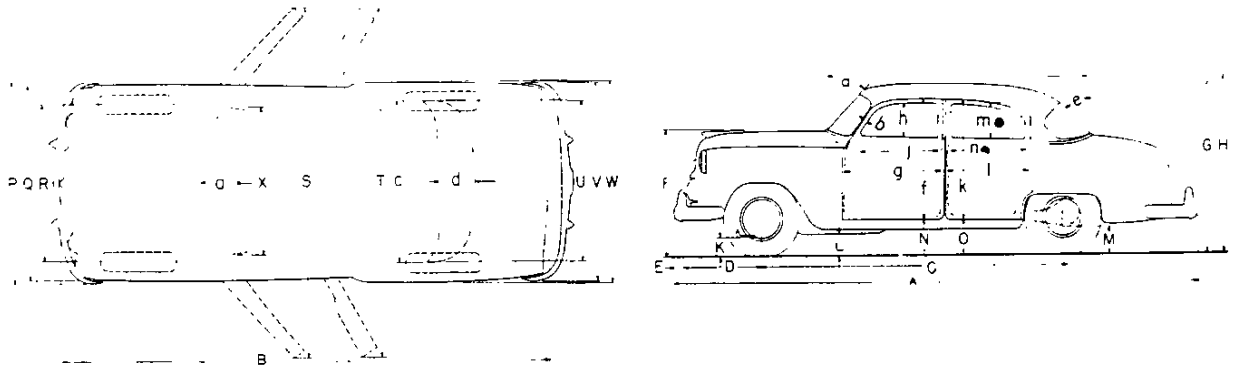
CURB WEIGHT: This is the weight of the empty vehicle ready to drive. It is the shipping weight plus the weights of gasoline (99 pounds) and water (31 pounds).

LOADED WEIGHT: This is the curb weight of the basic vehicle plus 150 pounds for each passenger.

PERFORMANCE WEIGHT: This is the curb weight of the lowest price 4-Door Sedan with regular equipment plus 600 pounds for passengers. A representative example is:

Model 1503---------- 3935

EXTERIOR DIMENSIONS



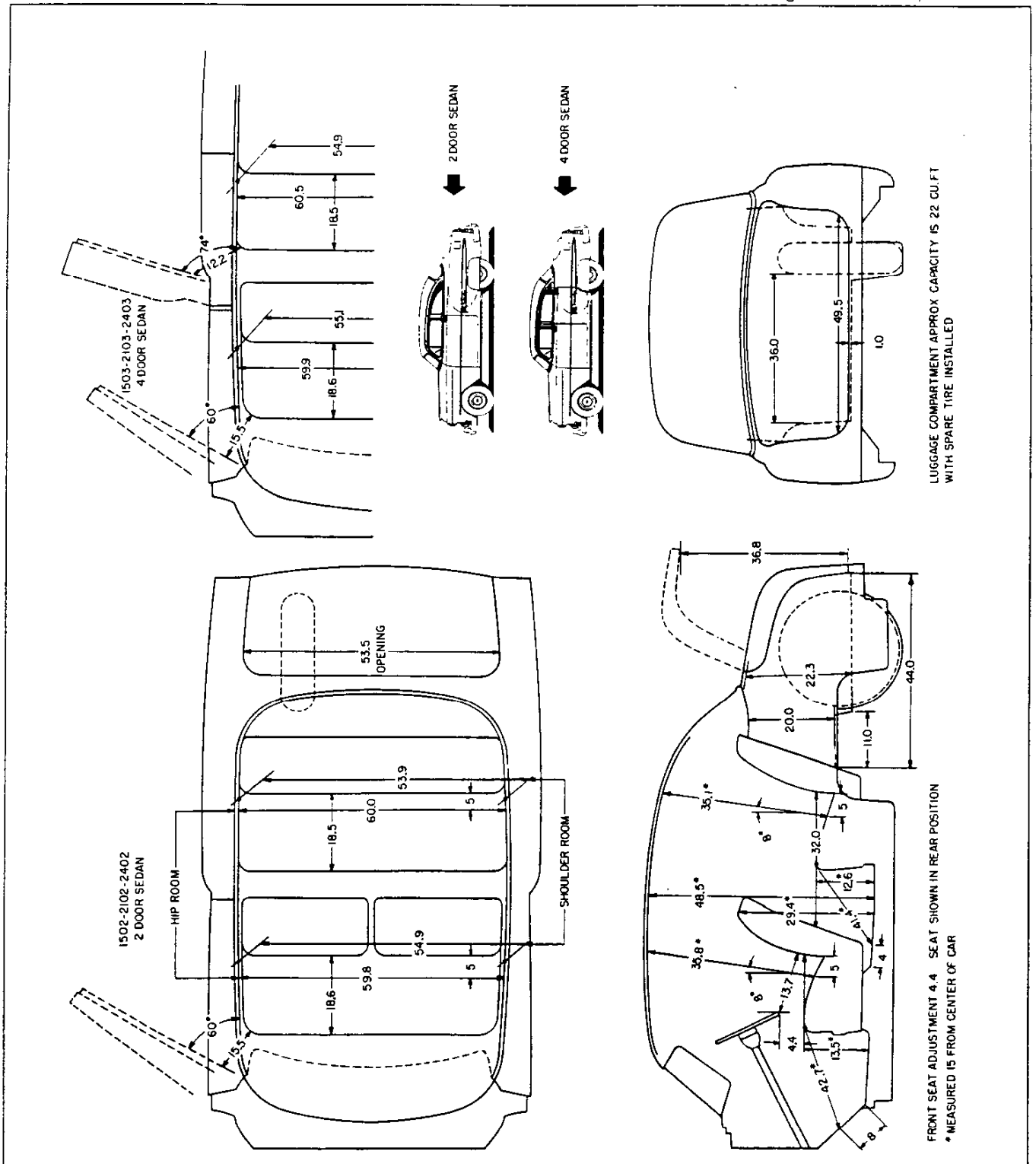
DESCRIPTION		KEY	1502 2102 2402	1503 2103 2403	1509 2109	2119	1524 2124	1504	2134 2434	2154 2454	1508
Vehicle length	Overall	A	195-1/2		197-7/8		195-1/2				195-1/4
	Grille to rear of body	B	184-1/2		186-5/8		184-1/2				
	Wheelbase	C	115								
	Grille to front wheel	D	29-3/8								
	Grille to bumper guard fr.	E	3-1/4								
Vehicle height	Over ornament, loaded	F*	45-3/4								
	Over roof, loaded	G*	63-1/8		67-1/8	66-1/4	63-1/4		61-3/4 Ø		65
	Over roof, no load	H⊕	64-7/8		68-7/8		64-3/4	64-1/4	63-1/2 Ø		67-1/8
Road clearance	Under stab. link bracket	K(⊡)	7-1/4								
	Under exhaust pipe	L(⊡)	7								
	Under rear axle center	M(⊡)	8								
Door step height	Front door, no load	N⊕	15-3/4		16	15-7/8	15-3/4		15-1/2		15-7/8
	Rear door, no load	O⊕		16	16-3/8	16-1/4					
Vehicle width	Over front bumper	P	74								
	Over front fenders	Q	71-1/2								
	Front wheel tread	R	56-11/16								
	Over front doors, open	S	151		140		151				140
	Over rear doors, open	T			129						
	Rear wheel tread	U	58-3/4								
	Over rear bumpers	V	73-3/4								
	Over body maximum	W	75								
Wind-shield	Width	X	50-5/8								
	Slope angle	a	43.5°		44.1°		43.5°				
	Height on slope	a'	15-3/4		17-3/4		15-3/4		14-1/4		15-3/4
	Corner post on diagonal	b	3-1/8						2-7/8		3-1/8
Rear window	Width	c§	55-1/2		44-1/2		47		44	58	30-1/8
	Height on slope	d§	15		12-1/2		15		14-1/2	14-1/4	10-3/8
	Slope angle	e≠	45.5°		23.5°		46.8°		49.4°	48.7°	27.5°
Front door	Opening height	f	43-3/4		45-7/8		43-3/4		42		43-3/4
	Opening width	g	44-3/8	36-7/8			44-3/8				36-7/8
	Window DLO height	h	12-7/8	12-3/4	14		12-7/8		12		12-3/4
	Window DLO width	j	35-3/8	28-5/8	27-3/4		35-3/8		35-1/2		28-5/8
Rear side door	Opening height	k		42-7/8	46						
	Opening width	l		31	31-1/4						
	Window DLO height	m		12-1/4	14-1/2						
	Window DLO width	n		27-1/4	28-1/8						
Rear quarter	Window DLO height	m●	12-1/8		33-1/4		11-5/8				
	Window DLO width	n●	28-1/8		13-5/8		20-3/8		17-5/8		

* - Under design load conditions
⊕ - At curb weight
(⊡) - Road clearance based on static conditions of tires and springs under design load
§ - 1502-03 is 47 x 15
≠ - 1502-03-24 is 46.5°
DLO - Daylight opening
Ø - Convertible height, top down: 60-7/8 no load. 59-1/8 loaded

3-16-53. Revised: 7-1-53, ● - m' and n' removed from drawing.

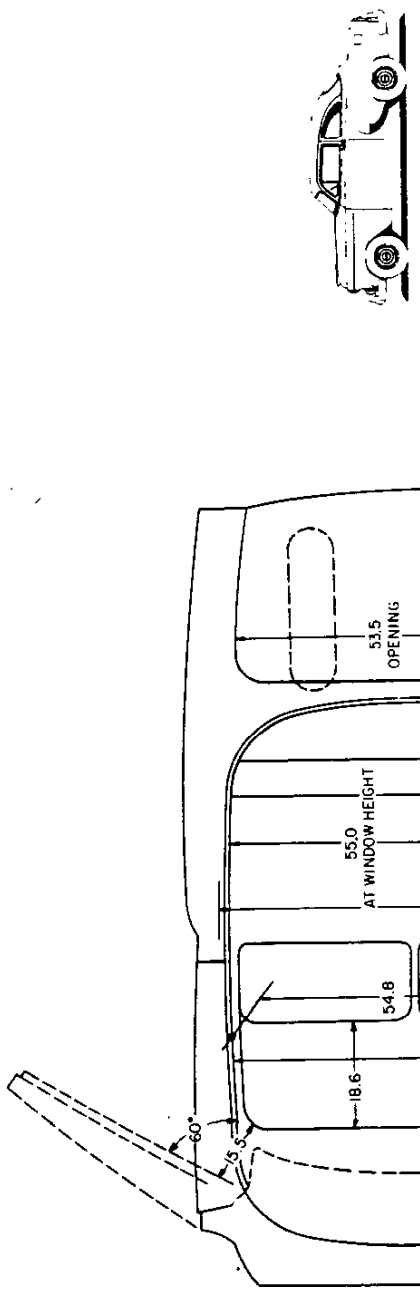
BODY INTERIOR DIMENSIONS

Trim and hardware differences between One-Fifty, Two-Ten and Bel Air models are not considered in these dimensions. However, these differences are never greater than 5/8.

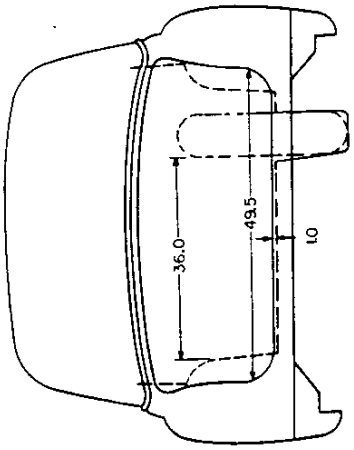


BEL AIR 2-DOOR AND 4-DOOR SEDANS (MODELS 2402 and 2403)
TWO-TEN 2-DOOR AND 4-DOOR SEDANS (MODELS 2102 and 2103)
ONE-FIFTY 2-DOOR AND 4-DOOR SEDANS (MODELS 1502 and 1503)

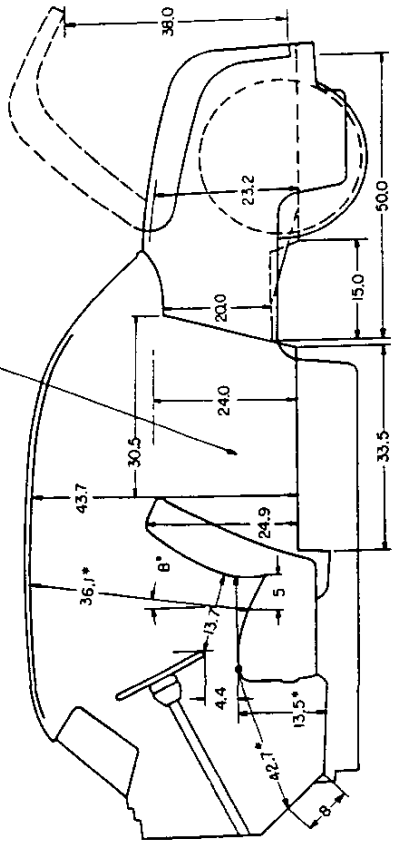
CONTINUED



LUGGAGE SPACE APPROX CAPACITY, BEHIND FRONT SEAT BELOW WINDOW OPENING, IS 26 CU FT



LUGGAGE COMPARTMENT APPROX CAPACITY IS 25 CU FT
WITH SPARE TIRE INSTALLED



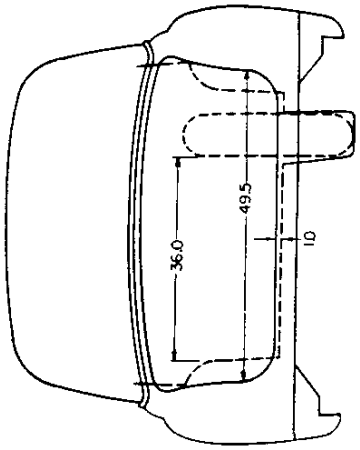
FRONT SEAT ADJUSTMENT 4 4 SEAT SHOWN IN REAR POSITION
* MEASURED 15 FROM CENTER OF CAR

ONE-FIFTY BUSINESS COUPE (MODEL 1504)

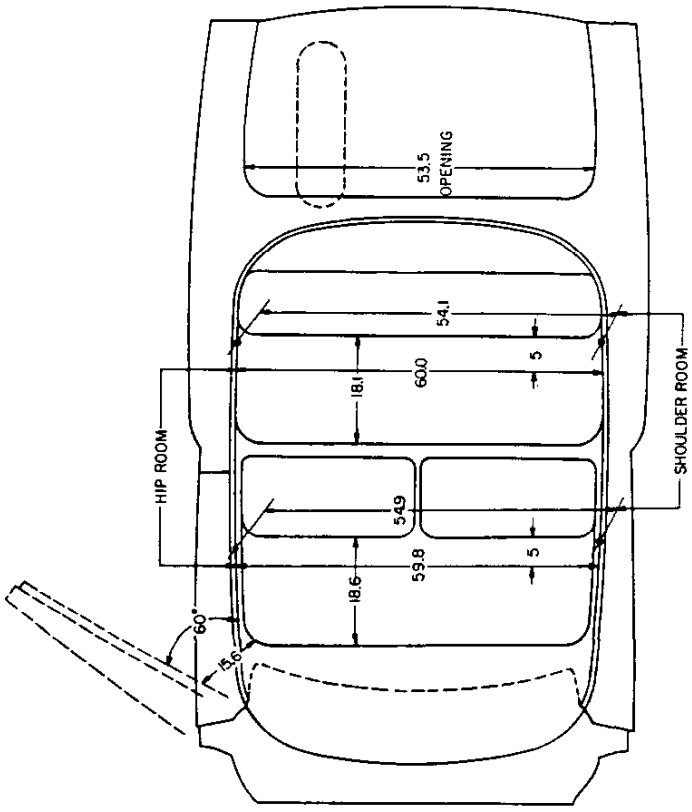
CONTINUED

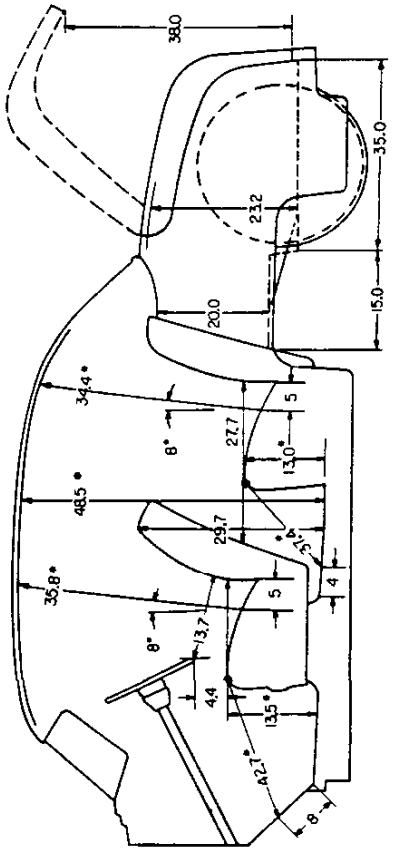
BODY INTERIOR DIMENSIONS—Continued

Trim and hardware differences between One-Fifty and Two-Ten models are not considered in these dimensions. However, these differences are never greater than 5/8.



LUGGAGE COMPARTMENT APPROX CAPACITY IS 25 CU FT WITH SPARE TIRE INSTALLED





FRONT SEAT ADJUSTMENT 4 4 SEAT SHOWN IN REAR POSITION

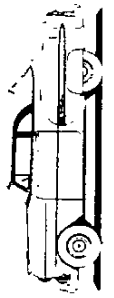
* MEASURED 15 FROM CENTER OF CAR

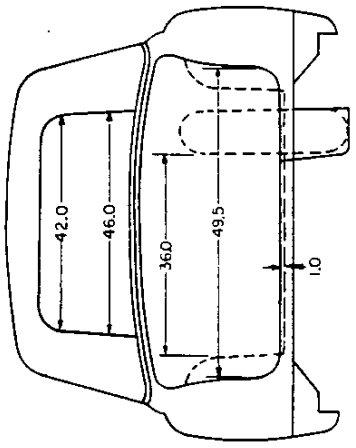
TWO-TEN CLUB COUPE (MODEL 2124)
ONE-FIFTY CLUB COUPE (MODEL 1524)

CONTINUED

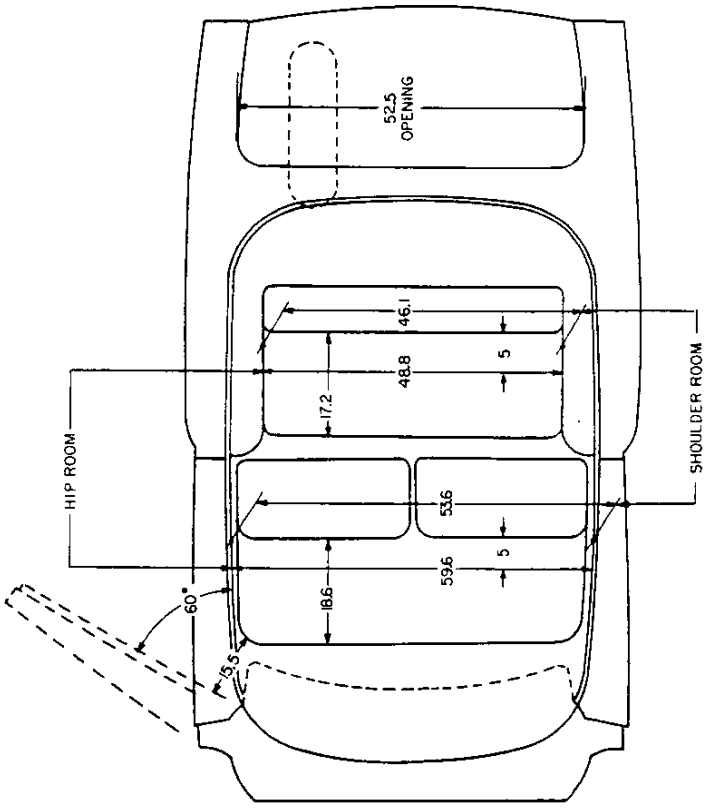
BODY INTERIOR DIMENSIONS—Continued

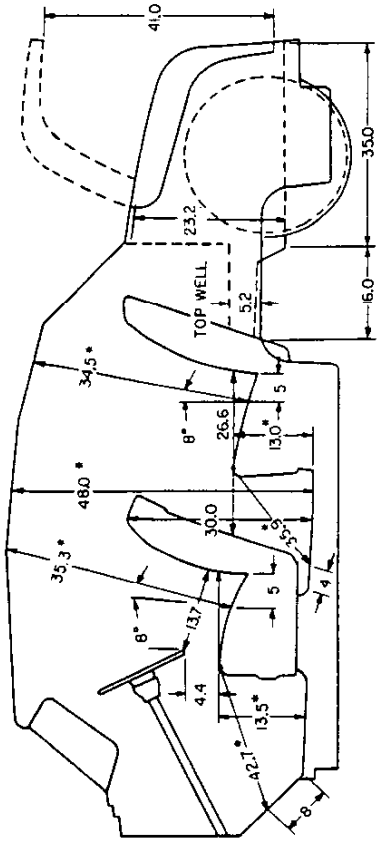
Trim and hardware differences between Two-Ten and Bel Air models are not considered in these dimensions. However, these differences are never greater than 5/8.





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

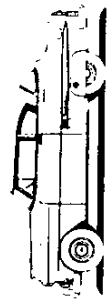


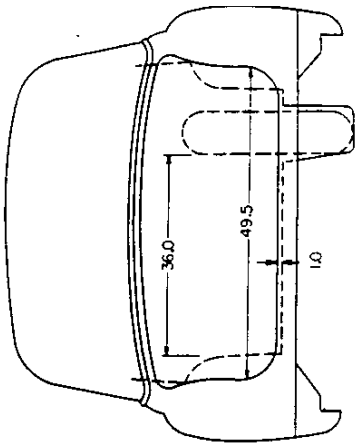


FRONT SEAT ADJUSTMENT 4 4 SEAT SHOWN IN REAR POSITION
* MEASURED 15 FROM CENTER OF CAR

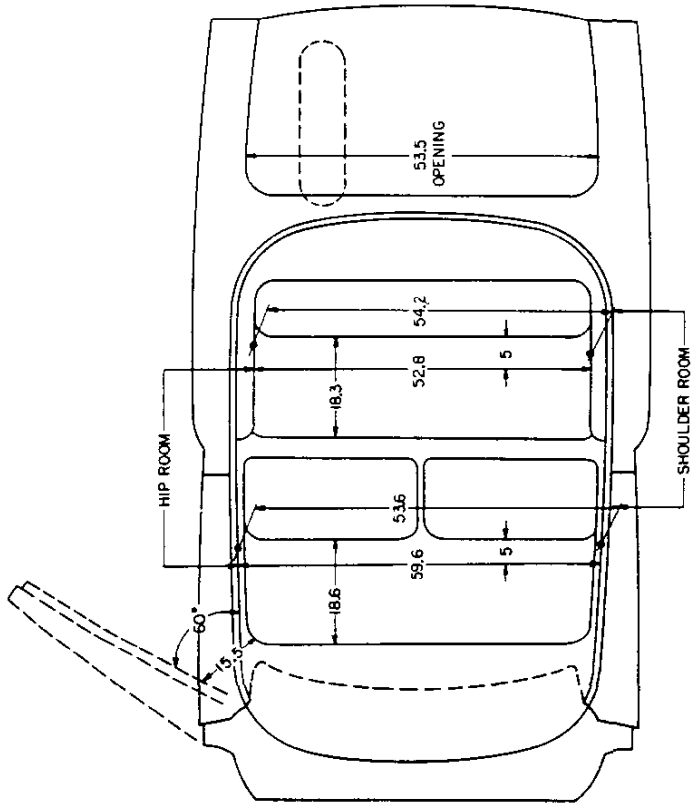
BEL AIR CONVERTIBLE (MODEL 2434)
TWO-TEN CONVERTIBLE (MODEL 2134)

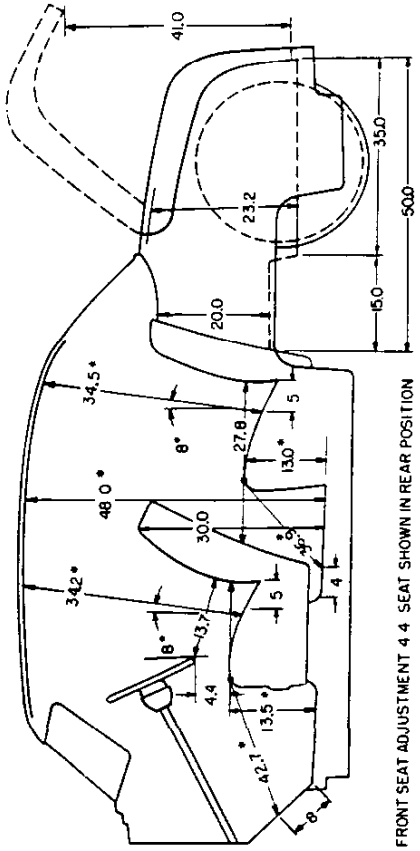
CONTINUED





LUGGAGE COMPARTMENT APPROX CAPACITY IS 25 CU FT
WITH SPARE TIRE INSTALLED





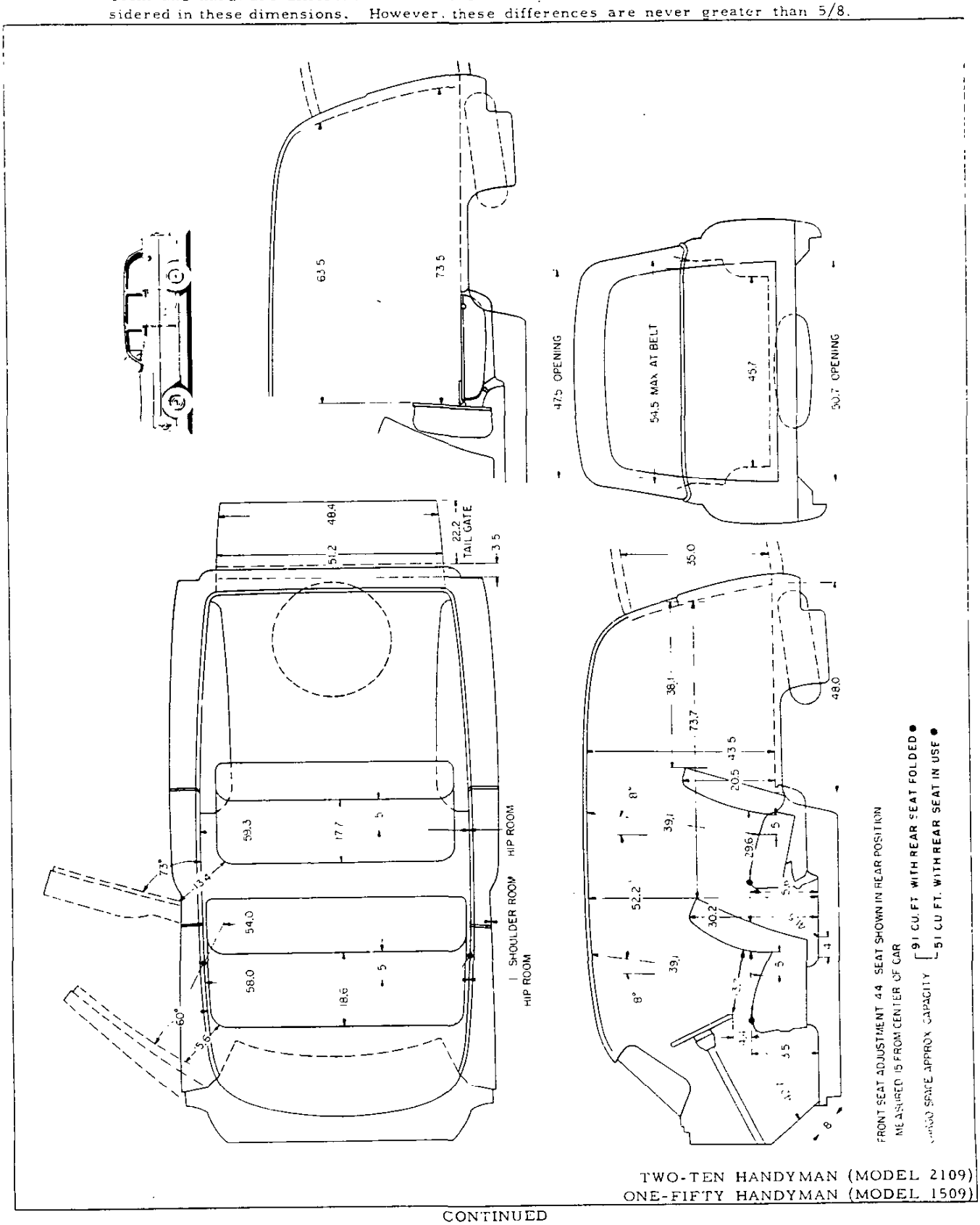
FRONT SEAT ADJUSTMENT 4 4 SEAT SHOWN IN REAR POSITION
* MEASURED 15 FROM CENTER OF CAR

BEL AIR SPORT COUPE (MODEL 2454)
TWO-TEN SPORT COUPE (MODEL 2154)

CONTINUED

BODY INTERIOR DIMENSIONS—Continued

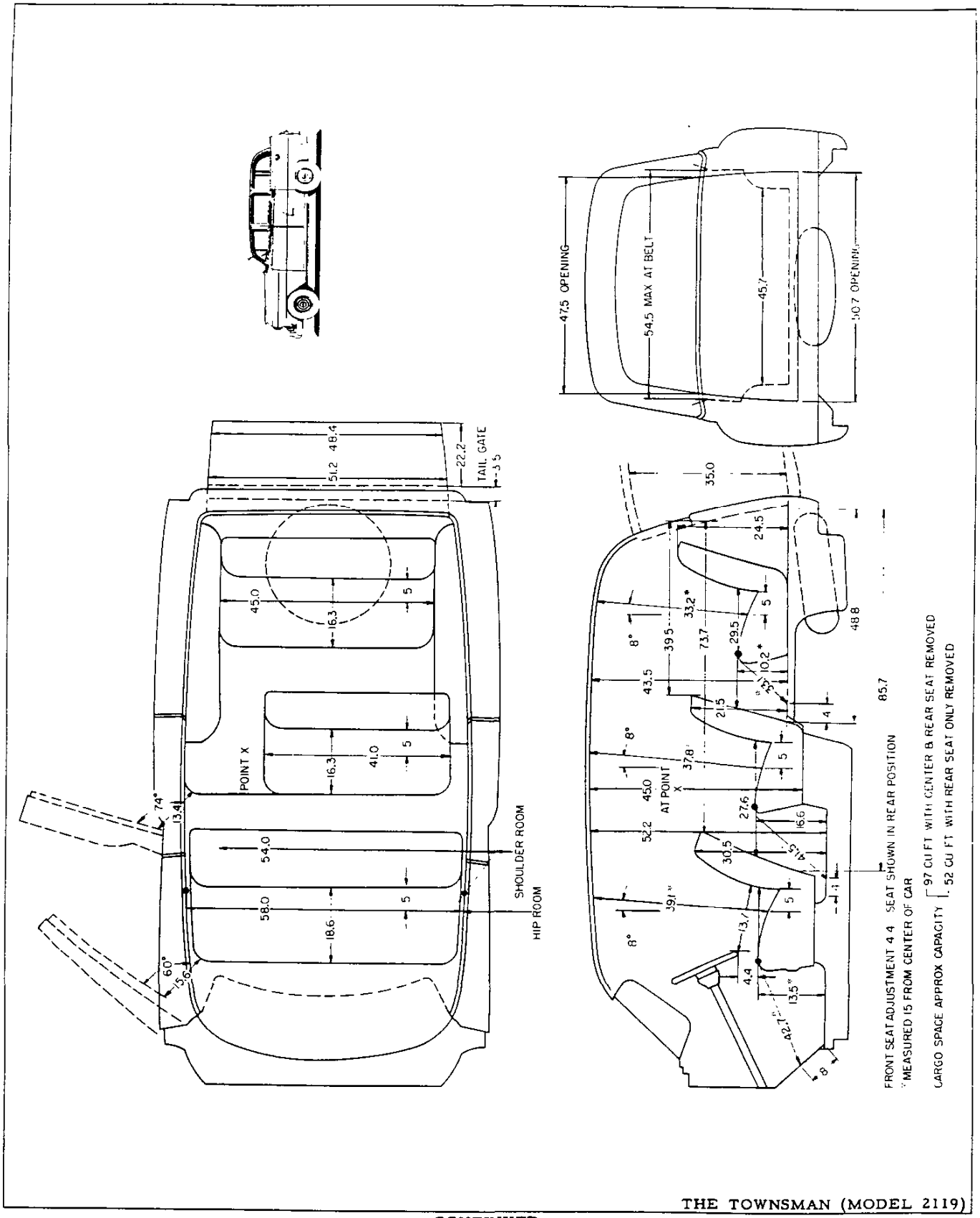
Trim and hardware differences between One-Fifty and Two-Ten models are not considered in these dimensions. However, these differences are never greater than 5/8.



TWO-TEN HANDYMAN (MODEL 2109)
ONE-FIFTY HANDYMAN (MODEL 1509)

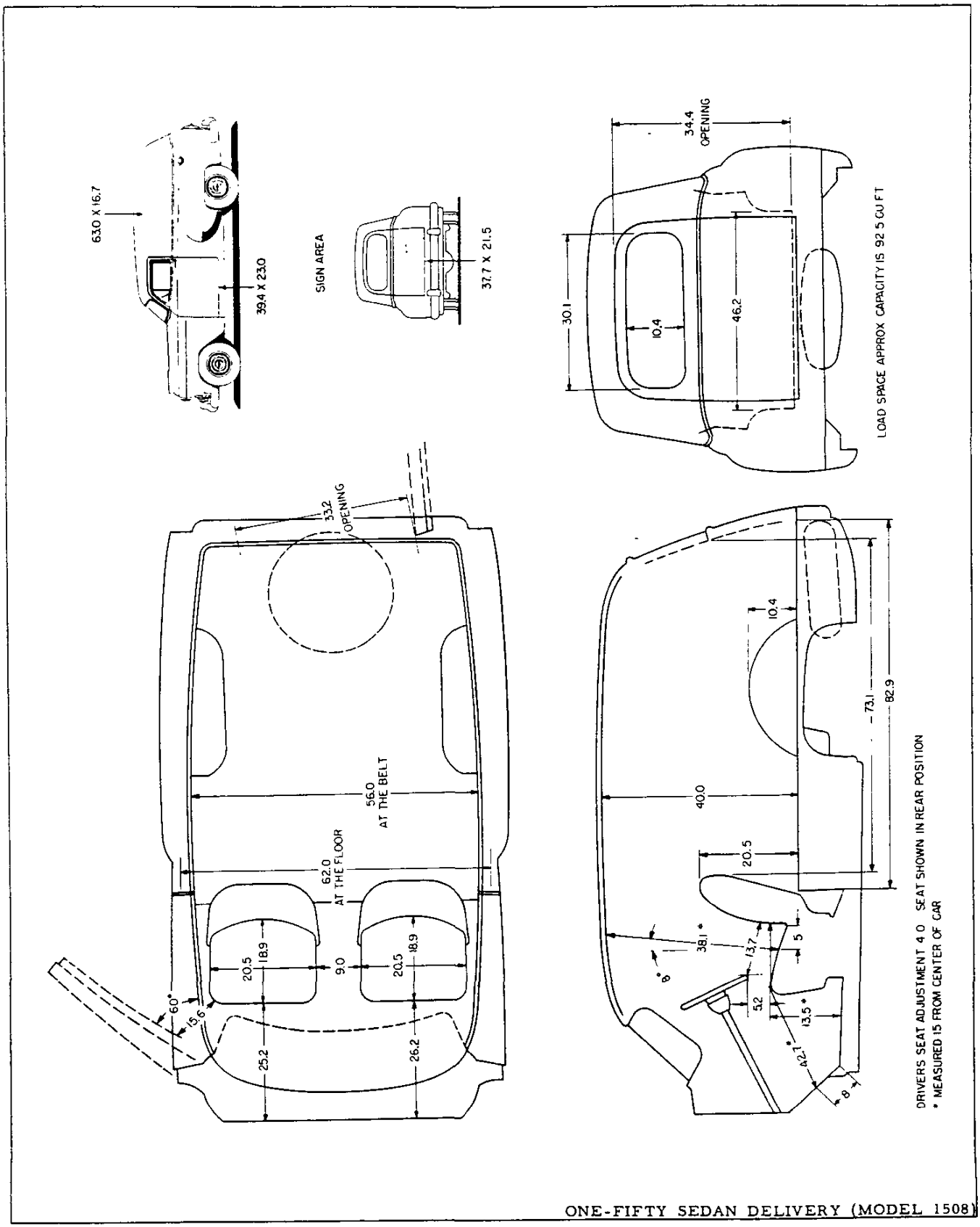
CONTINUED

3-16-53. Revised: 7-1-53. ● - Seat position corrected.



THE TOWNSMAN (MODEL 2119)

CONTINUED



ONE-FIFTY SEDAN DELIVERY (MODEL 1508)

EXTERIOR-INTERIOR COLOR COMBINATIONS

Upper Body	Lower body, Sheet metal, (and Wheels on Series 1500 and 2100)	Wheel Stripes	Inst. panel upper, Garnish moldings, Lock buttons, Steering wheel rim and cap	Inst. panel lower, Steering wheel spokes, Steering column, Gearshift shaft and lever	Trim Combination	
Onyx Black	Onyx Black	Argent Silver	Dusk Gray ¢	Driftwood Gray	Gray	
			Target Red	Driftwood Gray	Red & Gray	
			Onyx Black	Driftwood Gray	Black & White	
			Dusk Gray	Dusk Gray	Gray	
			Dusk Gray	Dusk Gray	Beige & Black	
Horizon Blue	Horizon Blue	Onyx Black	Regatta Blue	Horizon Blue	Blue	
			Dusk Gray	Dusk Gray	Gray	
Regatta Blue	Regatta Blue	Argent Silver	Regatta Blue	Horizon Blue	Blue	
			Dusk Gray	Dusk Gray	Gray	
			Dusk Gray	Dusk Gray	Beige & Black	
Surf Green	Surf Green	Onyx Black	Woodland Green §	Surf Green	Green	
			Dusk Gray	Dusk Gray	Gray	
			Dusk Gray	Dusk Gray	Beige & Black	
			Woodland Green	Woodland Green	Green	
Woodland Green *	Woodland Green	Argent Silver	Woodland Green §	Surf Green	Green	
			Dusk Gray	Dusk Gray	Gray	
			Dusk Gray	Dusk Gray	Beige & Black	
			Woodland Green	Woodland Green	Green	
Driftwood Gray	Driftwood Gray	Onyx Black	Regatta Blue	Horizon Blue	Blue	
			Dusk Gray	Dusk Gray	Gray	
			Dusk Gray	Dusk Gray	Beige & Black	
Dusk Gray *	Dusk Gray	Argent Silver	Dusk Gray ¢	Driftwood Gray	Gray	
			Dusk Gray	Dusk Gray	Gray	
			Dusk Gray	Dusk Gray	Beige & Black	
Sahara Beige *	Sahara Beige	Onyx Black	Saddle Brown §	Sahara Beige	Brown	
			Dusk Gray	Dusk Gray	Gray	
			Dusk Gray	Dusk Gray	Beige & Black	
			Woodland Green	Woodland Green	Green	
Saddle Brown	Saddle Brown	Argent Silver	Saddle Brown §	Sahara Beige	Brown	
			Dusk Gray	Dusk Gray	Gray	
			Woodland Green	Woodland Green	Green	
Madeira Maroon *	Madeira Maroon	Argent Silver	Madeira Maroon ¢	Driftwood Gray	Gray	
			Dusk Gray	Dusk Gray	Gray	
			Dusk Gray	Dusk Gray	Beige & Black	
Campus Cream Target Red	Campus Cream Target Red	Onyx Black Argent Silver	Woodland Green	Surf Green	Green	
			Target Red	Driftwood Gray	Red & Gray	
			Target Red	Driftwood Gray	Red & White	
Sungold	Sungold	Onyx Black	Sungold	Driftwood Gray	Yellow & White	

TWO- COLOR COMBINATIONS

Regatta Blue	Horizon Blue	Onyx Black	Regatta Blue	Horizon Blue	Blue	
			Dusk Gray	Dusk Gray	Gray	
India Ivory	Horizon Blue	Onyx Black	Regatta Blue	Horizon Blue	Blue	
India Ivory	Regatta Blue	Argent Silver	Regatta Blue	Horizon Blue	Blue	
Woodland Green	Surf Green	Onyx Black	Woodland Green §	Surf Green	Green	
			Dusk Gray	Dusk Gray	Gray	
			Woodland Green	Woodland Green	Green	
Campus Cream	Woodland Green	Argent Silver	Woodland Green	Surf Green	Green	
Woodland Green	Campus Cream	Onyx Black	Woodland Green	Surf Green	Green	
Dusk Gray	Driftwood Gray	Onyx Black	Dusk Gray ¢	Driftwood Gray	Gray	
			Dusk Gray	Dusk Gray	Gray	
Saddle Brown	Sahara Beige	Onyx Black	Saddle Brown §	Sahara Beige	Brown	
			Dusk Gray	Dusk Gray	Gray	
			Woodland Green	Woodland Green	Green	
Sahara Beige	Saddle Brown	Argent Silver	Saddle Brown	Sahara Beige	Brown	
India Ivory	Sungold	Onyx Black	Woodland Green	Surf Green	Green	●
			Sungold	Driftwood Gray	Yellow & White	●

* - Available for model 1508 on special order at no extra cost

¢ - Onyx Black steering wheel rim and cap

§ - Wood Grain finish on side window garnish moldings on model 2119

3-16-53. Revised: 7-1-53. ● - Interior color combination changed.

EXTERIOR-INTERIOR COLOR COMBINATIONS

Series 1500			Series 2100				Series 2400				
1502 1503 1504 1524	1508	1509	2102 2103 2124	2154	2109 2119	2134 Top Color	2402 2403	2454	2434 Top Color	Rear Fender Insert Panel	Wheels (No Stripes)
			●	●			●			Driftwood Gray	Driftwood Gray
						Black					
								●	Black	Driftwood Gray	Driftwood Gray
●											
	●										
			●	●		Blue	●	●	Blue	India Ivory	Driftwood Gray
●											
			●				●			India Ivory	Driftwood Gray
●											
	●										
			●	●	●	Green	●	●	Green	Woodland Green	Campus Cream
●											
	●										
		●									
			●		●		●			Campus Cream	Campus Cream
●											
	●										
		●									
			●			Blue	●		Blue	Regatta Blue	Driftwood Gray
●											
	●										
			●				●			Driftwood Gray	Driftwood Gray
●											
	●										
			●		●		●			Saddle Brown	Sahara Beige
●											
	●										
		●									
			●	●	●	Lt. Tan	●	●	Lt. Tan	Sahara Beige	Sahara Beige
●											
		●									
			●				●			Driftwood Gray	Driftwood Gray
●											
	●										
						Green			Green	Woodland Green	Campus Cream
						Black				India Ivory	Driftwood Gray
									Black	India Ivory	Driftwood Gray
									Black	India Ivory	Driftwood Gray
			≠								
●											
			①	●			●	●		India Ivory	Driftwood Gray
			①	●			●	●		India Ivory	Driftwood Gray
			●	●	●		●	●		Woodland Green	Campus Cream
●											
		●									
			①	●			●	●		Campus Cream	Campus Cream
			①	●			●	●		Woodland Green	Campus Cream
			≠								
●											
			●	●	●		●	●		Saddle Brown	Sahara Beige
●											
		●									
			①	●			●	●		Sahara Beige	Sahara Beige
							●			India Ivory	Driftwood Gray
								●		India Ivory	Driftwood Gray

≠ - 2124 only
① - 2102, 2103 only

INTERIOR UPHOLSTERY AND COLOR COMBINATIONS

1500 SERIES

SEDANS AND COUPES
Models 1502-03-04-24

Color: Two-tone gray.

Seats: Light gray pattern cloth with dark gray textured leather fabric at base; plain dark gray flat cloth on front seat back insert and sides; textured leather fabric with dark gray painted molding on end panel lower.

Sidewalls: Dark gray textured leather fabric on upper panel and scuff pad; light gray leather fabric center panel; dark gray embossed composition board quarter panels and rear partition on Business Coupes.

Horn button: Bright metal with black painted shield.

Headlining and sunshade: Light gray plain napped cloth; dark gray leather fabric binding and grip on sunshade.

Floor covering: Front and rear - textured black rubber; luggage compartment - rib pattern black rubber.

HANDYMAN
Model 1509

Color: Two-tone green.

Seats: Light green leather fabric on cushion and backrest; dark green leather fabric front seat back insert and end panels except dark green textured leather fabric and painted molding on front seat end panel lower; dark green ribbed linoleum on back of backrest and bottom of rear seat cushion.

Sidewalls: Dark green textured leather fabric on upper panel, scuff pad, and rear quarter panels; light green leather fabric center panel.

Headlining and sunshades: Light green leather fabric.

Wheelhouse cover panels: Dark green paint.

Horn button: Bright metal with black painted shield.

Floor covering and tail gate: Front and center - textured dark green mottled rubber. Rear - dark green ribbed linoleum on load space floor and tail gate.

SEDAN DELIVERY
Model 1508

Color: Beige and black.

Seats (bucket type) and side doors: Beige leather fabric on seat cushion, back rest, and upper door panels; black textured leather fabric on seat back, facings, scuff pad and lock pillar cover.

Headlining and sunshade: Beige leather fabric.

Load space sidewalls: Beige painted fiber board.

Rear door inner panel: Beige painted steel.

Horn button: Bright metal with black painted shield.

Floor covering: Driver's compartment - textured black rubber. Load space - black painted plywood.

2100 SERIES

SEDANS AND COUPES
Models 2102-03-24-54

Colors: Two-tone gray, blue, green, and brown. (See page 20 for Interior-Exterior color combinations)

Seats: Light tone solid color pattern cloth with dark tone solid color pattern cloth on back rest upper panel and front seat end panel upper; dark tone leather fabric with bright metal molding on end panel lower.

Sidewalls: Dark tone solid color pattern cloth on upper panel; light tone leather fabric on lower panel.

Arm rests: Dark tone leather fabric upper with light tone plastic base, except light tone leather fabric on rear arm rest lower on model 2154.

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

Floor covering: Front - textured dark tone mottled rubber. Rear - dark tone solid color carpet.

HANDYMAN AND TOWNSMAN
Models 2109-19

Colors: Green and beige, or brown and beige.

Seats: Beige straw pattern leather fabric with metallic green or brown Elascofab on backrest and cushion bolsters; metallic light green or brown leather fabric with bright metal molding on front seat end panel; Arm rest lower is beige plastic; beige ribbed linoleum on Handyman rear seat back and bottom of rear seat cushion.

Sidewalls: Metallic light green or brown leather fabric on upper panel and rear quarter panel; beige straw pattern leather fabric center panel; embossed bright metal scuff pad.

Arm rest: Beige straw pattern leather fabric upper with beige plastic base.

Headlining and sunshades: Beige leather fabric.

Wheelhouse cover panels: Beige paint.

Floor covering and tail gate: Front and center - mottled beige textured rubber. Rear - beige ribbed linoleum on floor area and tail gate; bright metal skid strips on tail gate.

CONVERTIBLE
Model 2134

Colors: Red and gray; two-tone blue, green, and brown.

Seats: Light tone leather fabric on cushion and backrest with dark tone leather fabric backrest upper panel, except solid red cushion and backrest on red and gray combination. Light tone leather fabric front seat back insert and dark tone leather fabric lower cross bar. Dark tone plastic with bright metal molding on front seat end panels.

Sidewalls: Dark tone leather fabric on upper panel; light tone leather fabric on lower panel.

Sunshades: Dark tone leather fabric.

Arm rests: Front - dark tone leather fabric upper with light tone plastic lower. Rear - dark tone leather fabric upper with light tone leather fabric lower.

Side window frames: Bright metal.

Floor covering: Textured dark tone mottled rubber.

2400 SERIES

SEDANS
Models 2402-03

Colors: Two-tone gray, blue, green, and brown. (See page 20 for Interior-Exterior color combinations)

Seats: Light tone plain broadcloth with nylon-faced ladder pattern cloth bolsters; light tone plain flat cloth on front seat back insert; dark tone plain flat cloth on lower cross bar on Model 2403; dark tone carpet on lower cross bar on Model 2402; dark tone plain flat cloth with bright metal molding on front seat end panels.

Sidewalls: Dark tone leather fabric on upper panel and scuff pad; light tone plain flat cloth on center panel.

Arm rests: Dark tone leather fabric upper; light tone plastic lower.

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

Floor covering: Dark tone solid color carpet.

SPORT COUPE
Model 2454

Colors: Black and white, yellow and white; two-tone blue, green, and brown.

Seats: Two-tone checked pattern cloth on cushion and backrest with light tone Elascofab on backrest upper panel and cushion bolster; light tone leather fabric welts. Light tone leather fabric on front seat back insert; solid color carpet on lower cross bar; light tone plastic with bright metal molding on front seat end panels.

Sidewalls: Dark tone leather fabric on upper panel and scuff pad; light tone leather fabric on center panel.

Arm rests: Front - dark tone leather fabric on upper with light tone plastic base. Rear - dark tone leather fabric upper with light tone leather fabric lower.

Headlining and sunshades: Light tone leather fabric.

Side window frames and exposed roof bows: Bright metal.

Floor covering: Dark tone solid color carpet.

CONVERTIBLE
Model 2434

Colors: Red and white, black and white, yellow and white; two-tone blue, green, and brown.

Seats: Dark tone Elascofab cushion and backrest with light tone Elascofab on backrest upper panel and cushion facing; dark tone leather fabric on front seat back insert; dark tone solid color carpet on lower crossbar.

Sidewalls: Dark tone leather fabric on upper panel and scuff pad; light tone leather fabric center panel.

Arm rests: Front - dark tone leather fabric with light tone plastic base. Rear - dark tone leather upper with light tone leather fabric lower.

Floor covering: Dark tone solid color carpet.

Top boot: Light tone leather fabric.

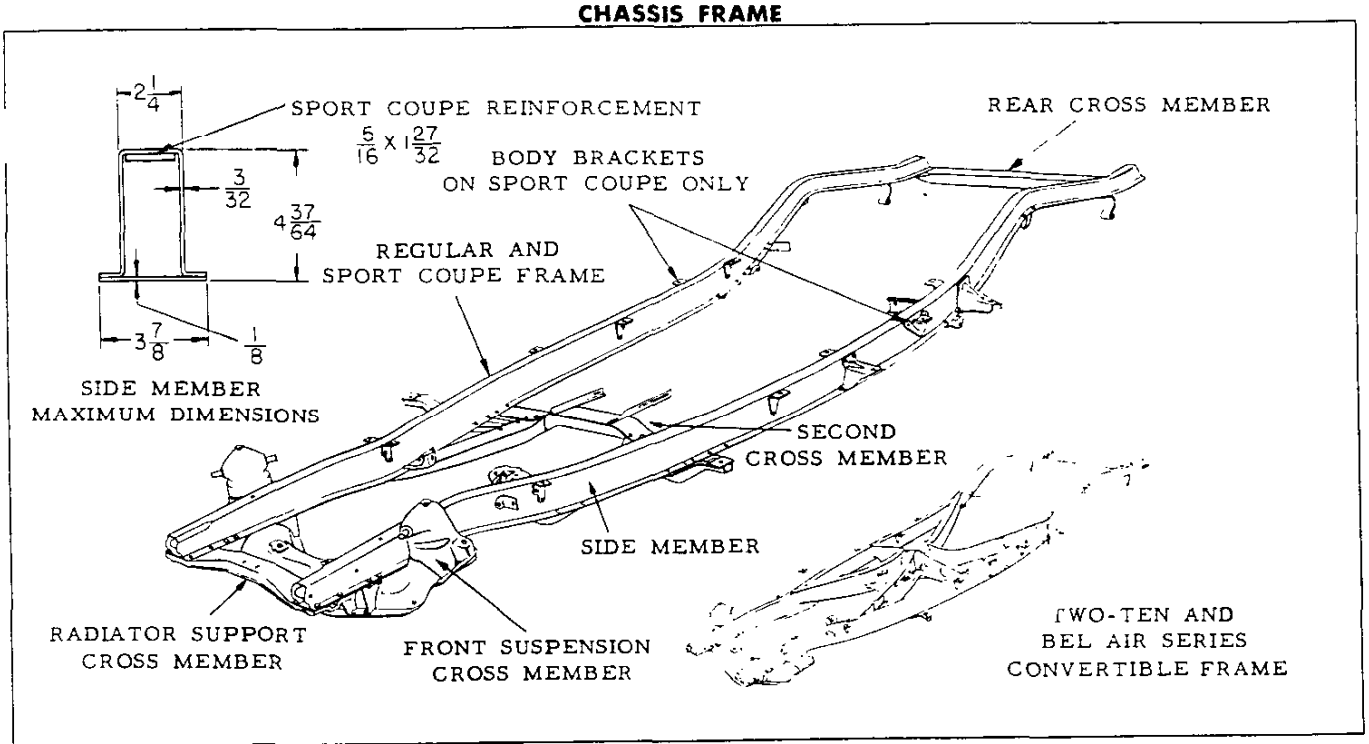
BODY GLASS

<table>
<tr><th colspan="2">ITEM</th><th>1503</th><th>2103
2403</th><th>1504
1524</th><th>1508</th><th>1502, 2102
2124, 2402</th><th>2154
2454</th><th>2134
2434</th><th>1509</th><th>2109</th><th>2119</th></tr>
<tr><td colspan="2">Windshield</td><td colspan="10">Laminated safety plate, curved, one piece</td></tr>
<tr><td rowspan="2">Front Door</td><td>Ventipanes</td><td colspan="7" rowspan="2">Laminated safety plate</td><td rowspan="2">Laminated safety sheet</td><td colspan="2" rowspan="2"></td></tr>
<tr><td>Windows</td></tr>
<tr><td colspan="2">Rear door windows</td><td colspan="6"></td><td colspan="2">Laminated safety plate</td></tr>
<tr><td rowspan="2">Rear quarter windows</td><td>Movable section</td><td colspan="4"></td><td colspan="3">Laminated safety plate</td><td></td><td colspan="2">Laminated safety plate</td></tr>
<tr><td>Fixed section</td><td colspan="7"></td><td colspan="3" rowspan="2">Safety solid plate</td></tr>
<tr><td colspan="2">Rear window</td><td colspan="6">Safety solid plate, curved</td><td>Vinyl plastic</td></tr>
</table>

REGULAR EQUIPMENT

ITEM				MODELS
Exterior	Bumpers and dual bumper guards, front and rear			All
	Hood ornament and emblem			
	Chrome plated head light rims			
	Dual windshield wipers			
	Dual horns			
	Outside key locks, front doors			
	Bumper gravel deflectors, front and rear			
	Rear fender shields	Black rubber		1500
		Bright metal		2100, 2400
	Rear wheel cover panels			2400
	Rear deck lid wing emblem with finger grip			All except 1508-09, 2109-19
	Locking T handle on lift gate, name plate on tail gate			1509, 2109-19
	Dual tail and stop lights			All
	One license light in rear gravel deflector			1508-09, 2109-19
	License light in license guard			All except 1508-09, 2109-19
	Bright metal moldings	Body belt		All
		Body sill		All except 1500 models
		Front and rear fenders and doors with the words "Bel Air" in script on rear fenders		2100, 2400. "Bel Air" designation on 2400 only
		Reveals	Windshield	1508, 2100, 2400
			Side window	2102-03-24, 2402-03
			Rear window	1508, 2102-03-24-54, 2402-03-54
	Outside rear view mirror, left hand			1508
	Ventipane drip shields			All except 2134, 2434
	Bonderized body and sheet metal			All
Interior	Instrument panel	Glove box lock and light		All. Lock only on 1500
		Clock, stem wind		2100, 2400. A removable panel covers each space on 1500
		Cigarette lighter		
		Ash tray		2100, 2400
		Plastic control knobs with bright metal finger grips and inserts		2100, 2400 Plain plastic on 1500
		Radio grille, bright metal		All
		3-position ignition switch		
		Two-tone finish		2100, 2400
	Steering wheel	Two spoke with horn button		1500
		Two spoke with full horn ring		2100, 2400
	Dual sunshades			2100, 2400. Left hand only on 1500
	Inside rear view mirror			All except 1508
	Passenger compartment light			1, All except 2 on 2154, 2454
	Interior lighting automatic switches, two			Front doors 2100, 2400
	Coat hooks			1502-03-04-24, 2102-03-24, 2402-03
	Assist straps			2102-24, 2402
	Robe cord			2102-03, 2400
	Foam rubber seat cushion pad, front and rear			2100, 2400 Front only on 2109-19
	Arm rests, front and rear doors or quarter panels			
	Extra roof insulation			2102-03-24-54, 2402-03-54
	Rear seat ash tray	In front seat back		2103, 2403
		In quarter panel arm rests		2102-24-34-54, 2402-34-54
	Package shelf ahead of rear window			1502-03-04-24, 2102-03-24-54 2402-03-54
	Dual ventilators in dash			All
	Adjustable front seat			
	Moveable front door ventipanes			
	Bright metal inserts in window regulator knobs			2100, 2400
	Rolled embossed aluminum step plates			All
	"Body by Fisher" on front door step plates			
	Seat springs	Continuous "S" shaped springs		All front seats except 1508. All rear seats except 1509, 2109-19
		Coil springs		Front seats 1508
				Folding seat 1509, 2109
				Center and rear seat 2119

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. Sport Coupes are 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. Also serves as front suspension cross member.
Second cross member----------Box girder, with box section braces to the side members.
Rear cross member---------- Box girder
Maximum overall length---------- 169-37/64
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:	Sport Coupes	All others
Modulus (in.^{3})	3.245	1.725
Moment of inertia (in.^{4})	7.775	4.90

CONVERTIBLE COUPE FRAMES

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

FRONT SUSPENSION

Make---------- Own
Type---------- Independent, 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)

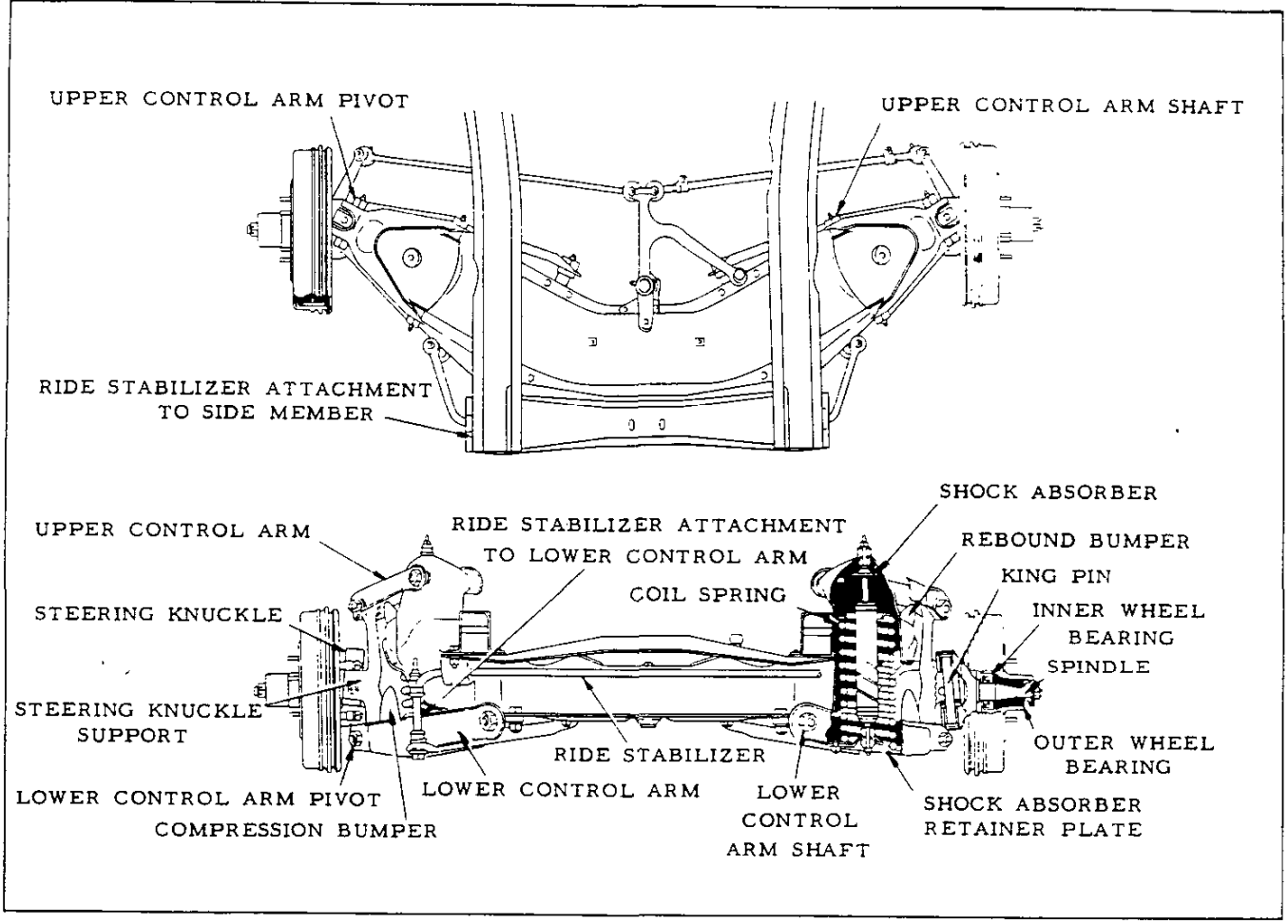
SHOCK ABSORBERS

Make---------- Delco
Type---------- Direct, double-acting, hydraulic
Mounting---------- Vertically, from lower control arm through coil spring to dome of spring housing.
Model number---------- 538F
Valve Code---------- 5C6/OXGI-2
Piston diameter and travel---------- 1 x 4-11/16

SPRINGS		2134-2434 and RPO's 313, 324, 330 •	ALL OTHERS
Make and type		Own, right hand helical coil	
Material and gauge		Chrome alloy steel .584-.588	
Number of coils		Total 12.1 - Active 10.4	
Diameters		Outside 4.45 - Pitch 3.794	
Height		Free 15-1/8, Working 9.5 at 1640 lbs.	Free 14-3/4, Working 9.5 at 1555 lbs.
Height under curb weight		10-3/8	
Capacity at ground (lbs)		1100	1050
Deflection rate	At spring	300 pounds per inch	
	At wheel	110 pounds per inch	

CONTINUED

3-16-53. Revised: 7-1-53, • - Model usage clarified.



STEERING KNUCKLE

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

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---------- 3/16-5/16 ●
Toe-out on turns:
Outside wheel---------- 20°
Inside wheel---------- 22°-26°

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

KING PIN

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

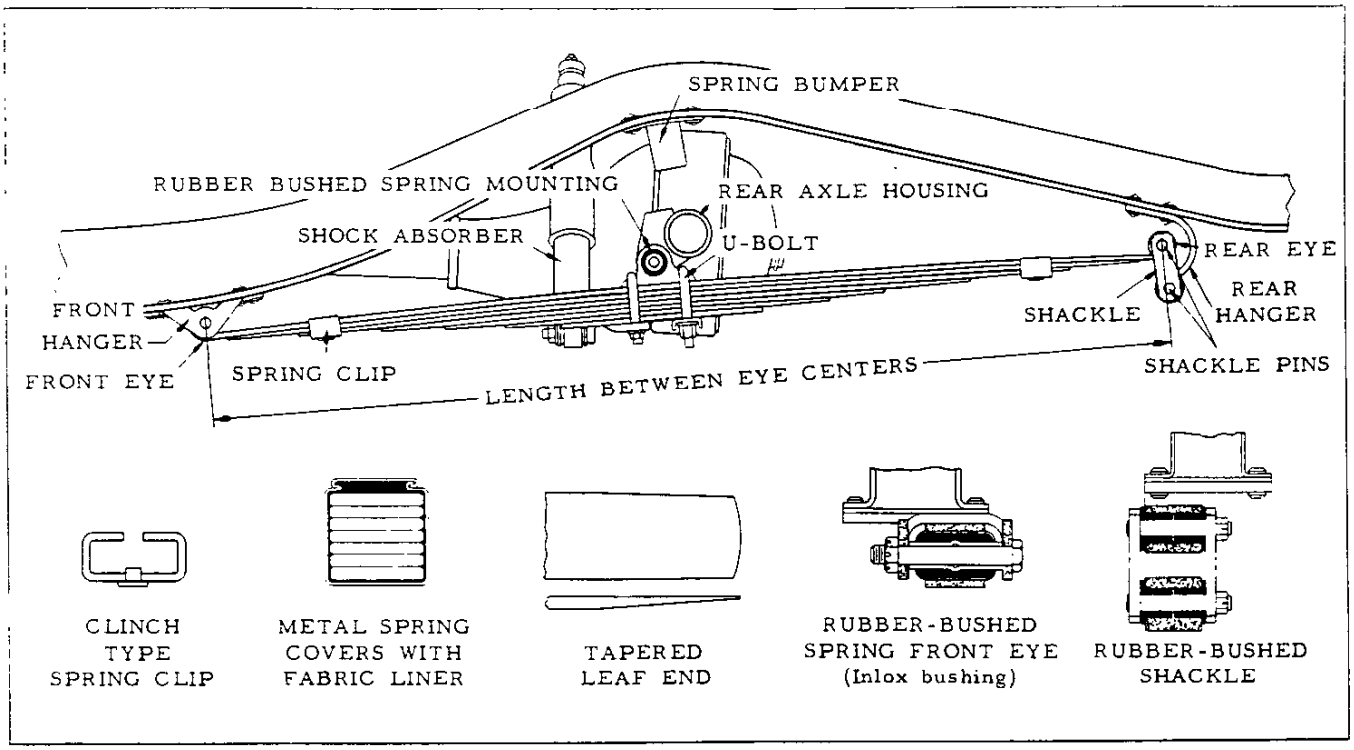
BEARINGS

Wheel bearing lubricant----High melting-point grease
Anti-friction bearings----------See page 161

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							
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							

3-16-53. Revised: 7-1-53, Data corrected. ●

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		1502-03-24 2102-03-24 -34-54, 2400	1504	1508 (RPO on 1502 -03-04-24, 2102-03 -24-34-54, 2400)	1509 2109-19	RPO on 1508-09, 2109-19
Number of leaves		7	7	8	8	8
Thickness of leaves	#1-2	.237				
	#3-4		.214			.262
	#5-6-7					
	#8					
Total thickness		1.544	1.590	1.804	1.896	1.996
Avg design load at camber height (lbs)		880	750	920	1250	1365
Camber height at design load		5/8 neg	1 neg	5/8 neg	5/8 neg	1-1/4 neg
Average rate of deflection (lb/in)		100	108	115	145	165
Leaf end type		Tapered			Flat	
Capacity at ground (lb)		1100	945	1180	1475	1600

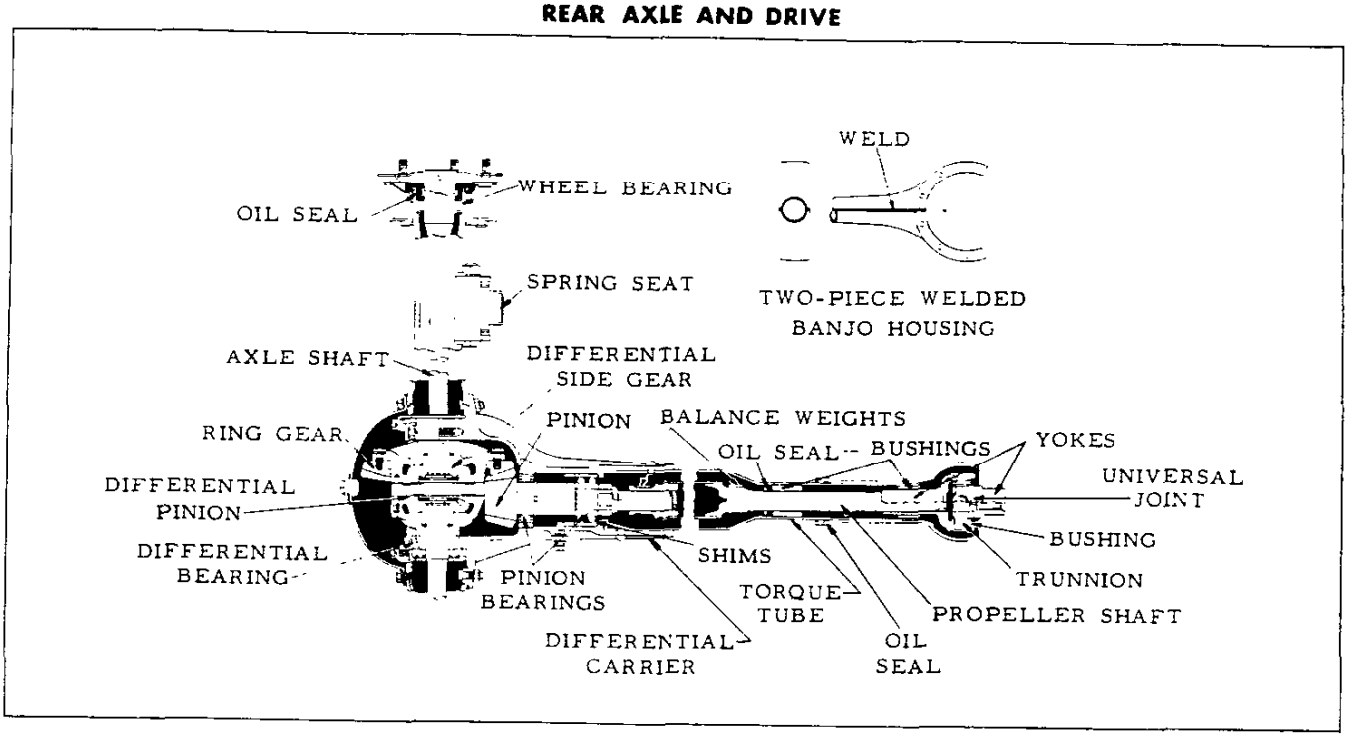
SPRING MOUNTING

Type ---------- Parallel, 45-1/4 between centers
Front eye bolt diameter ---------- .500-.504
Front eye bolt bushing, type and size ---------- Rubber-bushed, .505 min ID x 2.400-2.410 long
Shackle mounting ---------- In tension from rear hanger
Shackle type ---------- Rubber-bushed
Shackle pin OD ---------- .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 ---------- 4.5C6/OXG/J2
Piston diameter and travel ---------- 1 x 8-3/16

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 ----------1508, 4.11:1; all others 3.70:1 •
Teeth, ring gear ---------- 37
Teeth, pinion ----------1508, 9; all others 10
Gear backlash ---------- .005-.008
Pinion gear:
Mounting ---------- Overhung
Thrust taken by ---------- Pinion front bearing
Adjustment ---------- Shims (average .018) in differential carrier forward of the front bearing

ITEM		1st	2nd	3rd	rev	
Total gear reduction*	1508	12.08	6.90	4.11	12.08	•
	All others	10.88	6.22	3.70	10.88	
Axle shaft torque (ft lb)@	1508	1746	997	629	1746	•
	All others	1817	1038	654	1817	

Lock sleeve lock screw torque ---------- 26-30 ft lb
Pinion fr brg ret nut torque ---------- 200-240 ft lb
Bearings
Anti-friction bearings ---------- See page 161

AXLE SHAFT

Type and material ---------- Forged steel with wheel drive flange forged integral with shaft
Minimum diameter ---------- 63/64
Oil seal --Steel-encased spring-loaded synthetic rubber

DIFFERENTIAL

Type ----------
Two pinion with malleable iron case and carrier
Bearing cap bolt torque ---------- 65-80 ft lb

UNIVERSAL JOINT

Make ---------- Own
Type ---------- York and spider (trunnion)
Trunnion material ------- Drop forged steel, hardened
Trunnion pin diameter ---------- .6835-.6845
Bearing ID and length ---------- .687-.688 x 17/32
Lubrication ---------- From transmission

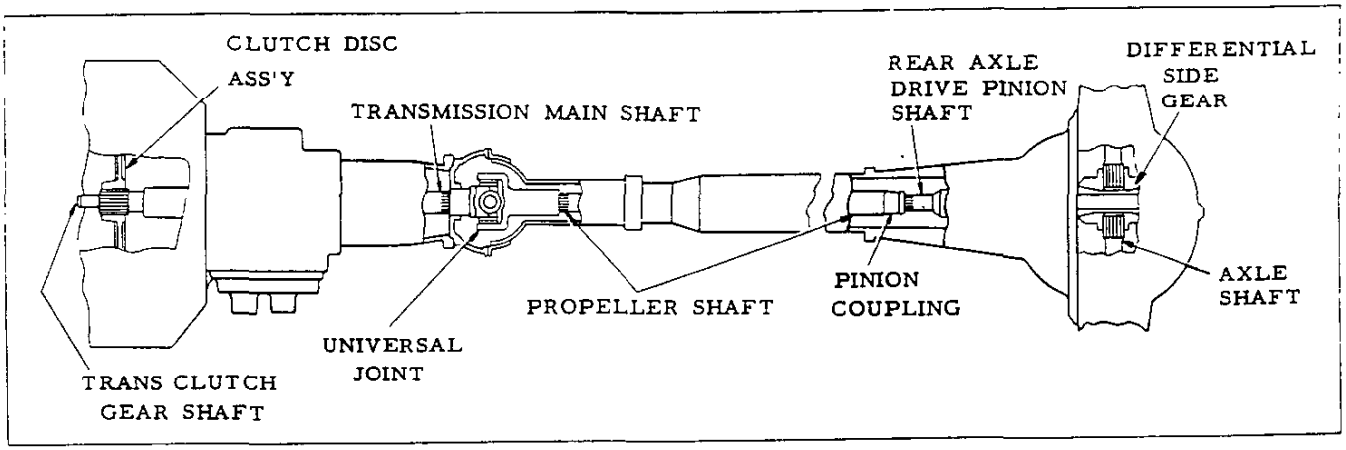
PROPELLER SHAFT

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:
Material -------- Hard rolled bronze in steel sleeve
Rear, ID x length ---------- 1.0681-1.0691 x 1.430
Front, ID x length ---------- 1.3471-1.3481 x 1.085
Oil seal --Steel-encased spring-loaded synthetic rubber

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

3-16-53. Revised: 7-1-53, • - Sedan delivery information added.

DRIVE SYSTEM SPLINES

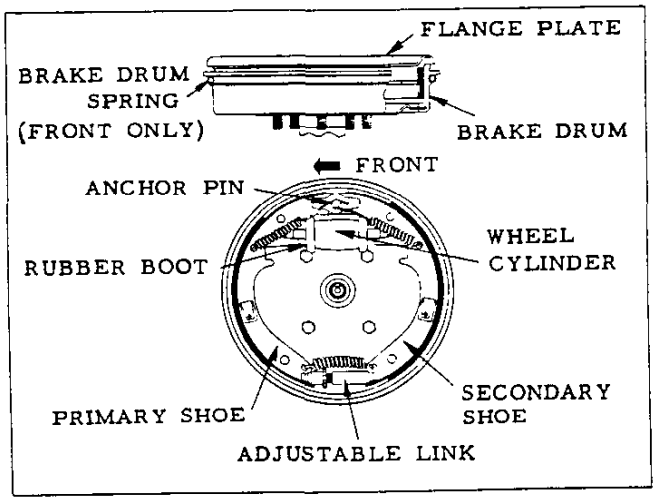


FUNCTION OF SPLINES	NUMBER AND TYPE OF SPLINES
Clutch disc hub to transmission clutch gear shaft	10 straight side
Transmission main shaft to U-joint front yoke	10 involute
U-joint rear yoke to propeller shaft front end	17 involute
Propeller shaft rear end to rear axle drive pinion shaft	17 involute
Differential 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 a light drag and back off seven notches
  Total effective area ---------- 158 sq. in.
Main cylinder:
  Diameter ---------- 7/8
  Piston travel ---------- 1.343
Wheel cylinder:
  Inside diameter, front ---------- 1-1/8
  Inside diameter, rear ---------- 1
  Piston travel ---------- .113
Braking ratio:
  Pedal ---------- 4.85 to 1
  Hydraulic ---------- 11.84 to 1
  Total overall ---------- 57.43 to 1

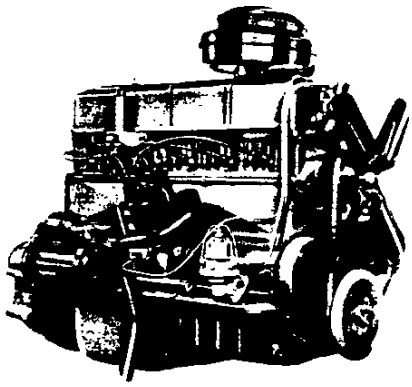


Foot pedal:
  Travel ---------- 6-17/32
  Mounting ---------- With main cylinder to frame
  Pad cover material ---------- Rubber
Brake system fluid capacity ---------- .70 pint approx.
Brake fluid recommended ---------- Delco Super #9
Vacuum booster ---------- None

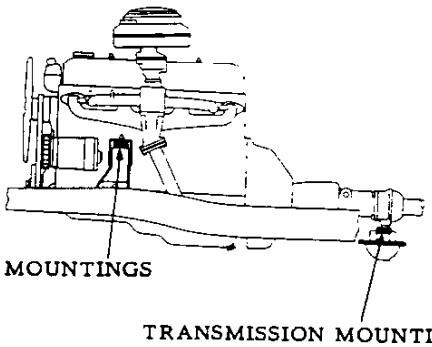
PARKING BRAKE

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

ENGINE—GENERAL



235.5 cu. in. ENGINE



BASIC ENGINE DATA

Piston displacement (cu. in.)		235.5	216.5
Type		Valve-in-head	
Number of cylinders		Six	
Bore and stroke (nominal)		3-9/16 x 3-15/16	3-1/2 x 3-3/4
Compression ratio		7.1:1	6.6:1
Taxable (SAE) horsepower		30.4	29.4
Idling speed		475 RPM	
Compression pressure at cranking speed, engine hot (PSI)		130 (or better)	
Dry weight (pounds)	Engine and clutch	604	575
	Engine, clutch and transmission	659	631
Lubrication		Pressure and splash	
Power plant mounting		Rubber-cushioned, three-point support, with high side front mountings.	

ADVERTISED MAXIMUM ENGINE PERFORMANCE

Brake horsepower	Gross	108 @ 3600 RPM	92 @ 3400 RPM
	Net	103 @ 3500 RPM	85 @ 3300 RPM
Torque (ft lb)	Gross	200 @ 2000 RPM	176 @ 1000-2000 RPM
	Net	196.5 @ 1000 RPM	170 @ 1000-2000 RPM

ENGINE SPEED AND PISTON TRAVEL

Rear axle ratio		3.70:1	4.11:1
Tire size		6.70 - 15	
Crankshaft revs/mile		2768	3074
Crankshaft RPM at one mile per hour	Low and reverse	135	150
	Second	77	86
	Direct	46	51
Piston travel (ft/mile)		1816	1921

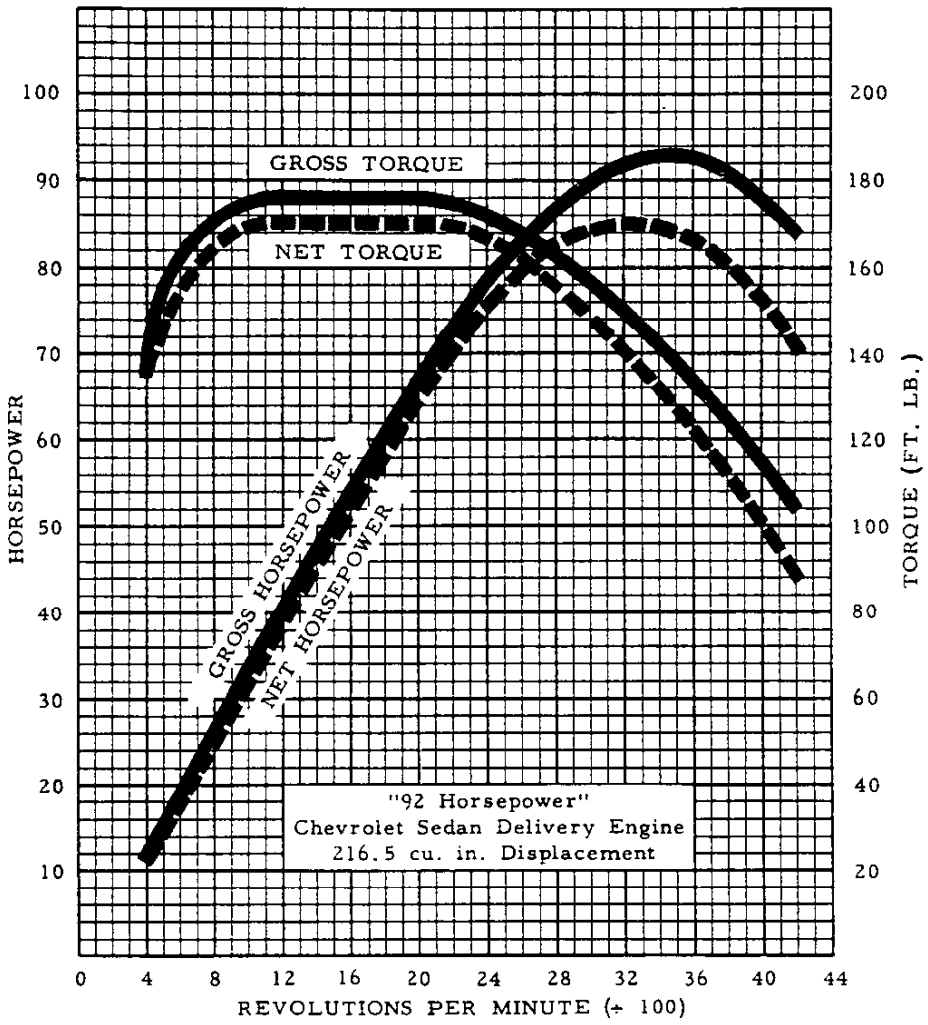
The following information is based upon the lowest priced four door sedan in each line, with each vehicle at performance weight (curb weight, plus 600 pounds to represent four passengers):

MODELS	1503	2103	2403
Performance weight (pounds)	3935	3955	3980
Pounds/gross horsepower	36.43	36.62	36.85
Pounds/cu. in. piston displ	16.71	16.80	16.90
Gross horsepower/cu. in. displ	.46	.46	.46
Power displacement (cu. ft/mile)*	188.60	188.60	188.60
Displacement factor (cu. ft/ton mile)≠	95.86	95.37	94.77

* - $\frac{\text{Crankshaft rev/mile x piston displacement} \div 2}{1728}$

≠ - Power displacement ÷ performance weight in tons

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 Chevrolet Sedan Delivery 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.

January 13, 1953

The data on this sheet are true as represented.
Chevrolet - Central Office - Engineering Dept.
Division of General Motors Corporation

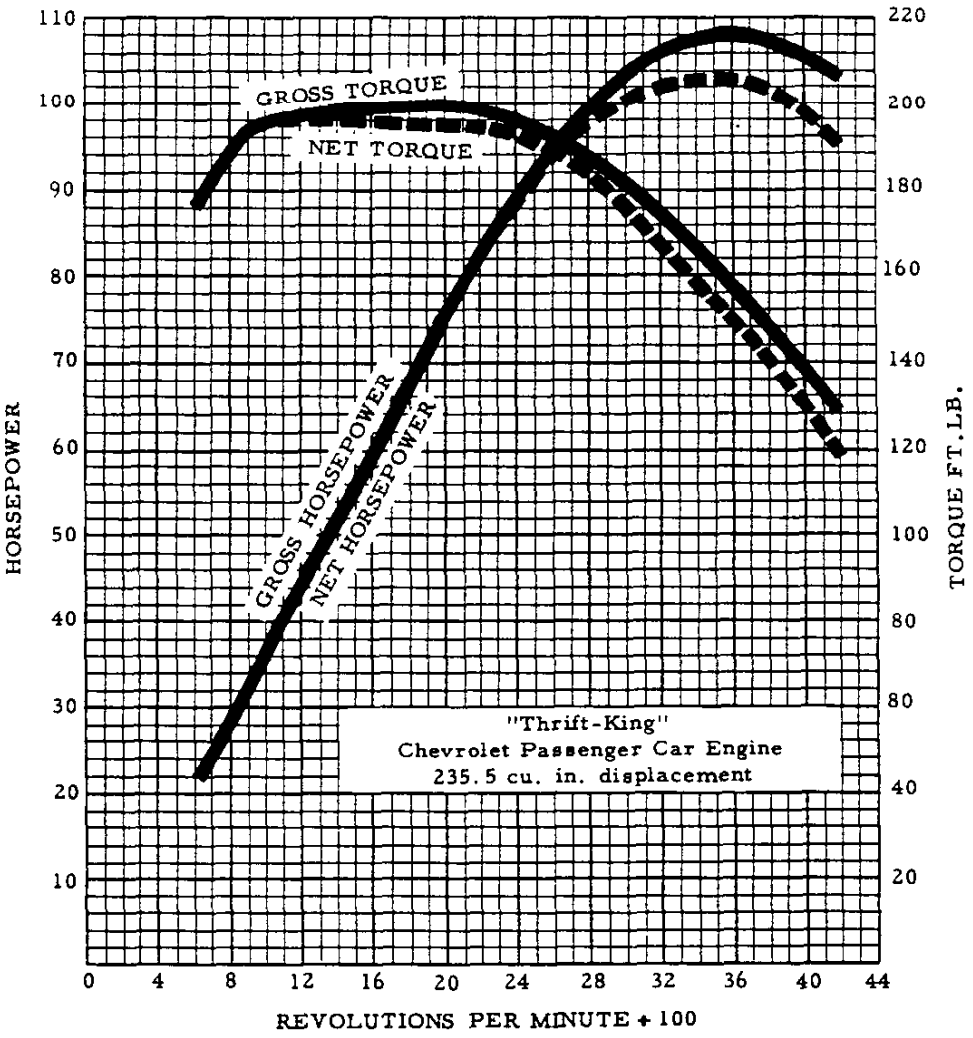
H. F. Barr
Assistant Chief Engineer

State of Michigan
County of Wayne

On this 13th day of January 1953, personally appeared before me, H. F. Barr, known to me to be such, who makes oath that the data on this sheet are true as represented.

Notary Public, Wayne County
My commission expires August 2nd, 1953

ENGINE PERFORMANCE



The engine performance curves shown on the sheet are taken from Chevrolet engine test report 17702-60. They represent the full throttle performance of a Thrift-King Chevrolet passenger car engine (235.5 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.

March 16, 1953

The data on this sheet are true as represented.
Chevrolet - Central Office - Engineering Dept.
Division of General Motors Corporation

H. F. Barr
Assistant Chief Engineer

State of Michigan
County of Wayne

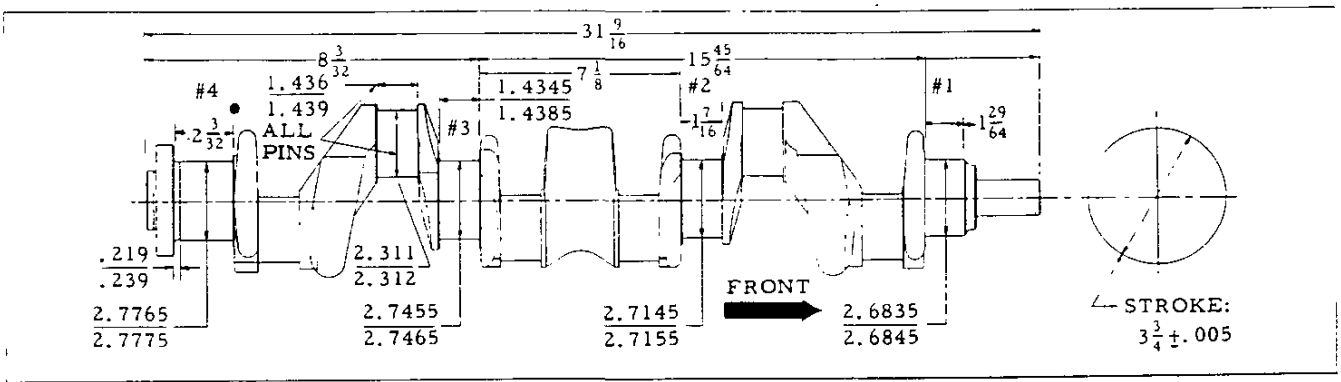
On this 16th day of March 1953, personally appeared before me, H. F. Barr, known to me to be such, who makes oath that the data on this sheet are true as represented.

Notary Public, Wayne County
My commission expires August 2nd, 1953

CYLINDER CASE AND HEAD

Material ---------- Cast alloy iron
Cylinder head bolt torque:
216.5 engine ---------- 70-80 ft. lb.
235.5 engine ---------- 90-95 ft. lb.
Offset ---------- None
Bore diameter:
216.5 engine ---------- 3.4995-3.5015
235.5 engine ---------- 3.5620-3.5640

CRANKSHAFT AND BEARINGS



CRANKSHAFT

Material ---------- Drop-forged steel
Weight --- 216.5 eng., 70 lb.; 235.5 eng., 74.25 lb.
End play ---------- .003-.009
Counterweights ---------- 7
Stroke: 216.5 engine ---------- 3-3/4 ± .005
235.5 engine ---------- 3-15/16 ± .005

HARMONIC BALANCER (Vibration damper)

Type ---------- Oscillating (Rubber-floated)
Fan drive pulley dia.: 216.5 engine ---------- 6-1/32
235.5 engine ---------- 6

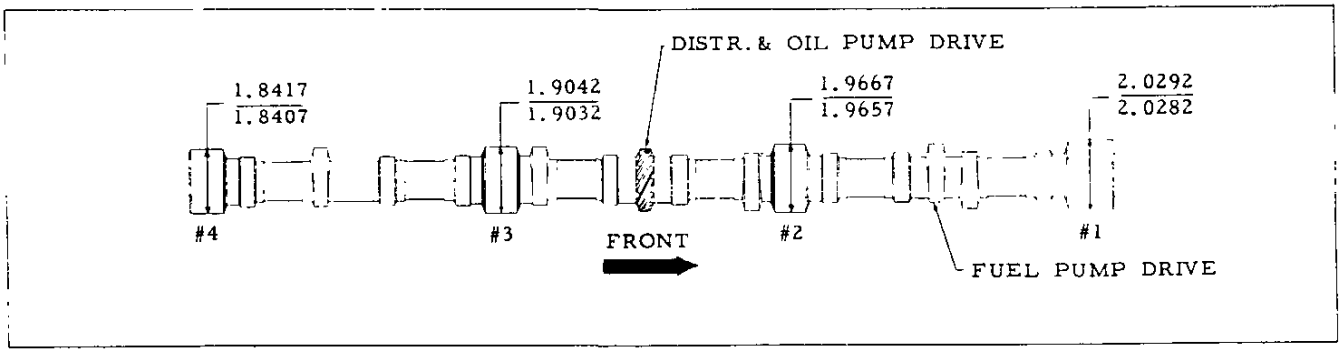
MAIN BEARINGS

Material ---------- .003-.007 babbit 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. lbs. with oiled threads

Brg.	Inside Dia.	Length	Proj. Area*
#1	2.6850-2.6866	1-3/16	2.732 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	1-5/16	3.175 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 ---------- .001-.005
Ramp: Inlet ---------- .0111
Exhaust ---------- .014

DRIVE

Make and type ---------- Chevrolet, helical gear
Driven gear (on camshaft) material ----------
---------- Bakelite and fabric composition with steel hub
Drive gear (on crankshaft) material ---------- Steel

BEARINGS

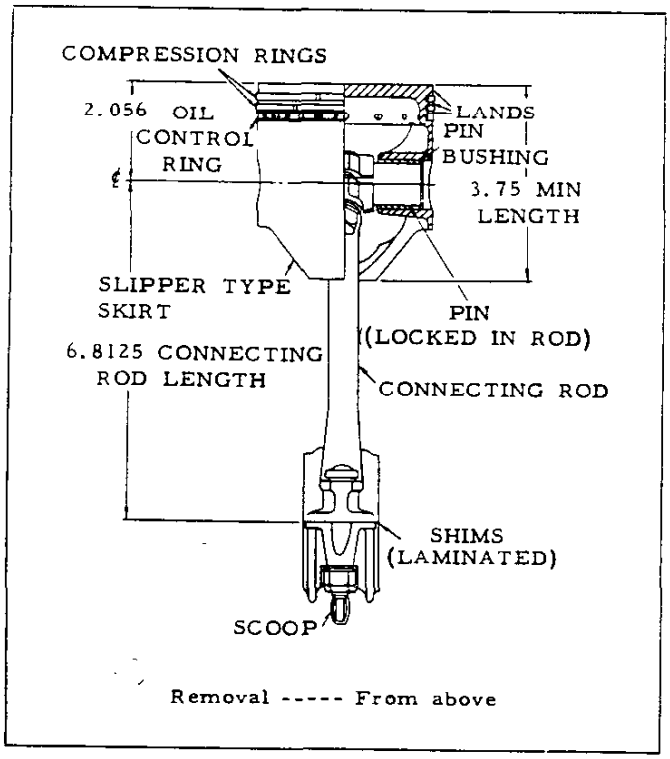
Material ---------- Steel-backed babbitt
Clearance on diameter ---------- .0015-.0035
Thrust taken by ---------- Thrust plate between driven timing gear and camshaft #1 journal front face

Brg.	Inside Dia.	Length	Proj. Area⊖
#1	2.0307-2.0317	1-1/8	2.285 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	1.728 sq. in.

⊖ - Based on overall length shown above.

3-16-53. Revised: 7-1-53. ● - Dimension corrected.

PISTON—PIN—RINGS •



Removal ----- From above

PISTON

Make, material ---------- Own, cast alloy iron, surface treated with a wear resistant coating
Size (dia) ------- 216.5 eng, 3-1/2; 235.5 eng, 3-9/16
Features ---------- Flat head; oval, slipper skirt
Head thickness at center
216.5 engine, .180-.190; 235.5 engine, .200-.210
Land clearance in cylinder bore ----------
----- 216.5 eng, .015-.024; 235.5 eng, .0145-.0235 x
Skirt clearance in cylinder bore --------- .0012-.0020
Feeler guage fit--------- Pass on .0015, hold on .0025
Compression ring groove depth:
216.5 engine ---------- .157-.164
235.5 engine (upper ring) ---------- .181-.188
235.5 engine (lower ring) ---------- .158-.165
Oil ring groove depth ----------
216.5 engine, .170-.177; 235.5 engine, .176-.183
Oil drain holes; number and size ------- 14, 5/32 drill

COMPRESSION RINGS - taper face

Type, material ---------- Taper face, cast alloy iron, surface treated with a wear resistant coating
Number per piston ---- 216.5 eng, two; 235.5 eng, one
Width ---------- .1235-.1240
Wall thickness ---------- .155 maximum
Gap clearance ---------- .005-.015
Ring clearance in groove ---------- .0015-.003
Weight (each) ---------- .05 lb

COMPRESSION RINGS - twist type

Type, material ---------- Deep section twist, cast alloy iron, treated with wear resistant coating
Number per piston ---------- 235.5 engine, one
Width ---------- .0930-.0935
Wall thickness ---------- .168-.178
Gap clearance ---------- .007-.017
Ring clearance in groove ---------- .0015-.003
Weight (each) ---------- .042 lb

OIL CONTROL RING

Type, material ---------- Wide slot, cast alloy iron
Width ---------- .1860-.1865
Wall thickness: 216.5 engine ---------- .155 max
235.5 engine ---------- .160 max
Gap clearance ---------- .005-.015
Ring clearance in groove ---------- .0020-.0035
Weight (each) ---------- .052 lb

PISTON PIN

Material ---------- Chromium steel (file hard case)
Diameter and length ------- .8645-.8650, 3.135-3.165
Weight ---------- .312 lb

PISTON PIN BUSHINGS

Type ---------- Pressed into piston
Material ---------- Cast bronze
Size ----------15/16 long x slip fit on piston pin
Weight (each) ---------- .06 lb

WEIGHTS

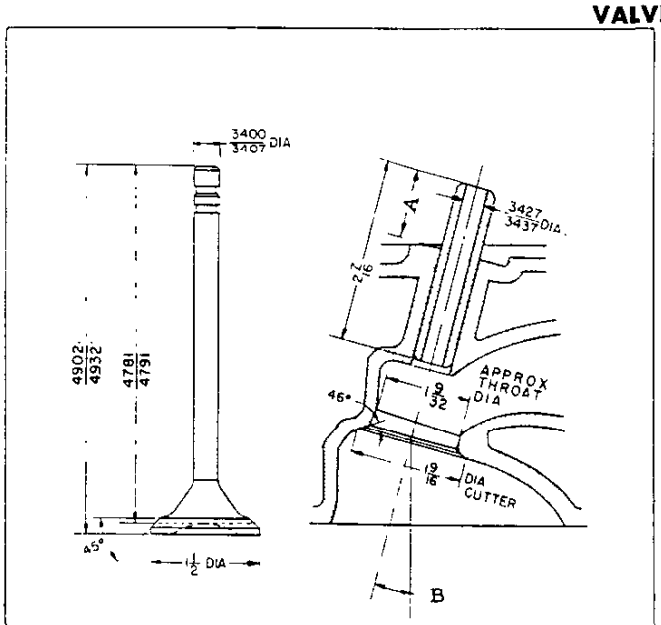
Item	216.5 engine	235.5 engine
Piston alone	1.712 lb	1.966 lb
Piston and bush assy	1.824 lb	2.078 lb
Piston, bushings, rings, pin and conn rod upper end x 6	16.46 lb	17.94 lb

CONNECTING RODS

Type ---------- Rod clamps piston pin
Material ---------- Drop-forged steel
Rod width at piston pin ---------- 1.125-1.127
Rod width at crankpin ----------1.4275-1.4315
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
Clearance on diameter ---------- .0003-.0015
Projected area per rod (based on effective length) ---------- 2.490 sq. in.
Assembly weight ---------- 1.93 lb
Upper end weight ---------- .46 lb
Lower end weight ----------1.47 lb
Total rotating weight of connecting rods ---- (Weight of lower end x 6) ---------- 8.84 lb
End play ---------- .004-.012
Nut torque, with oiled threads ---------- 40-50 ft lb

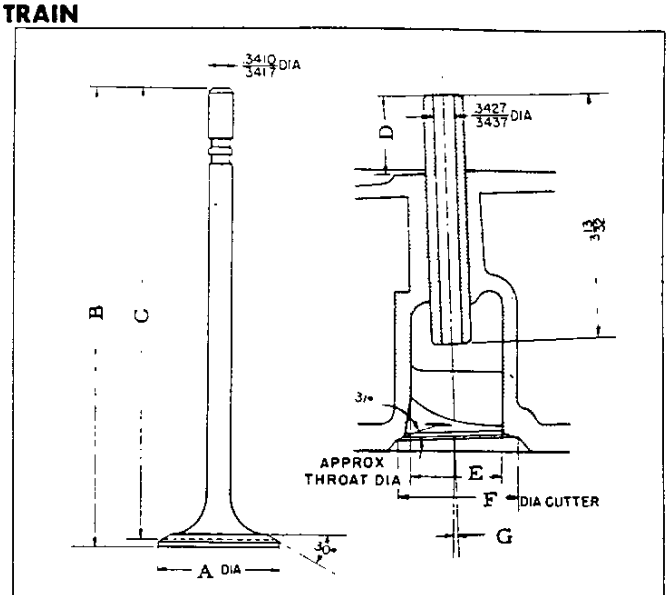
3-16-53, Revised: 7-1-53, • - Order of information revised. x - Diametrical relief replaced by land clearance.

VALVE TRAIN



ITEM	216.5 engine	235.5 engine
A	$31/32^{+0}_{-1/64}$	$7/8^{+0}_{-1/64}$
B	14°46'45"	16°

EXHAUST



ITEM	216.5 engine	235.5 engine
A	1-41/64	1-7/8
B	6.260-6.290	6.364-6.394
C	6.177-6.187	6.272-6.282
D	$1-5/64^{+0}_{-1/64}$	$1-1/64^{+0}_{-1/64}$
E	1-1/4	1-7/16
F	1-13/16	2
G	2°33'30"	3°26'

INLET

VALVES

Make ---------- Own
Material: Exhaust valve ---------- Silchrome steel
Inlet valve ------ Silchrome or Nickle-chrome steel
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 ----------
---------- 216.5 engine, 1-21/32; 235.5 engine, 1-35/64 (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 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 ---------- Diamond bored rocker arm
Inside diameter ---------- .7922-.7935
Length ---------- 15/16

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: 216.5 eng ----- Jets of water under pressure

TAPPETS

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

VALVE SPRINGS
LENGTH AND PRESSURE

Valve closed: 216.5 engine -------- 1.821 at 53-63 lb
235.5 engine ---------- 1.821 at 62-68 lb
Valve open: 216.5 engine -------- 1.505 at 124-140 lb
235.5 engine ---------- 1.505 at 155-165 lb
Free (out of engine) length: 216.5 eng --------- 2-1/8
235.5 eng ---------- 2-5/32

ENGINE LUBRICATING 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:
216.5 engine---------- 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.
235.5 engine: Oil flows under pressure from rear camshaft bearing through metering hole in pipe fitting, through pipe to valve rocker shaft.

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 to 15 ft lb
Torque, flange screws---------- 6 to 7-1/2 ft lb

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
Vehicle speed (in high gear) at which normal oil pressure is attained:
Model 1508---------- 39 MPH
All others---------- 43 MPH
Width of gears---------- 13/16
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

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

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 rear axle and spare tire well on Sedan Delivery and Station Wagons
Filler:
Location---------- In left rear fender
Protection---------- Door in fender, all models except Sedan Delivery and Station Wagons
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---------- Yes (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

CARBURETOR

Make, model:
216.5 engine---------Rochester Products, 7004475
235.5 engine---------Rochester Products, 7004915
Type---------Single adjustment, balanced, downdraft
SAE flange size:
216.5 engine------1-1/4; 235.5 engine------ 1-1/2
Size (main venturi throat ID):
216.5 engine----1-7/32; 235.5 engine----- 1-11/32
Choke:
216.5 engine---------- Manual with fast idle link
235.5 engine---------- Automatic
Idle adjustment, number of turns--------- 1 to 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---------- 2.0
Tail pipe inside diameter---------- 1-13/16
Mounting---------- Two point rubber suspension

ENGINE COOLING SYSTEM

METHOD OF COOLING

Cylinder cooling ---------- Full stroke length water jacket with water completely around each cylinder
Valve seat cooling -----216.5 engine only: "Nozzle jet" system directs water under pressure against seats
Cooling system capacity ----------
---------- 1508, 15 qt; All others, 16 qt •
Pressurized cooling system ----------Yes
By-pass for recirculation ----------
235.5 engine only; internal at rear of water pump

RADIATOR CORE

Make and type ---------- Harrison, ribbed cellular
Material ---------- All copper
Size ---------- .250 x .560 x 2
Frontal area ---------- 407 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)

WATER THERMOSTAT

Make ----------Harrison
Type ---------- Bellows operated poppet valve
Location ----------In cylinder head water outlet
By-pass for recirculation ----------None
Thermostat action at 29" Hg barometric pressure:
Starts to open, (degrees Fahrenheit) ------- 148-156
Fully open, (degrees Fahrenheit) ---------- 176

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)	10-1/2 (developed)
Material	Fabric reinforced rubber	
Spring reinforcement	None	Brass coil spring 12-5/8 long

ENGINE FAN

Make and type---------- Own, 4 staggered blades
Diameter---------- 15-3/4
Pulley size----------36^{o}V x 4-5/16 outside dia
Fan to engine speed ratio----------1.403:1
Fan belt: Material, size----------1-piece, reinforced rubber, 3/8 width, 42-1/2 outside length
Angle of V---37^{o}-44^{o} wrapped molded or 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 161
Seal----Synthetic rubber, sealed with rubber cement
Seal adjustment --------Automatic, by spring tension

ENGINE ELECTRICAL SYSTEM

GENERATOR

Make and model ---------- Delco-Remy, 1100018
Type----------2-brush, shunt-wound
Rated voltage----------6-8
Ventilation---------- By fan in generator pulley
Driven by----------Fan belt
Pulley size---------- 36^{o}V x 3 dia
Speed ratio (generator to engine)---------- 2.05:1
Generator RPM/MPH: 216.5 engine ----------104.5
235.5 engine----------94.30
Maximum output (controlled charging rate) hot:
Amperes---------- See current regulator
Volts---------- See voltage regulator
Generator RPM ---------- 3250 and up
Car MPH (high gear):
216.5 engine----------31 and up
235.5 engine----------34 and up

Bearings:	Commutator end	Drive end
Number	812823	
Type	Bronze bushing	Anti-friction
ID	.562-.563	bearings,
OD	.783-.784	See page
Length	51/64	161

Brush spring tension----------24-32 oz
Rotation (drive end)----------Clockwise

RPO 325 GENERATOR EQUIPMENT

Rating	Delco-Remy Model No.	
	Generator	Regulator
40 amp	1105009	1118721
45 amp	1102793	1118725
50 amp	1105008	1118722

VOLTAGE AND CURRENT REGULATOR

Make and model---------- Delco-Remy, 1118725
Location---------- On wiring access door in dash
Type----------Vibrator
Voltage regulator:
Volts----------7.4
Temperature---------- Operating
Average air gap----------.075
Current regulator:
Amperes----------45
Temperature---------- Operating
Average air gap----------.075
Cutout relay:
Point opening: Amperes----------0-4
Point closing: Volts ----------6.4
Generator armature speed---------- 1160 RPM
Car MPH (high gear):
216.5 engine ---------- 11.1
235.5 engine ---------- 12.3
Average air gap and point gap ---------- .020

BATTERY

Make, model and SAE No. ------ Delco, 15AA6-W, 1M
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

CONTINUED

3-16-53. Revised: 7-1-53, • - 1508 capacity added.

IGNITION SYSTEM

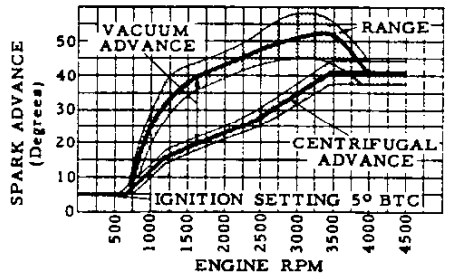
Type---------- High intensity spark, engine ground return system, separate units: distributor with centrifugal and vacuum spark advance; oil-filled, hermetically sealed coil
Ignition lock: Make---------- Delco-Remy
Type----------
Three position: on, locked off, or unlocked off

DISTRIBUTOR

Make and model: 216.5 eng---- Delco-Remy, 1112362
235.5 eng---------- Delco-Remy, 1112389
Current source---------- Generator or battery
Breaker contact opening and nominal cam angle:
With new breaker lever;
216.5 engine---------- .018-.024, 34°
235.5 engine---------- .016-.021, 38°
With worn breaker lever;
216.5 engine---------- .015-.022, 39°
235.5 engine---------- .0125-.0175, 42°
Breaker arm tension: 216.5 eng---------- 17-21 oz
235.5 engine---------- 19-23 oz
Vacuum control part no.: 216.5 eng---------- 1116061
235.5 engine---------- 1116076
Condenser: Part no. and capacity---- 1869704, .2 mf

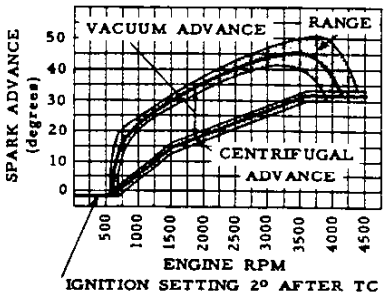
SPARK ADVANCE CURVE - 216.5 ENGINE

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	550 to 750 RPM	32.5° to 39.5° at 3450 RPM and up



SPARK ADVANCE CURVE - 235.5 ENGINE

Automatic spark advance	Advance begins	Full advance
Vacuum control	4" to 6" Hg	17° at 7.5" to 12.5" Hg
Centrifugal	500 to 700 RPM	32° to 36° at 3600 RPM and up



STARTING

Starting device---------- Positive shift solenoid
Starting operation---Turn ignition key to extreme right
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

STARTING MOTOR

Make and model----------Delco-Remy, 1107109
Rotation (front view)----------Counter-clockwise

Bushings	Commutator end	Drive end
Type	Rolled bronze with graphite-filled ball indentations on inside surface	
ID	.5625-.5635	.499-.501
OD	.6245-.6255	.5615-.5625
Length	.812	

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

COIL

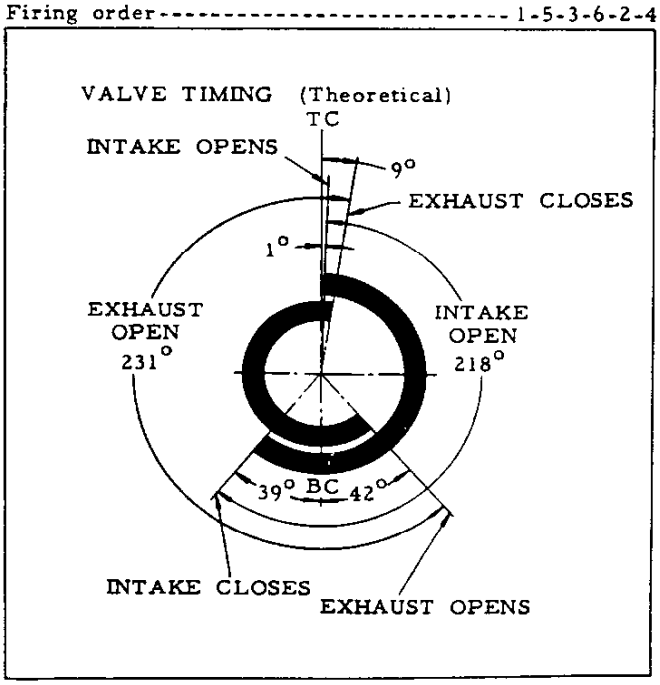
Make and model---------- Delco-Remy, 1115380
Location----------Engine right side
Amperes drawn----- 4.5, engine stopped; 2.5, idling

SPARK PLUGS

Make and model---------- AC, 44-5
Thread size---------- 14 mm
Recommended gap---------- .033-.038
Recommended torque (service) 15-25 ft lb •

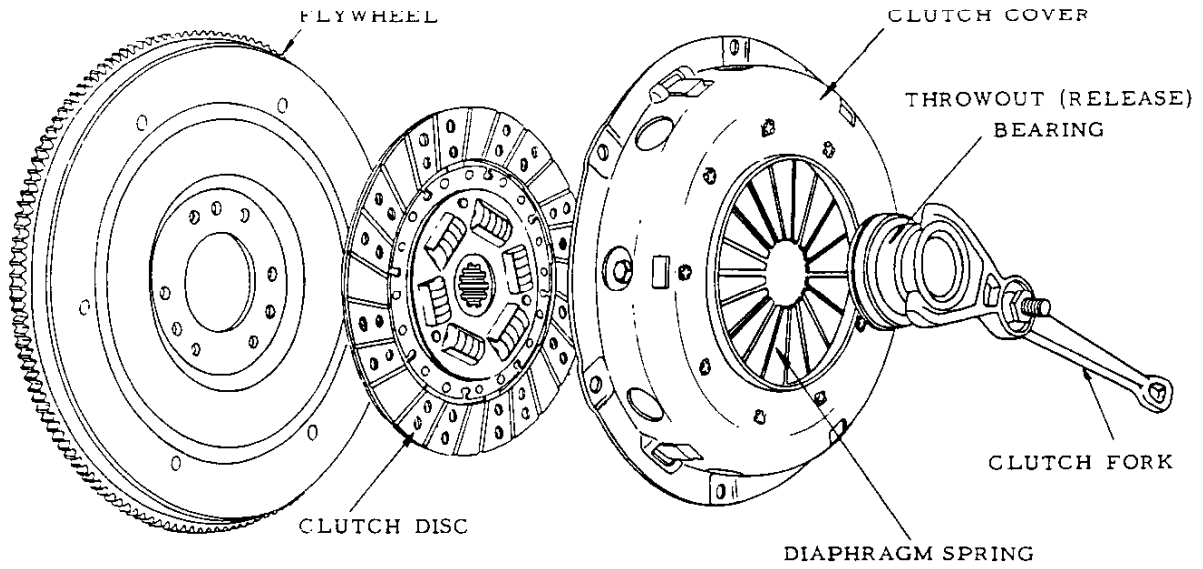
ENGINE TIMING

Timing spark advance (initial setting): 216.5 eng-------- 5° BTC
235.5 eng-----2° after TC •
Timing marks location---------- On flywheel
Firing order---------- 1-5-3-6-2-4



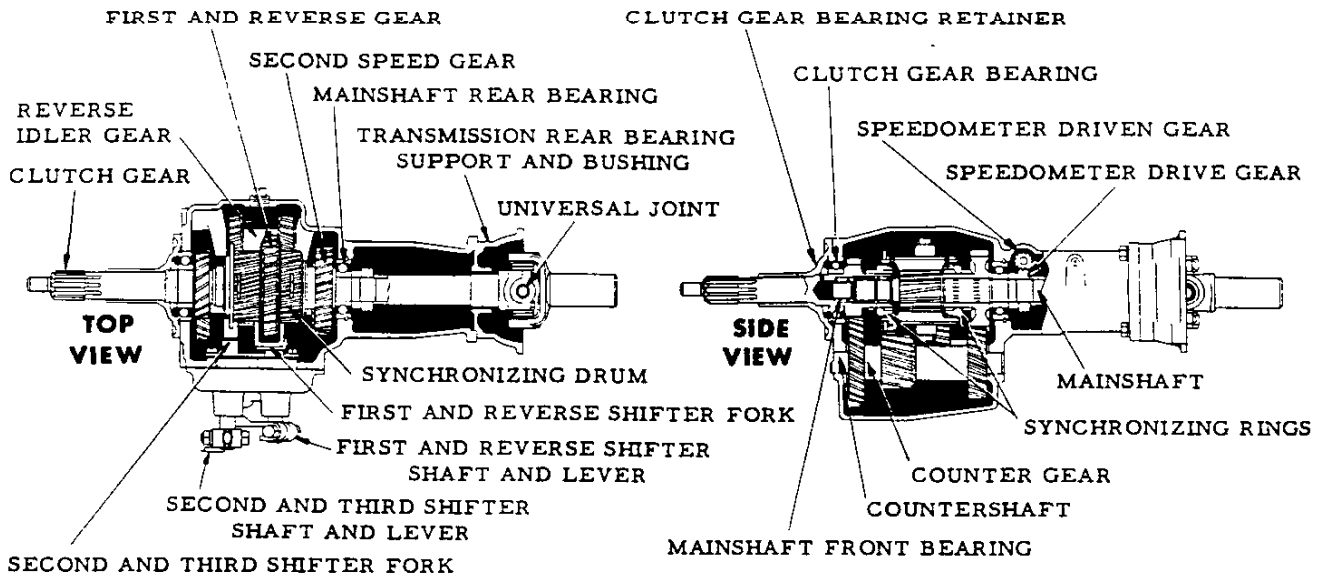
3-16-53. Revised: 7-1-53, • - Data corrected.

REGULAR CLUTCH ILLUSTRATED



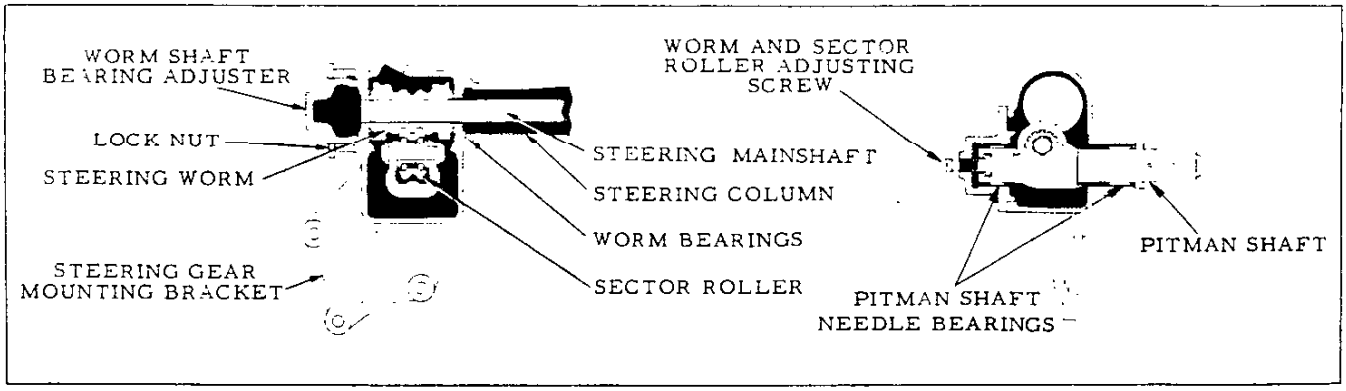
ITEM			REGULAR CLUTCH	HEAVY-DUTY TRUCK TYPE RPO 227A
Type			Single dry plate	
Rated torque capacity			210 ft lb	216 ft lb •
Semi-centrifugal?			No	
Vacuum control or fluid coupling			None	
Drive			Direct to flywheel face	
Ventilation			Vanes cast in pressure plate	
Diaphragm Spring	Pressure in flat position		1325-1450 pounds x	1450-1550 pounds x
	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 ♦
		Inside diameter	6-1/8	6-3/4 ♦
		Area	71.86 sq. in. (both facings)	85.5 sq. in. (both facings) ♦
		Thickness	.132-.138	.137-.143
Bearings	Throwout (Release)	Type, make, number	Anti-friction bearings. See page 161	
		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

3-16-53. Revised: 7-1-53, • - Torque capacity increased. x - Spring pressure increased.
♦ - Facing size changed.



ITEM				Regular	Heavy Duty RPO 316
Make and type				Own, 3-speed synchro-mesh, manual shift	
Gearshift 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	
				Steel-backed bronze, ball-indented	
			No. used and size	2 - .7515-.7525 ID x 3/4 long	
	Transmission rear bearing support		Optional materials	Rolled sheet bronze, ball-indented	
				Steel-backed bronze, ball-indented	
			Size	1.439-1.440 ID x 7/8 long	
	Counter shaft		Material and type	Steel-backed bronze, ball-indented	Anti-friction bearings See page 161
			ID	.8772-.8782	
			OD	Push fit in ring gauge 1.008 dia	
			Length	1-1/4	
2nd gear bearing			Type	Gear ID honed, turns on mainshaft	
			Size	1.062-1.063 ID x 1-3/4 long	
Speedometer gears	Tooth pitch			18	
	Teeth driving and driven			4 and 12 Sedan Delivery; 4 and 11 all others	
Lubricant	Type recommended			SAE 90 transmission or mineral oil lubricant	
	Capacity			1-1/2 pt	
Anti-friction bearings				See page 161	

STEERING



Type---------- Centerpoint

STEERING GEAR

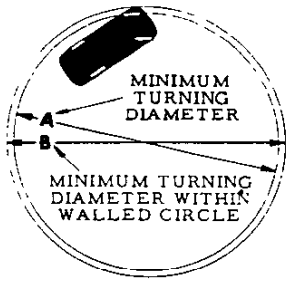
Make and type---------- Saginaw, Semi-reversible, hour glass worm and ball bearing roller sector
Ratio---------- 19.4:1
Anti-friction bearings---------- See page 161
Steering mainshaft diameter---------- 3/4
Steering column diameter---------- 1-3/4
Lubricant recommended----------
Steering gear or "Multi-Purpose" gear lubricant
Worm and sector adjustment-------- Fully adjustable
Sector mounting type---------- Straddle mounted
Pitman shaft:
Material---------- Drop forged steel
Mounting---------- Straddle mounted

STEERING LINKAGE

Steering idler and third arm:
Material-------- One piece, drop forged alloy steel
Mounting---------- Pivot bracket mounted to front suspension cross member
Tie rods---------- Left, adjustable; Right, fixed
Pitman arm type and material----------
---------- One piece, drop forged steel
Steering connecting rod (drag link)---------- Yes

STEERING WHEEL

Diameter---------- 18
One-Fifty models----------Two spoke with horn button
Two-Ten and Bel Air models----------
----------Two spoke with horn blowing ring
Number of turns of wheel for full right to left travel of front wheels---------- 4.53



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

POWER STEERING (RPO 324) •

Make and type---------- Saginaw, Hydraulic
Gear ratio---------- 21.3:1
Steering assistance provided---------- Up to 80%
Pump and reservoir mounting --- On left side of engine
Pump drive --------- V-belt from pulley on crankshaft
Pump maximum pressure---------- 750 psi
Power application----------
Double-acting piston in power cylinder is actuated by a spool valve mounted integrally on the steering shaft.

WHEELS AND TIRES

WHEEL AND HUB CAP	
Make and type	Own, short spoke disc
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 (1500, 2100)	Bright metal with blue trademark
Wheel disc (2400)	Bright metal with blue trademark

One-Fifty and Two-Ten Series

Bel Air Series

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
				Front	Rear	FRONT / REAR
6.70-15-4	Reg. except 2119	13.30	748	925	925	24 / 24
6.70-15-6	Reg. 2119 RPO all others	13.40	748	1055	1055	30 / 30
7.10-15-4	RPO all	13.40	746	990	990	24 / 24

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

4-1-53. Revised: 7-1-53. • - RPO Power Steering information added.

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 circular ends of the center radiator grille horizontal bar
Bulb replacement---------- Remove chrome bezel and glass lens

TAIL AND STOP LIGHTS

Make and type---------- Guide, tail and stop light combined in one unit with provision for backing lights and direction signal
Are tail lights and instrument cluster lights wired in series?---------- No

DIRECTION SIGNAL
(Factory optional accessory)

Make---------- Guide Lamp
Type-------- Flasher, front and rear; self-cancelling
Front---------- Two filament bulb replaces single filament bulb in parking lamps
Rear---------- Uses stop lamp bulbs

PASSENGER COMPARTMENT LIGHTS

Rear compartment lights---------- Two in Sport Coupe, one high on each rear side quarter panel
Dome light------ One, all models except Sport Coupe

REAR LICENSE LIGHT

Station Wagons and Sedan Delivery----------
-----Separate light is imbedded in gravel deflector
All others----------
-----Separate light is housed in rear license guard

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 below arm rest in Sport Coupe and Convertible. At light in all other models
Automatic---------- In both front door body hinge pillars on Two-Ten and Bel Air models; operated by opening door. None on One-Fifty models
Glove compartment light switch---------- Operated by opening compartment door in Two-Ten and Bel Air models

CIRCUIT BREAKER

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

BULBS

Used In		Quantity	Trade No	Power
Headlights	Upper beam	2	2400 CC*	45 w
	Lower beam			35 w
Parking lights		2	63	3 cp
Instrument cluster		4	55	2 cp
Beam indicator		1	51	1 cp
Ignition lock		1	51	1 cp
Glove compartment		1	55	2 cp
Clock		1	63	3 cp
Dome light	Sport Coupe	2	82	6 cp
	Convertible	1	55	2 cp
	All others	1	88	15 cp

Used In			Quantity	Trade No	Power
License plate light			1	63	3 cp
Tail and stop lights	All	Tail	2	63	3 cp
		Stop	2	1129	21 cp
Direction signal (FOA)	All	Front	2	1154*	3 cp
		Parking light			
		Direction signal			21 cp
		Rear uses stop lamp bulb			

* 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

ACCESSORIES

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

ITEM			MODEL
Alarm	Parking brake		All
Antenna	Radio, fender, LH		
Arm rest	Door, front (or rear on 4-door sedans)		1500
Ash tray	Instrument panel		
Block	Junction, wiring		All
Cap	Battery filler		
	Gasoline tank filler, locking		
Clock	Electric wind		
	Hand wind		1500
Condenser	Radiator overflow		All
Cover	Accelerator pedal		
	Seat	Plastic	All except 1504-08-09, 2109-19-54, 2454
		Nylon	All except 1504-08-09, 2109-19
		Fiber	All except 1504-08-09, 2109-19-34-54, 2434-54
		Installation kit	All
Cover panel	Rear wheel		1500, 2100
Deflector	Rain	Front and rear	1502-03, 2102-03, 2402-03
		Front only	1504-24, 2124
Dimmer	Headlamp, Autronic Eye		All
Disc	Wheel trim, stainless steel		1500, 2100
Dispenser	Tissue		All
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)		
	Grille (across top of front bumper guards)		
	Gasoline tank filler door, fender		All except 1508-09, 2109-19
Heater and defroster	Recirculating, with outside air provision		All
	Outside air type		
Lamp	Back-up (pair)		
	Courtesy		All except 1500
	Portable spot (plugs in cigarette lighter)		1500 (with cigarette lighter), 2100, 2400
	Under hood		All
	Glove compartment		1500
	Luggage compartment		All except 1508-09, 2109-19
	Spot, LH, Guide, with bracket and mirror		All except 1509, 2109-19
Lighter	Cigarette, with lamp		1500, Replacement for 2100-2400
Mat	Floor (Blue, Red, Green, Black)		All
Mirror	Rear View	Door-front, clamp type	
		Door-front, mounted below ventipane	All except 1508
		Door, remote control	All except 1509, 2109-19
		Door, rain deflector, clamp type	All
		Non-glare (prismatic), inside	All except 1508
	Visor vanity		All
Molding	Wheel, stainless steel		All except 2400
Ornament	Hood		All
Radio	Delco (manual tuning), and antenna		
	Delco (push-button tuning), and antenna		
	Speaker, auxiliary rear seat		All except 1508-09, 2109-19-34, 2434
Reflector	Reflex, 4 inch, red		All
Shaver	Electric		
Shield	Front fender, pair		2100, 2400
	Windshield, glare		All except 1509, 2109-19
	Door handle		All
Signal	Direction, self-cancelling		
Sunshade	Right hand		1502-03-04-24
Sun visor	Outside type		All except 1508-09, 2109-19-34-54, 2434-54
Tool kit	Bag with tools		All
Trim ring	Wheel, white plastic		1500, 2100
Viewer	Traffic light		All
Washer	Windshield		

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	231	Exterior colors		See pages 20, 21
	235	Exterior colors		
	236	Exterior and interior color combinations		
	238	Exterior and interior color combinations		
	437	Exterior and interior color combinations		
	435	Body interior trim combinations		
Body glass	398	Body glass equipment, tinted (E-Z Eye glass)		All
Taxicab	330	Heavy-duty clutch 19% larger than standard clutch, equipped with a special heavy pull back spring •		1503, 2103
		HD transmission with special countershaft roller bearings		
		Special service front springs		
		Special clutch and brake pedal shaft lubrication fittings		
		Special fast filling gasoline filler signal		
		RPO 330A, G, H	Cloth trim	
		RPO 330B, J, K	Vinyl coated trim	
		Extra heavy black rubber floor mats with special water resistant floor covering front and rear. Special heavy-duty front and rear seat cushion and back springs. Arm rest door pull handles, rear doors. Special automatic dome light switch operated by right hand rear door.		
Suspension	254	Heavy rear springs		All
Engine	237	Oil filter		
	340	Vacuum booster fuel pump		
	216	Air cleaner, oil bath (one pound dirt capacity)		
	241	Governor (RPO 216 air cleaner mandatory with RPO 241)		All except RPO 313
Clutch	227	Heavy-duty		All except RPO 313 and 330
Transmission	316	Heavy-duty		
	313	Automatic (Powerglide). See supplement - pages 45-52		2100, 2400
Tires with regular wheels	288	6.70-15-6 ply (five)		All except 2119 and RPO 313 on 2134 and 2434
	290	6.70-15-4 ply (five), white and black sidewall		All except 1508, 2119 and RPO 313 on 2134 and 2434
	288	6.70-15-6 ply (five), white and black sidewall		1509, 2109-19
	283	7.10-15-4 ply (five)		2134, 2434 with RPO 313 only
	297	7.10-15-4 ply (five) white and black sidewall		All except 2119
Steering	323	Steering gear equipment (color combinations)		2100, 2400
	324	Hydraulic steering		All except 1508 and RPO 227 and 330
Generator	325	Generator equipment	40 amp	All except 2134-54, 2434-54
			45 amp	All
			50 amp	All except 2134, 2434
Timing gear equipment	219	Aluminum camshaft gear		All except 1508. Not used with RPO 227, 313, 324, 330

4-1-53. Revised: 7-1-53. • - Clutch capacity increased.

POWERGLIDE
AUTOMATIC TRANSMISSION
SUPPLEMENT
Regular Production Option #313

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

SERIAL NUMBERS

For vehicle and unit serial numbers, see page 9

FRONT SUSPENSION

Front spring---------- All models, same as regular spring for models 2134 and 2434. See page 25

BODY

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

UNIVERSAL JOINT

Lubrication---------- Pressure, from transmission

REAR AXLE AND DRIVE

Final drive gears:
Ratio---------- 3.55:1
Teeth---------- 11 and 39
Total torque multiplication (final drive gears, transmission, torque converter and planetary gears):
Drive---------- 3.55:1 to 7.46
Low----------6.46:1 to 13.57
Reverse----------6.46:1 to 13.57

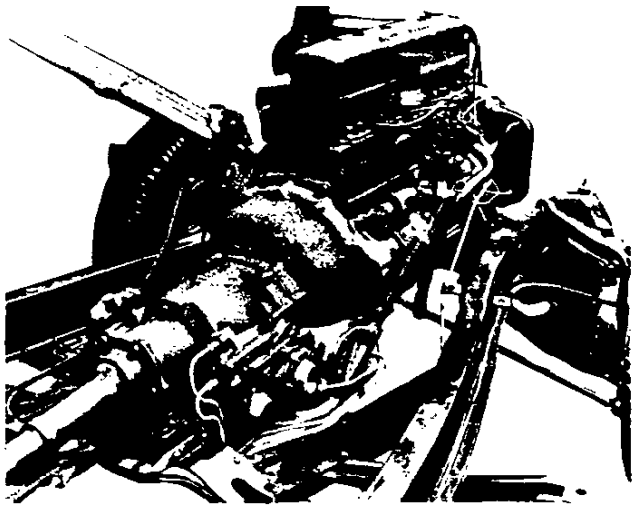
SPEEDOMETER GEARS

Drive gear----------5-tooth, 22 pitch
Material---------- Steel
Driven gear----------13-tooth, 22 pitch
Material----------Nylon

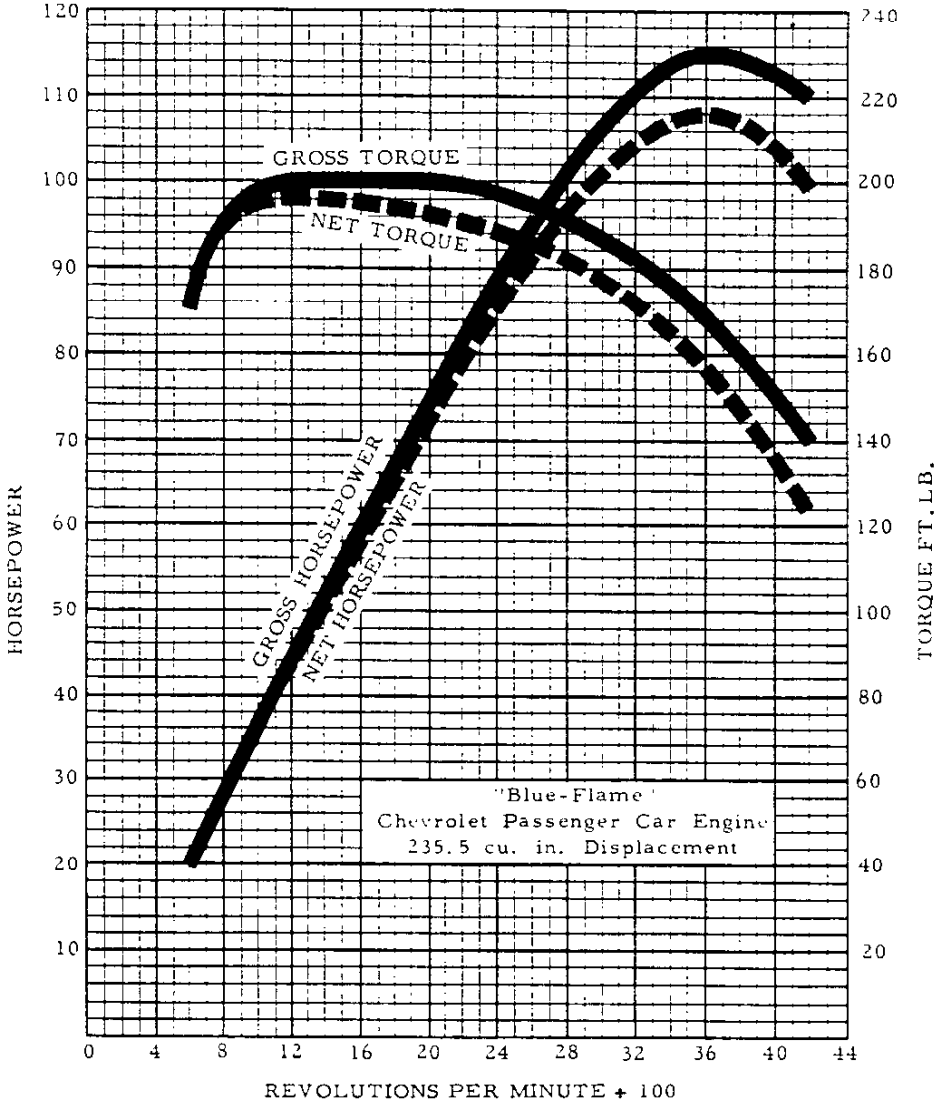
VEHICLE WEIGHTS

Vehicle Type		Shipping Weight			Curb Weight			Loaded Weight		
Model	Description	Front	Rear	Total	Front	Rear	Total	Front	Rear	Total
TWO-TEN ¶										
2102P	2-Door Sedan	1850	1455	3305	1875	1560	3435	2200	2135	4335
2103P	4-Door Sedan	1865	1480	3345	1890	1585	3475	2215	2160	4375
2109P	Station Wagon	1845	1760	3605	1870	1865	3735	2170	2465	4635
2119P	Station Wagon*	1840	1880	3720	1865	1985	3850	2105	2945	5050
2124P	Club Coupe	1860	1440	3300	1885	1545	3430	2235	2095	4330
2134P	Convertible§	1965	1590	3555	1990	1695	3685	2290	2145	4435
2154P	Sport Coupe	1890	1500	3390	1915	1605	3520	2250	2170	4420
BEL-AIR										
2402P	2-Door Sedan	1860	1475	3335	1885	1580	3465	2210	2155	4365
2403P	4-Door Sedan	1865	1500	3365	1890	1605	3495	2215	2180	4395
2434P	Convertible §	1955	1600	3555	1980	1705	3685	2280	2155	4435
2454P	Sport Coupe	1900	1525	3425	1925	1630	3555	2260	2195	4455

* - Equipped with 6.70-15-6 pr tires as regular equipment.
§ - Equipped with 7.10-15-4 pr tires as mandatory RPO equipment.
¶ - For vehicle weight definitions, see page 10.



ENGINE PERFORMANCE



The engine performance curves shown on this sheet are taken from Chevrolet engine test report 10950-241. They represent the full throttle performance of a Blue-Flame Chevrolet passenger car engine (235.5 cu. in. displacement) as obtained from dynamometer test data which were corrected to the standard barometric pressure 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.

March 16, 1953

The data on this sheet are true as represented.
Chevrolet - Central Office - Engineering Dept.
Division of General Motors Corporation

H. F. Barr
Assistant Chief Engineer

State of Michigan
County of Wayne

On this 16th day of March 1953, personally appeared before me, H. F. Barr, known to me to be such, who makes oath that the data on this sheet are true as represented.

Notary Public, Wayne County
My commission expires August 2nd, 1953

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) ---------- 7.5:1
Taxable (SAE) horsepower ---------- 30.4
Engine idling speed (RPM) ---------- 425 in drive

ADVERTISED MAXIMUM ENGINE PERFORMANCE

Gross brake horsepower ---------- 115 at 3600 RPM
Net brake horsepower ---------- 108 at 3600 RPM
Gross torque (ft lb) ---------- 200 at 2000 RPM
Net torque (ft lb) ---------- 196.5 at 1000 RPM

ADVERTISED CAR PERFORMANCE

The following information is based on model 2103P, 4-Door Sedan, at performance weight (curb weight, plus 600 pounds to represent four passengers):

Performance weight (pounds) ---------- 4075
Pounds/gross horsepower ---------- 35.43
Pounds/cu. in. piston displacement ---------- 17.31
Gross horsepower/cu. in. displacement ---------- .49
Power displacement (cu ft/mile) *§ ---------- 180.9
Displacement factor (cu ft/ton mile) ¶§ ---------- 88.78

ENGINE SPEED AND PISTON TRAVEL §

Rear axle ratio		3.55:1
Tires		6.70-15 or 7.10-15
Crankshaft revolutions per mile		2655
Crankshaft RPM at one MPH	Low	80
	Drive	44
Piston travel (ft/mile)		1742

DRY WEIGHTS

Engine ---------- 550 lb
Engine and automatic transmission ---------- 766 lb

FLYWHEEL

Material ---------- Steel stamping with reinforcement
Ring gear type ---------- Steel, welded to flywheel
Weight (with ring gear and reinforcement) ----- 6.7 lb

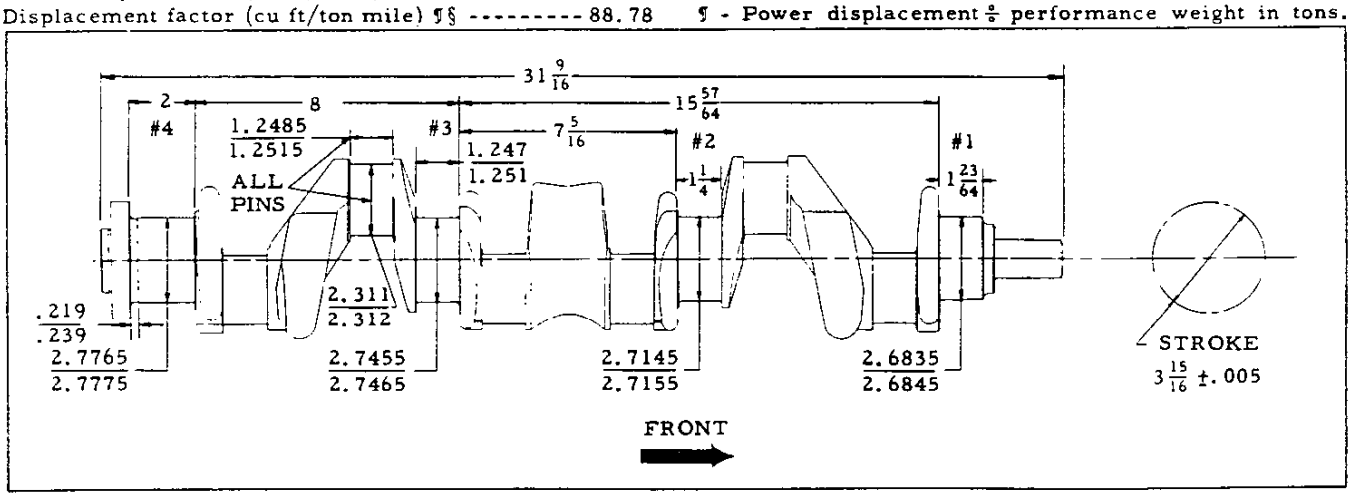
CAMSHAFT

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

* - $\frac{\text{Crankshaft rev/mile x piston displacement} \div 2}{1728}$

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

¶ - Power displacement ÷ performance weight in tons.



CRANKSHAFT

Weight ---------- 78.5 lb.
End play ---------- .0035-.0095

MAIN BEARINGS

Material ---------- .003-.005 babbitt on steel shell

Brg.	Inside dia.	Length	Proj. Area¢
#1	2.6850-2.6866	1-3/32	2.415 sq. in.
#2	2.7160-2.7176	15/16	2.019 sq. in.
#3	2.7470-2.7486	1.2415-1.2435	2.209 sq. in.
#4	2.7780-2.7796	1-7/32	2.776 sq. in. •

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

PISTON PIN

Material ---------- Chromium steel (file hard case)
Diameter ---------- .8660-.8665
Length ---------- 3.198-3.228
Taper limit in full length ---------- .0002
Weight ---------- .320
Clearance in piston ---------- .00015-.00025 •

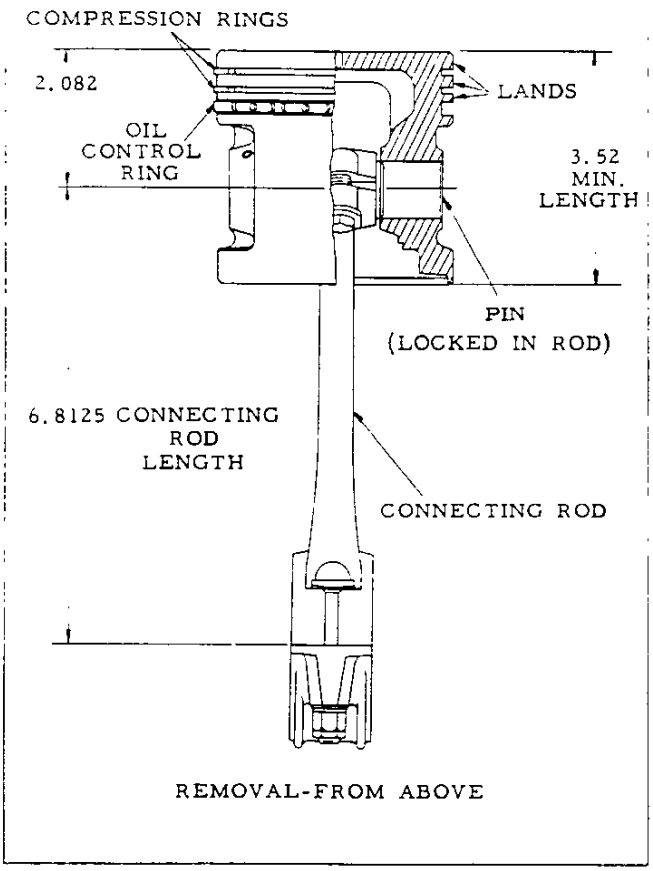
COMPRESSION RINGS

Material ---------- Cast alloy iron, surface-treated with a wear-resistant coating
Type ---------- Deep section, twist
Number per piston ---------- Two
Width ---------- .0930-.0935
Wall thickness ---------- .168-.178
Gap clearance ---------- .007-.017
Ring clearance in groove ---------- .0020-.0035
Weight (each) ---------- .042 lb

OIL CONTROL RING

Material ---------- Cast alloy iron
Type ---------- Wide-slot with expander
Width ---------- .1860-.1865
Wall thickness ---------- .134-.141
Gap clearance ---------- .005-.015
Ring clearance in groove ---------- .0015-.0030
Expander type ---------- Eight crimp spring steel
Weight: Oil control ring ---------- .040 lb
Expander ---------- .005 lb

3-16-53. Revised: 7-1-53, • - Dimension corrected; ⧗ - Page number changed.

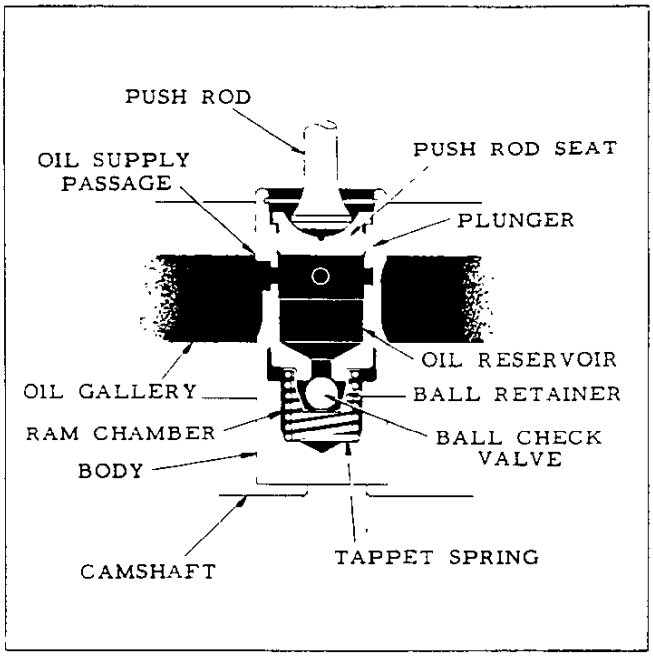


PISTON

Make ---------- Own
Features ---------- Flat head, tin plated, oval with controlled thermo expansion •
Material ---------- Cast alloy aluminum with steel struts
Skirt clearance in cylinder bore ---------- .0002-.0006 x
Land clearance in cylinder bore ---------- .023-.031 x
Compression ring groove depth ---------- .184-.192
Oil ring groove: Depth ---------- .184-.192
Holes, number and size ---------- 8, 5/32 drill
Head thickness at center ---------- .235-.245
Piston pin bushings ---------- None
Weight of piston ---------- 1.190 lb
Weight of piston, rings, pin and connecting rod upper end x 6 (units/engine) ---------- 12.56

CONNECTING RODS

Rod width at piston pin ---------- 1.126-1.129
Rod width at crankpin ---------- 1.2415-1.2435
Crankpin bearing:
Type ---------- Precision interchangeable insert
Material ---------- Steel backed, thin wall babbitt
Diameter ---------- 2.3127-2.3138
Effective length (overall length less chamfers) ---------- .998
Clearance on diameter ---------- .0007-.0028
Projected area per rod (based on effective length) ---------- 2.3086
Assembly weight ---------- 1.99 lb
Upper end weight ---------- .454 lb
Lower end weight ---------- 1.53 lb
Total rotating weight of connecting rods (weight of lower end x 6) ---------- 9.19 lb
End play ---------- .005-.012
Recommended nut torque, with oiled threads ---------- 35-45 ft lb



HYDRAULIC VALVE LIFTERS

Make ---------- G. M. Diesel
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. Oil enters the ram chamber around the steel ball.

VALVES

Inlet valve ---------- Treated with a wear-resistant coating
Lift: Inlet and exhaust valve ---------- .3275
Valve lash (hydraulic lifter):
At time of assembly ---------- Basic adjustment
During operation ---------- Self-adjusting

ENGINE LUBRICATION SYSTEM

Type ---------- Full pressure

Oil from main bearings flows through drilled passages in the crankshaft to the connecting rod bearings
The cylinder walls and piston pins are sprayed by oil metered through a hole in the connecting rod journal boss.
Oil from the camshaft rear bearing flows into the valve lifter oil gallery.
Oil cooler ---------- See page 51

3-16-53. Revised: 7-1-53. • - Features expanded. x - Dimensions changed.

AUTOMATIC TRANSMISSION OPTION—Supplement

ENGINE OIL PUMP

Normal oil pressure--------- 45 psi at 1170 - 1200 • engine RPM (Equivalent car speed: Variable)
Capacity (gallons per minute, hot)----------
---------- 4.30 at 1170-1200 engine RPM
Width of gears ---------- 1

CARBURETOR

Make and model------- Rochester Products, 7004478
Type ---------- Single adjustment, downdraft
SAE flange size---------- 1-1/2
Size (main venturi throat ID) ---------- 1-11/32

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 re-inforcement	None	

RADIATOR CORE

Frontal area---------- 407.36 sq. in.

GENERATOR

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

VOLTAGE AND CURRENT REGULATOR

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

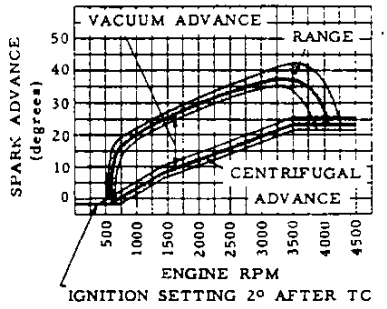
STARTING MOTOR

Circuit:
Ignition 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 transmission control in "Neutral" or "Park" position, turn ignition key to extreme right

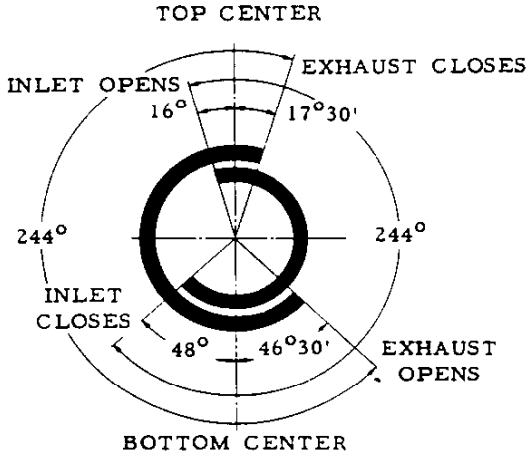
DISTRIBUTOR

Make and model---------- Delco-Remy, 1112388

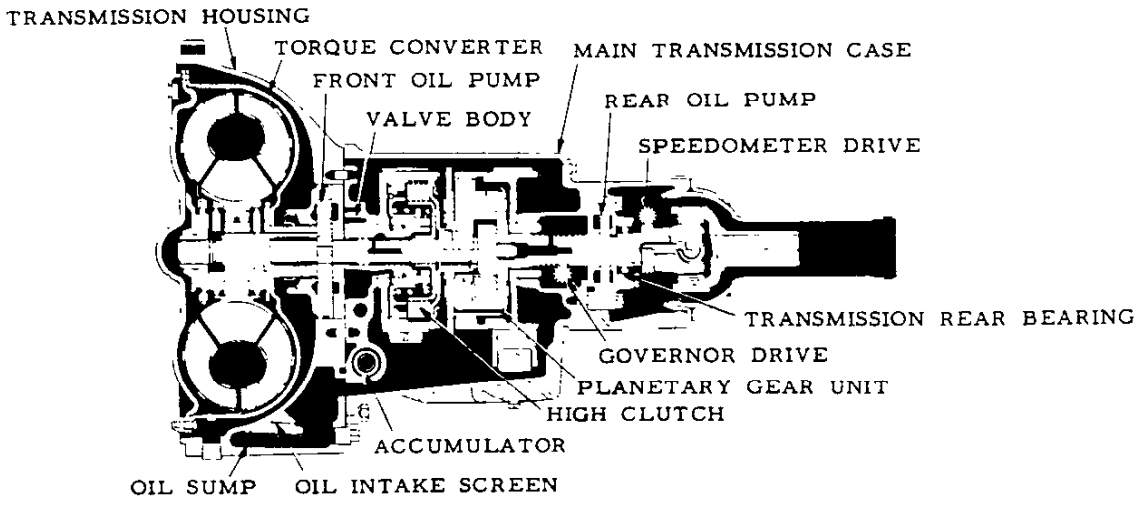
Automatic spark advance	Advance begins	Full advance
Vacuum control	4" to 6" Hg	17° at 7.5" to 12.5" Hg
Centrifugal	450 to 750 RPM	24° to 28° at 3500 RPM and up



VALVE TIMING-Theoretical



AUTOMATIC TRANSMISSION



3-16-53. Revised: 7-1-53, • - Data corrected.

AUTOMATIC TRANSMISSION OPTION—Supplement

AUTOMATIC TRANSMISSION-GENERAL

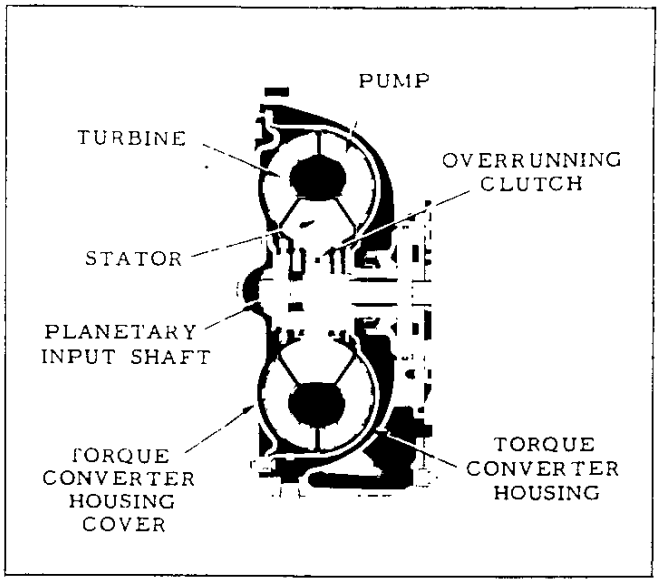
Make and type---------- Own, automatic hydraulic torque converter with planetary gear system for reverse and low
Rated torque capacity---------- 204 ft lb (input)
Converter maximum torque ratio (at stall)----- 2.1:1
Total transmission torque multiplication (converter x planetary gear ratio):
  Maximum overall transmission ratio------ 3.82:1
  Low range (auto or manual)-----3.82:1 to 1.82:1
  Reverse range---------- 3.82:1 to 1.82:1
Oil type-----Automatic transmission fluid, type A
Oil capacity ---------- 11 quarts; refill, 5 quarts •
Oil level gauge and filler tube:
  Location---------- On right side of transmission, 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
Automatic shift:
  Type ----------Hydraulic spool valve controlled by throttle valve and governor
Throttle valve:
  Type---------- Spool
  Actuation---------- Accelerator linkage
  Location----------In automatic shift valve body
  Operation---------- Regulates main line oil pressure to automatic shift valve
Governor:
  Type---------- Centrifugal
  Drive---------- From transmission output shaft
  Location----------
    Accessible from rear of transmission, left side
  Operation----------Regulates oil pressure from rear oil pump to automatic valve

Representative shift points:

Accelerator pedal pressure	Miles per hour	
	Upshift	Downshift
Low	10-1/2	9
High (at detent)	29	16-1/2
High (through detent)	42	37

HYDRAULIC TORQUE CONVERTER

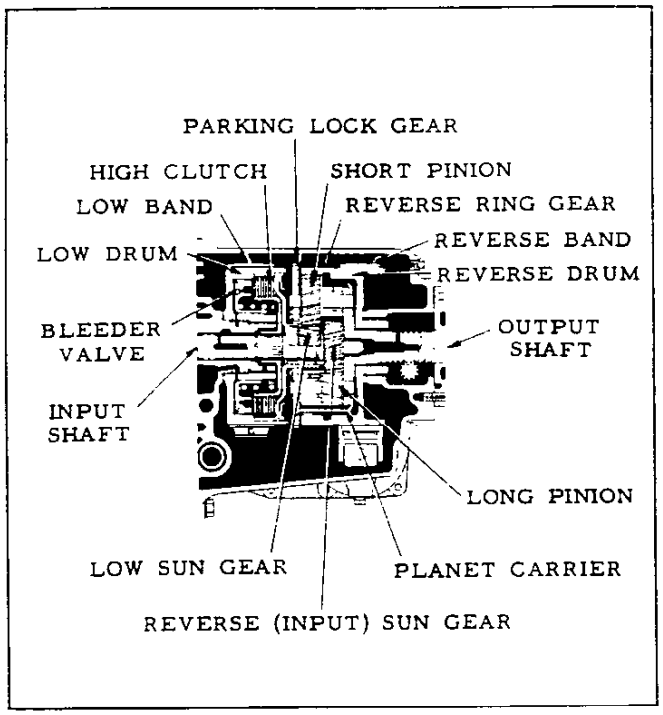
Type ---------- Three element
Driving member (pump)---------- Sheet metal, multi-vane type, spot welded to torque converter housing. The housing cover is bolted to the flywheel.
Driven member (turbine)----------
  ----------Sheet metal, multi-vane type, supported by torque converter housing cover. Turns independently of housing. Splined to input shaft.
Reaction member (stator)---------- Aluminum, air foil type, supported on a stationary sleeve by an overrunning clutch of cam and roller design.



PLANETARY GEAR UNIT

Type----------Compound planetary
Gear ratios:
  Cruising range---------- 1:1 (Direct drive)
  Low range---------- 1.82:1
  Reverse---------- 1.82:1
Input shaft:
  Material---------- Steel, heat treated
  External splines:
    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 assembly---------- Three
  Material----------Steel, case hardened
  Gear teeth----------18, external
Short pinions:
  Number used per assembly ----------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:
  Material----------Malleable iron
  Lining ------- Molded metallic bonded and grooved

3-16-53. Revised: 7-1-53. • - Oil capacity information changed.



HIGH CLUTCH

Type ---------- Multiple-disc
Discs:
Driving, number and type ----------
Four, steel with cork and paper facings, bonded
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
3-1/16 (free), 1-23/64 at 185 lb, 1-7/32 at 200 lb
Piston type and material ----------
---------- Annular, aluminum alloy die casting
Size ---------- 4.748-4.752 OD, 2.498-2.500 ID

Low brake band:
Material ---------- Cold rolled steel
Lining ---------- Molded metallic, bonded and grooved

HYDRAULIC CONTROLS

Oil intake screen: Type ---------- Double screen; outer - 60 x 40 mesh, inner - 8 mesh
Location ---------- Transmission housing oil sump
Oil pumps: Type ---------- Internal external gear
Location:
Front ---------- In rear of transmission housing
Rear ---------- In rear of transmission case
Number of teeth:
Front ---------- 31 internal, 25 external
Rear ---------- 25 internal, 20 external
Transmission rear bearing:
Make ---------- New Departure
Type ---------- 3205, single row ball
Main valve body:
Material ---------- Cast iron
Location ---- Bolted to rear of transmission housing
Manual valve:
Material ---------- Hardened steel
Type ---------- 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:
Automatic cruising ---------- 45 to 150 PSI
Automatic low ---------- 45 to 150 PSI
Manual low ---------- 160 to 200 PSI
Reverse ---------- 160 to 200 PSI
Neutral ---------- 45 to 150 PSI
Park ---------- 0 PSI
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

AUTOMOBILE MANUFACTURERS ASSOCIATION
CONSOLIDATED SPECIFICATION QUESTIONNAIRE

NAME OF CAR:	CHEVROLET	**MODEL NAME** SEDAN DEL. **SYMBOL** 1508
COMPANY:	CHEVROLET DIVISION GENERAL MOTORS CORP. GENERAL MOTORS BLDG. DETROIT 2, MICHIGAN	
MODEL YEAR:	1953 **DATE**	

TABLE OF CONTENTS

NOTES: 1. The specifications set forth herein are those in effect at the date of compilation and are subject to change without notice.
2. All specifications are standard for the models under which they are listed unless otherwise indicated.
3. All dimensions are nominal engineering dimensions unless otherwise indicated.
4. Unless otherwise indicated, specifications apply to 5 or 6 passenger, 4-door sedan or equivalent.

GENERAL SPECIFICATIONS

Model			SEDAN DELIVERY MODEL 1508
Wheelbase			115
Tread	Front		56-11/16
	Rear		58-3/4
Maximum Overall Dimensions	Length (L-103)		195-1/4
	Width (W-103)		74-1/2
	Height (H-101)		65
Steering ratio—overall			23.1:1
Turning diameter (curb to curb)			37' Right, 38' Left
Shipping weight*			3160#
Transmission—(Specify standard, optional, not avail.)		Conventional	Standard
		Overdrive	N.A.
		Automatic	N.A.
Axle ratio		Conventional	4.11:1
		Overdrive	-
		Automatic	-
Tire size			6.70 x 15 - 4 ply rating
Engine	Type		In line
	No. of cylinders		6
	Valve arrangement		In head
	Bore and stroke		3-1/2 x 3-3/4
	Piston displacement, cu. in.		216.5
	Standard compression ratio		6.6:1
	Maximum bhp at engine rpm		92 at 3400
	Maximum torque at rpm		176 at 1000-2000

*Standard car weight, not including gas and water.

AMA Consolidated Specification Questionnaire

MAKE OF CAR CHEVROLET **MODEL YEAR** 1953

MODEL SEDAN DELIVERY MODEL 1508

ENGINE—GENERAL

Type	V, In-line, other		In line
	Angle of V		-
No. of cylinders			6
Valve arrangement			In head
Bore and stroke			3-1/2 x 3-3/4
Piston displacement, cu. in.			216.5
Numbering system (front to rear)	L. Bank		-
	R. Bank		-
Firing order			1-5-3-6-2-4
Compression ratio		Standard Head	6.6:1
		Optional Head	-
Cylinders	Head Material	Standard	Cast alloy iron
		Optional	-
	Sleeve—Wet, dry, other, none		None
Number of mounting points		Front	2
		Rear	1
Taxable horsepower	(Dia.^{2} x No. Cyl.) / 2.5		29.4
Advertised max. brake horsepower at engine RPM*	Standard head		92 at 3400
	Optional head		N.A.
	With fuel (Octane and method)	Standard Head	70-80
		Optional Head	-
Max. torque (lb. ft. @ RPM)	Standard head		176 at 1000-2000
	Optional head		N.A.
Recommended idle speed (neutral)			475 in neutral

ENGINE—PISTONS

Material			Cast alloy iron
Description and finish			Flat head, oval, slipper skirt, surface treated with a wear resistant coating
Weight (piston only) oz.			27.392
Clearance	Top land		.015-.023
	Skirt	Top	-
		Bottom	.0012-.002
Ring groove depth	No. 1 ring		.157-.164
	No. 2 ring		.157-.164
	No. 3 ring		.170-.177
	No. 4 ring		None

*Corrected as defined by SAE Engine Test Code, with the following standard power consuming accessories: Dynamometer exhaust system, water pump, generator (not charging).

AMA Consolidated Specification Questionnaire

MAKE OF CAR CHEVROLET **MODEL YEAR** 1953

MODEL SEDAN DELIVERY MODEL 1508

ENGINE—RINGS

Type (top to bottom)	No. 1 oil or comp.	Taper face
	No. 2 oil or comp.	Taper face
	No. 3 oil or comp.	Wide slot
	No. 4 oil or comp.	None
No. rings above piston pin		3
Compression	Material	Cast alloy iron
	Coating	Wear resistant
	Width	.1235-.1240
	Gap	.005-.015
	Maximum wall thickness	.155
Oil	Material	Cast alloy iron
	Coating	None
	Width	.1860-.1865
	Gap	.005-.015
	Maximum wall thickness	.155
Location of expanders		None

ENGINE—PISTON PINS

Material			Chromium steel (file hard case)
Length			3.135-3.165
Diameter			.8645-.8650
Type	Locked in rod, in piston, floating, etc.		Locked in rod
	Bushing	In rod or piston	In piston
		Material	Cast bronze
Clearance	In piston		Slip fit
	In rod		None
Direction offset in piston			None

ENGINE—CONNECTING RODS

Material		Drop forged steel
Weight (oz.)		30.88
Length (center to center)		6-13/16
Bearing	Material	Thin wall, high lead babbitt
	Type (cast-in or removable)	Spun, (centrifugally cast)
	Effective length	1.076
	Clearance	.0003-.0013
	End play	.004-.012

ENGINE—CRANKSHAFT

Material	Drop forged steel
Weight (lbs.)	70

AMA Consolidated Specification Questionnaire

MAKE OF CAR CHEVROLET **MODEL YEAR** 1953

MODEL SEDAN DELIVERY MODEL 1508

ENGINE—CRANKSHAFT (cont.)

Vibration damper type			Oscillating (rubber floated)
End thrust taken by bearing (No.)			3
Crankshaft end play			.003-.009
Main bearing	Material		Steel backed, thin wall babbitt
	Type (cast-in or removable)		Removable
	Clearance		.0007-.0028
	Journal dia. and bearing effective length	No. 1	2.6835-2.6845 x 1-29/64
		No. 2	2.7145-2.7155 x 1-7/16
		No. 3	2.7455-2.7465 x 1.4345-1.4385
		No. 4	2.7765-2.7775 x 2-3/32 (a)
		No. 5	-
		No. 6	-
		No. 7	-
	Direction offset from cyl. bore		None
Connecting rod crankpin journal diameter			2.311-2.312

ENGINE—CAMSHAFT

Material			Drop forged steel
Bearings	Material		Steel backed babbitt
	Number		4
Type of drive	Gear or chain		Gear
	Crankshaft gear or sprocket material		Steel
	Camshaft gear or sprocket material		Bakelite and fabric composition with steel hub
	Timing chain	Make	None
		No. of links	-
		Width	-
		Pitch	-

ENGINE—VALVE SYSTEM

Hydraulic lifters (yes, no)		No
Special provision for valve rotation (intake, exhaust)		None
Rocker ratio		1.477:1
Operating tappet clearance (indicate hot or cold)	Intake	.006 Hot
	Exhaust	.013 Hot
Tappet clearance for timing	Intake	Zero lash #1
	Exhaust	
Timing marks on flywheel, damper, other		Flywheel

(a) 2/6 per including undercut

AMA Consolidated Specification Questionnaire

MAKE OF CAR CHEVROLET **MODEL YEAR** 1953

MODEL SEDAN DELIVERY MODEL 1508

ENGINE—VALVE SYSTEM (cont.)

Timing	Intake	Opens (°BTC)	1° ATC
		Closes (°ABC)	39°
	Exhaust	Opens (°BBC)	42°
		Closes (°ATC)	9°
Intake	Material		Silchrome or Nickel chrome steel
	Overall length		6.260-6.290
	Actual overall head dia.		1-41/64
	Angle of seat		30° Valve face, 31° Cylinder head
	Seat insert material		None
	Stem diameter		.3410-.3417
	Stem to guide clearance		.001-.0027
	Lift		.2941
	Outer spring press. and length	Valve closed (lb. @ in.)	53-63 at 1.821
		Valve open (lb. @ in.)	124-140 at 1.505
	Inner spring press. and length	Valve closed (lb. @ in.)	-
		Valve open (lb. @ in.)	-
Exhaust	Material		Silchrome steel
	Overall length		4.902-4.932
	Actual overall head dia.		1-1/2
	Angle of seat		45° Valve face, 46° Cylinder head
	Seat insert material		None
	Stem diameter		.3400-.3407
	Stem to guide clearance		.002-.0037
	Lift		.3118
	Outer spring press. and length	Valve closed (lb. @ in.)	53-63 at 1.821
		Valve open (lb. @ in.)	124-140 at 1.505
	Inner spring press. and length	Valve closed (lb. @ in.)	-
		Valve open (lb. @ in.)	-

ENGINE—LUBRICATION SYSTEM

Type of lubrication (splash, pressure, nozzle)	Main bearings	Pressure
	Connecting rods	Pressure stream
	Piston pins	Splash
	Camshaft bearings	Pressure
	Tappets	Metered pressure
	Timing gear or chain	Pressure spray
	Cylinder walls	Splash

AMA Consolidated Specification Questionnaire

MAKE OF CAR: CHEVROLET — MODEL YEAR: 1953

MODEL: SEDAN DELIVERY MODEL 1508

ENGINE—LUBRICATION SYSTEM (cont.)

Oil pump type	Gear
Normal oil pressure (lb. @ mph)	14 psi at 2000 RPM
Oil pressure gage type (electric or mechanical)	Mechanical
Type oil intake (floating, stationary)	Stationary, non-corrosive steel wire mesh screen
Oil filter type (full flow, partial flow)	None
Capacity of crankcase, less filter—refill (qt.)	5
Oil grade recommended (SAE viscosity and temperature range)	Not lower than 32°F - 20W or SAE 20 As low as 10°F - 20W As low as -10°F - 10W Below -10°F - 5W
Oil type recommended	Heavy duty

ENGINE—FUEL SYSTEM

Recommended fuel	Standard head		Regular
	Optional head		None
Fuel tank, capacity (gal.)			16
Fuel pump	Type (elec. or mech.)		Mechanical
	Location		Right hand side, near front of block
	Pressure range		3-1/2 - 4-1/2
	Vacuum booster (std., optl., none)		Optional
Carburetor	Make		Rochester products
	Model number		7004475
	Number used		1
	Type	Downdraft, side inlet, other	Downdraft
		Single or dual	Single
	Intake manifold heat control (manual, auto., none)		Automatic
	Automatic choke type (integral, other)		Manual choke
	Air cleaner type	Standard	Copper ribbon flame arrester, silencer type
		Optional	Oil bath

ENGINE—EXHAUST SYSTEM

Muffler type (reverse flow, straight through)	Reverse flow
Exhaust pipe diameter	2.0 outside
Tail pipe diameter	1-13/16 inside

AMA Consolidated Specification Questionnaire

MAKE OF CAR CHEVROLET **MODEL YEAR** 1953

MODEL SEDAN DELIVERY MODEL 1508

ENGINE—COOLING SYSTEM

Type (pressure system, atmospheric, other)			Pressure
Radiator cap relief valve press.			3-1/2 - 4-1/2
Circulation thermostat	Type (choke, bypass)		Choke
	Starts to open at		151
Water pump	Type (centrifugal, other)		Centrifugal
	Number of pumps		1
	Drive (V-belt, other)		V-belt
	Bearing type		Permanently lubricated, double row ball bearing
By-pass recirculation type (internal, external)			None
Radiator core type (cellular, tube and fin)			Cellular
Cooling system capacity	With heater (qt.)		16
	Without heater (qt.)		15
Water jackets full length of cylinder (yes, no)			Full stroke length
Water all around cylinder (yes, no)			Yes
Radiator hose	Lower	Number and type (molded, straight)	1 Molded
		Inside diameter and length	1-1/2 x 16-1/2
	Upper	Number and type (molded, straight)	1 Molded
		Inside diameter and length	1-1/4 x 6-3/4
	By-pass	Number and type (molded, straight)	None
		Inside diameter and length	-
Drive belts	Fan	Number used	1
		Angle of V	37°-44° wrap molded, or cut molded
		Outside length	42-1/2
		Width	3/8
	Generator	Angle of V	Same as fan belt
		Outside length	-
		Width	-
Fan	Number of blades and spacing		4 Staggered
	Diameter		15-3/4
	Ratio—fan to crankshaft revolutions		1.405:1
	Bearing type		On water pump

AMA Consolidated Specification Questionnaire

NAME OF CAR CHEVROLET **MODEL YEAR** 1953

MODEL SEDAN DELIVERY MODEL 1508

ELECTRICAL—SUPPLY SYSTEM

Battery	Make & Model		Delco - 15AAG-W
	Voltage rating - Plates/cell		6 volt - 15 plate
	SAE designation & Amp/hr. rating		DM - 100 amp hrs. @ 20 hr. rate
	Location		Right side, under hood
	Terminal grounded		Negative
Generator	Make		Delco-Remy
	Model		1100018
	Type		2 brush, shunt wound
	Ratio—Gen. to Cr/s rev.		2.05:1
Regulator	Make		Delco-Remy
	Model		1118725
	Type		Current and voltage control
	Cutout relay	Closing voltage @ generator rpm	6.4 @ 1160
		Reverse current to open	-
	Regulated	Voltage	7.4
		Current	45
	Min. Gen. rpm required		(For max output) 2750 Cold, 3250 Hot
	Voltage test conditions	Temperature	Operating
		Load	Run 15 minutes at 8-10 amps
		Other	--

ELECTRICAL—STARTING SYSTEM

Starting motor	Make		Delco-Remy
	Model		1107109
	Rotation (drive end view)		Clockwise
	Engine cranking speed		125
	Test conditions		Engine operating temperature
	Lock test	Amps	525
		Volts	3.4
		Torque (lb. ft.)	12
	No load test	Amps	65
		Volts	5.0
		RPM (min.)	5000
Motor control	Switch (solenoid, manual)		Solenoid
	Starting procedure		Place shift lever in neutral and depress clutch. Operate manual choke. Turn ignition key to extreme clockwise position to start engine.

AMA Consolidated Specification Questionnaire

MAKE OF CAR CHEVROLET — MODEL YEAR 1953

MODEL — SEDAN DELIVERY MODEL 1508

ELECTRICAL—STARTING SYSTEM (cont.)

Motor drive	Engagement type		Over-running clutch
	Pinion meshes (front, rear)		Front
	Number of teeth	Pinion	9
		Flywheel	139
	Flywheel tooth face width		1/2

ELECTRICAL—IGNITION SYSTEM

Coil	Make		Delco-Remy
	Model		1115380
	Amps	Engine stopped	4.5
		Engine idling	2.5
Distributor	Make		Delco-Remy
	Model		1112362
	Spark advance data (at distributor shaft)	Centr. advance start (rpm)	275-375
		Centr. advance max. deg. @ rpm	16.25° - 19.75° at 1725 distributor RPM
		Vacuum advance start (in. Hg.)	7.0-8.5
		Vac. adv. (max. deg. @ in. Hg.)	9° - 11° at 18.5 - 16.5
	Breaker gap (in.)		.015-.022
	Cam angle (deg.)		39°
	Breaker arm tension (oz.)		17-21
Timing	C.S deg. @ rpm		5° ETC Initial advance
	Mark location		Flywheel
	Cylinder numbering system (see page 2)		Front to rear
	Firing order (see page 2)		1-5-3-6-2-4
Spark plug	Make and model		AC, 44-5
	Thread (mm)		14
	Tightening torque (lb. ft.)		20-25
	Gap		.033-.038
Cable	Conductor type		Linen core impregnated with electric conducting materi
	Insulation type		Rubber with neoprene jacket
	Spark plug protector		Neoprene compound

ELECTRICAL—SUPPRESSION

Description	NON-METALLIC - High tension cables

AMA Consolidated Specification Questionnaire

MAKE OF CAR _____ MODEL YEAR 1953

MODEL SEDAN DELIVERY MODEL 1508

ELECTRICAL—INSTRUMENTS AND SWITCHES

Speedometer	Make	AC
	Trip odometer (yes, no)	No
Charge indicator—type		Ammeter
Temperature indicator—type		Bourdon tube
Oil pressure indicator—type		Bourdon tube
Fuel indicator—type		Electric
Ignition switch	Identify positions in order and circuits controlled	Vertical - Off, unlocked Counter clockwise - Off, locked 1st position clockwise from vert. - Ignition & Accessories "On" 2nd " " " " - Ignition, Accessories & Start - "On" with spring return to 1s position (Key removable in all positions)
	Provision for illumination	Yes, bulb at switch
	Location	On instrument panel - right of steering column
	Theft protection type	None
Main lighting switch	Identify positions and lights controlled	Depressed - off 1st notch - Instrument panel lights, parking lights 2nd notch - Instrument panel lights, driving lights Rotate - Clockwise to dim and turn off instrument panel lights Counterclockwise to turn on and brighten panel lights.
Other light switches	Locations and lamps controlled	Toggle on dome lamp Left hand toe board - High and low beam driving light
Other switches	Locations and devices controlled	
Windshield wiper	Make	Trico
	Type	Vacuum
	Vacuum booster provision	Factory installed option
	Washer provision	Dealer installed accessory
Horn	Type	Vibrator
	Number used	2
	Amp draw (each)	High - 17-19, Low - 19-21

AMA Consolidated Specification Questionnaire

MAKE OF CAR [illegible] MODEL YEAR 1953

MODEL SEDAN DELIVERY MODEL 1508

ELECTRICAL—LAMP BULBS

Give quantity used and trade number, e.g., Headlamp 2-4030.
Indicate accessories which are not standard equipment by an asterisk following the numbers.

Headlamp		2-2400 CC
Headlamp beam indicator		1-51
Parking light		2-63 ¢
Tail light		2-63
Stop light		2-1129
Direction indicator	Front	2-1154 *
	Rear	Uses stop lamp bulbs *
	Tell-Tale	2-51 *
License plate light		1-63
Instrument light		1-55
Ignition lock light		1-51
Map light		NA
Dome light		1-88
Clock light		1-63 *
Radio dial light		1-55 *
Glove compartment light		1-55 *
Courtesy light		2-82 *
Trunk compartment light		NA
Other		Portable spot 1-30 watt * (sealed beam)
		Underhood 1-87 *
		Spot 1-32 * candle power (sealed beam)
		Back-up 2-1133 *

ELECTRICAL—FUSE & CIRCUIT BREAKER DATA

Use trade number of fuse, e.g., SFE-10. Indicate circuit breaker by ampere capacity suffixed by letters "C.B", e.g., 30 C.B. Where fuse or circuit breaker protects multiple circuits indicate first use by a letter and repeat the same letter for all units protected by the same fuse or circuit breaker, e.g., Parking light: SFE-10 (a), Direction indicator: same as (a).

Headlamp	30 CB (a)
Headlamp beam indicator	Same as (a)
Parking light	Same as (a)
Tail light	Same as (a)
Stop light	Same as (a)
Direction indicator	SFE 14*
License plate light	Same as (a)
Instrument light	Same as (a)
Ignition light	Same as (a)
Map light	None
Dome light	Same as (a)
Clock	Same as (a) *
Clock light	Same as (a) *
Radio	SFE 14 *
Glove compartment light	Same as (a) *
Courtesy light	Same as (a) *
Trunk compartment light	-
Other [illegible]	SFE 14 *
[illegible]	SFE 4 *
[illegible]	SFE 14 *
[illegible]	SFE 14 *

* - Accessory only
¢ - Unload by 3 CP filament of 1154 bulb

AMA Consolidated Specification Questionnaire

MAKE OF CAR CHEVROLET **MODEL YEAR** 1953

MODEL SEDAN DELIVERY MODEL 1508

DRIVE UNITS—CLUTCH (PEDAL OPERATED)

Make			Chm. and Borg and Beck
Type (dry or wet plate)			Dry
In combination with fluid coupling (yes, no)			No
Semi-centrifugal (yes, no)			No
Type pressure plate springs			Diaphragm spring
Total plate pressure (lb.)			-
No. of clutch driven discs			One
Clutch facing	Material		Woven or molded asbestos composition
	Inside diameter		6.125
	Outside diameter		9.125
	Total eff. area (sq. in.)		71.86
	Thickness		.132-.138
	Number required		2
	Engagement cushioning method		Spring plates
	Release bearing	Type	Ball bearing
		Method of lubrication	Packed for life
	Torsional damping	Method (springs, other)	Helical hub springs
		Frict. mat.	-

DRIVE UNITS—TRANSMISSIONS

Conventional (std. or opt.)	Standard
Conventional with overdrive (std. or opt.)	NA
Automatic (std. or opt.)	NA

DRIVE UNITS—CONVENTIONAL TRANSMISSION

Number of forward speeds		3
Transmission ratios	In first	2.9h:1
	In second	1.68:1
	In third	Direct
	In fourth	None
	In reverse	2.9h:1
Constant mesh gears in 2nd (yes, no)		Yes
Spur gear used in (indicate speeds)		None
Helical gears used in (indicate speeds)		All
Synchronous meshing in 2nd and 3rd gears (yes, no)		Yes

AMA Consolidated Specification Questionnaire

MAKE OF CAR CHEVROLET **MODEL YEAR** 1953

MODEL SEDAN DELIVERY MODEL 1508

DRIVE UNITS—CONVENTIONAL TRANSMISSION (cont.)

Lubricant	Capacity (pt.)		1-1/2
	Type recommended		Multi-purpose or mineral oil
	SAE viscosity number	Summer	SAE 90
		Winter	SAE 90
		Extreme cold	SAE 90

DRIVE UNITS—CONVENTIONAL TRANSMISSION WITH OVERDRIVE

For transmission data see conventional transmission section

Overdrive	Type (planetary or other)		
	If planetary, No. of pinions		
	Manual lockout (yes, no)		
	Downshift accelerator control (yes, no)		
	Minimum cut-in speed		
	Gear ratio		
	Lubricant: Capacity (O.D. only)		
	Lubricant: Separate filter (yes, no)		
	Lubricant: Type recommended		
	Lubricant: SAE viscosity number	Summer	
		Winter	
		Ext. cold	

DRIVE UNITS—AUTOMATIC TRANSMISSION

Trade name	
Type (fluid coupling with gears, torque convertor with gears, other)	
Manual selector positions, left to right (show symbols and define, e.g., N- Neutral)	
List gear ratios in each drive position (range)	
Shifting within drive position range by accelerator control and speed limiting governor (yes, no)	
Governor—forced shift (yes, no)	
Downshift of gears in high range possible up to (mph)	

AMA Consolidated Specification Questionnaire

MAKE OF CAR CHEVROLET MODEL YEAR 1953

MODEL SEDAN DELIVERY MODEL 1508

DRIVE UNITS—AUTOMATIC TRANSMISSION (cont.)

Torque converter	Number of elements		
	Max. ratio at stall at engine rpm		
	Mechanical lockup	Provided (yes, no)	
		Speed range	
		Releases at (speed range, mph)	
	Type of cooling (forced air, oil cooler and type, other)		
	Anti-creep device (yes, no)		
Lubricant	Capacity—refill (pt.)		
	Type recommended		
	Grade	Summer	
		Winter	
		Extreme cold	

DRIVE UNITS—PROPELLER SHAFT

Number used			1
Type (exposed, torque tube)			Torque tube
Outer diameter x length* x wall thickness	Conventional trans.		2.0 x .065 (Eff. length varies due to slip of U/joint on spline)
	Overdrive trans.		
	Automatic trans.		
Intermediate bearing	Type (plain, anti-friction)		None
	Lubri. (fitting, prepack)		
Universal joints	Make		Own
	Number used		1
	Type (ball and trunnion, cross, other)		Yoke and spider (trunnion)
	Bearing	Type (plain, anti-friction)	Plain
		Lubric. (fitting, prepack)	From transmission
Torque taken through (torque tube or arms, spring)			Rear springs
Torque taken through (torque tube or arms, springs)			Torque tube

*Centerline to centerline of joints or centerline of rear attachment point.

AMA Consolidated Specification Questionnaire

MAKE OF CAR CHEVROLET MODEL YEAR 1953

MODEL SEDAN DELIVERY MODEL 1508

DRIVE UNITS—REAR AXLE

Type (semi-floating, other)		Semi-floating
Gear type (hypoid, other)		Hypoid
Gear ratio and No. of teeth	Conventional trans.	4.11:1
	Overarive trans.	NA
	Automatic trans.	NA
Pinion adjustment (shim, other)		Shim
Pinion bearing adj. (shim, other)		None
Lubricant	Capacity (pt.)	3-1/2
	Type recommended	Passenger car Hypoid or Multi-purpose
	SAE viscosity number — Summer	SAE 90
	SAE viscosity number — Winter	SAE 90
	SAE viscosity number — Extreme cold	SAE 90

DRIVE UNITS—WHEELS

Type (disc, other)		Short spoke disc
Rim (size and flange type)		15 x 5K
Attachment	Type (bolt or stud)	Bolt
	Circle diameter	1.75
	Number and size	5,7/16 x 20

DRIVE UNITS—TIRES

Size and ply rating	Standard	6.70-15-4 ply rating
	Optional	6.70-15-6 ply rating
Revs/mile at 30 mph		748
Inflation press. (cold)	Front	24# for 6.70-15-4; 26# for 6.70-15-6
	Rear	24# for 6.70-15-4; 30# for 6.70-15-6

BRAKES—SERVICE

Type			Servo - 4 wheel hydraulic
Booster type			None
Effective area (sq. in.)			158
Percent brake effectiveness—rear			44%
Drum	Diameter	Front	11
		Rear	11
	Type and material		Composite, Rim - Cast Alloy iron. Web - Pressed steel

AMA Consolidated Specification Questionnaire

MAKE OF CAR CHEVROLET **MODEL YEAR** 1953

MODEL SEDAN DELIVERY MODEL 1508

BRAKES—SERVICE (cont.)

Brake lining	Bonded or riveted			Bonded
	Primary	Material		Full-molded, asbestos composition
		Size (length x width x thickness)	Front wheel	9.3125 x 2.0 x .202-.222
			Rear wheel	9.3125 x 1.75 x .202-.222
		Segments per shoe		One
	Secondary	Material		Full-molded, asbestoes composition
		Size (length width x thickness)	Front wheel	11.6875 x 2.0 x .202-.222
			Rear wheel	11.6875 x 1.75 x .202-.222
		Segments per shoe		One
Wheel cylinder bore	Front			1.125
	Rear			1
Master cylinder bore				7/8
Available pedal travel				6.5
Line pressure at 100 lb. pedal load				800 (Approx.)
Shoe clearance adjustment				To light drag and back off 7 notches

BRAKES—PARKING

Type of control		'T' Handle pull rod
Location of control		RH of steering column, below instrument panel
Operates on		Rear service brake shoes
If separate from service brakes	Type (internal or external)	
	Drum diameter	
	Lining size (length x width x thickness)	

FRAME

Type and description	Full length, welded, box-section Box-section front, rear and intermediate cross members

FRONT SUSPENSION

Type and description	Unitized, independent, short and long arm

AMA Consolidated Specification Questionnaire

MAKE OF CAR CHEVROLET **MODEL YEAR** 1953

MODEL SEDAN DELIVERY MODEL 1508

FRONT SUSPENSION (cont.)

Spring	Type	Coil
	Material	Chrome alloy steel
	Size (length x width x No. leaves or coil I.D.)	14-3/4 x 4.45
	Spring rate (lb. per in.)	300
	Rate at wheel (lb. per in.)	110
	Normal load (lb. @ rated length)	1555 at 9.5
Shock absorbers	Manufacturer	Delco
	Type (direct or lever)	Direct, double-acting, hydraulic
	Piston diameter	1.0
Stabilizer	Type (link, linkless, frameless)	Link
	Material	Heat treated HR carbon steel

STEERING

Type used (Standard or optional)	Mechanical			Standard
	Power			NA
Wheel diameter				18
Turning diameter	Wall to wall			40' Right, 41' Left
	Curb to curb			37' Right, 38' Left
Outside wheel angle with inside wheel at 20°				17° 40'
Mechanical	Gear	Type		Semi-reversible, hour glass worm and ball bearing roller sector
		Make		Saginaw
		Ratios	Gear	19.4:1
			Overall	23.1:1
	No. wheel turns (l. to r.) (l. to r.)			4.53
Power	Type			
	Make			
	Trade name			
	Gear	Type		
		Ratios	Gear	
			Overall	
	Pump driven by			
	Overall torque ratio			
	Number wheel turns (l. to r.)			
Linkage	Type			Center-point
	Location (front or rear of wheels)			Rear of wheels
	Drag link (trans. or long)			Longitudinal
	Tie rods (one or two)			2

AMA Consolidated Specification Questionnaire

MAKE OF CAR CHEVROLET MODEL YEAR 1953

MODEL SEDAN DELIVERY MODEL 1508

STEERING (cont.)

Kingpin	Inclination at camber (deg.)		3-1/2 - 4-1/2
	Diameter		.8660-.8665
	Bearings (type)	Upper	Bushing
		Lower	Bushing
		Thrust	Single row ball
Wheel alignment (range and preferred)	Caster (deg.)		0-1
	Camber (deg.)		0-1
	Toe-in (outside tread-inches)		0-1/8
Steering knuckle type			Reverse Elliot
Wheel spindle	Diameter	Inner bearing	1.2801-1.2806
		Outer bearing	.7490-.7495
	Thread size		3/4-20 AN
	Bearing type		Ball

REAR SUSPENSION

Type			Longitudinal springs
Drive and torq. taken through (see page 14)			Drive - Springs, Torque - Torque tube
Spring	Type		Semi-elliptic
	Material		Chrome alloy steel
	Size (length x width x No. leaves or coil I.D.)		49 x 1-3/4 x 8
	Spring rate (lb. per in.)		115
	Rate at wheel (lb. per in.)		-
	Normal load (lb. at rated length)		1180
	Mounting insulation type		Rubber bushed
	If leaf	No. of leaves	8
		Covers (yes, no)	Yes
		Lubricated (yes, no)	Yes
		Inserts — Type and size	None
		Inserts — Material	-
		Shackle (comp. or tens.)	In tension from rear hanger
Shock absorbers	Manufacturer		Delco
	Type (direct or lever)		Direct, double-acting, hydraulic
	Piston diameter		1.0
Stabilizer	Type (link, linkless, frameless)		None
	Material		-
Track bar type			None

INDEX