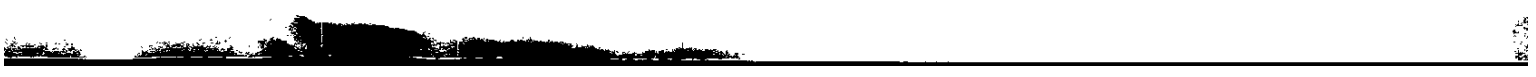
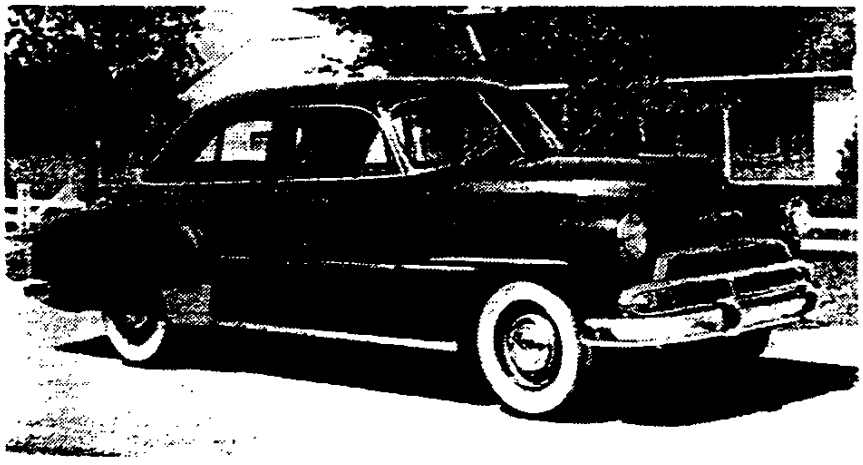


CHEVROLET



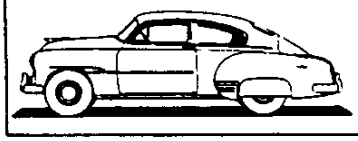
1951 Chevrolet, Styleline Deluxe four-door sedan, 6-cyl

1951

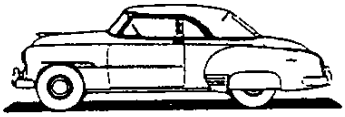
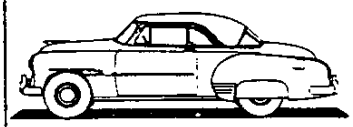
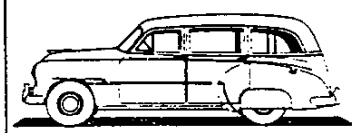
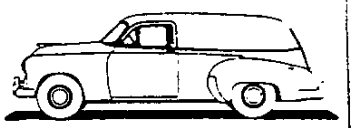
PASSENGER CARS

MODEL IDENTIFICATION

FLEETLINE

De Luxe - Series 2100		Name and	Special - Series 1500	
Vehicle Type	Model	Description	Model	Vehicle Type
	2153 51-1008 *	4-DOOR SEDAN 6-passenger, 5-window sedan with luggage compartment in rear	1553 51-1208 *	
	2152 51-1007 *	2-DOOR SEDAN 6-passenger, 5-window sedan with luggage compartment in rear	1552 51-1207 *	

STYLELINE

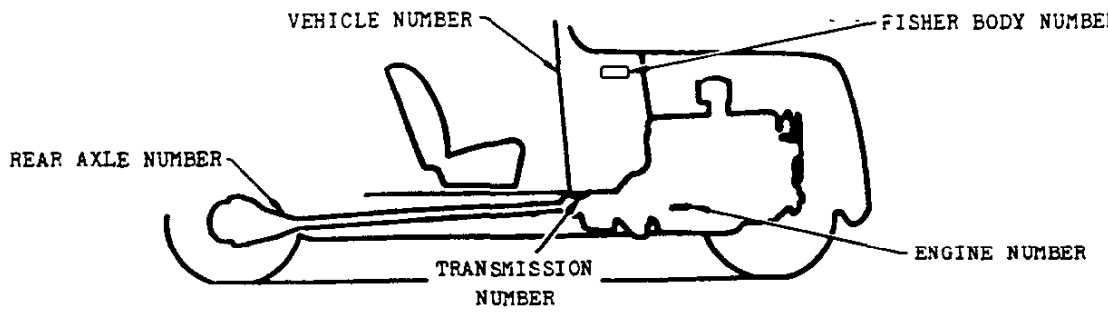
De Luxe - Series 2100		Name and	Special - Series 1500	
Vehicle Type	Model	Description	Model	Vehicle Type
	2103 51-1069 *	4-DOOR SEDAN 6-passenger, 5-window sedan with luggage compartment in rear	1503 51-1269 *	
	2102 51-1011 *	2-DOOR SEDAN 6-passenger, 5-window sedan with luggage compartment in rear	1502 51-1211 *	
	2124 51-1027 *	SPORT COUPE 6-passenger, 2-door, 5-window coupe with luggage compartment in rear	1524 51-1227 *	
		BUSINESS COUPE 3-passenger, 2-door, 5-window coupe with luggage compartments behind seat and in rear	1504 51-1227B *	
	2134 51-1067TX *	CONVERTIBLE COUPE 5-passenger, 2-door, 5-window coupe with folding top; luggage compartment in rear		
	2154 51-1037 *	BEL AIR COUPE 6-passenger, 2-door, 5-window coupe with hard top; luggage compartment in rear		
	2119 51-1062 *	STATION WAGON 8-passenger, 4-door, 7-window, all-steel body with drop and lift gates in rear		
		SEDAN DELIVERY 2-passenger, 3-door 3-window, panel delivery	1508 51-1271 *	

* - Fisher Body style number.

1-2-51

SERIAL NUMBERS

SERIAL NUMBER LOCATIONS
(See descriptions below.)



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

VEHICLE SERIAL NUMBER

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

Assembly plant designation:

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

Model year designation ---------- J

Model designation:

Special	J
De Luxe	K

Calendar month designation:

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

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

ENGINE SERIAL NUMBER

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

Model year designation ---------- J

Passenger car designation ---------- A

Plant designation:	Flint	Tonawanda
Regular engine	A	M
RPO 227 heavy duty clutch	C	P

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

TRANSMISSION SERIAL NUMBER

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

Model year designation ---------- J

Plant designation:	Saginaw	Muncie	Toledo
Regular transmission	A	B	C
RPO 316 heavy duty transmission	G	H	J

Starting serial number ---------- 1001 and up, at each transmission plant.
Location ---------- Stamped on left side of case at front edge of cover.

REAR AXLE SERIAL NUMBER

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

Model year designation ---------- J

Plant designation:	Gear & Axle	Buffalo
Axle (4.11:1 ratio)	A	B

Serial Number -- The first one or two digits represent the month; the last two, the day of month.
Location ---------- Stamped on front, right side of differential carrier.

FISHER BODY NUMBER

Description -- Consists of separate numbers and symbols for body style, body number, trim type, and paint combination. Controlled by body source.
Location ---------- Stamped on plate on right hand shoulder of cowl, under the hood.

VEHICLE WEIGHTS

FLEETLINE ©

Vehicle Type		Shipping			Curb		
Model	Description	Front	Rear	Total	Front	Rear	Total
2152	De Luxe 2-Door Sedan	1700	1400 •	3100 •	1725	1505 •	3230 •
1552	Special 2-Door Sedan	1700	1365 •	*3065 •	1725	1470 •	3195 •
2153	De Luxe 4-Door Sedan	1715 •	1415 •	3130 •	1740 •	1520 •	3260 •
1553	Special 4-Door Sedan	1710 •	1395 •	*3105 •	1735 •	1500 •	3235 •

STYLELINE ©

Vehicle Type		Shipping			Curb		
Model	Description	Front	Rear	Total	Front	Rear	Total
21C2	De Luxe 2-Door Sedan	1710 •	1400 •	3110	1735 •	1505 •	3240
15C2	Special 2-Door Sedan	1700 •	1370 •	3070 •	1725 •	1475 •	3200 •
2103	De Luxe 4-Door Sedan	1720 •	1430 •	3150 •	1745 •	1535 •	3280 •
1503	Special 4-Door Sedan	1710	1400 •	3110 •	1735	1505 •	3240 •
2124	De Luxe Sport Coupe	1710 •	1380 •	3090 •	1735 •	1485 •	3220 •
1524	Special Sport Coupe	1700 •	1360 •	3060	1725 •	1465 •	3190
1524	Special Business Coupe	1700	1330 •	3030 •	1725	1435 •	3160 •
2134	De Luxe Convertible Coupe	1810 •	1550 •	3360 •	1835 •	1655 •	3490 •
2154	De Luxe Bel Air	1755	1460 •	3215 •	1780	1565 •	3345 •
2119	De Luxe Station Wagon ©	1690	1760 •	3450 •	1715	1865 •	3580 •
1509	Special Sedan Delivery	1665 •	1405 •	3070 •	1690 •	1510 •	3200 •

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

* - Estimated weight.

‡‡ - Government orders discontinued spare tire from March to July, 1951. Spare tire weight is included in weights above.

VEHICLE WEIGHT CONDITIONS

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

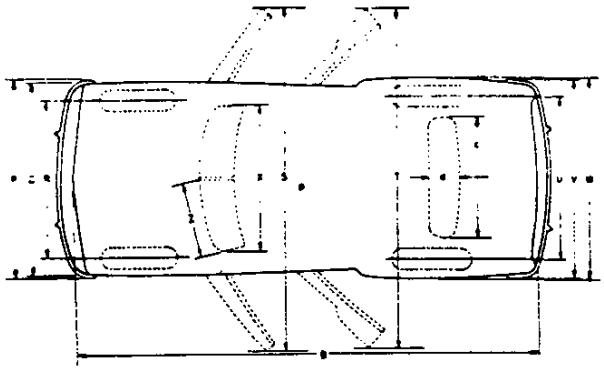
CURB WEIGHT: This is the weight of the empty vehicle ready to drive. It is the shipping weight plus the weights of gasoline (99 pounds) and water (31 pounds).

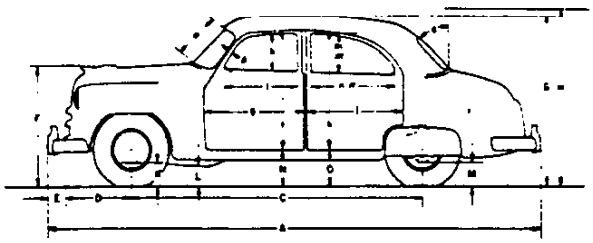
PERFORMANCE WEIGHT: This is the curb weight of the lowest priced 4-door sedan in each line with regular equipment plus 600 pounds for passengers. Representative vehicles are:

Fleetline De Luxe 4-Door Sedan ----- 3860 pounds
Fleetline Special 4-Door Sedan ----- 3835 pounds
Styleline De Luxe 4-Door Sedan ----- 3880 pounds
Styleline Special 4-Door Sedan ----- 3840 pounds

1-2-51. Revised: 8-8-51, • - Cars re-weighed. x - Spare tire note added.

EXTERIOR DIMENSIONS





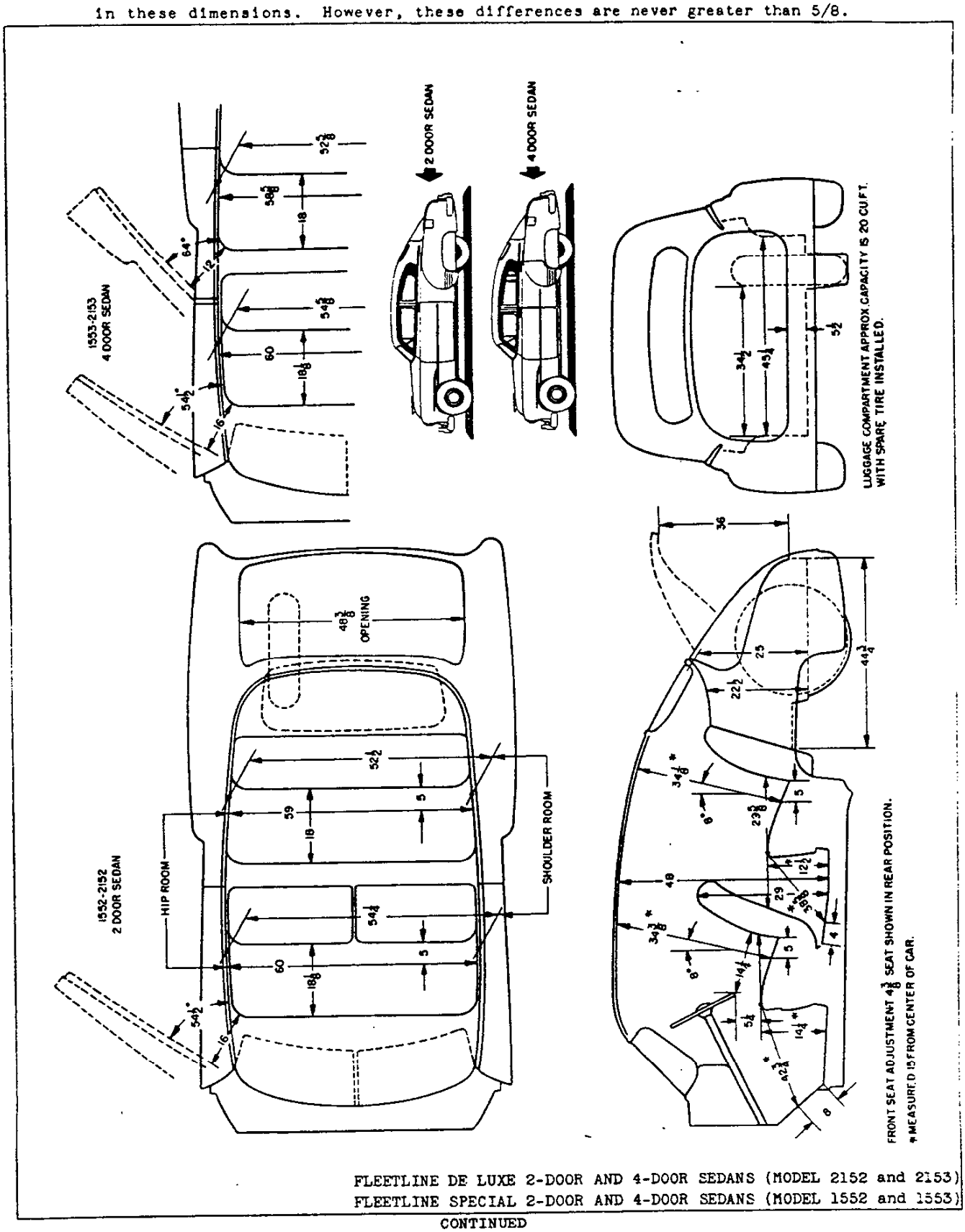
DESCRIPTION		KEY	FLEETLINE		STYLELINE					
			1552 2152	1553 2153	1502 2102	1503 2103	1504-24 2124	2134 2154	2119	1508
Vehicle length	Overall	A	197-13/16						197-7/8	196-7/8
	Grille to rear fender	B	183-1/4						184-7/8	182-3/4
	Wheelbase	C	115							
	Grille to front wheel	D	27-3/4							
	Grille to bumper guard fr	E	6-1/4							
Vehicle height	Over ornament, loaded	F*	46-1/8							
	Over roof, loaded	G*	62-3/4		63-5/8			61-15/16Ø	66-13/16	64-3/4
	Over roof, no load	H@	64-7/8		65-3/4			64-1/16Ø	70-1/8	67-5/8
Road clearance	Under front spring seat	K@	7-7/8							
	Under exhaust pipe	L@	7-7/16 all except 2134 which is 7-1/4							
	Under rear axle center	M@	8							
Door step height	Front door, no load	N@	16							
	Rear door, no load	O¢		16-1/8		16-1/8			16-1/8	
Vehicle width	Over front bumper	P	71-5/8							
	Over front fenders	Q	70-1/2							
	Front wheel tread	R	56-11/16							
	Over front doors, open	S	148-1/2	131-3/4	147-1/4	134	145-1/2		141-1/2	134
	Over rear doors, open	T		133-1/4		132			133-1/2	
	Rear wheel tread	U	58-3/4							
	Over rear bumpers	V	73-3/16							
	Over body maximum	W	73-15/16							
Windshield	Width between pillars	X	50-1/4							
	Width, each half	Z@	27							
	Height on 45° slope	a@	15-3/4		16-3/4			15	18-5/8	16-3/4
	Corner post on diagonal	b	2-15/16					3		2-15/16
Rear window	Width	c@	38-7/16		43-15/16		43-1/4	34-3/4 @	44-1/2	30-5/8
	Height on slope	d@	17		15		12-13/16	13-1/4 @	12-1/2	10-1/2
	Slope angle	e	62° 30'		45°			47°	21° 30'	27°
Front door	Opening height	f	41-1/4		42-1/4			41-3/4	43-1/2	42-1/4
	Opening width	g	43	36-1/8	43	36-1/8	43		36-1/8	36-1/8
	Window DLO height	h@	12-1/2		13-3/4			12-3/4	14-1/8	13-3/4
	Window DLO width	j@	35-3/4	27-1/8	36	29	36	35-3/4	27-7/8	29
Rear side door	Opening height	k		40-1/4		40-1/4			44	For rear door see page 18
	Opening width	l		32-11/16		32-7/8			32-11/16	
	Window DLO height	m@		12-1/8		13-5/8			14-3/8	
	Window DLO width	n@		33-1/2		29-1/8			31	
Rear quarter	Window DLO height	m'@	12		13-3/8		12		14-3/16	
	Window DLO width	n'@	29-1/8		28		18-1/2	17-3/4	32	

* - Under design load conditions: Curb weight of model 2103, plus five passengers (150 lb each). The design height of frame from ground, thus established, is used for all other models. @ - At curb weight height. ¢ - Road clearance based on static conditions of tires and springs under design load (see *). @ - DLO, measured on surface of glass. @ - For 2134 only. See page 16 for 2154 rear window visibility area.
Ø - Convertible height, top down: 61-5/8 no load, 59-7/8 loaded.

1-2-51

BODY INTERIOR DIMENSIONS

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

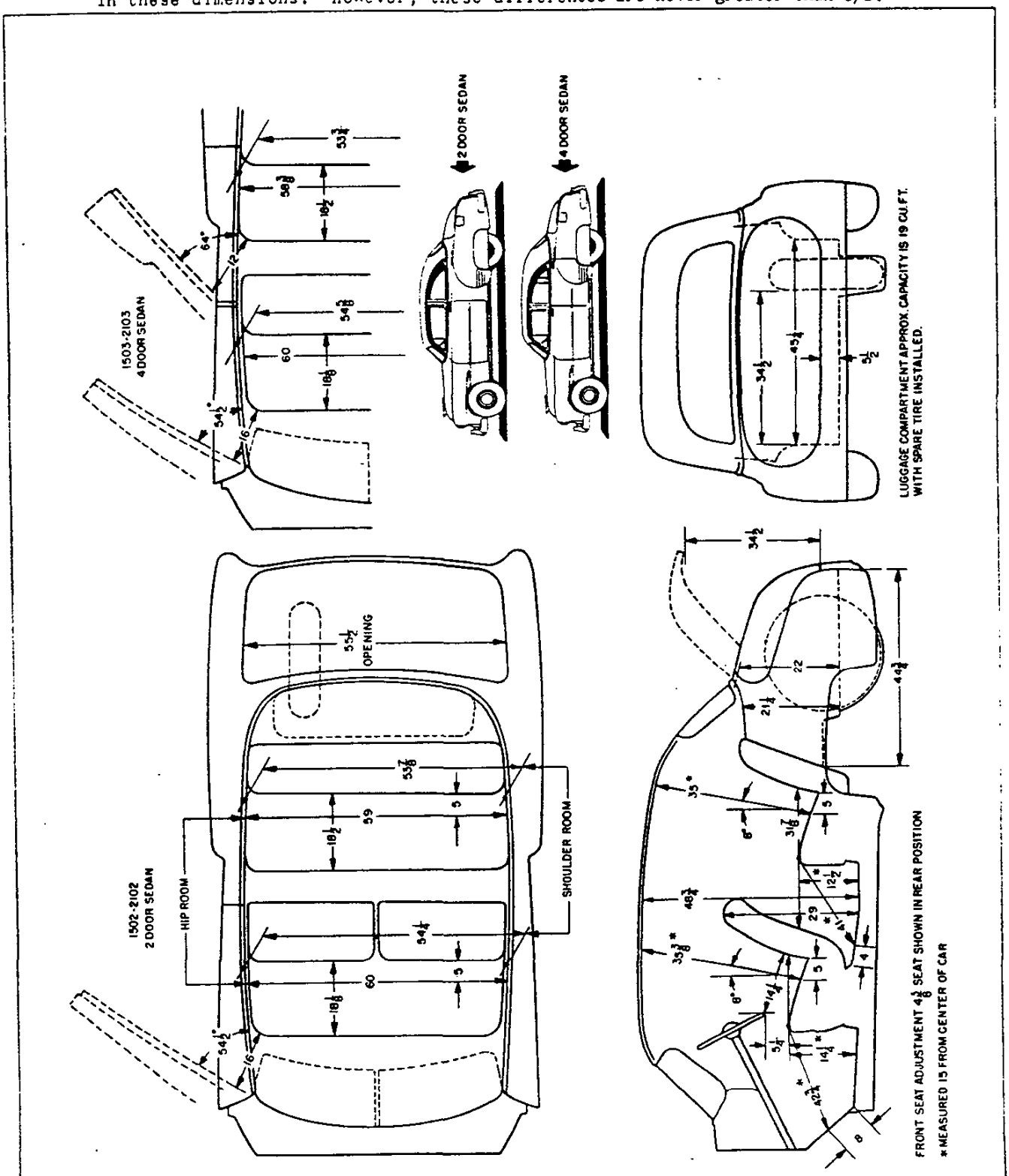


FLEETLINE DE LUXE 2-DOOR AND 4-DOOR SEDANS (MODEL 2152 and 2153)
FLEETLINE SPECIAL 2-DOOR AND 4-DOOR SEDANS (MODEL 1552 and 1553)

CONTINUED

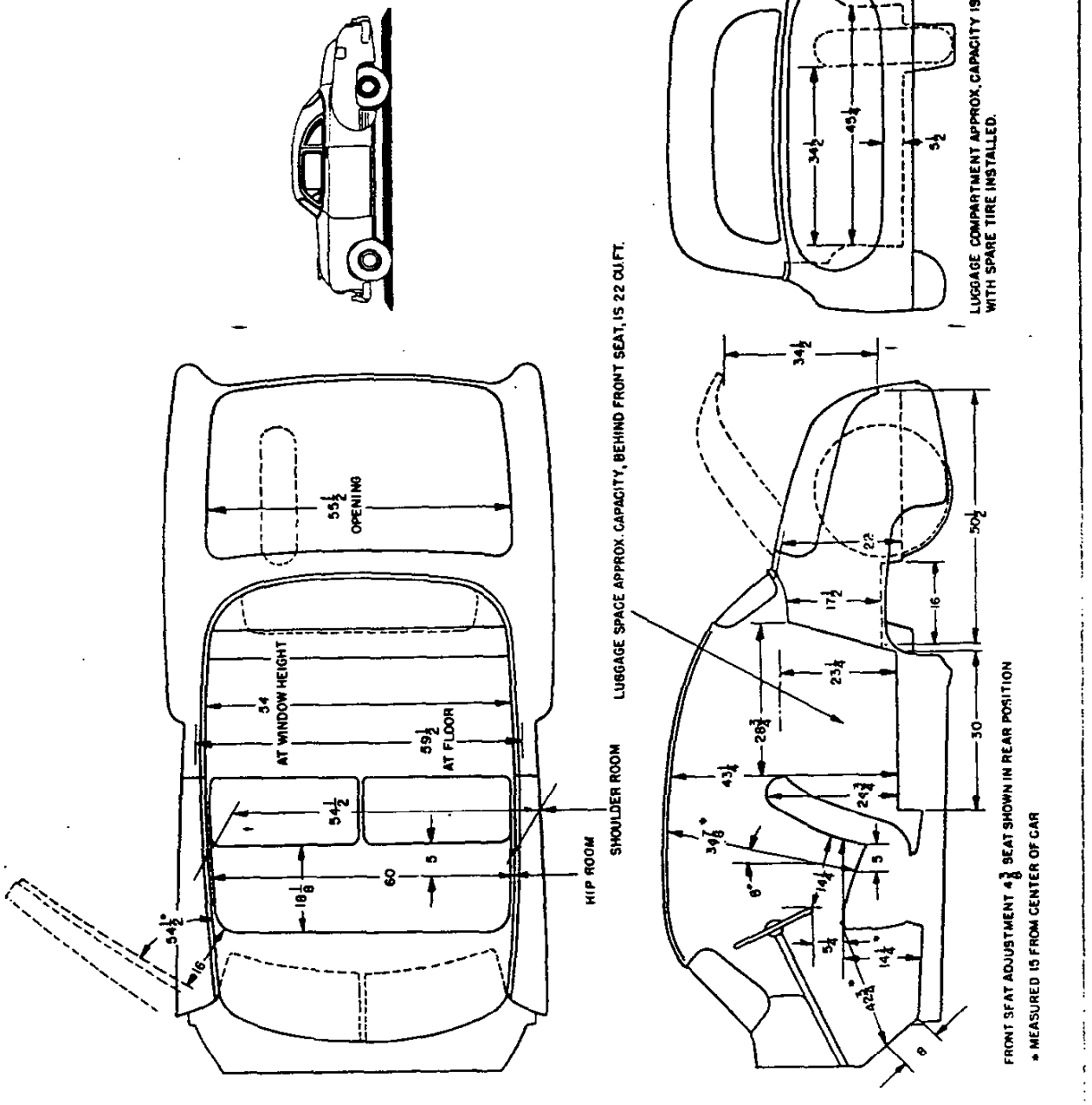
BODY INTERIOR DIMENSIONS—Continued

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



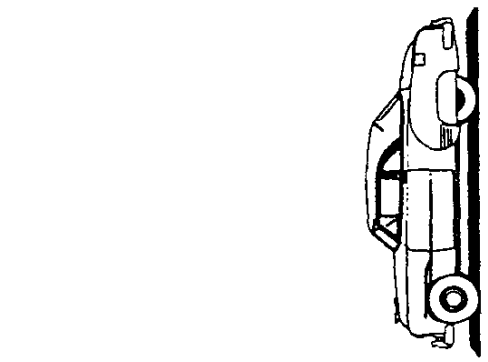
STYLELINE DE LUXE 2-DOOR AND 4-DOOR SEDANS (MODEL 2102 and 2103)
STYLELINE SPECIAL 2-DOOR AND 4-DOOR SEDANS (MODEL 1502 and 1503)

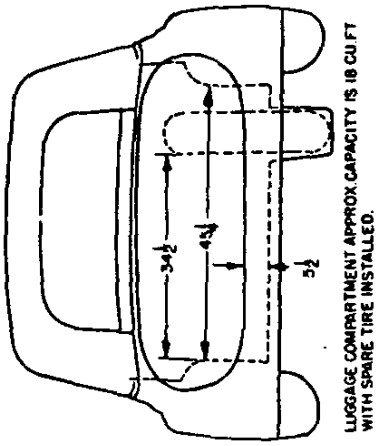
CONTINUED

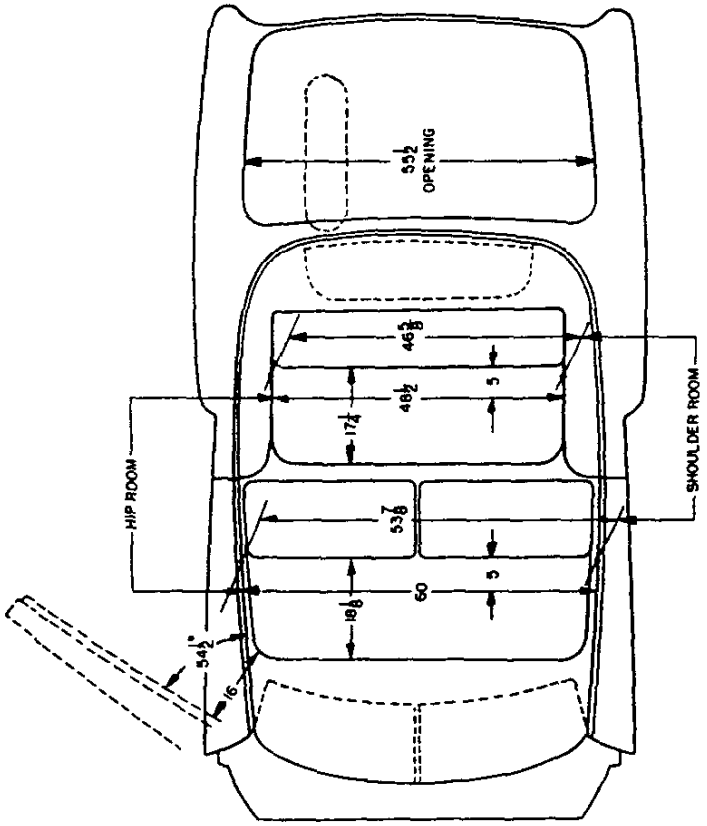


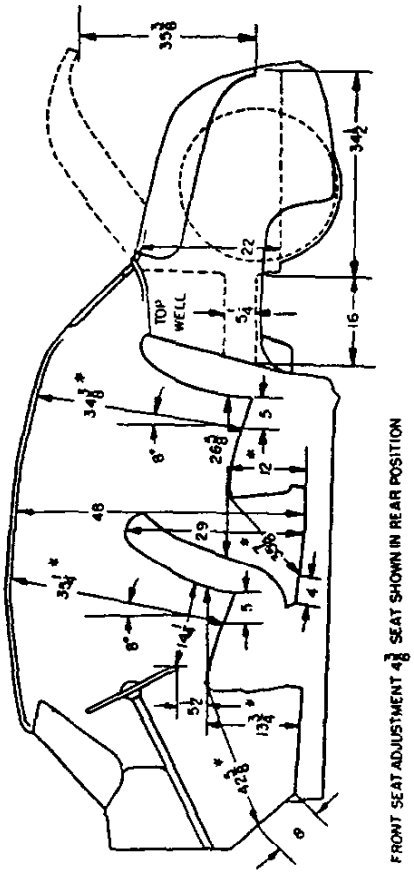
STYLELINE SPECIAL BUSINESS COUPE (MODEL 1504)

CONTINUED



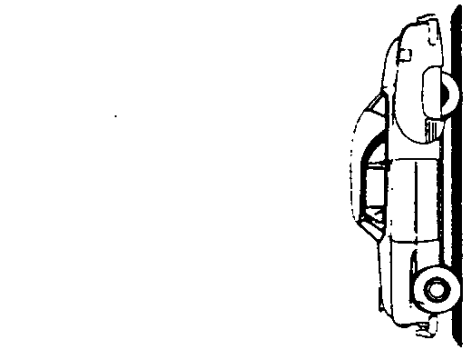


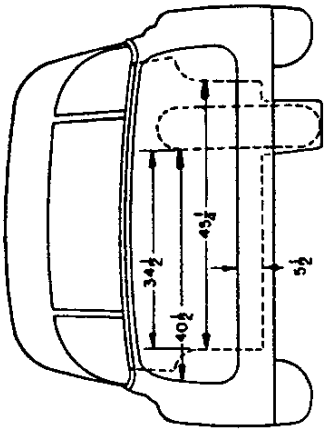


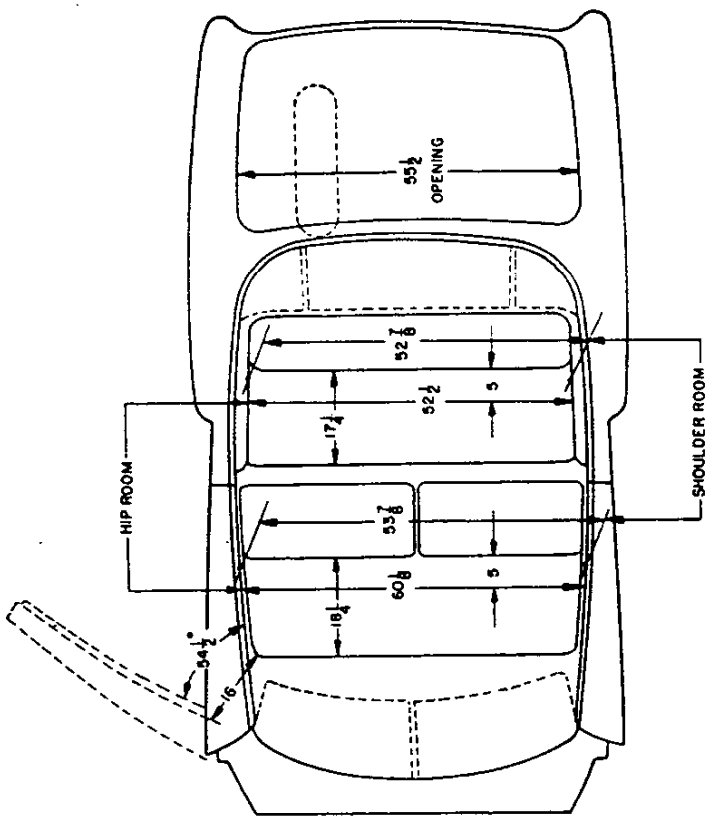


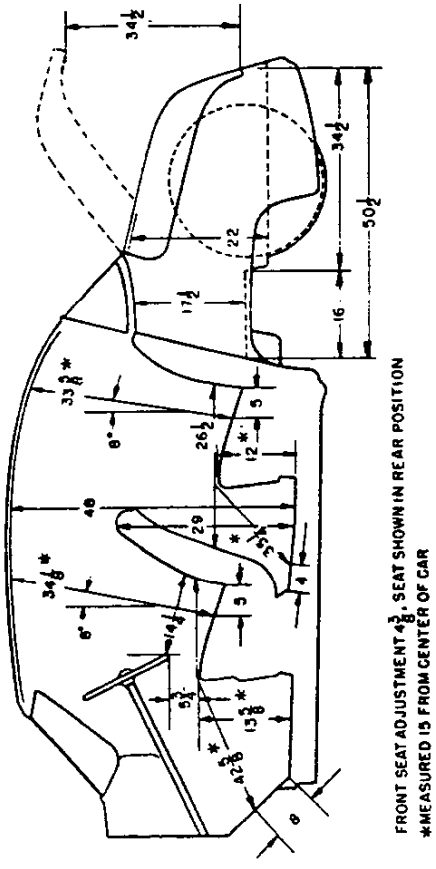
STYLELINE DE LUXE CONVERTIBLE COUPE (MODEL 2134)

CONTINUED





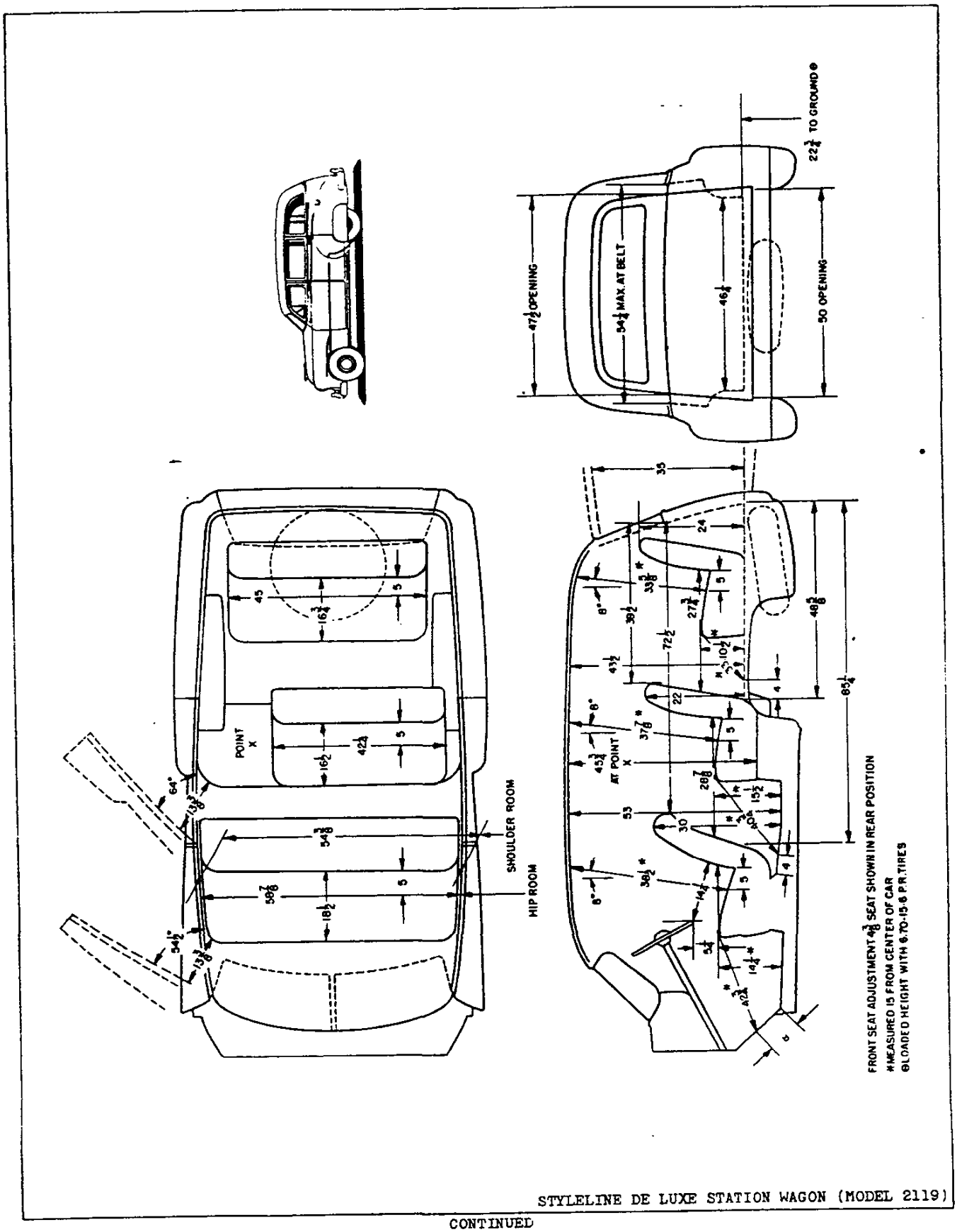




STYLELINE DE LUXE BEL AIR (MODEL 2154)

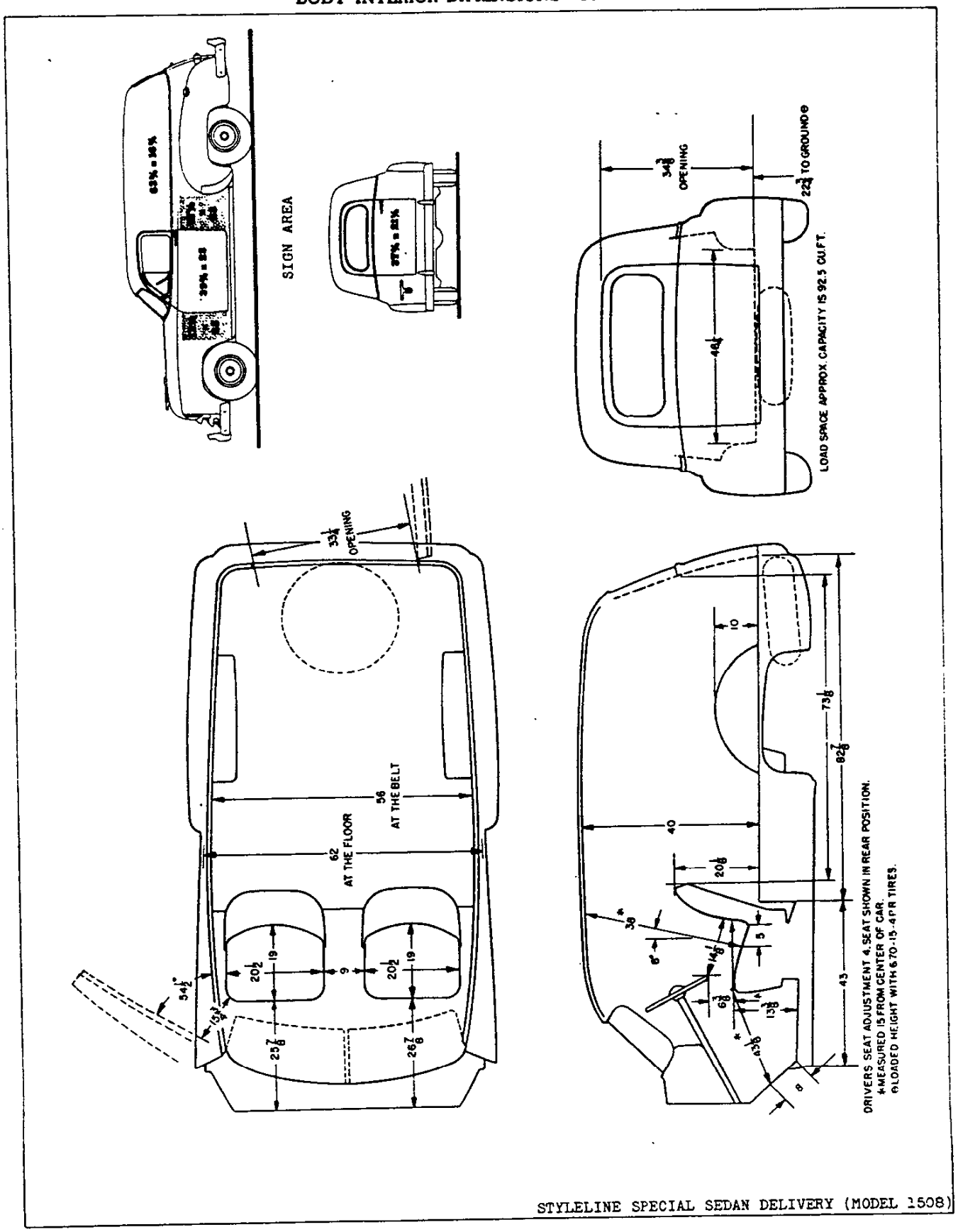
CONTINUED

BODY INTERIOR DIMENSIONS—Continued



STYLELINE DE LUXE STATION WAGON (MODEL 2119)

CONTINUED



STYLELINE SPECIAL SEDAN DELIVERY (MODEL 1508)

REGULAR EQUIPMENT

ITEM				MODELS
Exterior	Bumpers and dual bumper guards, front and rear			All
	Front license guard			
	Hood ornament and emblem			
	Chrome plated headlight rims and doors			
	Dual windshield wipers			
	Dual horns			
	Outside key locks, front doors and luggage compartment			
	Bumper gravel deflectors, front and rear			
	Rear fender shields	Black rubber		1500
		Stainless steel		2100
	Rear fender panels			
	Rear deck lid wing emblem with fingergrip			All except 1508, 2119
	Tail and lift gate locking T handle, and tail gate emblem			2119
	Dual tail and stop lamps			All except 1508, 2119 which have one combination tail, stop, license light
	One license light in rear gravel deflector			
	Bright metal moldings	Belt		All; 2119 has short section of belt molding on front doors only
		Sill		
		Front fender and door, with the word "DE LUXE" on fender molding		2100
		Rear fender full length crown		1508, 2119
		Rear fender crown, rear half only		2100 except 2119
		Windshield divider		All
		Rear window dividers		2154
		Drip molding		
		Reveals	Windshield	1508, 2100
			Side window	2100 except 2119
			Rear window	1508, 2100 except 2119-34
	Outside rear view mirror, left hand			1508
	Ventipane drip shields			All; st stl 2134-54, others painted
	Bonderized body and sheet metal			All
Interior (Also see page 21, INTERIOR UPHOLSTERY & COLOR COMBINATIONS)	Instrument panel	Glove box lock and light		2100; lock only on 1500
		Clock, stem wind		2100; a removable panel covers each space on 1500
		Cigarette lighter		
		Ash tray		2100
		Stainless steel inserts in control knobs (light, choke, and wiper)		2100; plain plastic on 1500
		Radio grille, chrome plated		All
		3-position ignition switch		
		Two-tone gray finish		2100; plain gray on 1500
	Steering wheel	3-spoke with horn button		1500
		2-spoke with full horn ring		2100
	Dual sunshades			2100; left hand only on 1500
	Inside rear view mirror			All except 1508
	Dome light			All; two in 2154
	Automatic dome light switches, both front doors			2100
	Two coat hooks			All except 1508, 2119-34-54
	Assist straps			2102-24-52
	Robe cord			2102-03-52-53
	Arm rests, both fr doors & rr doors or quarter panels			2100 except fr doors only on 2119
	Foam rubber seat cushion pads 1-1/4 thick, front & rear			2100 except front only on 2119
	Extra roof insulation			2100 except 2119-34
	Rear seat ash tray	In front seat back		2103-53
		In quarter panel arm rests		2102-24-34-52-54
	Package shelf ahead of rear window			All except 1508, 2119-34
	Package shelf molding			2100 except 2119-34-54

REGULAR EQUIPMENT—Continued

ITEM			MODELS
Interior continued	Dual ventilators in dash		All
	Adjustable front seat		
	Movable ventipanes	Front doors	
		Rear doors	2103-53
	Movable quarter windows		1502-52, 2102-19-24-34-52-54
	Stainless steel inserts in window regulator knobs		2100
	Etched aluminum step plates		2100, painted on 1500
	"Body by Fisher" on front door step plates		2100, emblem on front seat of 1500
	Luggage compartment lighted by window in each tail light		All except 1508, 2119

BODY GLASS

ITEM		1503-53	2103-53	1502-52 2102-24-52	1504-24	1508	2134	2154	2119
Windshield		Laminated safety plate, curved, 2 panes							
Front door	Ventipanes	Laminated safety plate							
	Windows								
Rear door	Ventipanes	Safety solid plate							
	Windows								
Quarter windows				Laminated safety plate	Safety solid plate		Laminated safety plate		
Rear window		Safety solid plate, curved					Plastic	Safety solid plate	

SOLID COLOR COMBINATIONS

Hood, Fenders, Body and Wheels	Wheel Stripes	1500, 2102-03-24-52-53	2154		2134			2119
			Exterior	Interior	Exterior	Top	Interior	
Mayland Black *	Argent Silver	X	X	Red	X	Black	Red	
Burgundy Red	Argent Silver	X						
Trophy Blue	Argent Silver	X			X	Tan	Blue	
Aztec Tan	French White	X						X
Thistle Gray	Mayland Black	X			X	Black	Red	
Shadow Gray	Argent Silver	X						
Aspen Green	Mayland Black	X						
Pathom Green ●	Argent Silver	X	X	Green	X	Tan	Green	X
Moonlight Cream	Mayland Black		X	Black	X	Black	Black	

* - Mayland Black is regular color for all models except 2119.

● - Pathom Green is regular color for 2119.

All other colors or combinations are RPO.

TWO-TONE COLOR COMBINATIONS

Upper Body	Lower Body, Hood Fenders, Wheels	Wheel Stripes	1502-03-04-08-24 2102-03-24	2154	
				Exterior	Interior
Shadow Gray	Thistle Gray	Mayland Black	X		
Pathom Green	Aspen Green	Mayland Black	X		
Thistle Gray	Shadow Gray	Argent Silver		X	Red
Aspen Green	Pathom Green	Argent Silver		X	Green
Thistle Gray	Trophy Blue	Argent Silver		X	Blue
Mayland Black	Moonlight Cream	Mayland Black		X	Black

1-2-51

INTERIOR UPHOLSTERY AND COLOR COMBINATIONS

1500 SERIES

SEDANS AND COUPES

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

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

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

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

Steering column and wheel: Metallic dark gray paint.

Floor covering: Front - black rubber. Rear - gray carpet except black rubber in Business Coupe. Luggage compartment - black rubber.

SEDAN DELIVERY

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

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

Load space side walls: Light gray fiber board

Rear door inner panel: Steel, painted light gray.

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

2100 SERIES

SEDANS AND COUPES

Seats: Gray striped broadcloth covering with band of plain dark gray broadcloth across shoulder area of back rests. Plain light gray flat cloth on front seat back and sides.

Doors and quarter panels: Plain light gray flat cloth covering with dark gray leather fabric scuff pads. Stainless steel molding along top of scuff pads and along top of cloth covering.

Arm rests: Dark gray leather fabric top; stainless steel bead and light gray cloth below.

Headlining and sunshades: Light gray cloth with light gray leather fabric grip on sunshades.

Instrument panel, garnish moldings and package shelf molding: Metallic dark gray paint with metallic light gray paint on center lower section of instrument panel.

Steering column and wheel: Dark gray column and wheel hub; outer part of wheel and shift knob, light (Thistle) gray; chrome trimmed wheel.

Floor covering: Front - dark gray rubber with simulated moresque carpet inserts. Rear - moresque gray carpet. Luggage compartment - tan rubber.

STATION WAGON

Seats and arm rests: Tan leather fabric with pigskin finish.

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

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

Instrument panel, windshield garnish molding, steering column and wheel: Same as sedans.

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

Floor covering: Front - tan rubber with simulated moresque carpet inserts. Center seat floor area - tan rubber. Rear seat floor area and back to tail gate - tan linoleum. Bright metal skid strips on tail gate.

CONVERTIBLE

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

Front seat back and sides, windshield pillars and header, sunshades, scuff pads and inside of top well: Leather fabric. *

Doors, quarter panels and rear seat arm rests: Light gray leather fabric.

Instrument panel (upper section), and garnish moldings: Painted leather trim color.

Instrument panel (lower center section, control knobs and instrument area): Painted light gray.

Side window frames: Bright metal.

Steering column and wheel: Light gray column and wheel center section with chrome trim on spokes. Spoke outer ends, rim and gear shift knob - black.

Floor covering: Leather trim color. Rubber mat with carpet inserts in front floor area; carpet in rear floor area.

BEL AIR

Seats (cushion and back rest): Gray striped pile cord fabric with genuine deep buff leather bolsters and front seat arm rests.*

Front seat back and sides, windshield pillars and header, scuff pads, rear seat arm rests, and package shelf: Leather fabric.*

Doors and quarter panels: Gray striped pile cord fabric.

Headlining and sunshades: Light gray fabric with leather fabric grip on sunshades.

Instrument panel (upper section) and garnish moldings: Painted leather trim color.

Instrument panel (lower center section, control knobs and instrument area): Painted light gray.

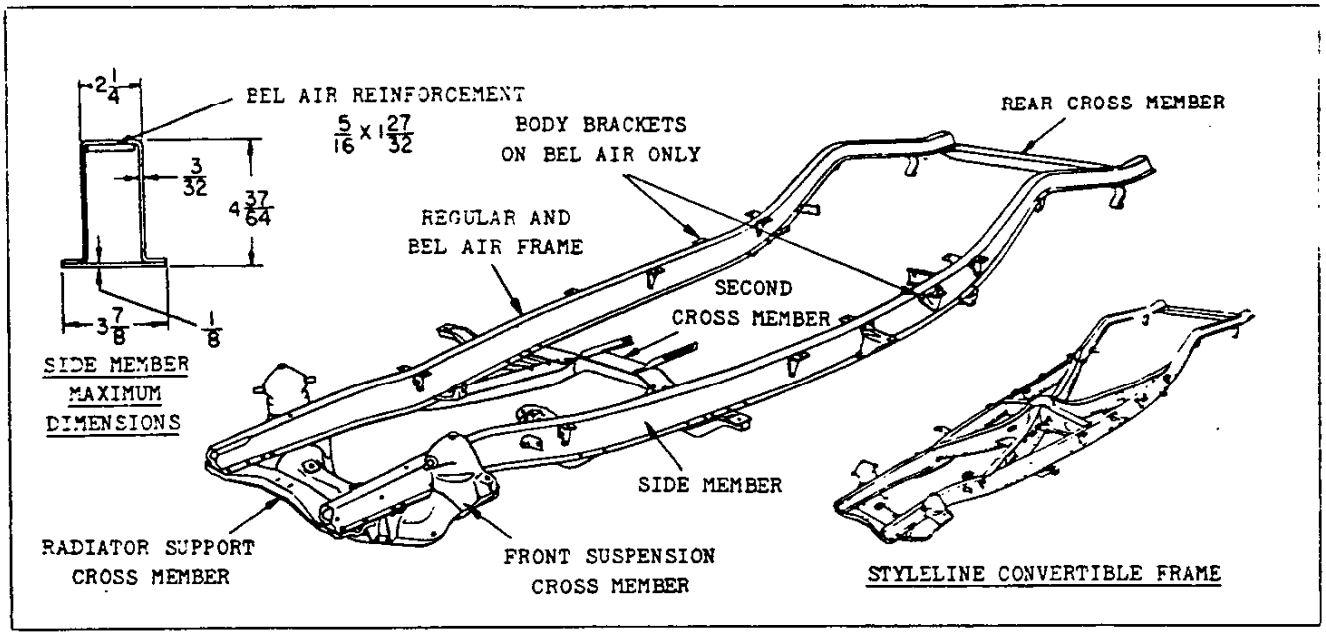
Steering column and wheel: Light gray column and wheel center section with chrome trim on spokes. Spoke outer ends, rim and gear shift knob - black.

Floor covering: Carpet, leather trim color.

* - See page 20 for Interior-Exterior Trim and Color Combinations.

1-2-51

CHASSIS FRAME



Make ---------- Own
Type ---------- Box girder
Construction:
Side members ---------- Box girder, full length, deep flanged channel, with reinforcing plate across full width of channel flanges. The Bel Air is reinforced with steel plates 5/16 x 1-27/32, full length, welded to inside top of box section.
Radiator support cross member ---------- Flanged channel section
Front cross member ---------- Flanged semi-tubular type with a flat steel bottom plate across diametral width of the section.
Second cross member ---------- Box girder, with box section braces to the side members.
Rear cross member ---------- Box girder
Maximum overall length ---------- 171-7/16
Maximum width (over side member flanges) ---- 47
Material ---------- Hot rolled steel, pickled
Material yield point ------- 33,000 lb per sq.in.
Material elongation -------- 25% min in 2 inches

Side member section:	Bel Air	All others
Modulus ($in.^3$) ----------	3.245	1.725
Moment of inertia ($in.^4$) -	7.775	4.95

CONVERTIBLE COUPE FRAME

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

FRONT SUSPENSION

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

WHEEL TRAVEL

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

SPRING BUMPERS

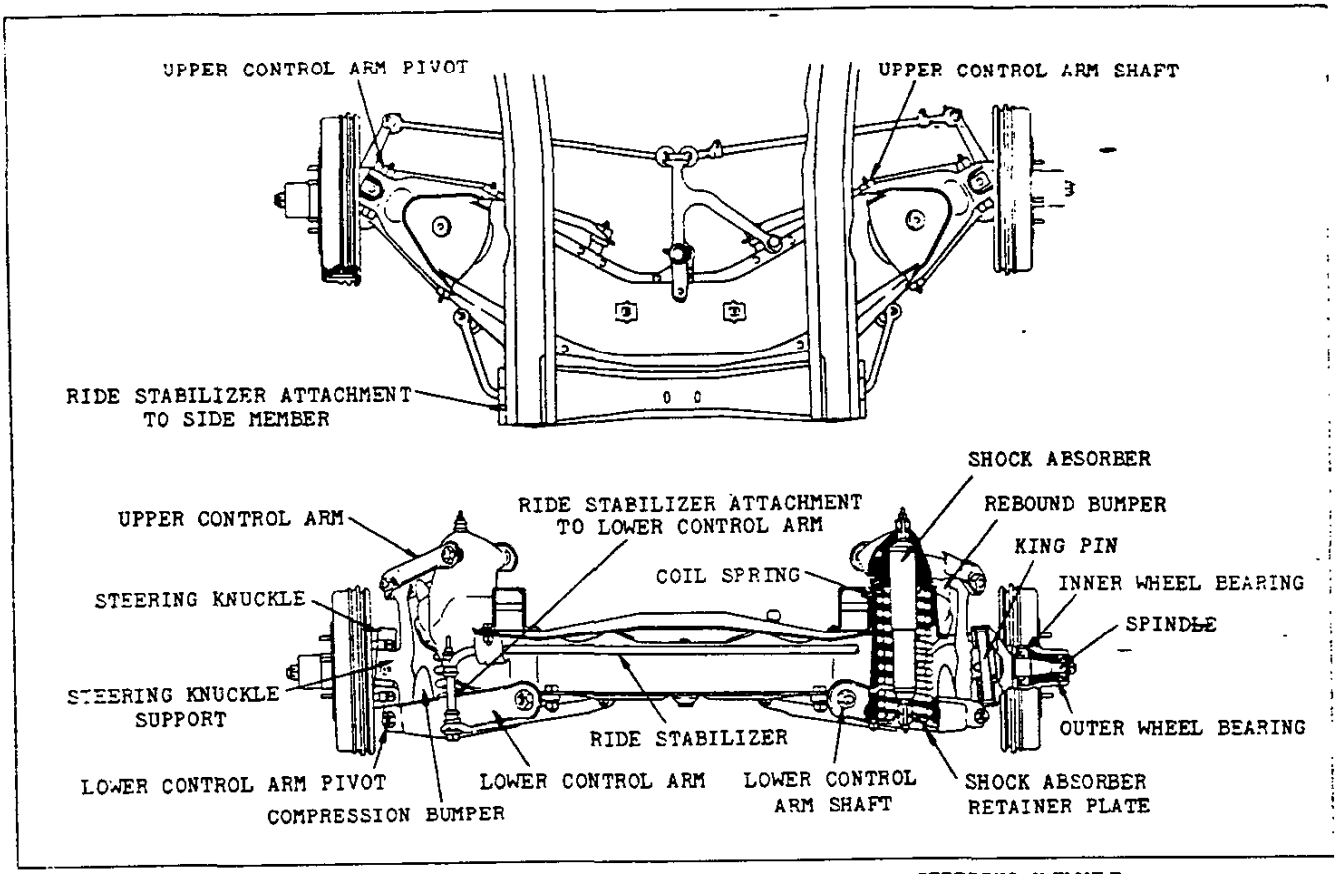
Type ------- Rubber (2, compression and rebound)

SHOCK ABSORBERS

Make ---------- Delco
Type ---------- Direct, double-acting, hydraulic
Mounting -------- Vertically, from lower control arm through coil spring to dome of spring housing.
Model number ---------- 1055F
Valve code ---------- 306/D1
Piston diameter and travel ---------- 1 x 5

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

CONTINUED



RIDE STABILIZER

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

FRONT WHEEL ALIGNMENT (Service Data)

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

STEERING KNUCKLE

Type ---------- Reverse Elliott
Spindle diameters:
At inner bearing ---------- 1.2801-1.2809
At outer bearing ---------- .7490-.7495

KING PIN

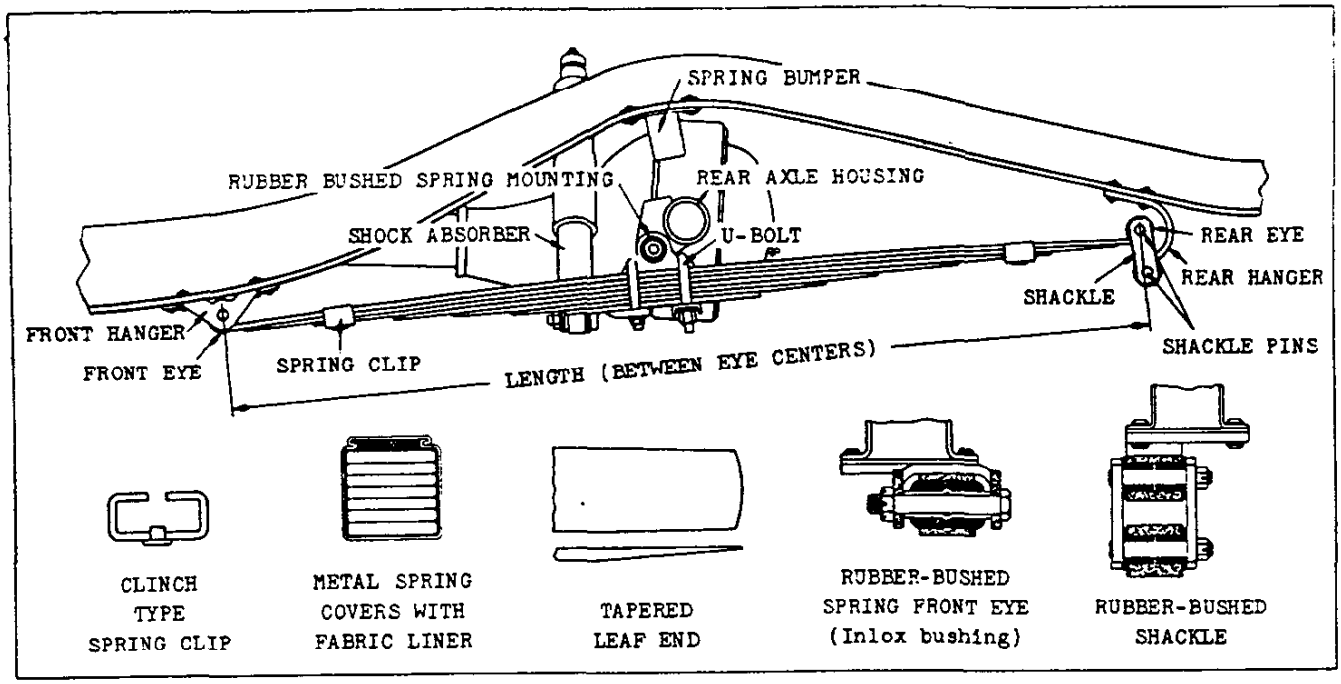
Diameter ---------- .8660-.8665
Bushings:
Inside diameter ---------- .867-.868
Length ---------- 1-5/16

Wheel bearing lubricant ---------- High melting-point grease

Anti-friction bearings ---------- See page 101

FRICTION BEARINGS		UPPER CONTROL ARMS				LOWER CONTROL ARMS			
		Pivot Bolt	Bolt Bushings	Shaft Bushings	Shaft Ends	Pivot Bolt	Bolt Bushings	Shaft Bushings	Shaft Ends
Type		Threaded steel bushings							
Type of thread		11-pitch, special							
Thread major diameter	Front	.644-.662	.694 minimum	.774 minimum	.736-.740	.714-.732	.774 minimum	.869 minimum	.852-.862
	Center					.724-.742			
	Rear	.644-.662				.738-.756			
Mounting		Clamp lock	Self-locking threads						Bolted
Seal		Synthetic rubber, self-sealing							

REAR SUSPENSION



SPRINGS

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

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

SPRING MOUNTING

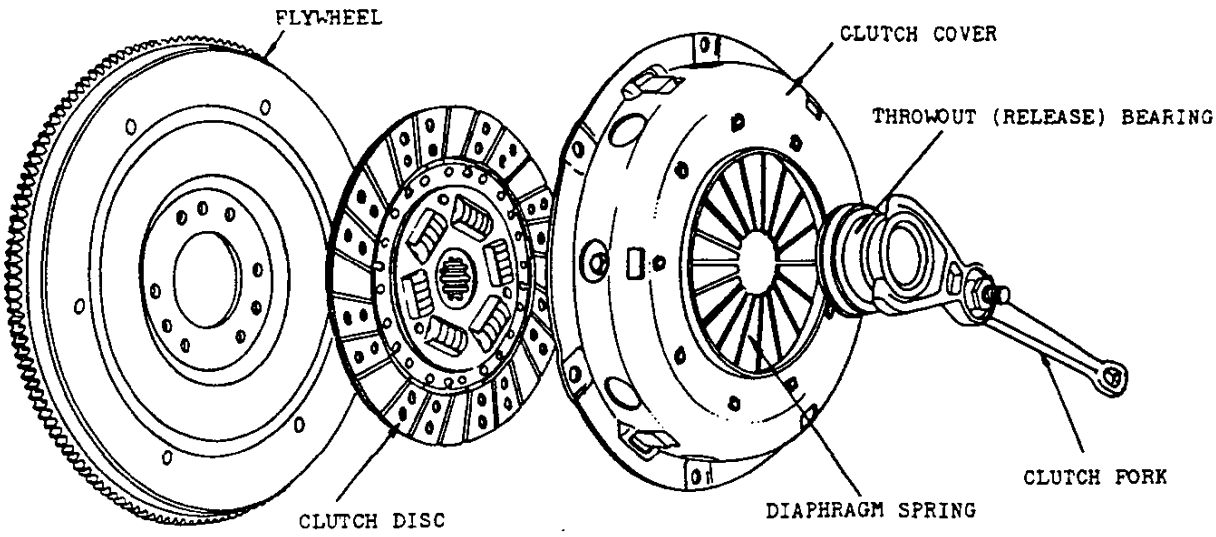
Type ---------- Parallel, 45-1/4 between centers
Front eye bolt diameter ---------- .500-.504
Front eye bolt bushing, type and size ---------- Rubber-bushed, .505 min I D x 2.400-2.410 long
Shackle mounting ---------- In tension from rear hanger
Shackle type ---------- Rubber-bushed
Shackle pin O D ----------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

SHOCK ABSORBERS

Make and type ---------- Delco, hydraulic, direct double-acting
Model number ---------- 1065-V
Valve code ---------- 4E6/B1
Piston diameter and travel ---------- 1 x 8-1/2

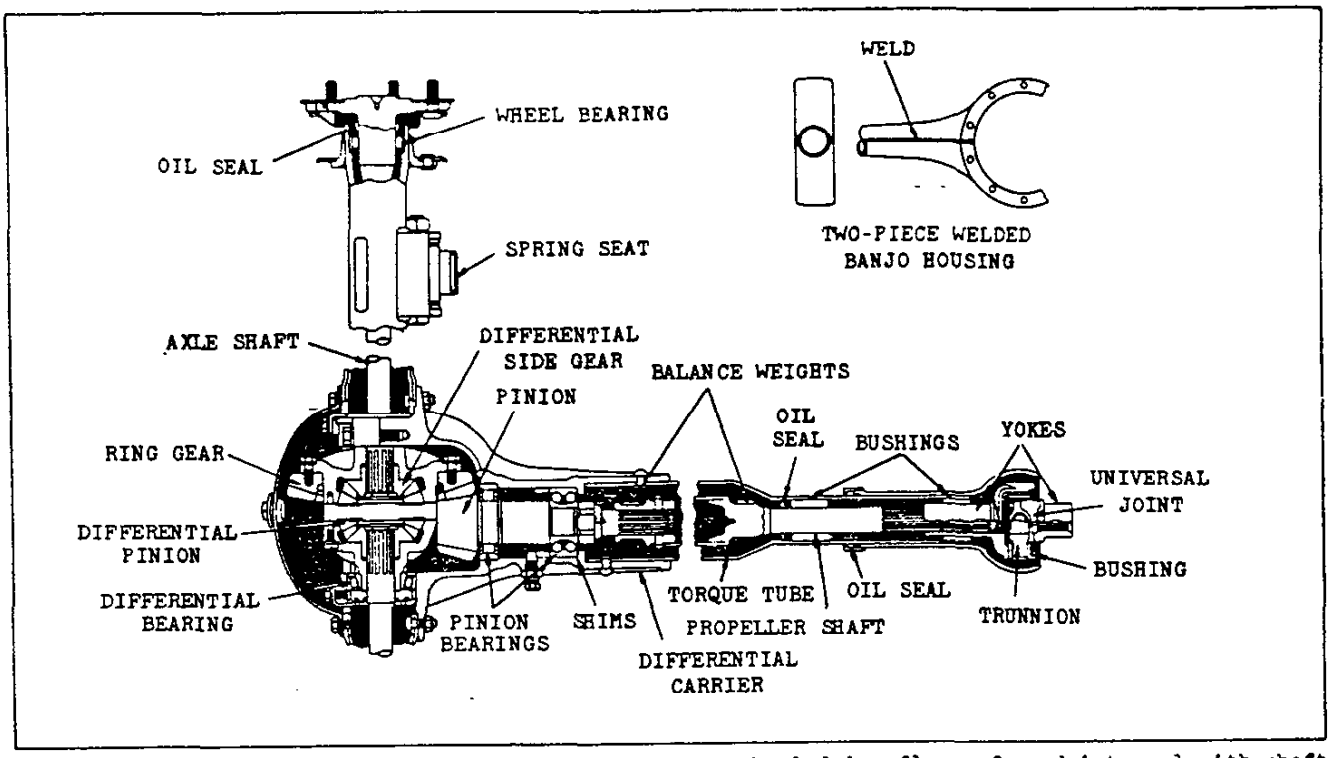
CLUTCH

REGULAR CLUTCH ILLUSTRATED



ITEM			REGULAR CLUTCH	HEAVY DUTY TRUCK TYPE, RPO 227A
Type			Single dry plate	
Rated torque capacity			210 ft lb	
Semi-centrifugal?			No	
Vacuum control or fluid coupling			None	
Drive			Direct to flywheel face	
Ventilation			Vanes cast in pressure plate	
Diaphragm spring	Pressure in flat position		1100 to 1225 pounds	1175 to 1275 pounds
	Material		Spring steel, heat treated	
	Pressure levers		18, integral with spring	
Driving members			Two (flywheel and pressure plate)	
Driven disc	Type		One, spring cushioned plate with two molded facings	
	Vibration insulation		6 cushion springs in hub	
	Facings	Material	Woven or molded asbestos composition	
		Outside diameter	9-1/8	10-3/4
		Inside diameter	6-1/8	7
		Area	71.86 sq.in. (both facings)	104.6 sq.in. (both facings)
		Thickness	.132-.138	.137-.143
Bearings	Throwout (Release)	Type, make, number	Anti-friction bearings, See page 101	
		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

REAR AXLE AND DRIVE



REAR AXLE

Make ---------- Own
Type ---------- Semi-floating with torque tube drive through fully enclosed universal joint and propeller shaft
Rating ---------- 3000 pounds
Drive medium ---------- Chassis rear springs
Torque taken by ---------- Torque tube
Housing type ------ Pressed steel banjo, 2-piece welded with pressed steel inspection cover
Lubricant capacity ---------- 3-1/2 pints
Lubricant recommended ----- SAE 90 passenger car hypoid lubricant or "Multi-Purpose" lubricant
Final drive gears:
- Type ---------- Spiral hypoid
- Ratio ---------- 4.11:1
- Teeth, ring gear and pinion -------- 37 and 9
- Gear backlash ---------- .005-.008

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

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

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

AXLE SHAFT

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

DIFFERENTIAL

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

UNIVERSAL JOINT

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

PROPELLER SHAFT

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

Oil seal ---------- Steel-encased spring-loaded synthetic rubber seal

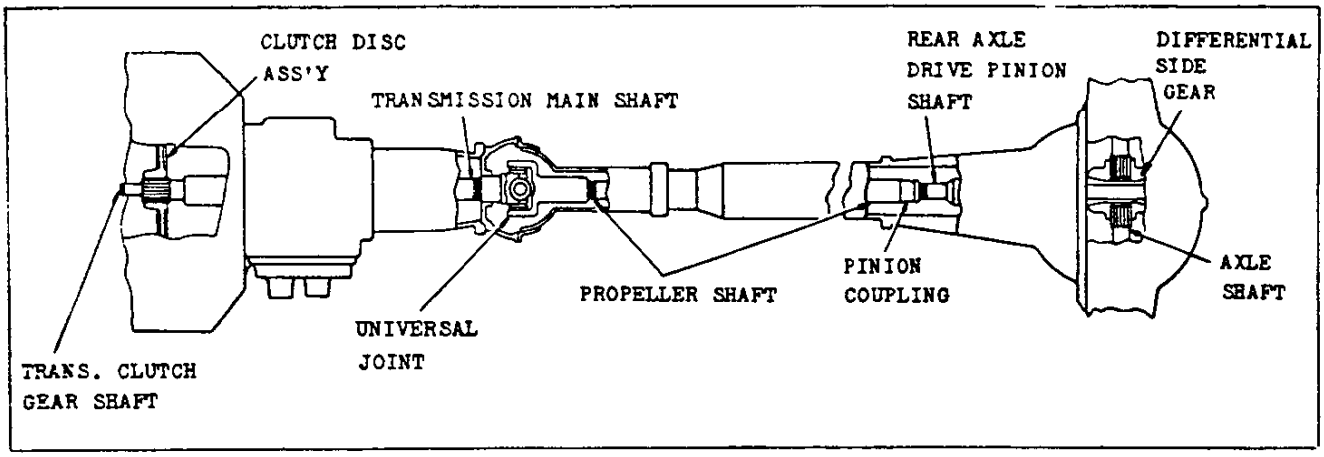
BEARINGS

Anti-friction bearings ---------- See page 101

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

1-2-51

DRIVE SYSTEM SPLINES

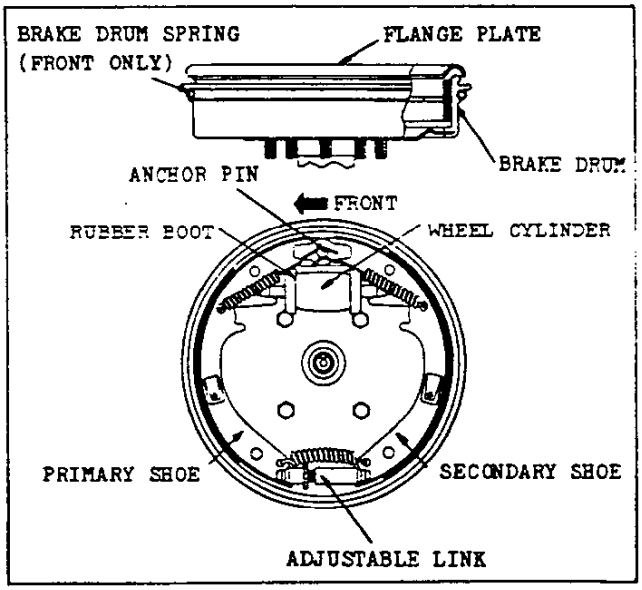


FUNCTION OF SPLINES	NUMBER AND TYPE OF SPLINES
Clutch disc hub to transmission clutch gear shaft	10 straight side
Transmission main shaft to U-joint front yoke	10 involute
U-joint rear yoke to propeller shaft front end	17 involute
Propeller shaft rear end to rear axle drive pinion shaft	17 involute
Differential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

BRAKES

SERVICE BRAKES

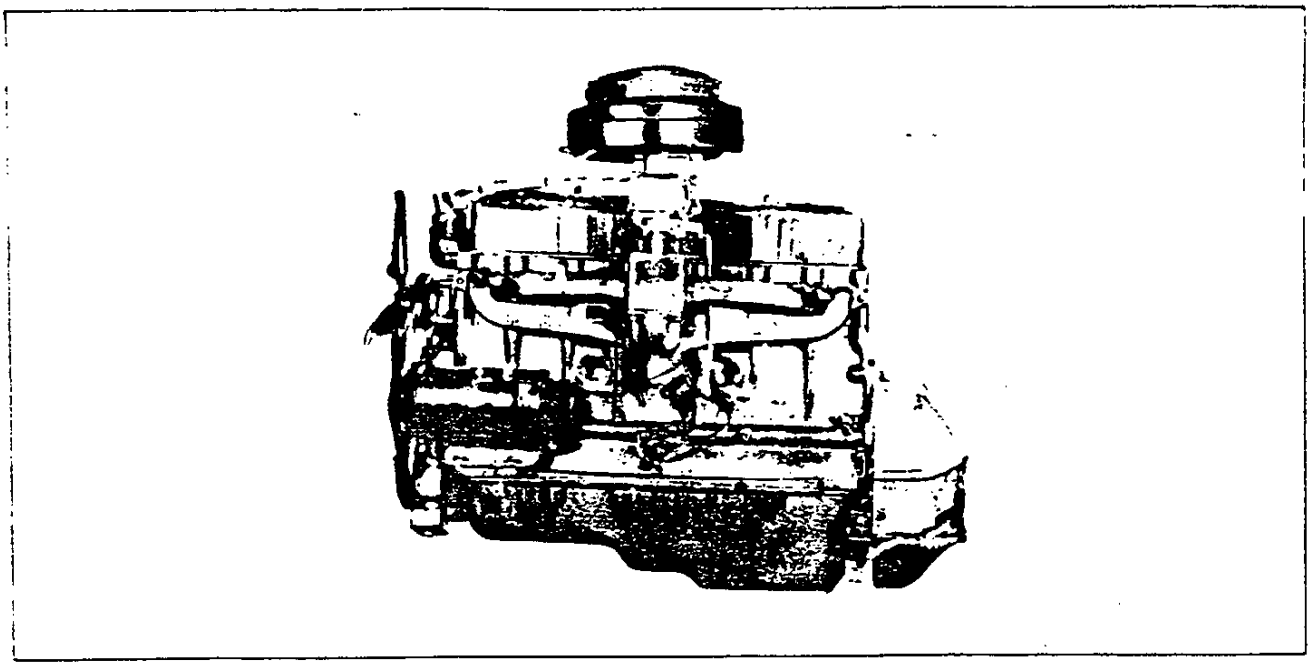
Make ---------- Own
Type ---------- Servo, four-wheel, hydraulic
Brake drum:
  Type ---------- Composite
  (Cast alloy iron rim and pressed steel web)
  Diameter, front and rear ---------- 11
Distribution of braking effort (theoretical):
  On front wheels ---------- 56%
  On rear wheels ---------- 44%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



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

PARKING BRAKE

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



BASIC DESIGN DATA

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

ADVERTISED MAXIMUM ENGINE PERFORMANCE

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

ADVERTISED CAR PERFORMANCE

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

	STYLELINE or FLEETLINE
Performance weight (pounds) ----------	3860
Pounds/gross horsepower ----------	41.96
Pounds/cu.in. piston displ ----------	17.83
Gross horsepower/cu.in. displ ----------	.42
Power displacement (cu ft/mile)* -------	193 •
Displ factor (cu ft/ton mile) @ -------	99.7 •

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

@ - Power displacement ÷ performance weight in tons.

ENGINE SPEED AND PISTON TRAVEL

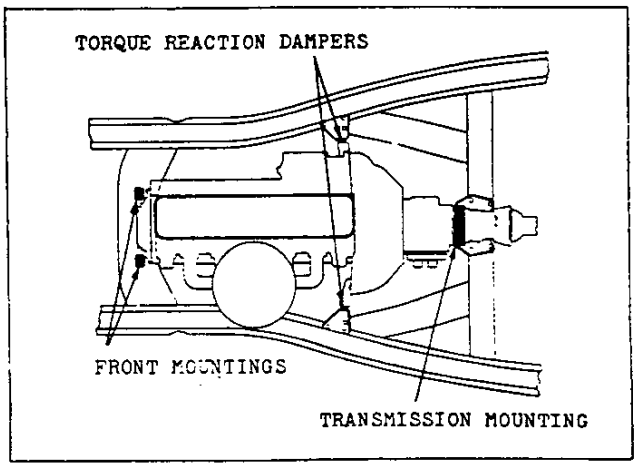
Rear axle ratio		4.11:1
Tires		6.70-15
Crankshaft revolutions per mile		3074 •
Crankshaft RPM at one mile per hour	1st	151 •
	2nd	86 •
	3rd	51 •
Piston travel (feet per mile)		1921 •

DRY WEIGHTS

Engine and clutch (pounds) ---------- 574
Engine, clutch and transmission (pounds) --- 629

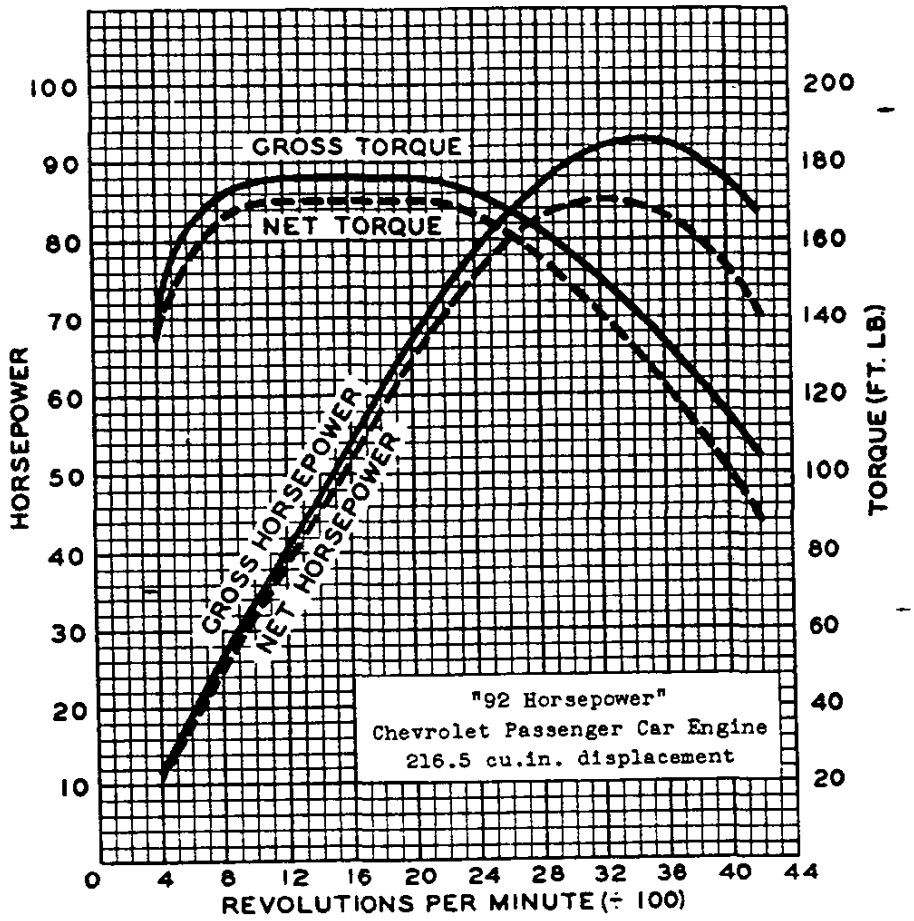
POWER PLANT MOUNTING

Type ---------- Rubber-cushioned, three-point support, with torque reaction dampers



1-2-51. Revised: 10-18-51, • - Tire data revised.

ENGINE PERFORMANCE



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

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

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

October 23, 1951

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

Geo. W. Proctor
Transport Engineer

State of Michigan
County of Wayne

On this 23rd day of October 1951 personally appeared before me, Geo. W. Proctor, known to me to be such, who makes oath that the data on this sheet are true as represented.

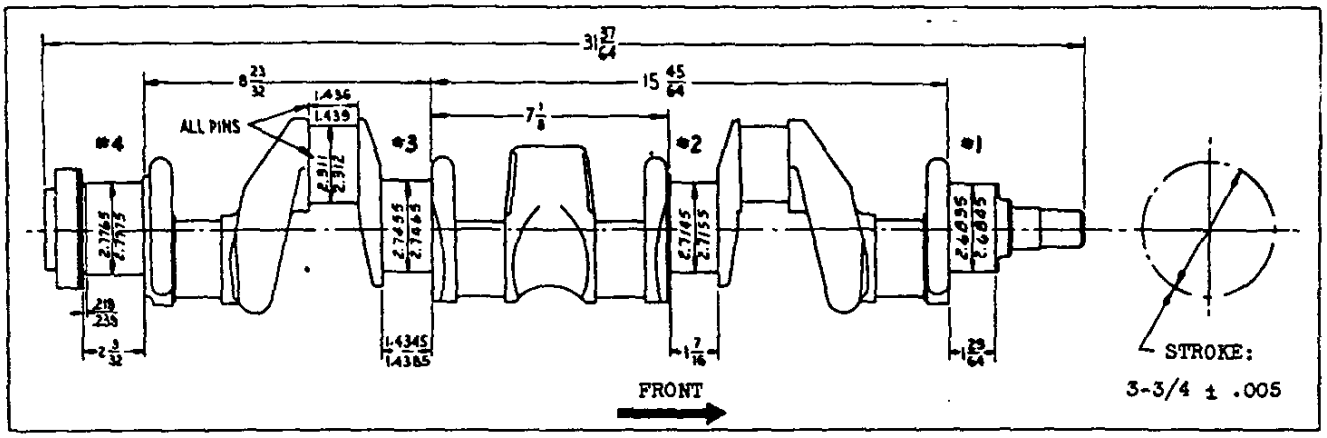
H. D. Woodward
Notary Public, Wayne County
My commission expires August 2nd, 1953

1-2-51. Revised: 11-1-51, ● - Definition corrected. Net power data was, generator charging.

CYLINDER CASE AND HEAD

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

CRANKSHAFT AND BEARINGS



CRANKSHAFT

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

HARMONIC BALANCER (Vibration Dampener)

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

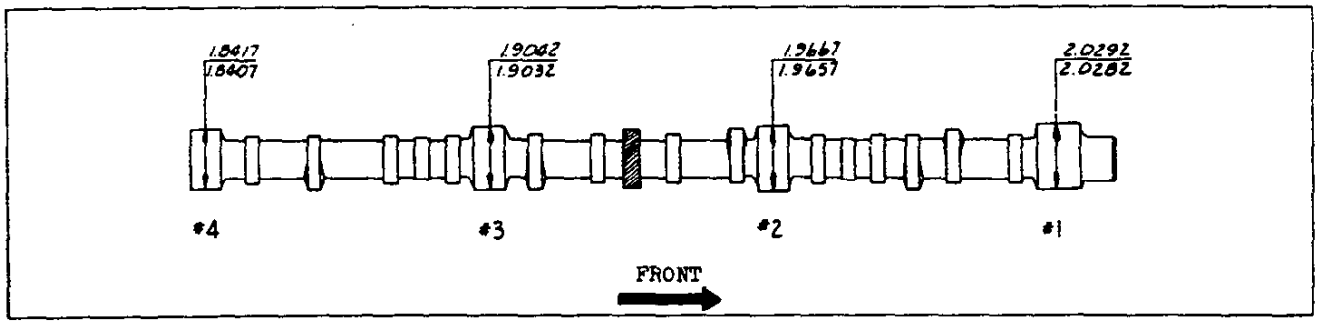
MAIN BEARINGS

Material ------ .003-.007 babbitt on steel shell
Type ---------- Precision interchangeable
Removable ---------- From below
Necessary to align ream? ---------- No
Clearance ----- .0007-.0028 fit with solid shims
End thrust against ---------- #3 bearing
Bearing cap bolt torque ---------- 100-110 ft.lb. with oiled threads

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

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

CAMSHAFT AND BEARINGS



CAMSHAFT

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

DRIVE

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

BEARINGS

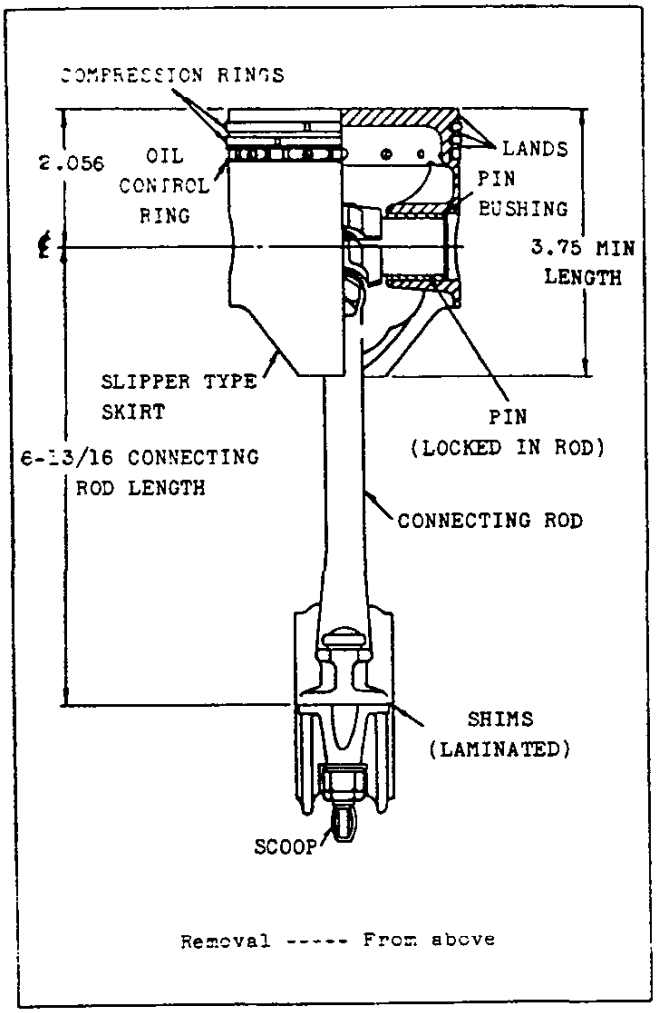
Material ---------- Steel-backed babbitt
Clearance on diameter ---------- .0015-.0035
Thrust taken by ---- Thrust plate between driven timing gear and camshaft #1 journal front face

Brg	Inside Dia	Length	Proj Area*
#1	2.0307-2.0317	1-1/8	2.285 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.

1-2-51

PISTON-PIN-RINGS



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

PISTON PIN

Material ------- Chromium steel (file hard case)
Diameter ---------- .8645-.8650
Length ---------- 3.135-3.165
Taper limit in full length ---------- .0002
Weight ---------- .312 lb.
Clearance in bushing ---------- Slip fit

COMPRESSION RINGS

Material ---------- Cast alloy iron, surface-treated with a wear-resistant coating
Type ---------- Taper face
Number per piston ---------- Two
Width ---------- .1235-.1240
Wall thickness ---------- .155 max.
Gap clearance ---------- .008-.018
Ring clearance in groove ---------- .0015-.003
Weight (each) ---------- .05 lb.

PISTON

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

OIL CONTROL RING

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

CONNECTING RODS

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

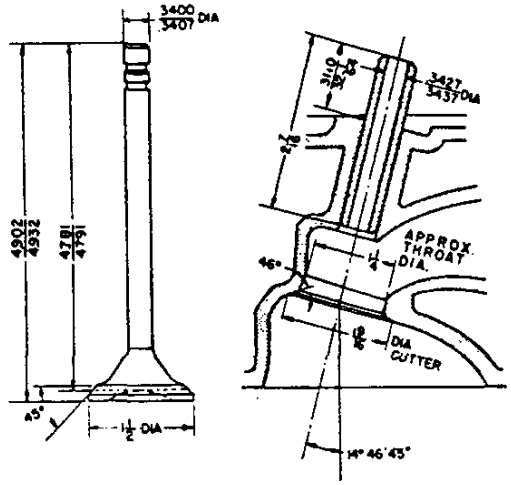
Crankpin bearing:
  Type ---------- Spun (Centrifugally cast)
  Material ---------- High lead babbitt
  Diameter ---------- 2.3135-2.3140
  Effective length ---- (overall length less oil groove and chamfers) ---------- 1.076
  Clearance on diameter ---------- .0003-.0013
  Projected area per rod -- (based on effective length) ---------- 2.490 sq.in.

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

1-2-51. Revised: 11-8-51, • - Piston data changed.

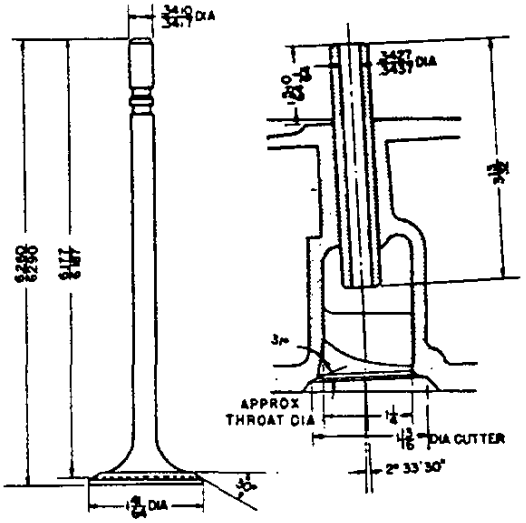
VALVE TRAIN

EXHAUST



Flat head design is optional.

INLET



VALVES

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

VALVE SEATS

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

TAPPETS

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

VALVE STEM GUIDES

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

VALVE ROCKER ARMS

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

VALVE SPRINGS
LENGTH AND PRESSURE

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

ENGINE LUBRICATION SYSTEM

METHOD OF LUBRICATION

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

OIL PUMP

Type and drive ---------- Gear, from camshaft
Capacity (gallons per minute, hot oil) ---------- 7.16 at 4000 engine RPM
Normal oil pressure ---------- 14 PSI at 2000 engine RPM (equivalent to 39 MPH, high gear)
Oil pressure relief valve opens at ------ 60 PSI
Cleaner type ---------- 20 mesh, .015 non-corrosive steel wire screen, with by-pass

MISCELLANEOUS

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

OIL PAN

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

LUBRICANT RECOMMENDED

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

FUEL AND EXHAUST SYSTEMS

FUEL TANK

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

FUEL PUMP

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

FUEL AND VACUUM PUMP - RPO 340

Make, model ---------- AC, model BW
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 -------- Rochester Products, 7003152
Type ---- Single adjustment, balanced, downdraft
SAE flange (nominal size) ---------- 1-1/4
Size (main venturi throat ID) ---------- 1-7/32
Choke ---------- Manual, with fast idle link
Idle adjustment, number of turns ----- 1 - 2-1/2
Float level --- 1-5/16, bottom of float to cover

INTAKE MANIFOLD

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

OCTANE SELECTOR

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

AIR CLEANER

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

EXHAUST SYSTEM

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

ENGINE COOLING SYSTEM

METHOD OF COOLING

Cylinder cooling ------ Full stroke length water jacket with water completely around each cylinder
Valve seat cooling ---------- "Nozzle jet" system directs water under pressure against seats
Cooling system capacity ---------- 15 qt
Pressurized cooling system ---------- No

RADIATOR CORE

Make and type -------- Harrison, ribbed cellular
Material ---------- All copper
Size ---------- .222 x .560 x 2
Frontal area ---------- 403.08 sq.in.
Radiator pressure cap ---------- None
Drain cocks:
Number used and size ---------- Two, 1/4 (one at bottom of radiator - right front side, and one at rear of cylinder block - left side)

RADIATOR HOSE

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

WATER THERMOSTAT

Make ---------- Harrison
Type ---------- Bellows operated poppet valve
Location --------- In cylinder head water outlet
By-pass for recirculation ---------- None
Action of thermostat valve at 29" Hg barometric pressure:
Starts to open, °F ---------- 140-147
Fully open, °F ---------- 170

ENGINE FAN

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

WATER PUMP

Type and drive -- Centrifugal, driven by fan belt
Location --------- On front of cylinder and case
Capacity ------ 47 gal/minute at 4000 engine RPM
Impeller type ---------- Vane
Water pump and fan, bearing and shaft assembly:
Lubrication ---------- Permanently lubricated
Bearing, anti-friction --------- See page 101
Seal -- Molded rubber, sealed with rubber cement
Seal adjustment --- Automatic, by spring tension

ENGINE ELECTRICAL SYSTEM

GENERATOR

Make and model -- Delco-Remy, 1102761 or 1102749
Type ---------- 2-brush, shunt-wound
Rated voltage ---------- 6-8
Ventilation --------- By fan in generator pulley
Driven by ---------- Fan belt
Pulley size ---------- 28°V x 3-11/32 dia
Speed ratio (gen to engine) ---------- 1.83:1
Generator RPM/MPH ---------- 93.7
Maximum output (controlled charging rate) hot:
Amperes ---------- See current regulator
Volts ---------- See voltage regulator
Generator RPM ---------- 2400 and up
Car MPH (high gear) ---------- 25.2 and up

Bearings:	Commutator end	Drive end
Number	812823	Anti-friction bearing, see page 101
Type	Bronze bushing	
ID	.562-.563	
OD	.783-.784	
Width	51/64	

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

VOLTAGE AND CURRENT REGULATOR

Make and model ---------- Delco-Remy, 1118301
Location --------- On wiring access door in dash
Type ---------- Vibrator
Voltage regulator:
Volts ---------- 7.4
Temperature ---------- Operating
Average air gap ---------- .075-.085
Current regulator:
Amperes ---------- 35
Temperature ---------- Operating
Average air gap ---------- .075-.085
Cutout relay:
Point opening (amperes) ---------- 0 - 4
Point closing: Volts ---------- 6.4
Generator armature speed --------- 800 RPM
Car MPH (high gear) ---------- 8.4
Average air gap ---------- .020
Point gap ---------- .020

RPO GENERATOR EQUIPMENT (40 amp)

RPO 326A ----------
------ On all except 1503 with taxicab equipment
Generator: Make and model --- Delco-Remy, 1102729
Regulator: Make and model --- Delco-Remy, 1118300

CONTINUED

1-2-51

BATTERY

Make and model ---------- Delco, 15AA4-W
Size ------- 9-1/32 long x 7 wide x 8-11/16 high
Voltage ---------- 6
Capacity ------ 100 ampere hours at 20-hour rate
Bench normal charging rate ---------- 7 amp
Cell arrangement ---------- 3, side-to-side
Plates per cell ---------- 15
Terminal grounded ---------- Negative
Location ---------- At right side under hood

STARTING

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

STARTING MOTOR

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

Bushings	Commutator end	Drive end
Type	Rolled bronze with graphite-filled ball indentations on inside surface	
I. D.	.5525-.5635	.499-.501
O. D.	.6245-.6255	.5615-.5625
Width	.812	.781

Testing:	Lock test	No load test
Amperage draw	525	65
Volts	3.4	5
Torque	12 ft lb	
RPM		5000

Brush spring tension ---------- 24-28 oz

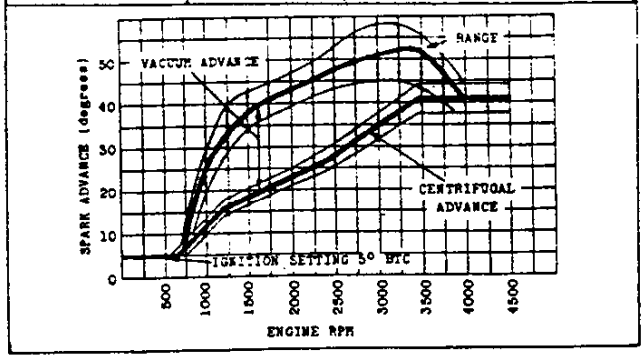
IGNITION SYSTEM

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

DISTRIBUTOR

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

Automatic spark advance	Advance begins	Full advance
Vacuum control	7" to 8.5" Hg	18° to 22° at 16.5" to 18.5" Hg
Centrifugal	550 to 750 FPM	32.5° to 39.5° at 3450 RPM and up



COIL

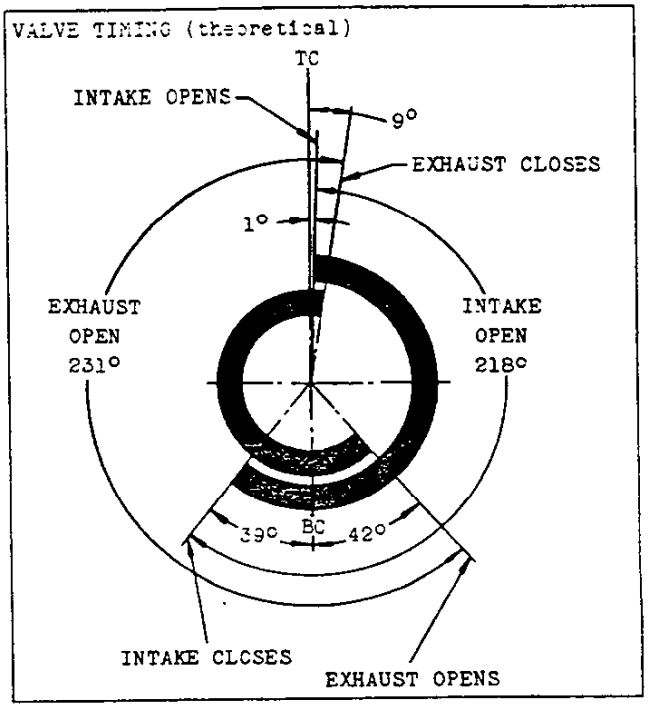
Make and model ---------- Delco-Remy, 1115360
Location ---------- Engine right side
Amperes drawn -- 4.5, engine stopped; 2.5, idling

SPARK PLUGS

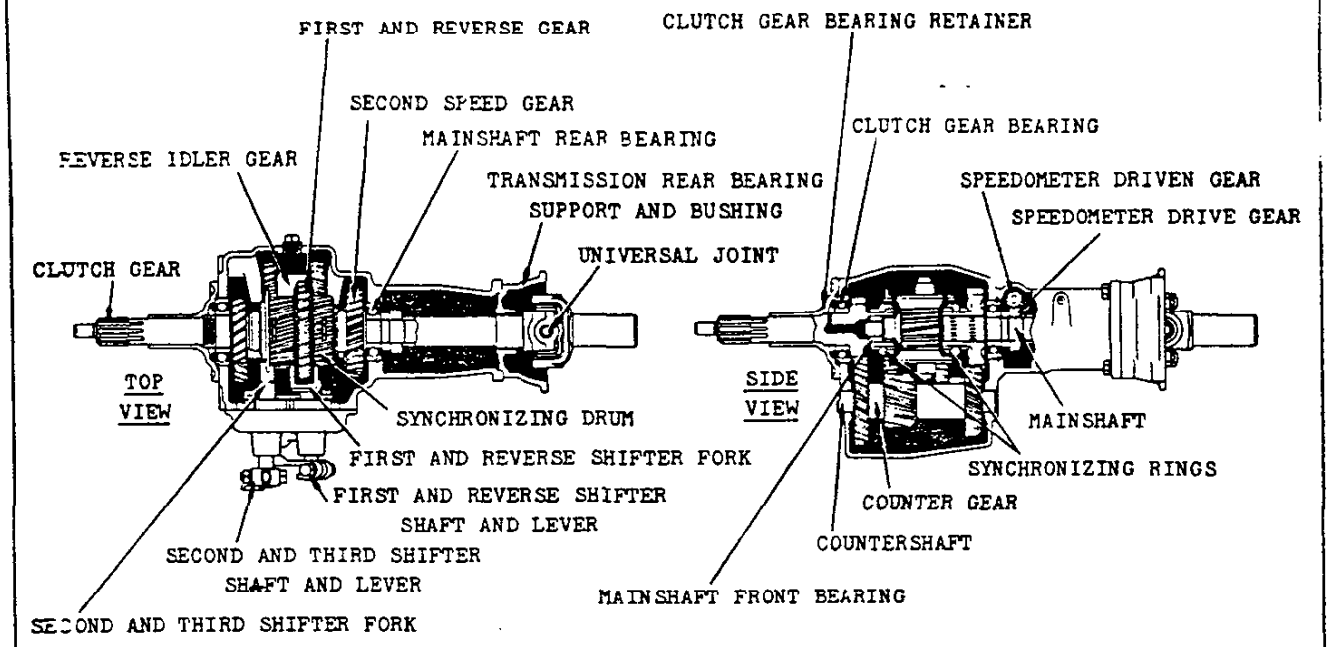
Make and model ---------- AC, 46-5
Thread size ---------- 14 mm
Recommended gap ---------- .035
Recommended torque (service) ------- 20-25 ft lb

ENGINE TIMING

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

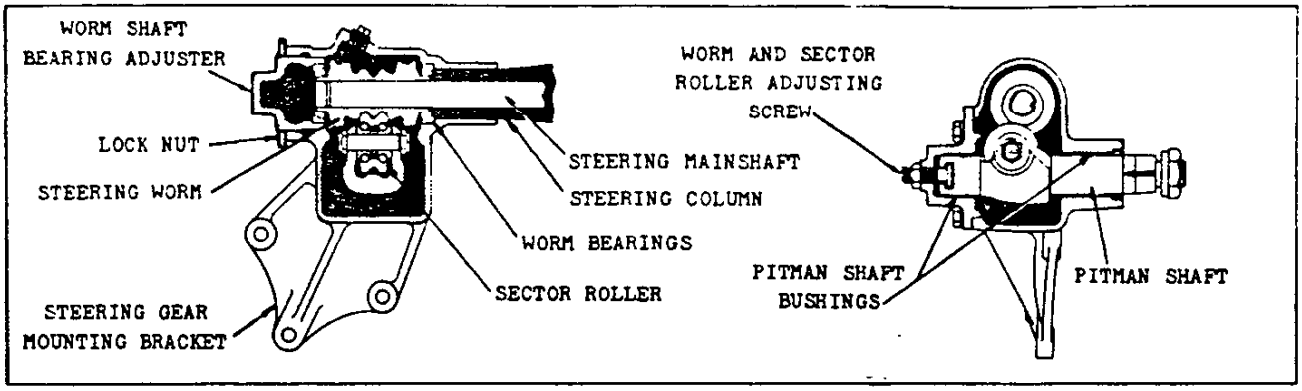


TRANSMISSION



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 I D 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 I D x 7/8 long	
	Countershaft	Material and type	Steel backed bronze, ball indented	Anti-friction bearings See page 101
		I D	.8772-.8782	
		O D	Push fit in ring gauge 1.008 dia	
		Length	1-1/4	
2nd gear bearing		Type	Gear I D honed, turns on mainshaft	
		Size	1.062-1.063 I D x 1-3/4 long	
Speedometer gears	Tooth pitch		26	
	Teeth driving and driven		6 and 18	
Lubricant	Type recommended		SAE 90 transmission or mineral oil lubricant	
	Capacity		1-1/2 pt	
Anti-friction bearings			See page 101	

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 156
Steering mainshaft diameter ---------- 3/4
Steering column diameter ---------- 1-3/4
Lubricant recommended ---------- Steering gear or "Multi-Purpose" gear lubricant
Worm and sector adjustment ---- Fully adjustable
Sector mounting type ---------- Straddle mounted
Pitman shaft:
Material ---------- Drop forged steel
Mounting ---------- Straddle mounted

PITMAN SHAFT BUSHINGS

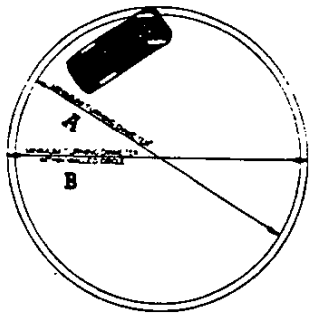
ITEM	INNER	OUTER
Material	Steel backed bronze or cast bronze	
ID	1.124-1.125	
OD	1.2500-1.2505	1.2520-1.2535
Length	1-3/8	27/32

STEERING LINKAGE

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

STEERING WHEEL

Diameter ---------- 17-1/4
Special models -- Three spoke "T" with horn button
De Luxe models -- Two spoke with horn blowing ring
Number of turns of wheel for full right to left travel of front wheels ---------- 4.05



TURNING DIAMETERS

A
Right turn 37 ft
Left turn 38 ft

B
Right turn 40 ft
Left turn 41 ft

Nominal figures based on tests made at General Motors Proving Ground

WHEELS AND TIRES

WHEELS

Make and type	Own, short spoke disc
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	Chrome plated with blue trademark

WHEEL AND HUB CAP DESIGN (ALL MODELS)

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 FRONT	LOAD PER TIRE REAR	RECOMMENDED PRESSURE FRONT	RECOMMENDED PRESSURE REAR	TUBE	VALVE
6.70-15-4 ⊕	Reg except 2119	13.30	748 •	925	925	24	24	6.70	15
6.70-15-6	Reg 2119 RPO All others	13.40	748 •	970	1055	26	30		

* - U.S. Rubber Co. standards shown. Tires furnished are U.S., Goodrich, and Firestone.
⊕ - Available as RPO with one sidewall white.

1-2-51. Revised: 10-18-51, • - Tire data revised.

LIGHTS

HEADLIGHTS

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

PARKING LIGHTS

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

TAIL AND STOP LIGHTS

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

REAR LICENSE LIGHT

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

PASSENGER COMPARTMENT LIGHTS

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

LIGHTING SWITCHES

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

CIRCUIT BREAKER

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

BULBS

Used in		Quantity	Trade No	Power
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	Bel Air	2	82	6 cp
	Convertible coupe	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	Sed Del and St Wagons	Tail	1	63	3 cp
		Stop	1	1129	21 cp
	RPO Sedan Delivery	Tail	1	63	3 cp
		Stop	1	1129	21 cp
	RPO Station Wagon	Tail	2	1154*	3 cp
		Stop			21 cp
	All others	Tail	2	1154*	3 cp
		Stop			21 cp

* - Single bulb, double filament

HORNS

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

TOOLS

Jack:
Capacity ---------- 1200 lb
Raised height ---------- Approx 28
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

1-2-51

ACCESSORIES

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

ITEM			MODELS
Alarm	Parking brake		All
Antenna	Radio, fender, LH		
Arm rest	Door, front (or rear on 4-door sedans)		1500 except 1508
Ash tray	Instrument panel		1500
Bag and hanger	Ladies' garment		All
	Men's garment		
Block	Junction, wiring		
Cap	Gasoline tank filler, locking		
Clock	Electric wind		
	Hand wind		1500
Condenser	Radiator overflow		All
Cover	Accelerator pedal		
	Steering wheel		
	Seat	Plastic	All except 1504-08, 2119
		Rayon	All except 1504-08, 2119-34
		Fiber	
		Installation kit	All
Cover panel	Rear wheel		1500 except 1508
Cushion	Seat, accessory, air inflated		All
Deflector	Rain	Front and rear	1502-03-52-53, 2102-03-52-53
		Front, only	1504-24, 2124
Disc	Wheel trim, stainless steel		All
Dispenser	Tissue		
Extension	Muffler tail pipe		
Filter	Gasoline		
Frame	License plate		
Guard	Front fender (on outer end of bumper)		
	Rear fender (on outer end of bumper)		
	Trunk (across top of rear bumper guards)		All except 1508, 2119
	Gasoline tank filler door fender		
Heater and defroster	Recirculating, with outside air provision		All
	Outside air type		
Hook	Coat		All except 1508, 2119-34-54
Lamp	Auxiliary driving, dual		All
	Back-up, (pair)		
	Portable spot (plugs in cigarette lighter)		
	Trouble, magnetic		
	Under hood		
	Glove compartment		1500
	Luggage compartment		All except 1508, 2119-34-54
	Spot, LH, Guide, with bracket and mirror		All except 2119
Lighter	Cigarette, with lamp		1500
Mat	Tire traction, set of two		All
Mirror	Rear view	Door-front, clamp type	All except 1508
		Door-top, clamp type	All except 2134-54
		Non-glare (prismatic), inside	All except 1508
	Visor vanity		All
	Visor vanity (lighted electrically)		All except 2134-54
Molding	Wheel, stainless steel		All
Ornament	Hood		
Pad	Seat, ventilated		
Radio	Colonial (manual tuning), and antenna		
	Delco (push-button tuning), and antenna		
	Speaker, auxiliary rear seat		All except 1504-08-24, 2119-24-34-54
Reflector	Reflex, 4 inch, red		All

CONTINUED

1-2-51

ITEM		MODELS
Scraper	Windshield	All
Shaver	Electric	
Shield	Front fender, pair	
	Windshield glare	All except 1508, 2119
Signal	Direction, self-cancelling	All (use only with RPO 249 on 1508, 2119)
Sunshade	Right hand	1500 except 1508
Sun visor	Outside type	All except 2119-34
Tool kit	Bag with tools	All
Trim ring	Wheel, white plastic	
Viewer	Traffic light	
Washer	Windshield	
Wheel	Steering, ornamental	

REGULAR PRODUCTION OPTIONS

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

GROUP	RPO	ITEM		MODEL
Ext colors	235	Colors and exterior finishes. See page 20		All
Body equipment	236	Interior color and trim combinations		2134
	238			2154
	229	Screen partition, and rear door window screen, or plus parcel rack and partition board		1508
Taxicab equipment	330	Heavy-duty clutch 45% larger than standard clutch, equipped with a special heavy pull back spring		1503
		HD transmission with special countershaft roller bearings		
		Special service front springs		
		Special 40 amp generator and voltage & current regulator		
		Special clutch and brake pedal shaft lubrication fittings		
		Special fast filling gasoline filler signal		
		330A Gray striped cloth trim / 330B Dark gray leather fabric 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 RH rear door.	
Suspension	254	Heavy rear springs		All
Engine	237	Oil filter		
	340	Vacuum booster fuel pump		
	241	Governor (RPO 216F air cleaner mandatory with RPO 241)		All, except RPO 317
	216F	Air cleaner	Oil bath (one pound dirt capacity)	All, with governor
	216C			All, without governor
	326	Generator equipment (40 amp)		All, except RPO 330
Clutch	227	Heavy-duty		All, except RPO 317 and 330
Transmission	316	Heavy-duty		
	317	Automatic (Powerglide). See supplement - pages 41-48		2100
Lights	249	Dual tail and stop lamp equipment (tail and stop lamp in one unit)	One, RH *	1508
			Two, LH and RH *	2119
Tires with reg wheels	290	6.70-15-4 ply (five) - white wall on one side		All, except 2119
	288	6.70-15-6 ply (five)		
	283	7.10-15-4 ply (five)		2134 with RPO 317, only

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

1-2-51

POWERGLIDE
AUTOMATIC TRANSMISSION
SUPPLEMENT
Regular Production Option #317

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

AUTOMATIC TRANSMISSION OPTION—Supplement

ENGINE SERIAL NUMBER

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

TRANSMISSION SERIAL NUMBER

Plant designation:	Cleveland
RPO 317, automatic transmission	T

A letter and numeral following the serial number indicate date of manufacture --------- Letter A January, B February, etc indicates the month Numeral 1, 2, 3 etc indicates day of the month

Location ---------- Stamped on case at top rear

REAR AXLE SERIAL NUMBER

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

FRAME

Second cross member ----------
-Special for mounting Powerglide transmission

FRONT SUSPENSION

Front spring ---------- All models, same as regular spring for model 2134. See page 22

BODY

Floor mat, front ----- Clutch pedal hole omitted

Toe pan, clutch pedal hole ----------
---------- Sealed with felt and cemented

Exterior identification ----------
"POWERGLIDE" name plate above rear deck handle

REAR AXLE AND DRIVE

Final drive gears:
Ratio ---------- 3.55:1
Teeth ---------- 11 & 39

Total torque multiplication (final drive gears, transmission and torque converter):
Drive ---------- 3.55:1 to 7.81:1
Low ---------- 6.46:1 to 14.21:1
Reverse ---------- 6.46:1 to 14.21:1

Axle shaft torque, max (ft lb):&
Low ---------- Not available
Drive ---------- Not available
Reverse ---------- Not available

& - Engine max net torque x total torque multiplication x efficiency factor. (Data to compute these values not available at the present time).

UNIVERSAL JOINT

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

SPEEDOMETER GEARS

Drive gear ------- 5-tooth, 22 pitch, mat - steel
Driven gear ----- 13-tooth, 22 pitch, mat - nylon

VEHICLE WEIGHTS &

FLEETLINE ©

Vehicle Type		Shipping			Curb		
Model	Description	Front	Rear	Total	Front	Rear	Total
2152	De Luxe 2-Door Sedan	1810 •	1430 •	3240 •	1835 •	1535 •	3370 •
2153	De Luxe 4-Door Sedan	1820 •	1460 •	3280 •	1845 •	1565 •	3410 •

STYLELINE ©

Vehicle Type		Shipping			Curb		
Model	Description	Front	Rear	Total	Front	Rear	Total
2102	De Luxe 2-Door Sedan	1815 •	1425 •	3240	1840 •	1530 •	3370
2103	De Luxe 4-Door Sedan	1815	1465 •	3280 •	1840	1570 •	3410 •
2124	De Luxe Sport Coupe	1815 •	1405 •	3220 •	1840 •	1510 •	3350 •
2134	De Luxe Convertible Coupe €	1915 •	1570 •	3485 •	1940 •	1675 •	3615 •
2154	De Luxe Bel Air	1850	1495 •	3345 •	1875	1600 •	3475 •
2119	De Luxe Station Wagon ¤	1790 •	1790 •	3580 •	1815 •	1895 •	3710 •

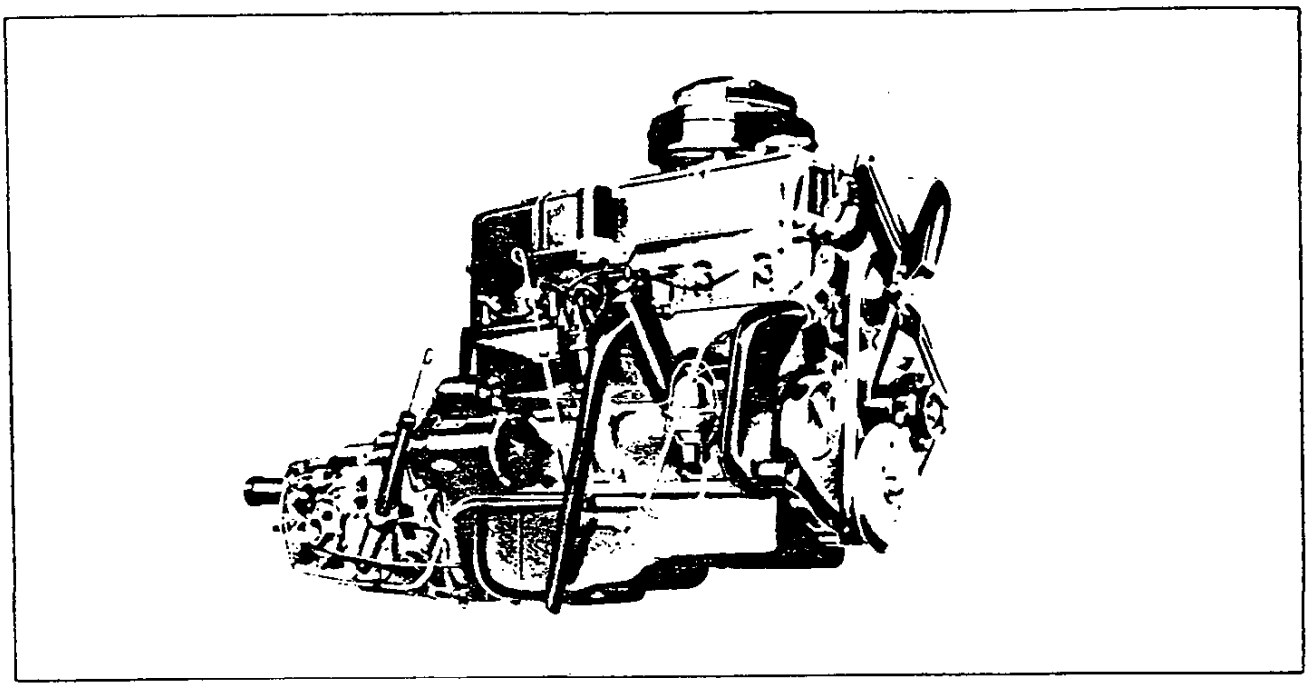
PERFORMANCE WEIGHT (Curb weight plus 600 pound passenger load)

FLEETLINE
De Luxe 4-Door Sedan ---------- 4010 Pounds •

STYLELINE
De Luxe 4-Door Sedan ---------- 4010 Pounds •

¤ - 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 definition see page 9 Passenger Car Section.
‡ - Government orders discontinued spare tire from March to July, 1951. Spare tire weight is included in weights above.

1-2-51. Revised: 8-8-51, • - Cars re-weighed. x - Spare tire note added.



ENGINE BASIC DESIGN DATA

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

ADVERTISED MAXIMUM ENGINE PERFORMANCE

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

ADVERTISED CAR PERFORMANCE

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

	STYLE-LINE	FLEET-LINE
Performance weight (pounds) -------	4005	4015
Pounds/gross horsepower -------	38.14	38.23
Pounds/cu.in. piston displ ----	17.01	17.05
Gross horsepower/cu.in. displ ----	.45	.45
Power displ (cu ft/mile)* - ⓓ ------	182.1	182.1
Displ factor (cu ft/ton mi) ⓔ - ⓓ --	90.81	90.73

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

ⓔ - Power displ ÷ performance weight in tons.

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

ENGINE SPEED AND PISTON TRAVEL ⓓ

Rear axle ratio		3.55:1
Tires		6.70-15 or 7.10-15
Crankshaft revolutions per mile		2675
Crankshaft RPM per MPH	Low	81
	Drive	45
Piston travel (ft/mi)		1755

DRY WEIGHTS

Engine (pounds) ---------- 540
Engine and automatic transmission (pounds) -- 749

CYLINDER CASE

Bore diameter ---------- 3.5620-3.5640

CRANKSHAFT

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

FLYWHEEL

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

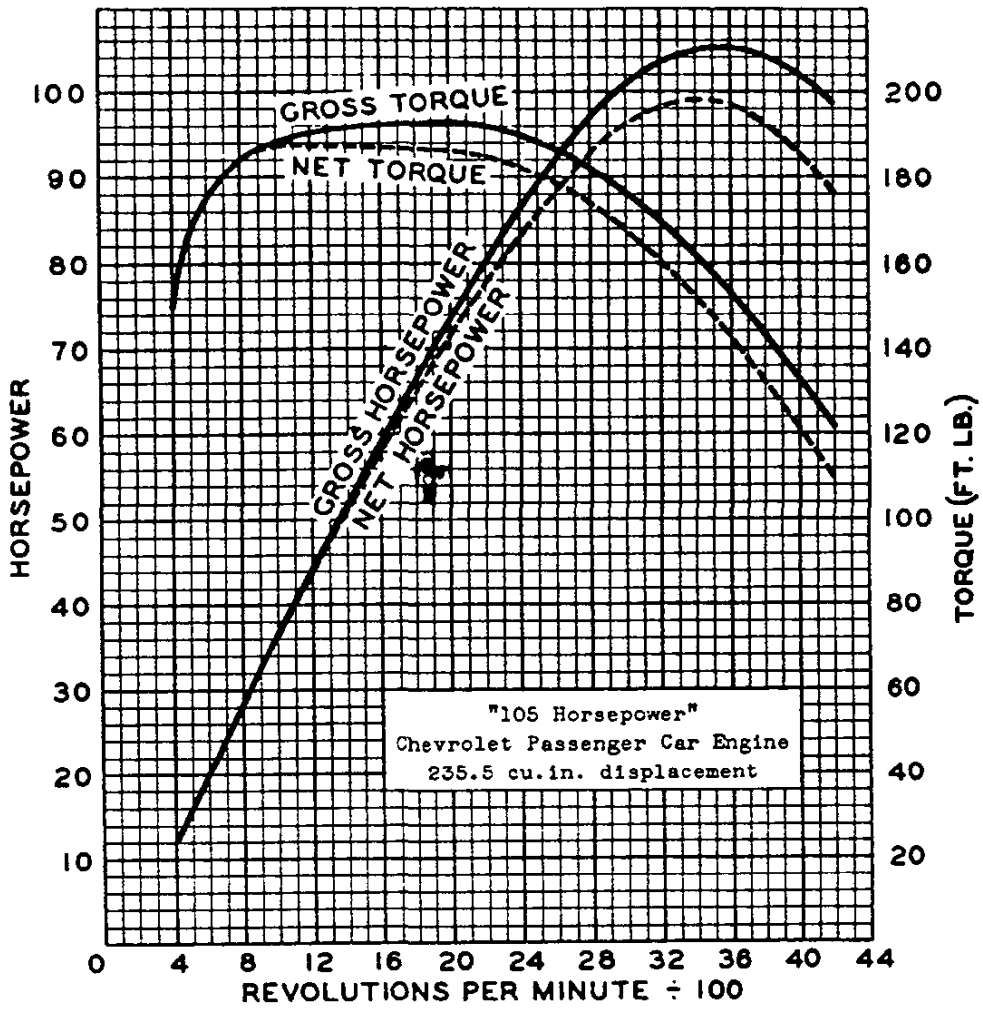
CAMSHAFT

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

PISTON

Diametrical relief at lands ---------- .014-.022
Upper compression ring groove depth --- .181-.188 •
Lower compression ring groove depth --- .158-.165 •
Oil ring groove depth ---------- .176-.183 •
Head thickness at center ---------- .200-.210
Weight of piston and bushing assy ---- 2.112 lb
Weight of piston, bushing, rings, pin, and connecting rod upper end x 6 ---------- 18.12 lb

1-2-51. Revised: 11-8-51. • - Piston data changed.



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

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

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

October 23, 1951

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

Geo. W. Proctor
Transport Engineer

State of Michigan
County of Wayne

On this 23rd day of October 1951 personally appeared before me, Geo. W. Proctor, known to me to be such, who makes oath that the data on this sheet are true as represented.

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

1-2-51. Revised: 11-1-51, • - Definition corrected. Net power data was, generator charging.

UPPER COMPRESSION RING

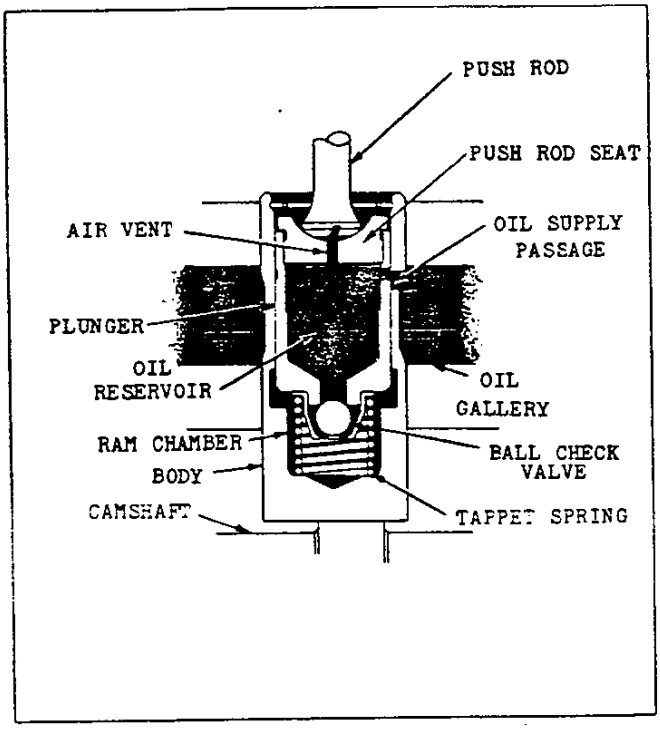
Type ---------- Deep-section, twist
Number per piston ---------- One
Width ---------- .0930-.0935
Wall thickness ---------- .168-.178
Gap clearance ---------- .007-.017
Weight (each) ---------- .042 lb

LOWER COMPRESSION RING

Number per piston ---------- One

OIL CONTROL RING

Wall thickness ---------- .160 max



HYDRAULIC VALVE LIFTERS

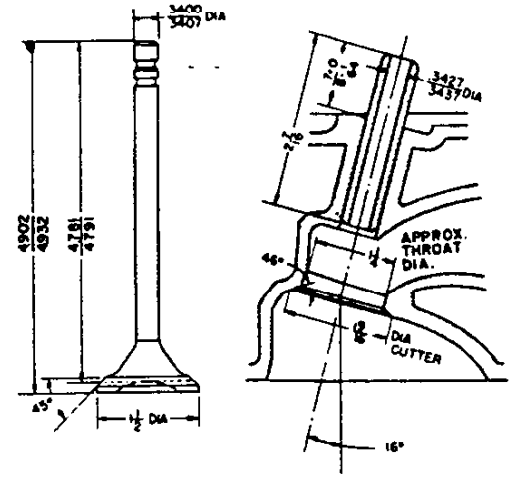
Make ---------- Own
Material: Lifter body ---------- Cast iron
Lifter plunger and push rod seat ------ Steel
Lift: Exhaust and inlet ---------- .2217
Oil flow ---------- Oil
enters the valve lifter oil gallery through a drilled passage from the camshaft rear bearing where it flows to the hydraulic lifters.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

VALVE SPRINGS

LENGTH AND PRESSURE

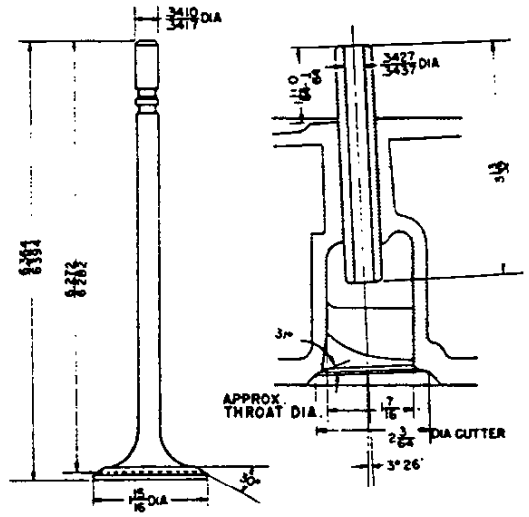
Valve closed ---------- 1.821 at 62-68 lb
Valve open ---------- 1.505 at 155-165 lb
Free (out of engine) length ---------- 2-5/32

EXHAUST



Flat head design is optional

INLET



VALVES

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

VALVE SEATS

Cooling jets of water ---------- No

1-2-51

AUTOMATIC TRANSMISSION OPTION—Supplement

ENGINE LUBRICATION SYSTEM

Valve Mechanism ---------- Oil under pressure flows from rear of valve lifter oil gallery through restricted pipe fitting and pipe to valve rocker arms.

Oil cooler (transmission) ---------- See page 47

ENGINE OIL PUMP

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

CARBURETOR

Make and model ----- Rochester Products, 7003160
Type ---------- Single adjustment, downdraft
SAE flange (nominal size) ---------- 1-1/2
Size (main venturi throat ID) ---------- 1-11/32

THROTTLE RETURN CHECK

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

AIR CLEANER

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

EXHAUST SYSTEM

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

ENGINE COOLING SYSTEM

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

RADIATOR CORE

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

RADIATOR HOSE

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

GENERATOR

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

VOLTAGE AND CURRENT REGULATOR

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

STARTING MOTOR

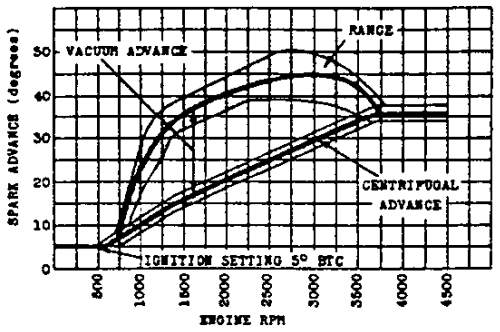
Circuit (push button on dash) ---------- Switch is wired in Series with the neutral safety switch located on the lower end of the steering column control and permits operation of the starting motor with the transmission control in "Neutral" or "Park" positions only.

Starting operation ---------- With ignition switch on, transmission control in "Neutral" or "Park" position, depress starter push-button

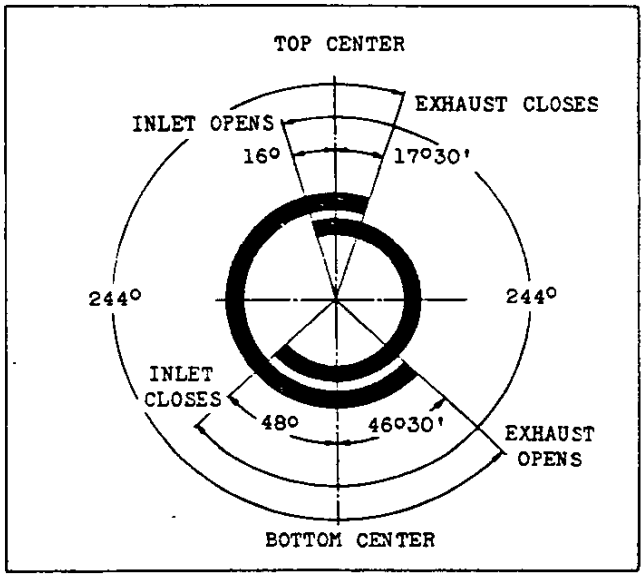
DISTRIBUTOR

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

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



VALVE TIMING - Theoretical



REGULAR PRODUCTION OPTIONS

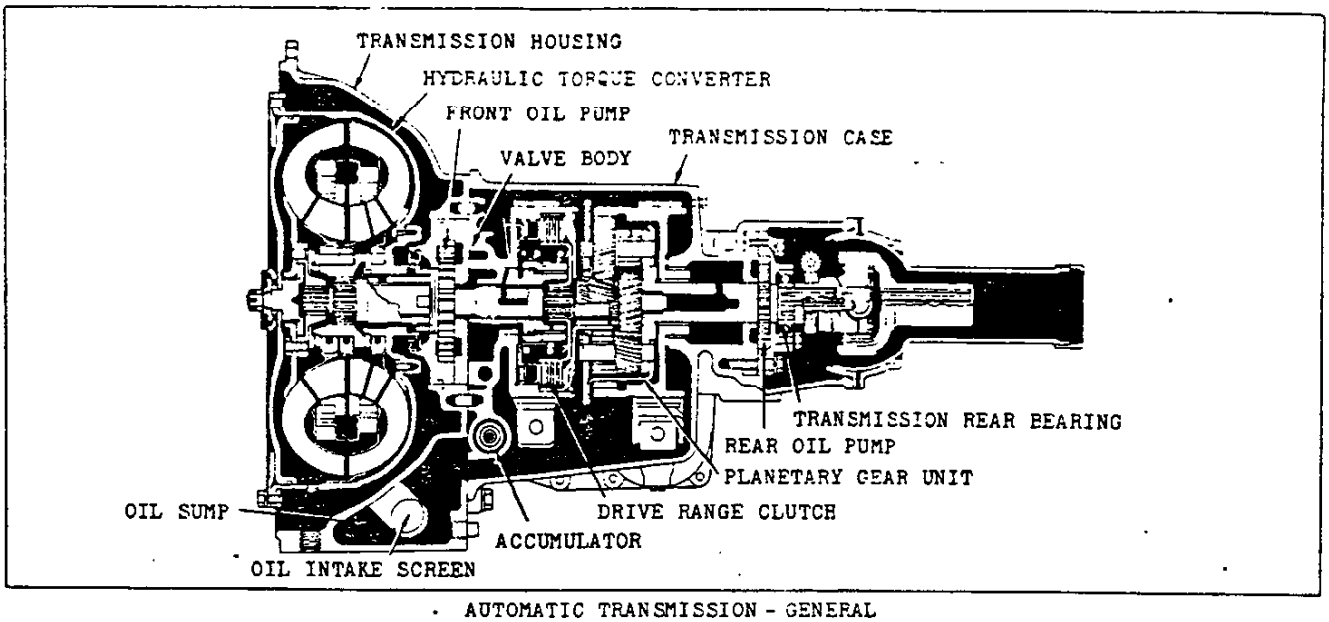
RPO 283, 5 tires 7.10-15-4 pr --- 2134 only (mandatory)
RPO 288, 5 tires 6.70-15-6 pr ---------- All except 2119 and 2134
RPO 290, 5 tires 6.70-15-4 pr (one white wall) ---------- All except 2119 and 2134

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

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

1-2-51

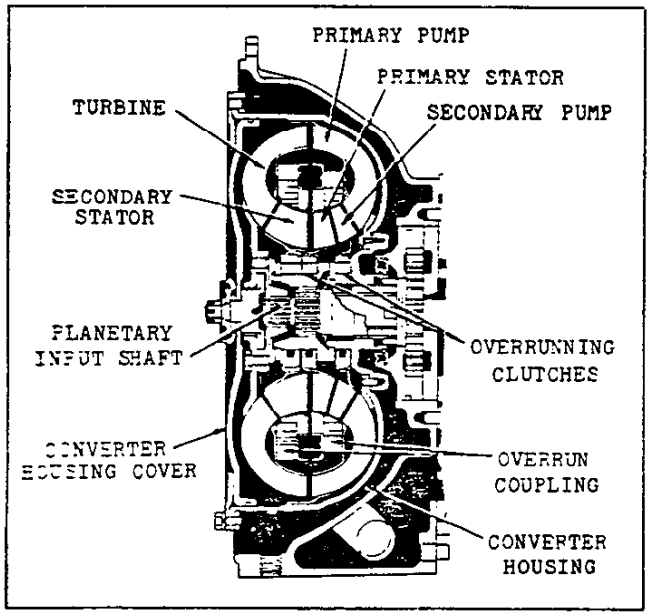
AUTOMATIC TRANSMISSION OPTION—Supplement



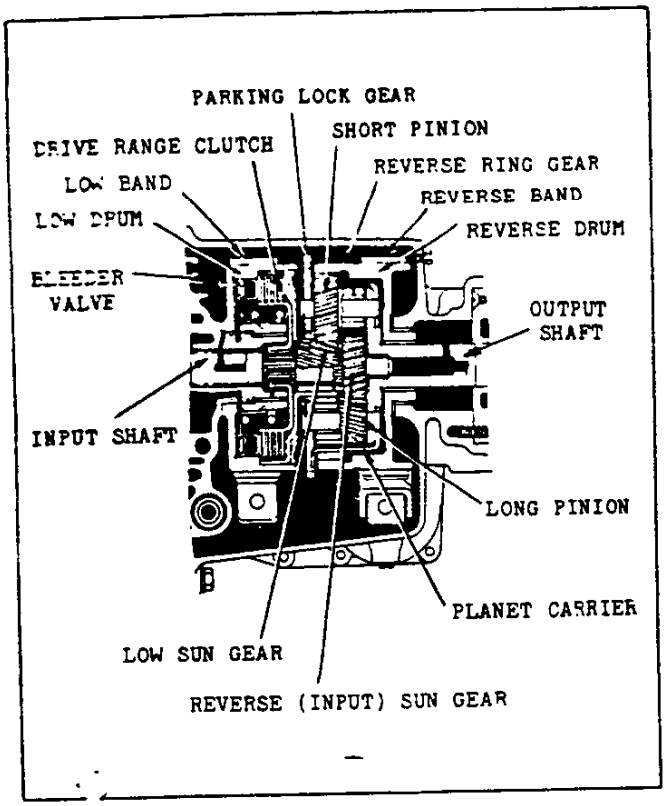
AUTOMATIC TRANSMISSION - GENERAL

Make and type ---------- Own, automatic hydraulic torque converter with planetary gear system for reverse and emergency low
Rated torque capacity ---------- Not available
Converter maximum torque ratio (at stall) -- 2.2:1
Total transmission torque multiplication (converter x planetary gear ratio):
Drive range ---------- 2.2:1 to 1:1
Low range ---------- 4.0:1 to 1.82:1
Reverse range ---------- 4.0:1 to 1.82:1
Oil type -- Automatic transmission fluid, type A
Oil capacity ---------- 9 quarts (refill)
Oil level gauge and filler tube:
Location ---------- On right side of 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 spring, released by positive linkage

HYDRAULIC TORQUE CONVERTER



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



PLANETARY GEAR UNIT

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

DRIVE RANGE CLUTCH

Type ---------- Multi - disc
Discs (plates):
Driving, number and type ----------
---- Four, steel with molded metallic facing
Driven, number and type --------- Five, steel
Drum: Material ---------- Cast iron
OD ---------- 5.867-5.872
Bleeder valve: Location -- In front face of drum
Type ----------
Poppet, opened by piston, closed by leaf spring
Hub: Material ---------- Stamped steel
Splines ---------- Internal, 19 teeth
Flange: Material ---------- Stamped steel
Splines ---------- Internal, 23 teeth
Spring: Type and ID ---------- Coil, 2.655-2.705
Length and pressure -- Approx 2-1/16 (free), 1-13/32 at 142 - 166 lb, 1-1/16 at 215 - 255 lb
Piston: Type and material ------- Annular, three stamped steel pieces assembled by spot-welding
Size --------- 4.982-4.986 OD, 2.498-2.502 ID
Low brake band: Material -- Malleable iron casting
Lining -- Molded metallic, bonded and grooved

HYDRAULIC CONTROLS

Oil intake screen: Type ---------- Tubular double screen, outer - 60 x 50 mesh, inner - 8 mesh
Location ------ Transmission housing oil sump
Oil pumps: Type --------- Internal-external gear
Location -------- Front - in rear of 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 and type -------
--------- New Departure 3205, single row ball
Valve body: Material ---------- Cast iron
Location - Bolted to rear of transmission housing
Manual valve: Material and type ----------
----- Hardened steel, land and groove sliding
Operated by -- Selector lever through linkage
Pressure relief valve: Type ---- Ball and spring
Valve opens ---------- 195 - 205 PSI
Check valve: Material -------- Flat spring steel
Type ------ Two passage check, hairpin shaped
Accumulator: Type --------- Spring-loaded piston
Starts to fill ---------- 55 PSI
Pressure regulator valve:
Type ---------- Land and groove sliding
Pressure range ----------
Drive, 43 - 90 PSI; Low and Reverse, 75 - 180 PSI; Neutral 78 PSI (normal); Park, none.
Modulator: Location ---- Servo cover, right side
Type ---------- Vacuum and hydraulic
Low band servo: Type -- Piston, 1 release spring
Adjustment ---------- Threaded anchor bolt
Reverse band servo: Type ---------- Piston with release spring and inner cushioning spring
Adjustment ---------- Threaded anchor bolt
Thermostatic by-pass valve: Location -- Servo cover
By-pass closes ---------- 240°F