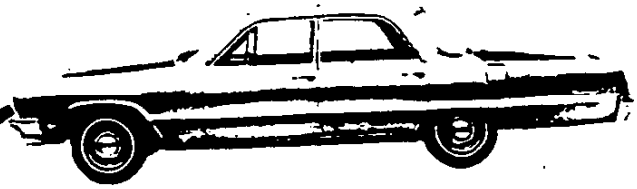
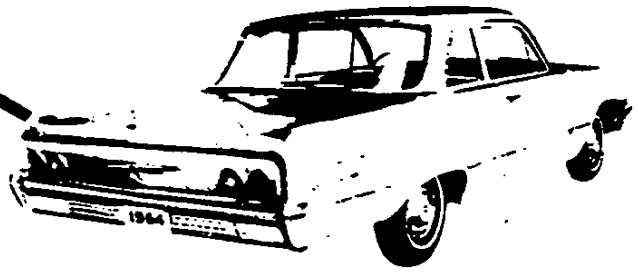
GENERAL

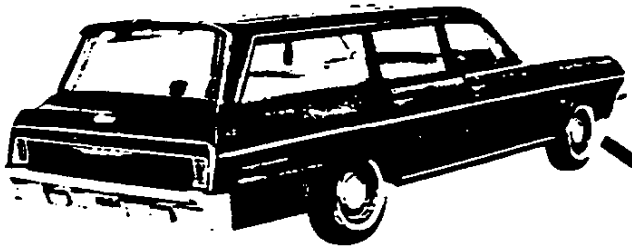
MODEL IDENTIFICATION



1100-1200 BISCAYNE SERIES

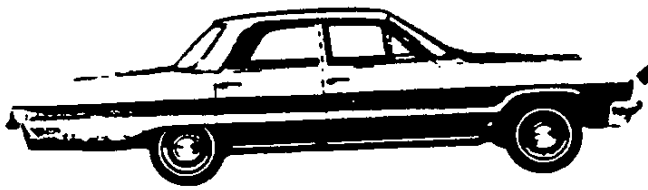
MODEL 11-1211 2-DOOR SEDAN, 6-PASSENGER
MODEL 11-1235 4-DOOR STATION WAGON, 6-PASSENGER
MODEL 11-1269 4-DOOR SEDAN, 6-PASSENGER

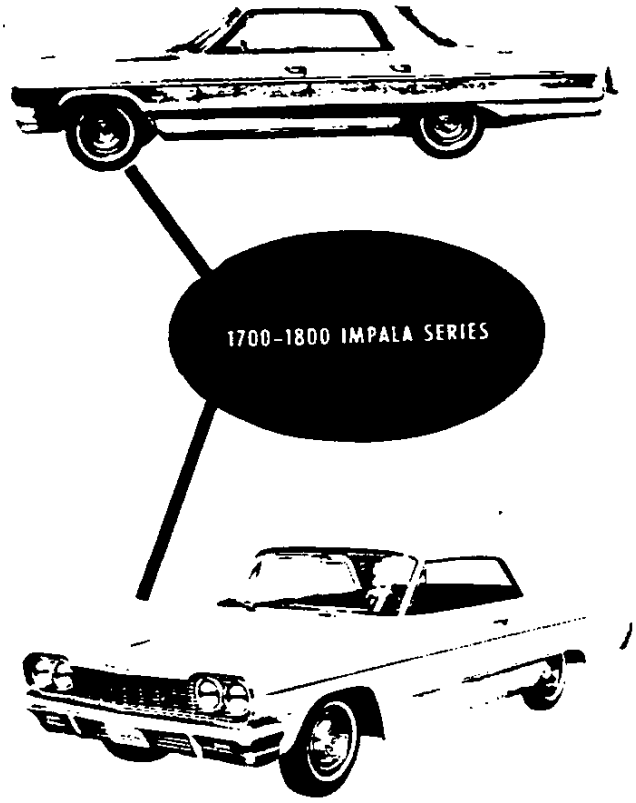




MODEL 15-1611 2-DOOR SEDAN, 6-PASSENGER
MODEL 15-1635 4-DOOR STATION WAGON, 6-PASSENGER
MODEL 15-1645 4-DOOR STATION WAGON, 9-PASSENGER
MODEL 15-1669 4-DOOR SEDAN, 6-PASSENGER

1500-1600 BEL AIR SERIES





MODEL 17-1835 4-DOOR STATION WAGON, 6-PASSENGER
MODEL 17-1839 4-DOOR SPORT SEDAN, 6-PASSENGER
MODEL 17-1845 4-DOOR STATION WAGON, 9-PASSENGER
MODEL 17-1847 2-DOOR SPORT COUPE, 5-PASSENGER
MODEL 17-1867 2-DOOR CONVERTIBLE, 5-PASSENGER
MODEL 17-1869 4-DOOR SEDAN, 6-PASSENGER

MODEL 13-1447 2-DOOR SPORT COUPE, 4-PASSENGER
MODEL 13-1467 2-DOOR CONVERTIBLE, 4-PASSENGER

SERIAL NUMBERS AND IDENTIFICATION

ONLY BASIC DESIGNATIONS SHOWN

VEHICLE SERIAL NUMBER

6-Cylinder Example:

Model Year	Model	Assembly Plant	Unit Number
1964		(Tarrytown)	(25th unit)
4	1169	T	100025

Thus: The 25th model built at Tarrytown would be serial number 41169T100025

8-Cylinder Example:

Model Year	Model	Assembly Plant	Unit Number
1964		(Flint)	(26th unit)
4	1269	F	100026

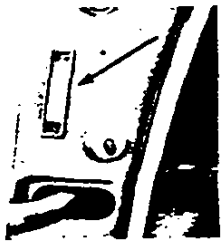
Thus: The 26th model built at Flint would be serial number 41269F100026

ASSEMBLY PLANTS

A - Atlanta	L - Los Angeles
C - Atlanta BOP	R - Arlington
F - Flint	S - St. Louis
G - Framingham	T - Tarrytown
J - Janesville	U - Southgate
	Y - Wilmington

Starting unit number ---------- 100001 and up at each assembly plant regardless of series

Location ---------- Stamped on plate attached to left front body hinge pillar



REAR AXLE IDENTIFICATION

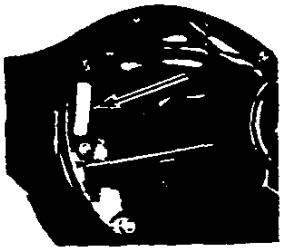
Example: BB 0212

Plant and Type Designation	Production* Month & Date
BB	0212

Gear & Axle	Buffalo	
AA	BA	3-speed transmission
AB	BB	Automatic transmission
AC	BC	Overdrive transmission

Location ---------- Stamped from right side differential carrier

* - Month: February, 02; 12th day of February, 12



ENGINE IDENTIFICATION

Example: F 1210 A

Source Designation	Production* Month & Date	Type Designation
F	1210	A

230 Cubic Inch 6-Cylinder

A - Regular production engine, 3-speed
B - Regular engine, Powerglide

283 Cubic Inch 8-Cylinder

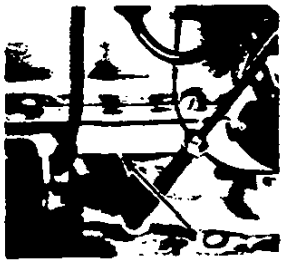
C - Regular production engine, 3-speed
D - Regular, Powerglide

327 Cubic Inch 8-Cylinder (RPO L30)

R - Optional, 3 or 4-speed trans., 4-bbl. carb.
S - Optional, Powerglide, 4-bbl. carb.

409 Cubic Inch 8-Cylinder (RPO L31)

QA - Optional, 3 or 4-speed, large 4-bbl. carb. spec. cam.



6-cyli

8-cylinder

Location:

6-cylinder engine ---------- Stamped on pad on right side of cylinder block to rear of distributor

8-cylinder engine ---------- Stamped on pad at front right side of cylinder block

* - Month: December, 12; 10th day of December, 10

ITEM			MODELS
Bright Metal Trim & Moldings	Stainless Steel	Windshield reveal	All
		Roof drip gutter	All exc 11-1200; 13-14-17-1867
		Rear belt reveal	13-14-17-1847, 67
		Roof rail reveal	13-14-17-1847; 17-1839
		Belt reveal, side	13-14-17-1800
		Rear window reveal	All exc conv. & station wagon
		Roof rear drip gutter	15-16-17-1835, 45
		Door and rear quarter upper reveal	17-1835, 39, 45
		Belt reveal, tailgate	17-1835, 45
		Tailgate window reveal	
		Tailgate window finishing, side	11-1235; 15-16-17-1835, 45
		Wheel disks	13-1400
		Windshield pillar	13-14-17-1847, 67
		Windshield header	13-14-17-1867
	Anodized Aluminum	Deck lid windsplit	13-14-17-1800 exc station wagon
		Body side (pattern insert on 13-1400)	11-12-13-14-15-1600
		Body side dual (painted insert)	17-1800
		Radiator grille, nameplate and grille surround moldings (includes plastic emblem)	All
		Headlight and tail light bezels	
		Back-up light bezels	13-14-17-1800
		Rear cove reveal, outer	11-1200
		Rear cove dual reveal (satin insert on 17-1800)	15-16-17-1800
		Rear cove dual reveal (pattern insert)	13-1400
		Body sill	15-1600
	Chrome Plated Metal	Hood windsplit	13-14-17-1800
		Front door vent channel and post	All
		Ventipane frame	13-14-17-1800 exc 17-1869; 17-1835, 45
		Door or quarter window channel	13-1400; 17-1839, 47, 67
		Hub caps	11-12-15-16-17-1800
		Rear quarter series nameplate & emblem	All
		Rear cove lettering ("Chevrolet")	
		Deck lid nameplate	13-1400
		Deck lid or tailgate emblem (plastic insert)	All
Rear license lamp			All
Dual windshield wipers, electric, single speed			
Gasoline filler (left rear quarter panel)			
Electric rear window control			15-16-17-1845
Manual rear window control			11-12-15-16-17-1835
Front Fender Emblems	Crest and "V" (283 V-8)		12-16-1800
	Crest, "V" and flags (327 V-8)		
	Crest, "V" and flags with "409" plate (409 V-8)		

REGULAR EQUIPMENT–INTERIOR

ITEM			MODELS
Instrument Panel	Anodized aluminum trim molding (Short on 11-1200)		11-12-15-1600
	Anodized aluminum trim molding and plate (Eng. turn pattern 13-1400)		13-14-17-1800
	Anodized aluminum instrument cluster trim plates		All
	Bright metal control knobs		
	Glove compartment	Light	13-14-15-16-17-1800
		Lock	All
	Glove box door nameplate		13-14-17-1800
	Black plastic vent control knobs		All
	Cigarette lighter		
	Ash tray		
	5-position ignition lock and starter switch		
	Electric clock		13-14-17-1800
	Parking brake alarm		
	Rear window control switch		15-1645, 17-1845
	Convertible top switch		13-14-17-1867
Steering Wheel	Deep hub, dual solid spokes, horn ring		11-12-15-1600
	Deep hub, dual solid spokes, horn ring (2-tone type)		13-14-17-1800
Coat hooks			All except 13-14-17-1867
Crank-type front ventipanes			All
Door locking knobs - front and rear			
Dual sunshades			
Inside rear view mirror (chrome back & support on 13-14-17-1800)			
Manual interior light switch integral with headlight switch (main switch)			
Automatic interior light switch, front doors only			13-14-15-16-17-1800
Interior Lights	Single dome, center (with switch on all wagons)		All exc. 13-14-17-1847, 67; 17-1839
	Dual side rail		17-1839
	Dual courtesy (instrument panel)		13-14-17-1867, 47
	Dual rear quarter dome		13-14-17-1847
	Third seat, courtesy		15-1645, 17-1845
Rear seat speaker grille			13-14-17-1847, 67
Aluminum front seat end panels (backrest frame moldings 13-1400)			13-14-17-1800
Door remote control handle, paddle-type			
Door remote control handle, conventional-type (dual arm type 15-1600)			11-12-15-1600
Armrests, front door			All
Armrests, rear doors or quarter panels			
Ash tray, rear door or quarter panels			
Bright Metal Moldings	Windshield, upper and side		13-14-17-1847, 17-1839
	Rear window, upper and side		
	Side roof rails		
	Front door, rear door or rear quarter trim		13-14-15-16-17-1800
Luggage compartment lamp			13-1400; 17-1800 exc. 35, 45
Deluxe heater			All
Super Sport console			13-1400
Seat belts			All

GROUP	ITEM		NUMBER	MODELS
Engine	Air cleaner, oil bath		K45	11-13-15-1700
	Generator, Delcotron 12-42 amp.		K79	All
	Generator, Delcotron 6-55 amp.		K77	
	Generator, Delcotron 23-62 amp.		K81	
	Carburetor, economy		Z05	1100
	Clutch, heavy-duty		M01	11-13-15-1700
	327 cubic inch V-8 - 250 HP		L30	12-14-16-1800
	327 cubic inch V-8 high performance - 300 HP		L74	
	409 cubic inch V-8 - 340 HP		L33	
	409 cubic inch V-8 - 400 HP		L31	
	409 cubic inch V-8 - 425 HP		L80	
	Fan, thermomodulated		K02	All
	Radiator, heavy-duty		V01	
	Regulator and ignition, transistor		K66	12-14-16-1800
	Ventilation, engine positive closed (Type B)		K24	All
Transmission	Four speed		M20	12-14-16-1800
	Four speed close ratio		M21	
	Overdrive		M10	All
	Powerglide		M35	
	Powerglide, oil cooled		M55	11-13-15-1700
Chassis	Axle, limited slip (3.08, 3.36, 3.55, 3.70, 4.11, 4.56:1)		G80	All
	Axle, rear (3.55:1)		G96	All exc. 6-cyl. wagons
	Axle, rear (3.36:1)		G76	11-12-15-16-1700 exc. wagons & conv.
	Battery, heavy-duty		T60	All
	Brakes, power		J50	
	Brakes, metallic		J65	
	Chassis, heavy-duty		Z04	11-1211, 69, 35
	Cover, wheel trim		P01	All exc. 13-1400
	Driven gear and fitting, speedometer		Z12	All
	Shock absorber, rear air lift		G66	
	Special front and rear suspension		F40	
	Springs, heavy-duty front		F60	Station Wagons
	Steering, power		N40	All
	Steering wheel, tilt type		N33	13-14-15-16-17-1800
	Steering wheel, wood grained plastic		N34	All
	Wheels, 14 x 6.00JK		P12	All exc. wagons
	Wire wheel cover (simulated)		P02	All
	Tires	6.70 x 15-4 pr blackwall nylon	P91	All exc. wagons, 13-1400
		6.70 x 15-4 pr blackwall nylon-tube	P95	
		6.70 x 15-4 pr blackwall rayon	P90	
		7.50 x 14-4 pr blackwall nylon	P60	
		6.70 x 15-4 pr blackwall rayon-tube	P93	
		6.70 x 15-4 pr blackwall rayon-tube	P97	
		6.70 x 15-6 pr blackwall rayon	Q01	All exc. 13-1400
		6.70 x 15-6 pr blackwall rayon-tube	Q03	11-1211, 69
		7.00 x 14-4 pr whitewall rayon	P58	All exc. wagon & conv.
		7.10 x 15-4 pr blackwall rayon	Q04	All exc. wagons, 13-1400
		7.10 x 15-4 pr blackwall nylon	Q05	
		7.50 x 14-4 pr blackwall rayon	P65	All exc. wagon & conv.

REGULAR PRODUCTION OPTIONS -Cont'd.

GROUP	ITEM		NUMBER	MODELS
Chassis Continued	Tires	7.50 x 14-4 pr whitewall rayon	P62	All exc. wagons
		7.50 x 14-4 pr whitewall nylon	P61	
		7.50 x 14-6 pr blackwall rayon	P63	All
		8.00 x 14-4 pr blackwall rayon	P75	All exc. wagons
		8.00 x 14-4 pr whitewall nylon	P77	All
		8.00 x 14-4 pr blackwall nylon	P76	
Body	Air conditioning, Deluxe all weather		C60	
	Air conditioning, Custom Deluxe		C65	
	Belt unit, Custom Deluxe seat (retractor type)		A49	
	Belt unit, seat (delete)		A62	
	Body, police car		B01	11-1211, 69, 35
	Cushion, foam rubber front seat		B50	11-1200
	Comfort and Convenience	Inside and outside r/v mirror (a)	Z01-Z13	All
		2-speed wiper and washer		
		Glove box lamp		11-1200
		Luggage lamp		11-12-15-1600 (exc. wagons)
		Back-up lamp		11-12-15-1600
	Defogging equipment, rear window		C50	All exc. conv. & wgns.
	Glass, tinted		A01	All
	Front bumper guard		V31	
	Rear bumper guard		V32	All exc. wagons
	Heater deleted		C48	All
	Lock, compartment		A96	Station wagons
	Luggage carrier, roof		V35	
	Pad, instrument panel		B70	All
	Radio, manual		U60	
	Radio, push-button		U63	
	Radio and auxiliary rear speaker, push-button		Z02	
	Radio, AM-FM		U69	
	Radio and auxiliary speaker, AM-FM		Z10	
	Roof covering, vinyl soft trim		C08	13-14-17-1847
	Seat, split second		A66	Station wagons
	Seat, 6-way electric front		A42	15-16-17-1800
	Tachometer		U16	12-14-16-1800
	Taxicab		B02	11-1269
	Top, folding		C05	13-14-17-1867
	Window, electric tailgate		A33	2-seat wagons
	Windows, electric		A31	13-14-15-16-17-1800
	Wipers and washers, windshield 2-speed		C14	All
	Windshield glass, tinted		A02	

(a) Z13 comains remote control o/s mirror.

DEALER INSTALLED ACCESSORIES

ITEM	MODELS
Alarm - Parking brake	11-12-15-1600
Antenna - Front fender radio	All
Antenna - Rear fender radio	All except wagons
Antenna - Rear fender dummy radio	
Belt - Custom Deluxe seat	All
Brake - Power	
Cap - Gas tank filler locking	
Carrier - Roof luggage (Deluxe or Custom)	Station wagons
Clock - Instrument panel	11-12-15-1600
Compass - Auto	All except convertibles
Conditioning - Air (Custom)	All
Control - Speed and Cruise (NA on 409 V-8)	
Control - Headlamp automatic beam	
Container - Litter	
Cover - Front and rear seat cushion	Front-All exc. conv.; Rear-All exc. wagons
Cover - Luggage carrier	Station wagons
Cover - Wheel trim - Simulated wire wheel	All
Deflector - Rain	All except sport models
Defogging Unit - Rear window	All except conv. & station wagons
Dispenser - Tissue	All
Extinguisher - Fire	
Fan - Thermomodulated	12-14-16-1800
Frame - License plate	All
Guard - Bumper rear	All except wagons
Guard - Door edge	All
Guard - Rear body splash	Station wagons
Guard - Front bumper	All
Guard - Gas tank filler door	
Hitch - Trailer	
Lamp - Back up	11-12-15-1600
Lamp - Courtesy	All except 13-14-17-1847, 67
Lamp - Luggage compartment	All except wagons
Lamp - Portable spot	All
Lamp - Spot and bracket	
Lamp - Glove compartment	11-1200
Lamp - Underhood	All
Lamp - Ash tray	
Lock - Rear compartment	All wagons
Lock - Rear door safety	All 4-doors
Mat - Front and rear floor deluxe	All
Mat - Front floor full width	
Mat - Rear compartment floor	Station wagons
Mat - Front and rear floor (plastic)	All
Mirror - Outside rear view (door mount)	
Mirror - Prismatic - Inside rear view	
Mirror - Visor vanity	
Mirror - Outside remote control	
Molding - Deck lid and hood	All exc. 13-14-17-1800
Radio - Manual	All
Radio - Push button	
Radio - AM-FM	
Release - Rear compartment lid vacuum	All except wagons
Screen - Radiator insect	All
Speaker - Radio auxiliary	
Switch - Traffic hazard flasher	
Tool Kit	
Washer - Windshield push button	

TAXI-CAB EQUIPMENT-RPO B02

MODEL APPLICATION:

4-Door Sedan - 1169, 1269

BODY EQUIPMENT

INTERIOR TRIM
Biscayne
Standard ---------- Cloth/vinyl fawn
Optional ---------- All vinyl, fawn

FLOORS, FRONT AND REAR
Covering ---------- Waterproof asphalt impregnated paper felt, .125 minimum thickness.
Mats ---------- Black rubber (no spatter design), .125 minimum thickness.

SEAT CUSHIONS AND BACKRESTS
Construction, front and rear ---------- Heavy-duty "S" wire springs, reinforced.
Padding ---------- 1/2" jute pad on front seat cushion

DOOR JAMB SWITCH
Dome lamp operation ---------- LH & RH front and rear doors

INSTRUMENT PANEL
Open-door red warning lamp
Location ---------- Bright metal bracket under instrument panel, left of steering column.
Switch ---------- All door jambs

CHASSIS EQUIPMENT

FRAME
Type ---------- Heavy duty with added weld reinforced front cross member, rear spring brackets, rear shock absorber brackets, front upper control arm brackets, and reinforcements at front extension.

SUSPENSION
Coil Springs & Shock Absorbers, Front and Rear
Type ---------- Heavy-duty
Spherical Joints, Front
Type ---------- Metal lined
Rear Axle Lower Control Arm Bushings
Type ---------- Heavy-duty; inner and outer metal sleeves with rubber insert.
Front Wheel Hubs and Drums
Type ---------- Heavy-duty; includes heavy duty front brake drum webs.

WHEELS AND TIRES
Wheel Size ---------- 15 x 5K
Tire type and size ---------- Blackwall tubeless rayon 6.70 x 15-4

LUBRICATION FITTINGS
Used at U-joints of front, intermediate, and rear propeller shaft.

REAR AXLE (3.36:1)
Type ---------- Heavy-duty, includes heavy-duty wheel roller bearings, parking brake cable with nylon liner, and cadmium plated rear brake flange plate mounting bolts and nuts.

BRAKES
Type ---------- Heavy-duty front and rear, extra thick brake facings

POWER TRAIN EQUIPMENT

SIX-CYLINDER MODELS
Spark Plugs ---------- AC 46
Clutch ---------- 11" heavy-duty
Push Rod ---------- Heavy-duty, hardened tipped
Carburetor
Model ●
3-Speed ---------- 7023005
Powerglide ---------- 7023004
Transmission 3-Speed ---------- Heavy-duty; incorporates heavy-duty clutch gear and mainshaft bearings
Transmission (Powerglide) ---------- Incorporates 5-plate heavy-duty clutch with high temperature oil seals and water cooling, 11-3/4 diameter heavy-duty converter assembly including drain plugs (6-cylinder Powerglide only), and oil pan with drain plug.
Radiator (Powerglide) ---------- Incorporates transmission oil cooler
Battery ---------- 12 volts, 61 amp hour, 11 plate

HEAVY DUTY CHASSIS AND BODY EQUIPMENT

MODEL APPLICATION:

2-Door Sedan - 1111-1211
4-Door Sedan - 1169-1269
4-Door Station Wagon - 1135-1235

BODY EQUIPMENT RPO B01

INTERIOR TRIM
Standard (Sedans) ------ Cloth/vinyl, fawn, aqua or red
Optional (Sedans) ------ All vinyl; fawn
Standard (Station wagon) ------ All vinyl; fawn

FLOORS
Covering
Front and Rear ------ Waterproof asphalt impregnated paper felt, .125 minimum thickness.
Mats
Front and Rear ------ Black rubber (no spatter design) .125 minimum thickness.

SEAT CUSHIONS AND BACKRESTS
Front, all models ------ Heavy duty "S" wire springs, reinforced.
Rear, sedans only ------ Same as front

CHASSIS EQUIPMENT (RPO Z04)

SUSPENSION
Coil Springs & Shock Absorbers, Front & Rear
Type ------ Heavy duty
Spherical Joints, Front
Type ------ Metal lined

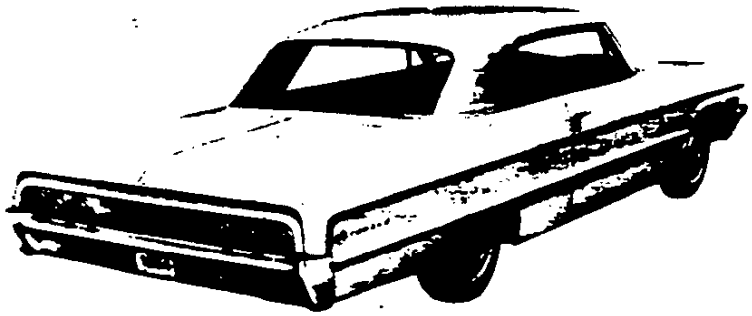
REAR AXLE
Type ------ Heavy-duty, includes heavy-duty wheel roller bearings, parking brake cable with nylon liner, and cadmium plated rear brake flange plate mounting bolts and nuts.
Rear Axle Lower Control Arm Bushings
Type ------ Heavy duty; inner and outer metal sleeves with rubber insert.
Front Stabilizer Bar
Regular equipment on V-8, provided on 6-cyl.
Clutch (6 cylinder) ------ 10" with H.D. driven disc & clutch spring

BRAKES
Type ------ Heavy duty front and rear, with extra thick brake facings, and heavy duty front brake drum webs.

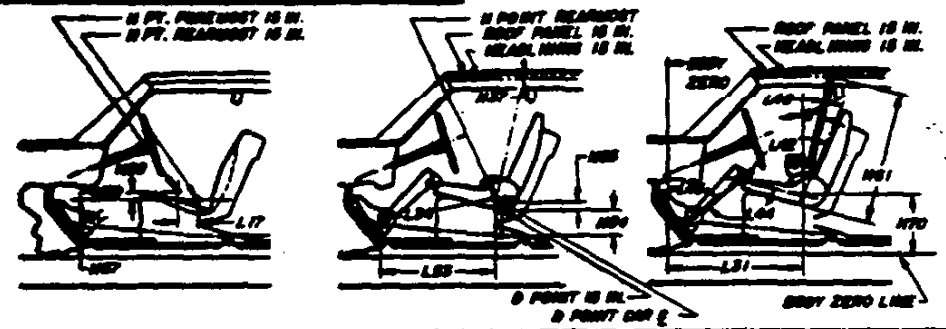
TRANSMISSION
Type ------ Heavy duty, incorporates heavy duty clutch gear and mainshaft bearings. (6-cylinder only)
Transmission (Powerglide) ------ Incorporates 5-plate heavy-duty clutch with high temperature oil seals and water cooling, 11-3/4 diameter heavy-duty converter assembly including drain plugs (6-cylinder Powerglide only), and oil pan with drain plug.
Radiator (Powerglide) ------ Incorporates transmission oil cooler

ORIGINAL COPY

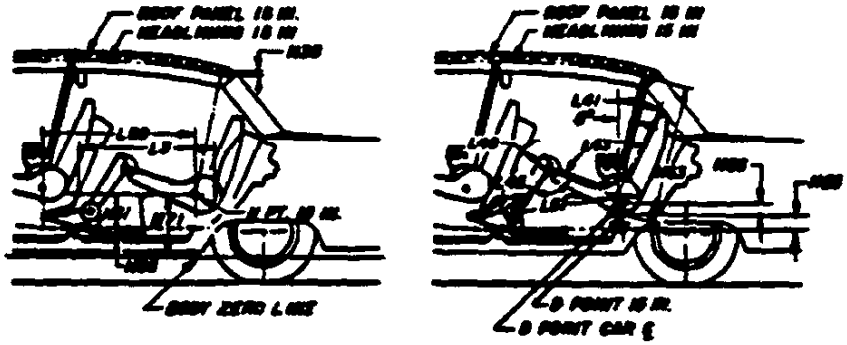
DIMENSIONS AND WEIGHTS



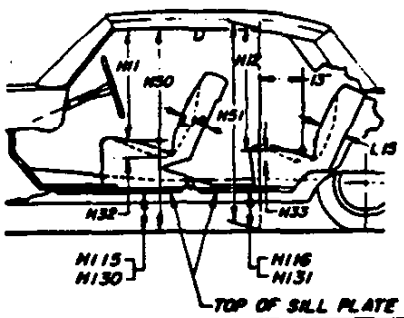
INTERIOR DIMENSIONS

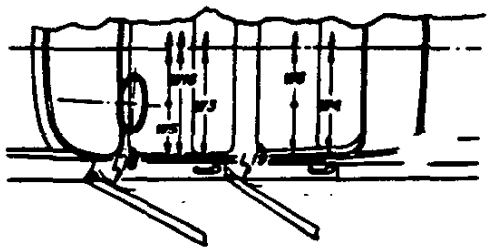


	CODE	DESCRIPTION	MODELS						
			Sedans 2-Dr.	Sedans 4-Dr.	Sport Sedan	Sport Coupe 1847	Sport Coupe 1447	Convertible 1867	Convertible 1467	Station Wagons
FRONT COMPARTMENT	L51	Body zero line to H point	42.5			42.1	41.8	42.1	41.8	42.5
	H5	H point to ground	20.5			20.4	20.3	20.4	20.3	20.5
	H61	Effective head room	39.2		38.5	38.1	38.3	39.1	39.3	39.2
	H57	Headlining to roof height	.5			.6	---	---		.9
	L34	Maximum effective leg room - accelerator	41.8			41.4	41.2	41.4	41.2	41.8
	H50	H point to heel point	8.6				8.4	8.6	8.4	8.6
	H67	Depressed floor covering thickness	.3							
	L40	Back angle	24°			26°		25°	26°	25°
	L42	Hip angle	96°			97°	96°	94°	95°	96°
	L44	Knee angle	128°			125°	124°	125°	124°	128°
	L46	Foot angle	87°				86°			88°
	H65	H point differential, side to center	.7			.6	---	.6	---	.7
	H54	H point to tunnel	3.8			2.7	---	3.7	---	3.8
	L53	H point to accelerator floor point	34.0			33.6	33.5	33.6	33.5	34.0
	L17	H point travel	4.8							
	H58	H point rise	.8			.7	.8	.7	.8	.7

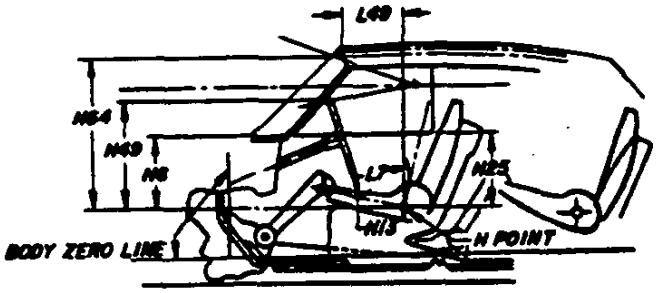


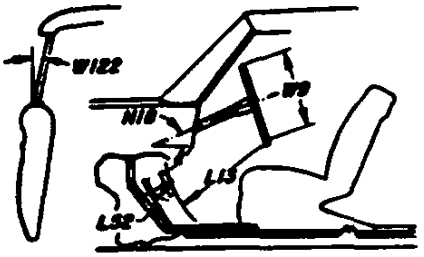
	CODE	DESCRIPTION	Sedans 2-Dr.	Sedans 4-Dr.	Sport Sedan	Sport Coupe 1847	Sport Coupe 1447	Convertible 1867	Convertible 1467	Station Wagons
REAR COMPARTMENT	L50	H point couple distance	34.8		33.7	33.1	33.3	33.1	33.3	34.9
	H10	H point to ground	20.0		20.1	18.6				19.8
	H69	Effective head room	38.0		37.2	38.3		38.1		39.8
	H58	Headlining to roof height	.8		.6	.5	.6	---	---	.8
	L81	Minimum effective leg room	38.3		36.8	35.0	36.1	35.0	36.1	38.6
	H51	H point to heel point	11.8		12.0	10.5	10.4	10.5	10.4	11.7
	H68	Depressed floor covering thickness	.4							
	L48	Minimum knee room	4.6		3.6	3.4	3.7	3.4	3.7	4.9
	L3	Rear compartment room	27.8		26.8	26.1		25.7	26.2	28.4
	L41	Back angle	25°			19°				23°
	L43	Hip angle	92°		90°	77°	79°	77°	79°	91°
	L45	Knee angle	103°	106°	99°	90°	95°	90°	95°	108°
	L47	Foot angle	114°		110°	10°	109°	110°	109°	114°
	H66	H point differential, side to center	.4			.8				.3
	H55	H point to tunnel	1.7		2.2	.7				1.7





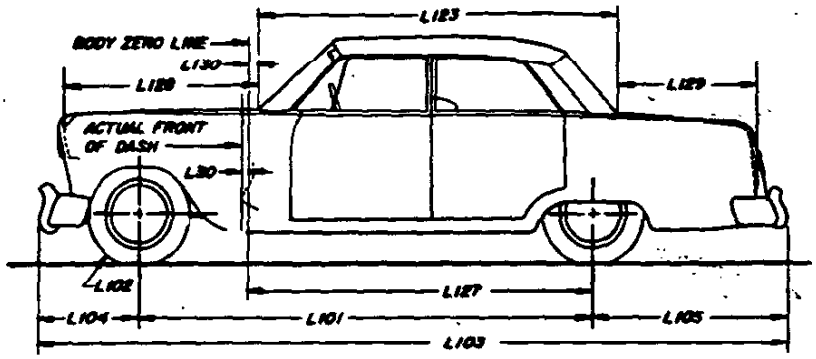
			MODELS								
			Sedans		Sport	Sport Coupe		Convertible		Station Wagons	
		CODE	DESCRIPTION	2-Dr.	4-Dr.	Sedan	1847	1447	1867	1467	2-Dr.	4-Dr.
SEAT AND ENTRANCE	FRONT	W1	Hat Room	57.8		57.7						
		W3	Shoulder room	58.8								
		W5	Hip room	63.7		63.5	63.6					
		W16	Seat width	57.6			27.4		57.6	27.4	57.6	
		H3	Seat chair height	11.0			11.4		11.0	11.4	10.9	
		H50	Upper body opening to ground	50.6		50.8	49.5		49.1		50.6	
		H11	Entrance height	30.1		30.3	29.1	29.2	28.7	28.8	30.1	
		L18	Entrance - foot clearance	14.9			14.3		14.9	14.3	14.9	
		H32	Seat cushion deflection	9.2		4.5	4.7	4.2	4.7	4.2		
		L14	Thickest point of seat back, at C/LO	7.1		7.4				6.4	7.4	
		H26	Interior body height - at car C/L	42.3		41.1	41.0	---	41.4	---	42.7	
		H27	Interior body height - at C/LO	44.2		43.4	43.3	43.0	43.8	43.4	44.5	
	REAR	W2	Hat room	55.3		54.0	54.8			51.8	57.2	
		W4	Shoulder room	57.5	58.2		57.6		51.5		58.0	
		W6	Hip room	62.6	63.3		55.2		51.7		63.4	
		H8	Seat chair height	14.0		15.1	13.6				14.5	
		H51	Upper body opening to ground	---	50.3		---	---	---	---	50.5	
		H12	Entrance height	---	30.5	30.1	---	---	---	---	30.7	
		H69	Exit height	29.6		29.4	---	---	---	---	35.5	
		L19	Entrance - foot clearance	11.6	11.7	11.3	9.0	9.6	9.0	9.6	13.0	
		H33	Seat cushion deflection	3.8	4.3	5.1	4.3				4.4	
		L15	Thickest point of seat back, at C/LO	8.3		9.0	7.4		7.7		6.1	
		H28	Interior body height - at car C/L	40.9		39.7			39.0		42.7	
		H29	Interior body height - at C/LO	43.6		42.8	42.3		41.5		45.4	



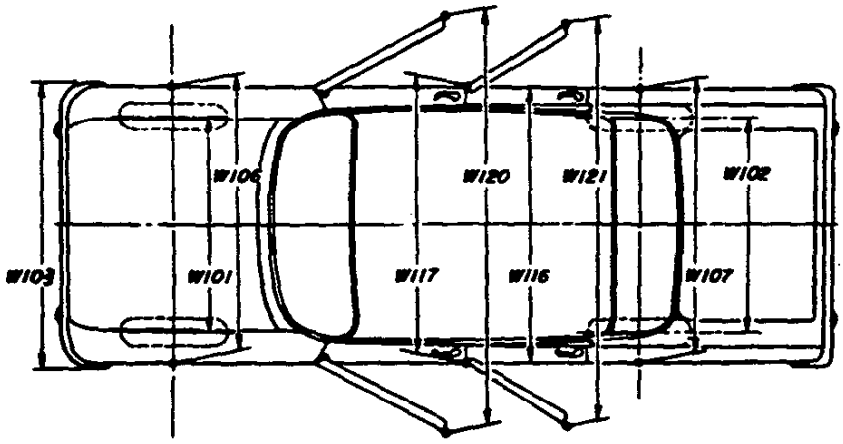


			Sedans		Sport	Sport Coupe		Convertible		Station Wagons	
		CODE	DESCRIPTION	2-Dr.	4-Dr.	Sedan	1847	1447	1867	1467	2-Dr.	4-Dr.
VISION AND CONTROL		H6	H point to windshield bottom	19.0				19.2	19.0	19.2	19.0	
		H64	H point to windshield upper DLO	33.1	32.8	31.0	31.8	32.0	31.7	31.9	32.8	
		L49	H point to windshield upper DLO	12.0		13.0	13.7	13.5	13.7	13.5	12.0	
		H25	Belt height - front	16.8				17.0	16.8	17.0	16.8	
		W7	Steering wheel center to C/L of car	15.9								
		W9	Steering wheel outside diameter	17.0								
		H18	Steering column angle - horizontal	16.5°								
		H49	H point to top of steering wheel	23.3								
		L7	Steering wheel torso clearance	11.3			10.9	10.8	10.7	10.8	11.3	
		H13	Steering wheel thigh clearance	3.5			3.4				3.5	
		L52	Brake pedal to accelerator	4.3								
		W122	Tumble - home	11.8°								

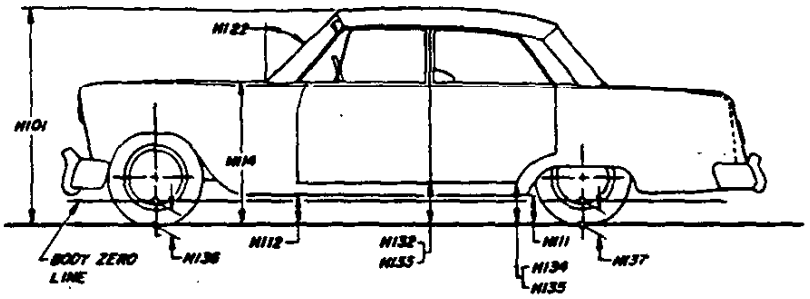
EXTERIOR DIMENSIONS



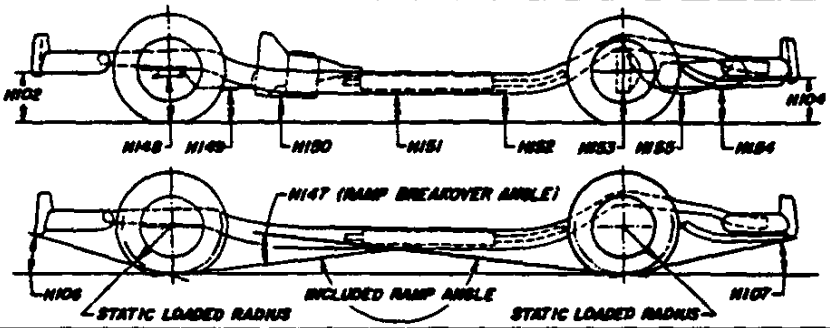
			MODELS					
			Sedans		Sport	Sport	Convertible	Station Wagons
	CODE	DESCRIPTION	2-Dr.	4-Dr.	Sedan	Coupe		
LENGTHS	L30	Body O line to actual front of dash	.5					
	L101	Wheelbase	119.0					
	L104	Overhang, front	33.3					
	L105	Overhang, rear	57.6					58.5
	L103	Overall length	209.9					210.8
	L128	Hood length at centerline	51.2					
	L123	Body upper structure length at car G	102.6		105.3	102.6	105.1	140.6
	L129	Deck length at centerline	49.2		46.5	49.2		---
	L127	Body O line at G of rear wheels	100.0					
	L130	Body O line to windshield cowl point	4.8					
	L102	Tire size (standard)	7.00 x 14-4				7.50 x 14-4	8.00 x 14-4
	LC103	Overall length - less bumpers	205.8					206.7



			Sedans		Sport	Sport	Convertible	Station Wagons
	CODE	DESCRIPTION	2-Dr.	4-Dr.	Sedan	Coupe		
WIDTHS	W101	Tread - front	60.3					61.3
	W102	Tread - rear	59.3					60.3
	W103	Maximum overall width of car	78.1					
	W116	Maximum overall width of body	77.0					
	W117	Maximum body width at #2 pillar	---	76.5		---	---	76.5
	W106	Front fender overall width	76.7					
	W107	Rear fender overall width	77.0					
	W120	Maximum overall width, front doors open	156.6	141.6		156.6		141.6
	W121	Maximum overall width, rear doors open	---	138.1	137.1	---	---	138.1

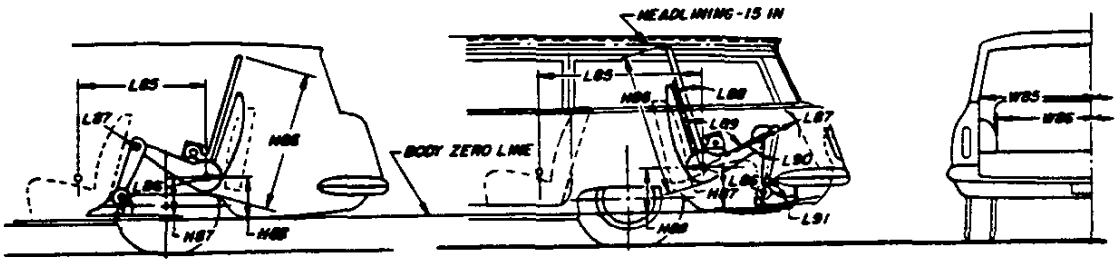


			MODELS				
			Sedans		Sport Sedan	Sport Coupe	Convertible	Station Wagons
	CODE	DESCRIPTION	2-Dr.	4-Dr.				
HEIGHTS	H101	Overall Height (Design)	56.2		54.9	55.1	55.8	56.7
	H114	Hood at rear to ground	37.7			38.0		38.3
	H112	Rocker panel to ground - front	8.9			9.2		9.5
	H111	Rocker panel to ground - rear	8.5			8.8		9.1
	H115	Step height - front (Design)	12.7			13.0		13.3
	H116	Step height - rear (Design)	---	12.7		---	---	13.3
	H130	Step height - front (Curb)	14.7			15.0		15.3
	H131	Step height - rear (Curb)	---	12.7		---	---	13.3
	H132	Bottom of door to ground, open-front	12.8	12.7		12.9		12.7
	H133	Bottom of door to ground, closed-front	11.5	11.6		11.5		11.7
	H134	Bottom of door to ground, open-rear	---	11.3		---	---	11.5
	H135	Bottom of door to ground, closed-rear	---	11.3		---	---	11.5
	H102	Front bumper to ground	12.4			12.7		13.0
	H104	Rear bumper to ground	12.1			12.4		9.9
	H122	Windshield slope angle	55.5°					
	H136	Body O line to ground-front	5.4					
	H137	Body O line to ground-rear	5.4					5.0
	H125	Headlamp to ground	27.3					27.9
	H126	Taillamp to ground	23.4			23.7		22.7
	H158	Roof thickness	5.8		4.4	5.5	6.6	6.3
	H159	DLO height	13.2		13.8	12.4	11.9	13.2
	H160	Body thickness	28.3					
	H301	Lift over height	22.1					---
	HC101	Overall height (Curb)	56.5		55.8	56.0	56.7	57.6



			Sedans		Sport Sedan	Sport Coupe	Convertible	Station Wagons
	CODE	DESCRIPTION	2-Dr.	4-Dr.				
CLEARANCES	H106	Angle of approach	26°		26°	27°	27°	30°
	H107	Angle of departure	13°					12°
	H147	Ramp breakover angle	10°			13°		
	H148	Front suspension to ground	7.1			7.4		7.7
	H149	Oil pan to ground	6.6			6.9		7.2
	H150	Flywheel housing to ground	6.4			6.7		7.0
	H151	Frame to ground	7.1			7.4	7.7	7.7
	H152	Exhaust system to ground	5.5			5.8		6.1
	H153	Rear axle to ground	7.1			7.4		7.7
	H154	Fuel tank to ground	8.0			8.3		9.3
	H155	Tire well to ground	---		---	---	---	8.5
	H156	Minimum ground clearance	5.5			5.8		6.1

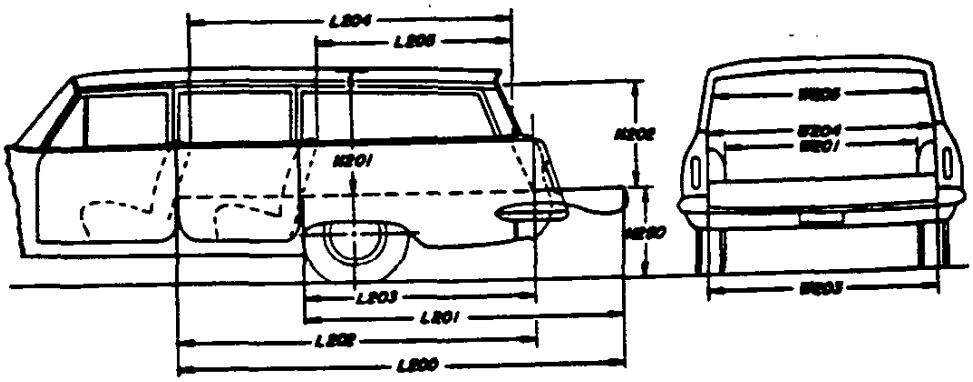
STATION WAGON THIRD SEAT



THIRD SEAT

CODE	DESCRIPTION	MODELS 1645	1845
W85	Shoulder room	52.0	
W86	Hip room	46.7	
L85	H point couple distance	40.0	
H85	H point to ground	22.2	
H86	Effective head room	37.2	
L86	Effective leg room	32.5	
H87	H point to heel point	12.3	
L87	Knee room	9.5	
L88	Back angle	18°	
L89	Hip angle	80°	
L90	Knee angle	82°	
L91	Foot angle	113°	

STATION WAGON CARGO AND SEDAN TRUNK SPACE



CARGO DIMENSIONS

CODE	DESCRIPTION	MODELS 6-Passenger 1235-1635-1835	MODELS 9-Passenger 1645-1845
L200	Maximum cargo length - front seat	118.7	
L201	Maximum cargo length - second seat	84.7	
L202	Cargo length at floor - front seat	94.2	
L203	Cargo length at floor - second seat	60.2	
L204	Cargo length at belt - front seat	82.2	
L205	Cargo length at belt - second seat	47.2	
L206	Cargo length at roof - front seat	74.5	
L207	Cargo length at roof - second seat	39.5	
W200	Cargo width - front	62.2	
W201	Cargo width - wheelhouse	46.1	
W203	Rear opening width at floor	56.4	
W204	Opening width at belt	54.7	
W205	Maximum rear opening width above belt	54.2	
H201	Maximum cargo height	31.5	
H202	Rear opening height	30.5	
H250	Tailgate to ground height	23.3	

CARGO CAPACITIES CU FT

1235 1635 1835	6-Passenger Wagon	Rear seat folded	97.5 (inc. 10.5 for hidden compt.)
		Rear seat erect	49.5
1645 1845	9-Passenger Wagon	Rear and third seat folded	87.0 (plus 5.7 for hidden compt.)
		Rear seat erect and third seat folded	49.5
		Rear and third seat erect	5.6

TRUNK CAPACITIES CU FT

Model	Overall		Standard Luggage
Sedans and Coupes	29.7		19.0
Convertibles	Top up	29.7	19.0
	Top down	28.2	

VEHICLE WEIGHTS

1100-1200 BISCAYNE SERIES

	VEHICLE TYPE	SHIPPING WEIGHT			CURB WEIGHT			DESIGN WEIGHT ¢		
Model	Description	Front	Rear	Total	Front	Rear	Total	Front	Rear	Total
1111	2-Door Sedan 6-cylinder	1710	1520	3230	1725	1650	3375	1950	2176	4125
1111P		1725	1520	3245	1740	1650	3390	1960	2180	4140
1211	2-Door Sedan 8-cylinder	1815	1550	3365	1840	1680	3520	2065	2205	4270
1211P		1825	1550	3375	1850	1685	3535	2075	2210	4285
1135	4-Door Station Wagon 6-cylinder	1665	2035	3700	1660	2180	3840	1885	2705	4590
1135P		1680	2035	3715	1675	2180	3855	1900	2705	4605
1235	4-Door Station Wagon 8-cylinder	1760	2060	3820	1765	2210	3975	1990	2735	4725
1235P		1770	2065	3835	1775	2215	4000	2000	2740	4740
1169	4-Door Sedan 6-cylinder	1715	1585	3300	1730	1715	3445	1955	2240	4195
1169P		1730	1585	3315	1740	1720	3460	1965	2245	4210
1269	4-Door Sedan 8-cylinder	1820	1610	3430	1840	1750	3590	2065	2270	4335
1269P		1830	1615	3445	1850	1750	3600	2075	2275	4350

1300-1400 IMPALA SUPER SPORT

1347	2-Door Sport Coupe 6-cylinder	1765	1560	3325	1775	1695	3470	1980	2090	4070
1347P		1775	1565	3340	1790	1700	3490	1995	2095	4090
1447	2-Door Sport Coupe 8-cylinder	1860	1590	3450	1885	1720	3605	2090	2115	4205
1447P		1870	1590	3460	1895	1725	3620	2100	2120	4220
1367	2-Door Convertible 6-cylinder	1785	1650	3435	1800	1780	3580	2000	2175	4175
1367P		1800	1650	3450	1810	1785	3595	2015	2180	4195
1467	2-Door Convertible 8-cylinder	1885	1670	3555	1905	1805	3710	2110	2200	4310
1467P		1895	1675	3570	1915	1810	3725	2120	2205	4325

1500-1600 BEL AIR SERIES

1511	2-Door Sedan 6-cylinder	1715	1520	3235	1730	1650	3380	1955	2180	4135
1511P		1730	1525	3255	1740	1655	3395	1965	2180	4145
1611	2-Door Sedan 8-cylinder	1820	1550	3370	1840	1685	3525	2065	2210	4275
1611P		1830	1555	3385	1850	1685	3535	2075	2210	4285
1535	4-Door Station Wagon 6-cylinder	1665	2040	3705	1665	2180	3845	1890	2710	4600
1535P		1680	2040	3720	1675	2185	3860	1900	2710	4610
1635	4-Door Station Wagon 8-cylinder	1760	2065	3825	1765	2210	3975	1990	2735	4725
1635P		1770	2070	3840	1775	2205	3980	2000	2740	4740
1545	4-Door Station Wagon 6-cylinder*	1645	2100	3745	1645	2240	3885	1900	3185	5085
1545P		1660	2100	3760	1660	2245	3905	1915	3190	5105
1645	4-Door Station Wagon 8-cylinder*	1740	2125	3865	1745	2275	4020	2005	3215	5220
1645P		1750	2130	3880	1755	2275	4030	2015	3220	5235
1569	4-Door Sedan 6-cylinder	1720	1585	3305	1730	1720	3450	1955	2245	4200
1569P		1735	1590	3325	1745	1720	3465	1970	2245	4215
1669	4-Door Sedan 8-cylinder	1820	1620	3440	1845	1750	3595	2070	2275	4345
1669P		1830	1620	3450	1855	1755	3610	2080	2280	4360

1700-1800 IMPALA SERIES

VEHICLE TYPE		SHIPPING WEIGHT			CURB WEIGHT			DESIGN WEIGHT ¢		
Model	Description	Front	Rear	Total	Front	Rear	Total	Front	Rear	Total
1735	4-Door Station Wagon 6-cylinder	1675	2050	3725	1675	2195	3870	1900	2720	4620
1735P		1690	2050	3740	1690	2200	3890	1915	2725	4640
1835	4-Door Station Wagon 8-cylinder	1770	2080	3850	1780	2220	4000	2005	2750	4755
1835P		1780	2080	3860	1790	2230	4020	2015	2755	4770
1739	4-Door Sport Sedan 6-cylinder	1750	1620	3370	1765	1750	3515	1990	2275	4265
1739P		1765	1620	3385	1780	1750	3530 •	2005	2275	4280
1839	4-Door Sport Sedan 8-cylinder	1850	1640	3490	1875	1770	3645	2100	2300	4400
1839P		1860	1645	3505	1885	1775	3660 •	2110	2300	4410
1745	4-Door Station Wagon 6-cylinder*	1660	2110	3770	1655	2260	3915	1915	3200	5115
1745P		1675	2115	3790	1670	2260	3930 •	1925	3200	5125
1845	4-Door Station Wagon 8-cylinder*	1750	2145	3895	1760	2285	4045	2015	3230	5245
1845P		1760	2145	3905	1770	2290	4060 •	2025	3235	5260
1747	2-Door Sport Coupe 6-cylinder	1745	1550	3295	1760	1680	3440	2035	2155	4190
1747P		1760	1550	3310	1770	1685	3455	2050	2155	4205
1847	2-Door Sport Coupe 8-cylinder	1845	1570	3415	1870	1700	3570	2145	2180	4325
1847P		1855	1575	3430	1880	1710	3590	2155	2180	4335
1767	2-Door Convertible 6-cylinder	1770	1630	3400	1780	1765	3545	2055	2240	4295
1767P		1780	1635	3415	1795	1765	3560 •	2070	2240	4310
1867	2-Door Convertible 8-cylinder	1865	1660	3525	1890	1790	3680	2165	2265	4230
1867P		1875	1660	3535	1900	1795	3695 •	2175	2265	4440
1769	4-Door Sedan 6-cylinder	1735	1605	3340	1750	1735	3485	1975	2260	4235
1769P		1750	1605	3355	1765	1735	3500	1990	2260	4250
1869	4-Door Sedan 8-cylinder	1835	1625	3460	1855	1760	3615	2080	2285	4366
1869P		1845	1630	3475	1865	1765	3630	2090	2290	4380

P - Powerglide
* - 9-Passenger

SHIPPING WEIGHT: The weight of the basic vehicle with all regular equipment and with grease and oil where required. It does not include the weight of gasoline and water.

CURB WEIGHT: The weight of the empty vehicle ready to drive. It is the shipping weight plus the weights of gasoline and water. For the weight of gasoline add 118 pounds to station wagons, and 121 pounds to all others. For the weight of water add 25 pounds to the 6-cylinder models, 36 pounds to the 283, 38 to the 327, and 46 pounds to the 409 V-8 models.

DESIGN WEIGHT: The curb weight of the basic vehicle plus 150 pounds for each passenger (5-passengers, 2 front, 2 rear).

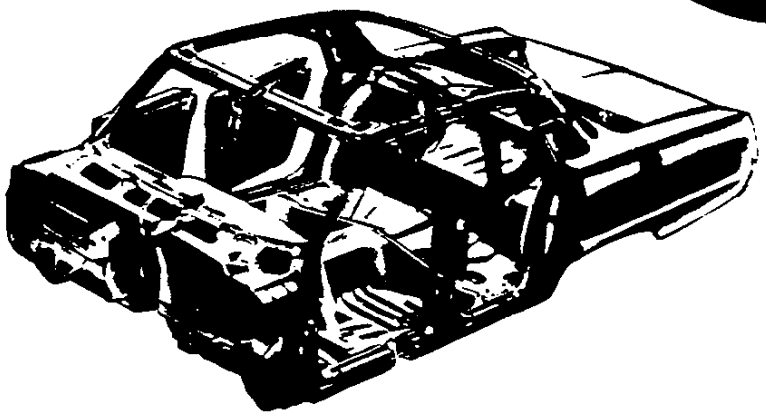
Example:
Model 1169 (5-passengers) ----- 3445 + 750 = 4195

PERFORMANCE WEIGHT: The curb weight of the lowest priced 4-door sedan with regular equipment plus 600 pounds for 4-passengers.

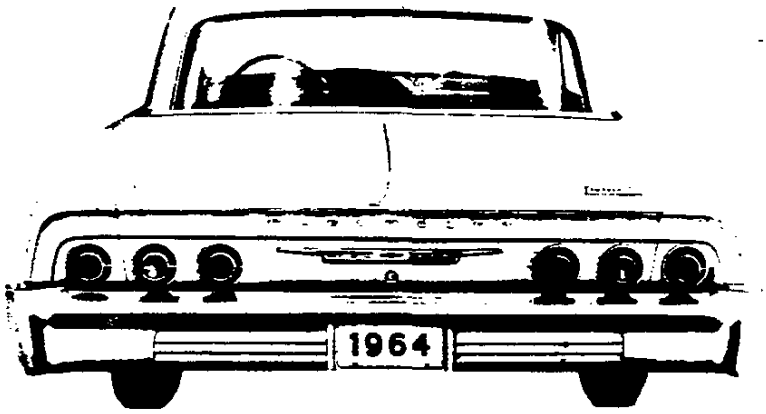
Example:
Model 1169 ---------- 3445 + 600 = 4045

¢ - Based on passenger weight distribution for number of passengers in front and rear. For total loaded weight, add 150 pounds for each passenger to the designated passenger carrying capacity for the particular vehicle.

BODY



EXTERIOR PAINT PROCESS



NINE STEP FINISHING PROCESS

1. RUSTPROOFING . . . Bare steel is thoroughly treated with chemicals that etch the metal for improved paint adhesion. This chemical also cleans the metal to give it a corrosion-resisting surface.
2. BODY AND SHEET METAL PRIMER . . . Four different and specially formulated corrosion resistant primers are used during sub-assembly of the body where rust could possibly develop. Areas considered especially critical are subsequently coated with another type rust inhibiting compound, after the lacquer coats have been applied.
   A primer coat is applied to all outside and inside surfaces of the front fenders and hood. This is done by dipping or flowcoating to insure coating in all seams and secluded areas, and then baking at 390 degrees F for 30 minutes. After baking, a coat of sealer is applied to all surfaces requiring a subsequent coat of lacquer.
3. PRIMER-SURFACER COAT AND FLASH PRIME COAT . . . An air dried flash prime coat is applied to surfaces below the beltline. Next, a full primer-surfacer coat is applied to all outside surfaces of the body receiving lacquer and then oven baked for 45 minutes at 285 degrees F.
4. SANDING . . . Power wet sanding followed by hand sanding is done on all surfaces requiring lacquer. Upon inspection, spot sanding assures an absolutely smooth surface for the lacquer. After lacquer application and initial baking, final wet sanding, both power and hand, prepares the body for final baking by removing surface irregularities.
5. LACQUERING . . . Many coats of acrylic lacquer are now sprayed on the surfaces to build up a finish of the required thickness for each color.
6. INITIAL BAKING . . . To set up the paint hardness for final sanding the body is baked for approximately 10 minutes at 200 degrees F.
7. FINAL BAKING . . . To assure a durable, hard, high luster finish the lacquer is now baked for 30 minutes at 275 degrees F. Reheating the lacquer after final sanding permits paint film to soften and allows surface blemishes and sanding scratches to disappear during the thermo-reflow process.
8. UNDERCOATING . . . An asphaltic based-asbestos fiber type sound deadener is sprayed inside the wheel housings and on the underside of the underbody at designated locations to block out road noises.
9. PAINT REPAIR . . . Any slight mars, nicks, or scratches that might occur during final assembly are factory-repaired and corrected before shipment. Light "slush" polishing is done to bring painted surfaces to a high luster finish. Wax is sprayed on each vehicle for protection during transit.

EXTERIOR - INTERIOR COLOR COMBINATIONS

1100-1200 BISCAYNE SERIES

1500-1600 BEL AIR SERIES

EXTERIOR			INTERIOR TRIM COLORS AND RPO NUMBERS							
			Fawn	Aqua	Red	Fawn	Aqua	Red	Blue	Green
			Models 1211-69			Models 1611-69-35-45				
			860	852	876					
RPO	Color	Sales Name	Model 1235			863	850	872	839	823
			861	855	877					
900	Black	Tuxedo Black	X	X	X	X	X	X	X	X
905	Med. Green	Meadow Green	X							X
908	Dk. Green	Bahama Green	X							X
912	Med. Blue	Silver Blue	X						X	
916	Dk. Blue	Daytona Blue	X						X	
918	Med. Aqua	Azure Aqua		X			X			
919	Dk. Aqua	Lagoon Aqua		X			X			
920	Med. Fawn	Almond Fawn	X			X				
922	Med. Red	Ember Red	X		X	X		X		
932	Lt. Saddle	Saddle Tan	X			X				
936	White	Ermine White	X	X	X	X	X	X	X	X
938	Beige	Desert Beige	X		X	X		X		X
940	Silver	Satin Silver		X	X		X	X	X	
943	Yellow	Goldwood Yellow								
948	Maroon	Palomar Red	X		X	X		X		
Two-Tone (Upper/Lower)										
952	Dk. Green/Med. Green		X							X
954	White/Med. Green		X							X
959	White/Med. Blue		X						X	
960	Dk. Blue/Med. Blue		X						X	
965	White/Dk. Aqua			X			X			
971	Beige/Lt. Saddle		X			X				
975	Beige/Med. Red		X		X	X		X		
982	Dk. Blue/Silver		X						X	
988	Med. Aqua/White			X			X			
993	Beige/Maroon		X			X				
995	Silver/Maroon				X			X		

EXTERIOR – INTERIOR COLOR COMBINATIONS – Cont'd.

1700-1800 IMPALA SERIES

EXTERIOR			INTERIOR TRIM COLORS AND RPO NUMBERS						
			Fawn	Aqua	Red	Blue	Green	Saddle	Black
			Models 1839-47-69						(a)
			866	853	874	842	826	857	811
			Models 1867-35-45						(b)
RPO	Color	Sales Name	870	847	886	836	829	859	814
900	Black	Tuxedo Black	X	X	X	X	X	X	X
905	Med. Green	Meadow Green					X		X
908	Dk. Green	Bahama Green					X	(c)	
912	Med. Blue	Silver Blue				X			X
916	Dk. Blue	Daytona Blue				X			
918	Med. Aqua	Azure Aqua		X					X
919	Dk. Aqua	Lagoon Aqua		X					
920	Med. Fawn	Almond Fawn	X					X	X
922	Med. Red	Ember Red	X		X				X
932	Lt. Saddle	Saddle Tan	X					X	
936	White	Ermine White	X	X	X	X	X	X	X
938	Beige	Desert Beige	X		X			X	X
940	Silver	Satin Silver		X	X	X			X
943	Yellow	Goldwood Yellow							X
948	Maroon	Palomar Red	(c)		X				X
Two-Tone (Upper/Lower)									
952	Dk. Green/Med. Green						X		
954	White/Med. Green						X		X
959	White/Med. Blue					X			
960	Dk. Blue/Med. Blue					X			
965	White/Dk. Aqua			X					
971	Beige/Lt. Saddle							X	
975	Beige/Med. Red		X		X				
982	Dk. Blue/Silver					X			
988	Med. Aqua/White			X					
993	Beige/Maroon		(d)		(d)				X
995	Silver/Maroon				X				X

Convertible top: white (Reg. Prod.), black (RPO CO5AA) or beige (RPO CO5BA) with any exterior color.
Sport Top, 1847 only: black (RPO CO8AA) or white (RPO CO8BA) with any exterior color.

(a) 1839-47 only.
(b) 1867 only.
(c) 1867-35-45 only.
(d) 1835-45 only.

1300-1400 IMPALA SUPER SPORT SERIES

EXTERIOR			INTERIOR TRIM COLORS AND RPO NUMBERS							
			Fawn	Red	Blue	Saddle	Black	White	White	Silver
			Models 1447-67							
RPO	Color	Sales Name	856	879	831	862	815	845 (a)	878 (b)	805 (c)
900	Black	Tuxedo Black	X	X	X	X	X	X	X	X
905	Med. Green	Meadow Green	X				X			
908	Dk. Green	Bahama Green	X			X				
912	Med. Blue	Silver Blue			X		X			
916	Dk. Blue	Daytona Blue			X					
918	Med. Aqua	Azure Aqua					X	X		
919	Dk. Aqua	Lagoon Aqua						X		
920	Med. Fawn	Almond Fawn	X			X	X			
922	Med. Red	Ember Red	X	X			X		X	X
932	Lt. Saddle	Saddle Tan	X			X				
936	White	Ermine White	X	X	X	X	X	X	X	X
938	Beige	Desert Beige	X	X		X	X			
940	Silver	Satin Silver		X	X		X			X
943	Yellow	Goldwood Yellow					X			
948	Maroon	Palomar Red	X	X			X		X	X
Two-Tone (Upper/Lower)										
952	Dk. Green/Med. Green						X			
954	White/Med. Green						X			
959	White/Med. Blue				X					
960	Dk. Blue/Med. Blue				X					
965	White/Dk. Aqua							X		
971	Beige/Lt. Saddle					X				
975	Beige/Med. Red		X	X						
982	Dk. Blue/Silver				X					
988	Med. Aqua/White							X		
993	Beige/Maroon		X	X					X	
995	Silver/Maroon			X			X		X	X

Convertible top: white (Reg. Prod.), black (RPO C05AA) or beige (RPO C05BA) with any exterior color.
Sport top: black (RPO C08AA) or white (RPO C08BA) with any exterior color.

(a) Instrument panel, steering wheel, carpet are aqua.
(b) Instrument panel, steering wheel, carpet are red.
(c) Instrument panel and steering wheel are black, carpet is dark gray.

BODY GLASS

WINDOW ACTION

2-Door Sedan (11)

2-Door Sport Coupe (47)

4-Door Station Wagon
6-pass. (35), 9-pass. (45)

4-Door Sport Sedan (39)

2-Door Convertible (67)

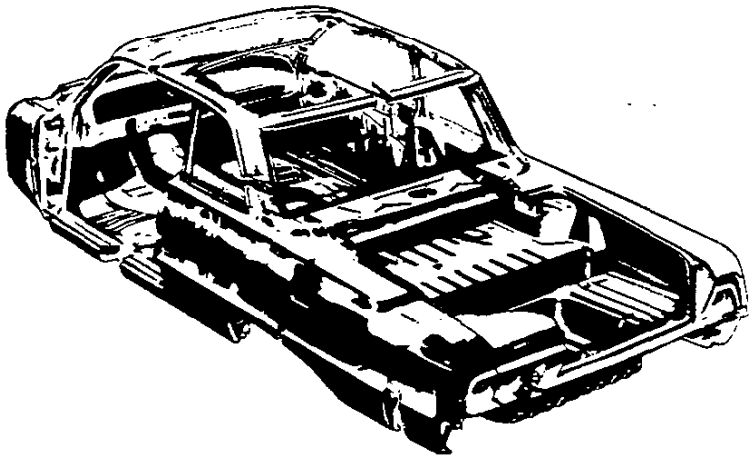
4-Door Sedan (69)

P - Pivoting, crank vent
F - Fixed glass
Z - Zip out
- "Monkey" action
- Rotating

BODY GLASS TYPE AND VISIBILITY AREA

Location		69	39	11	47	67	35	45
Windshield		Laminated safety plate, compound curve element						
		1587.5	1405.7	1587.5	1461.2		1587.5	
Front door	Ventipane	Safety Solid Plate						
		96.0	88.8	96.0	72.3		96.0	
	Window	Safety Solid Plate						
		571.0	624.8	816.4	796.1	768.2	571.0	
Rear door window		Safety Solid Plate						
		655.8	647.0				820.7	
Rear quarter	Window	Safety Solid Plate						
				433.9	367.8	275.0		
	Rear side	Safety Solid Plate						
							1181.6	
Back window		Safety Solid Plate				Plastic	Safety Solid Plate	
		1257.1	1239.9	1257.1	941.9	1103.0	938.3	
Total visibility area		4167.4	4006.2	4184.4	3639.3	3679.7	5200.1	

BODY CONSTRUCTION



GENERAL

Type ---------- Unisteel, with cowl, roof, underbody and body panels welded to form body shell. Doors, front and rear lids are of double-panel construction and hinge assembled to body. Separate frame and bolt-on front end sheet metal.

DOORS AND LOCKS

Door construction ---------- Double steel panels, hinged at front.

Door handles ---------- Push-button with rotary type latches. Inside push button locks on all doors.

Door ventipanes ---------- Crank operated

HOOD AND TRUNK LID

Type ---------- Counterbalanced, with spring loaded toggle action hinges on rear of hood and boxed hinges on trunk lid with torsion rod.

Hood release ---------- External

VENTILATION

High level with double wall plenum chamber, providing washing and air drying of rocker panels for corrosion resistance. Air and water travel through rocker panels and drain at ends of rocker inner panels.

SEAT CONSTRUCTION

Type

Front seat cushion ----------11-12-15-16-17-1835,45, 1" poly foam; other 1800 models, 1-3/4 poly foam; 13-1400 Super Sport, formed foam rubber

Rear seat cushion ---------- 11-12-15-1600, 3/4 poly foam; 13-14-17-1800, 1-3/4 poly foam; 15-16-17-1845 third seat, 3/4 poly foam

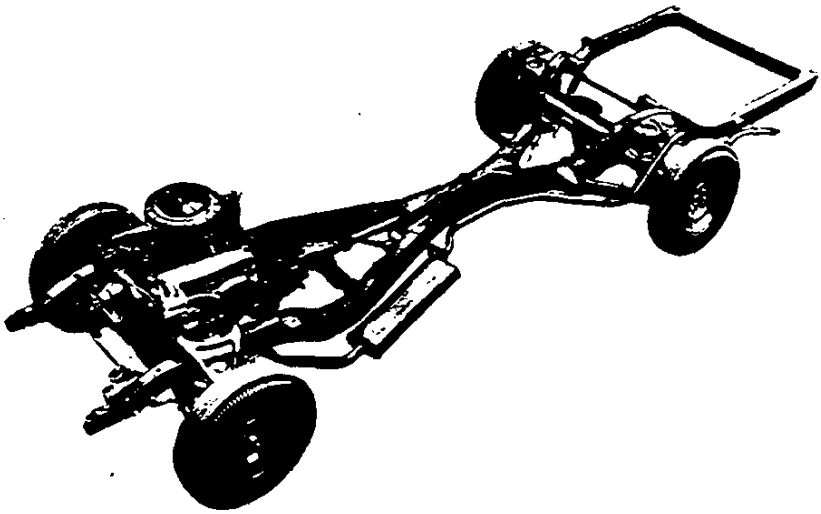
WINDSHIELD WIPERS

Type ---------- Dual single speed electric

Linkage ---------- Parallel acting

SPARE TIRE AND TOOLS

Location ---------- Sedans and sport coupe, horizontal on center of shelf in trunk compartment; Station wagon, vertically in right hand side of cargo compartment rear of wheelhouse behind removable cover. Convertible, right side of trunk compartment rearward of wheelhouse. Tools consist of bumper jack with combination lever handle and wheel nut wrench stored under tire.

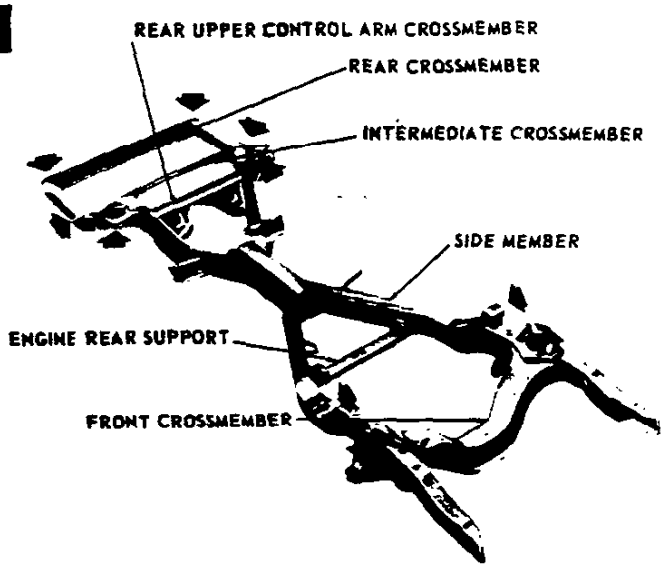


CHASSIS

FRAME

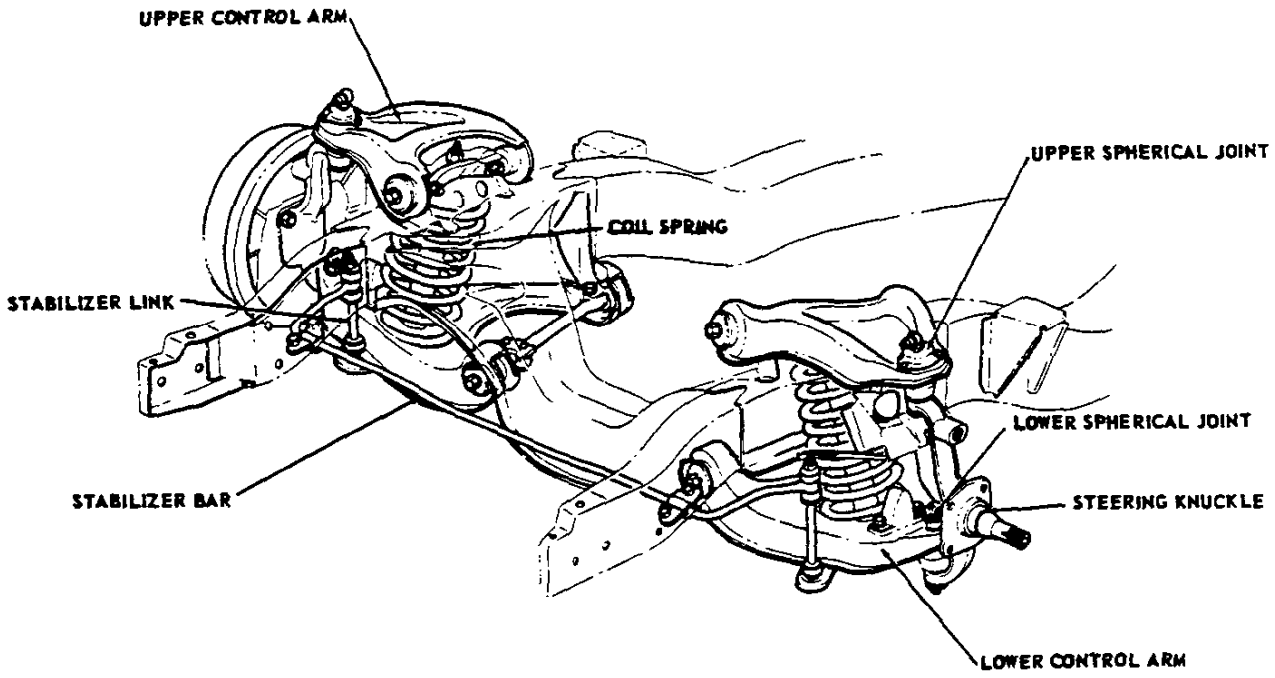
General

Description	All welded X frame with 4 crossmembers and box girder side rails; front suspension crossmember box section, rear crossmember C section, rear intermediate crossmember channel section and special channel crossmember for mounting rear suspension upper control arms. Center beam reinforced box girder construction. Convertible frame same except steel plates welded to top and bottom of side rails and center beam.
Overall dimensions	
Length	194.50
Width	47.50
Height	
Mounting points	
For body	
Except convertible	8
Convertible	12
For engine	3



BODY MOUNTING POINTS

FRONT SUSPENSION



GENERAL

Description ---------- Independent, SLA type with coil spring and concentric shock absorber, and spherically-jointed steering knuckle, for each wheel. Adjustments to front suspension achieved with shims at pivot shaft.

Wheel travel, from design height

Jounce ---------- 4.24

Rebound ---------- 4.30

Wheel to spring ratio ---------- 1.87

CONTROL ARMS

Description

Upper and lower ---------- Each is stamped A frame rubber-bushed at pivots.

Bushings

Type ---------- Pre-loaded, steel encased rubber.

STEERING KNUCKLES

Description ---------- Forged steel with integral brake cylinder mounting, and detachable steering knuckle arm.

Spindle diameters

At inner bearing ---------- 1.2493-1.2498

At outer bearing ---------- .7492-.7497

Spindle thread size ---------- 3/4-20 NEF-3 (modified)

WHEEL BEARINGS

Type ---------- Taper roller

Quantity ---------- Two per spindle

SPHERICAL JOINTS

Type -------- Ball studs, upper self-adjusting for wear

Quantity ---------- Two per steering knuckle

Bearing surfaces

Material

Upper ---------- Two bearings, both non-metallic; the upper surface a teflon-coated phenolic; the lower surface, a teflon-cotton composition

Lower ---------- One upper surface, a teflon-cotton composition

Seals

Description

Upper ---- Reinforced neoprene secured by retainer

Lower ---------- Neoprene secured by retainer

Lubrication

Upper and lower -------- High pressure grease fitting

SHOCK ABSORBERS

Type ---------- Direct, double-acting, hydraulic

Secured (through coil spring) to ---------- Lower control arm and front suspension crossmember

Piston diameter and travel (unassembled) -----1.00; 5.25

Piston rod plating---------- Chrome

STABILIZER BAR

Type ---------- Link

Material ---------- HR steel

Diameter---------- .6875

Bushing material ---------- Natural or synthetic rubber

Application ---------- All except 11 and 1500-11, -69

FRONT WHEEL ALIGNMENT

Design

Camber (degrees) ---------- O to P1

Caster (degrees) ---------- P1 to P2

Toe-in, per wheel ----------

Curb

Camber (degrees) ---------- O to P1

Caster (degrees) ---------- N-1/2 to P-1/2

Toe-in, per wheel ---------- 1/32 to 3/32

Steering axis inclination (degrees) ----- 6-3/4 to 7-3/4

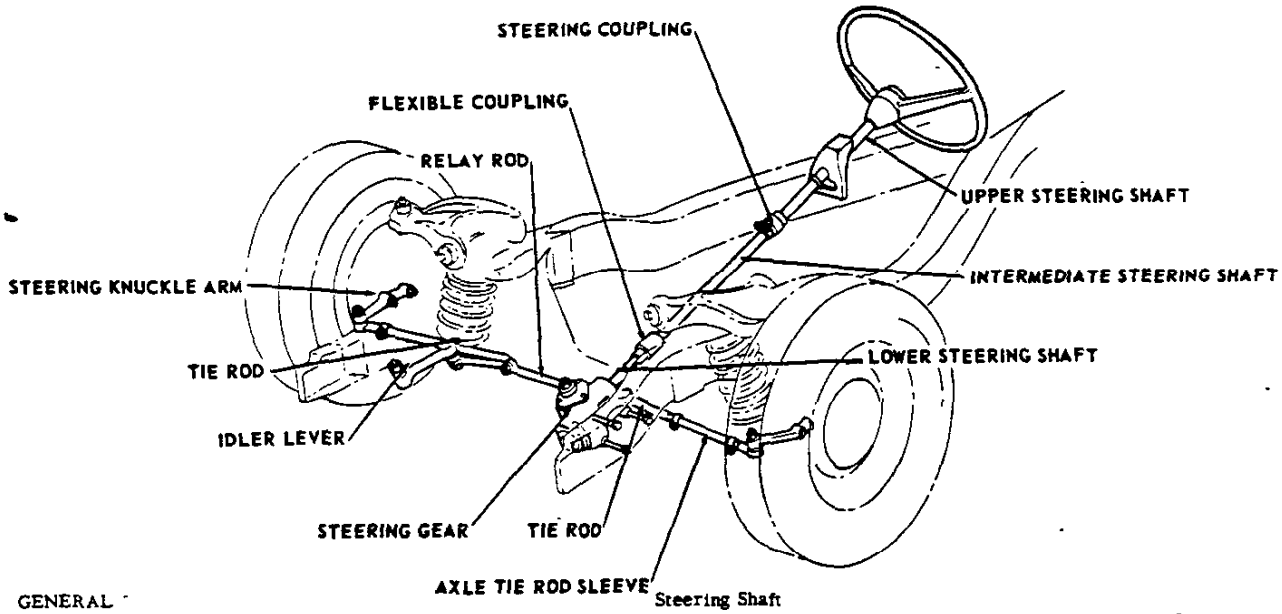
Continued on page 4

FRONT SPRINGS

ENGINES	Regular production engines					Part number and reference
TRANSMISSIONS	3-Speed		Overdrive		Automatic	
1111, 1169, 1447, 1467, 1511, 1545, 1569, 1745	A					3827038-A
1211, 1611, 1739, 1747, 1767, 1769	B					3827034-B
1645, 1845	C					3827039-C
1235, 1269, 1635, 1669, 1835, 1839, 1847, 1867, 1869	D					3827035-D
1447,1467	K					3827033-E
1135, 1535, 1735	E					3861037-F ●
1347, 1367	F					3827104-G
						3827036-I
ENGINES, RPO-1	L30	L74	L33	L31	L80	3827105-J
TRANSMISSIONS	3-Speed 4-Speed Automatic		4-Speed Auto-matic	4-Speed		3741497-K ●
1645, 1845	G					
1211, 1269, 1611, 1669, 1839, 1869				G		
1447, 1467			G ●			
1211, 1611			A			
1235, 1269, 1635, 1669, 1835, 1839, 1847, 1867, 1869			I			
1235, 1635, 1645, 1835, 1845, 1847, 1867				J		
1645, 1845			J			

	Type	Material	Cut-off length	Number of coils (active, total)	Wire diameter	Outside diameter	Pitch diameter	Heights		Deflection rate between 8.67 and 11.67 (lb per inch)	
								Free	Working (inches @ lb)	@ Spring	@ Wheel (wheel rate)
A	Right hand helix	Steel alloy heat treated and drawn	128.09	7.67, 9.11	.664	5.130	4.466	15.20	10.50 @ 1740	370	126.4
B			141.25	8.67, 10.2	.630	5.062	4.432	17.01	10.50 @ 1790	275	101.2
C			128.09	7.67, 9.11	.664	5.130	4.466	15.47	10.50 @ 1840	370	126.4
D			141.25	8.67, 10.2	.630	5.062	4.432	17.34	10.50 @ 1880	275	101.2
E			141.25	8.67, 10.2	.630	5.062	4.432	16.68	10.50 @ 1700	275	101.2
F			140.96	8.67, 10.0	.630	5.060	4.430	16.84	10.50 @ 1745	275	101.2
G			128.09	7.67, 9.11	.664	5.130	4.466	15.69	10.50 @ 1920	370	126.4
I			141.25	8.67, 10.2	.630	5.062	4.432	17.63	10.50 @ 1960	275	101.2
J			128.09	7.67, 9.11	.664	5.130	4.466	15.90	10.50 @ 2000	370	126.4
K			141.25	8.67,10.11	.630	5.062	4.432	17.25	10.50 @ 1855	275	101.2

● REVISED JUNE 1964



GENERAL

Description ---------- Semi-reversible, recirculating ball and nut steering gear. Manual steering standard; power optional. Tilt steering available with power steering only*

Steering gear
- Gear ratio
  - Manual ---------- 24:1
  - Power ---------- 20:1
- Overall ratio
  - Manual ---------- 28:1
  - Power ---------- 24:1

Turning characteristics
- Turning diameters (ft)
  - Outside front
    - Wall to wall
      - *Right and left* ---------- 44.1
  - Curb to curb
    - Right and left ---------- 40.8
  - Inside rear
    - Wall to wall
      - Right and left ---------- 24.2
  - Curb to curb
    - Right and left ---------- 24.5
- Number of wheel turns, lock to lock
  - Manual ---------- 5.80
  - Power ---------- 5.06
- *Outside wheel angle with inside wheel @ 20* degrees ---------- 17.87

Steering Shaft
- Number ---------- 2
- Diameter ---------- .75

Steering wheel
- Type ---------- Deep dished
- Diameter ---------- 16.5

Linkage
- Type ---------- Relay
- Location ---------- Front of wheels
- Number of tie rods ---------- 2

Lubrication points ---------- 4: one at each end of each tie rod.

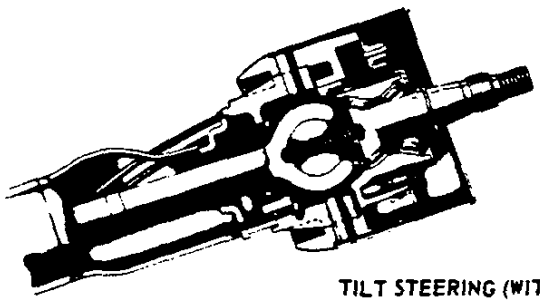
POWER STEERING, RPO 1-N40

Description ---------- Hydraulic; pump powered cylinder assisting linkage.

Drive
- Type ---------- V-belt from crankshaft
- Pump pulley
  - PD ---------- 5.60
  - "V" Angle ---------- 36 degrees
  - Width @ PD ---------- .38
- Crankshaft pulley
  - PD ---------- 6.64
  - "V" angle ---------- 36 degrees
  - Width @ PD ---------- .38
- Belt
  - ● Pitch line length
    - 230 cubic inch L-6 ---------- 49.5
    - 283 cubic inch V-8 ---------- 35.0

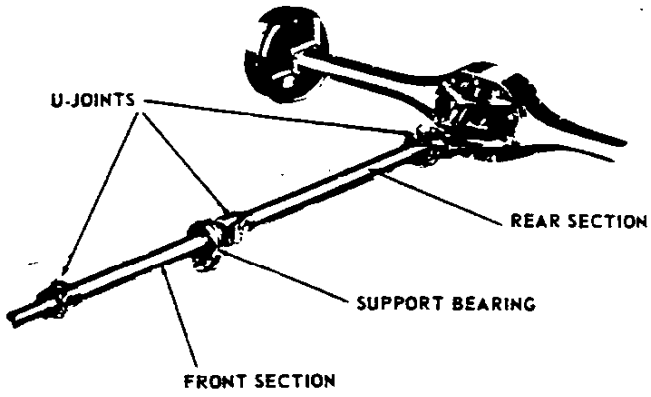
● *Lubrication points* ---------- Two additional, fittings; at cylinder piston rod ball stud, and at valve adapter

* Not available with 3-speed



TILT STEERING (WITH 4-SPEED)

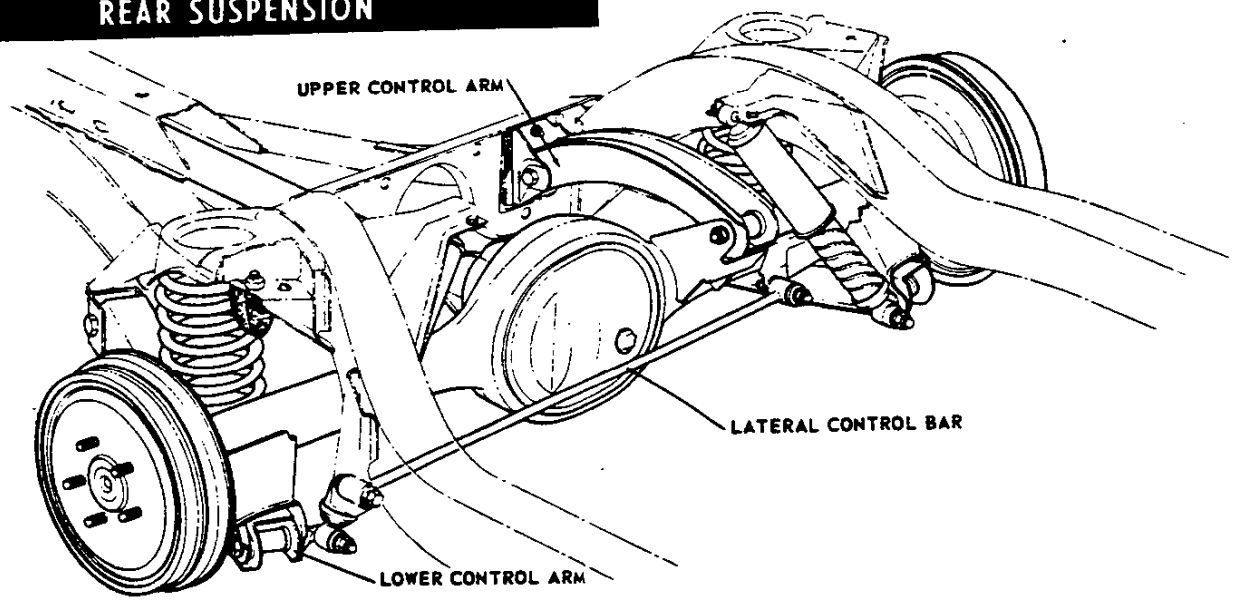
DRIVELINE



PROPELLER SHAFT

Type	Exposed, supported
Quantity	2
Construction	Bearing supported, two-section tubular construction with 3 universal joints; bearing integral with front section
Tubes	
OD	1.997-2.003
Wall thickness	.092-.097
Length between axes of yoke bores	
Front section	
3-speed	30.1
4-speed and overdrive	25.0
Automatic	27.2
Rear section, all transmissions	35.0
Support bearing	
Type	Single row ball, sealed

REAR SUSPENSION



GENERAL

Type	Four-link suspension with a lower control arm for drive torque for each wheel, an upper control arm for braking torque, and a lateral control bar. Damping provided by coil springs and shock absorbers.
● Wheel travel, from design height	
Jounce	4.32
Rebound	5.56
Wheel to spring ratio	1.51:1

SHOCK ABSORBER

Type	Direct, double acting, hydraulic
Secured to	Short cantilever bracket welded to frame side member at upper end (rear of) lower control arm at lower end.
Piston diameter and travel (unassembled)	1.00, 8.50

LATERAL CONTROL BAR

Material	AISI M-1015 or M1018
Diameter	.750

REAR SPRINGS

ENGINE	Regular production L6 and V8		
TRANSMISSION	3-Speed	Overdrive	Automatic
1111, 1169, 1511 1569	A		
1135, 1235, 1535 1635, 1735, 1835	B		
1211, 1611, 1747 1767, 1847, 1867	C		
1269, 1669, 1739 1769, 1839, 1869	D		
1347, 1447	E		
1545, 1645, 1745 1845	F		
1367, 1467	J ●		

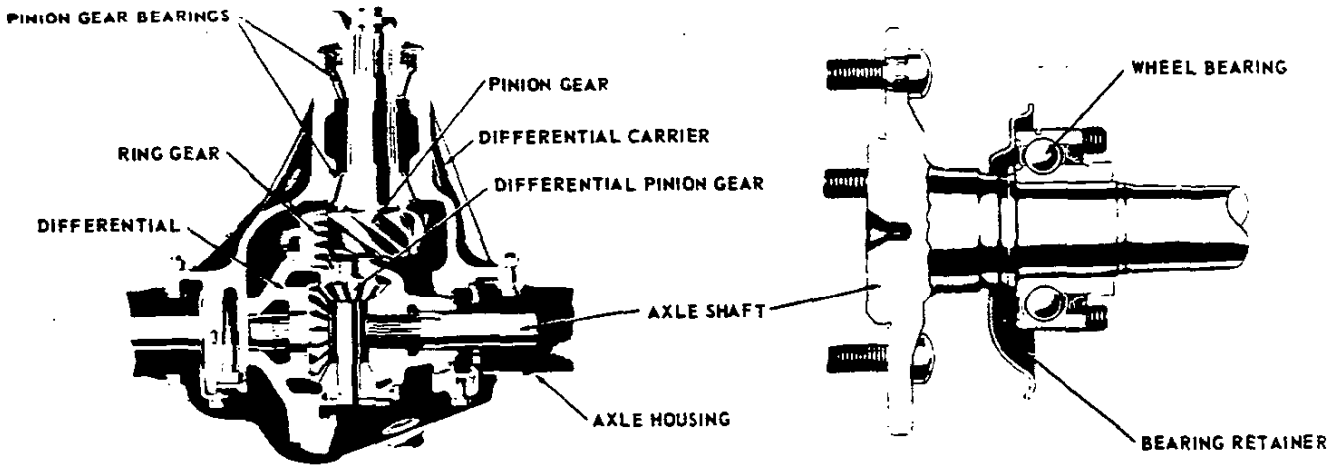
ENGINE RPO 1-	L30	L74	L33	L31	L80
TRANSMISSION	3-Speed				
	4-Speed				
	Automatic				
1211, 1611, 1847 1867			D	H	
1269, 1669, 1839 1869				H	
1235, 1635, 1835				F	
● 1447			G		
1467			H		

Part Number and Reference

3827042-A
3844118-B
3827040-C
3827041-D
3861038-E ●
3844119-F
3855647-G
3813818-H
3861039-J ●

	Type	Material	Cut-off length	Number of coils (active, total)	Wire diameter	Outside diameter	Pitch diameter	Heights		Deflection rate between 8.78 and 11.78 (lb per inch)	
								Free	Working (inches @ lb)	@ Spring	@ Wheel (wheel rate)
A	Right hand helix	Steel alloy, heat treated and drawn	125.18	7.8, 9.41	.587	4.812	4.225	15.37	9.88@1455	265	124.5
B			140.52	8.8,10.39	.652	4.942	4.290	16.70	11.08@1915	340	158.5
C			138.27	8.8,10.41	.583	4.804	4.221	16.14	9.88@1440	230	108.6
D			138.27	8.8,10.41	.583	4.804	4.221	16.49	9.88@1520	230	108.6
E			138.27	8.8,10.41	.583	4.804	4.221	15.77	9.88@1355	230	108.6
F			127.98	7.8, 9.39	.681	5.000	4.319	15.76	10.58@2330	450	205.7
G			126.25	7.8, 9.41	.630	4.898	4.268	14.17	9.88@1460	340	158.5
H			126.25	7.8, 9.41	.630	4.898	4.268	14.35	9.88@1520	340	158.5
J			138.27	8.8,10.41	.583	4.804	4.221	16.03	9.88@1415	230	108.6

REAR AXLE



GENERAL

Type ---------- Semi-floating; 2-piece rear beam consisting of a pressed steel banjo axle housing and bolted-on differential carrier.

Lubricant

Type ---------- Military MIL-L-2105-B

Viscosity ---------- SAE80

Filler plug ------- 1-3/8 hex hd., 1-20 Am.Nat. thread

Capacity (pts.) ---------- 4

Regular production ratio

11, 12, 13, 15, 16 and 1700 sedans and coupes --- 3.08:1

13 and 1700 convertibles, 12 and 1600 station wagons, and all 14 and 1800 models -------- 3.36:1

11, 15 and 1700 station wagons ---------- 3.55:1

Differential carrier

Type ---------- Hypoid gear with overhung pinion gear supported by two taper roller bearings.

Offset ---------- 1.50

Hypoid gear PD ---------- 8.375

Pinion adjustment ---------- Shim

Cover assemblage ---- (Stamping) welded to housing

DIFFERENTIAL

Type ---------- Two pinion in ArmaSteel housing supported by 2 taper roller bearings

AXLE

Type ---------- Forged and hardened steel with integral drive flange

Wheel bearings

Type ---------- Single row ball, sealed

Quantity ---------- 1 per wheel

Oil seal ---------- Steel encased spring loaded synthetic rubber (part of rear wheel bearing assembly)

HYPOID AND PINION GEAR TOOTH COMBINATIONS

3.08:1 Ratio

Hypoid gear ---------- 37

Pinion gear ---------- 12

3.36:1 Ratio

Hypoid gear ---------- 37

Pinion gear ---------- 11

3.55:1 Ratio

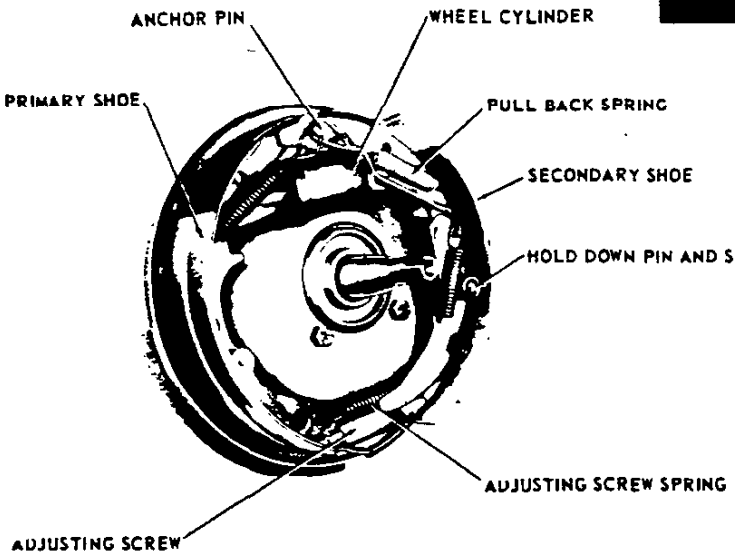
Hypoid gear ---------- 32

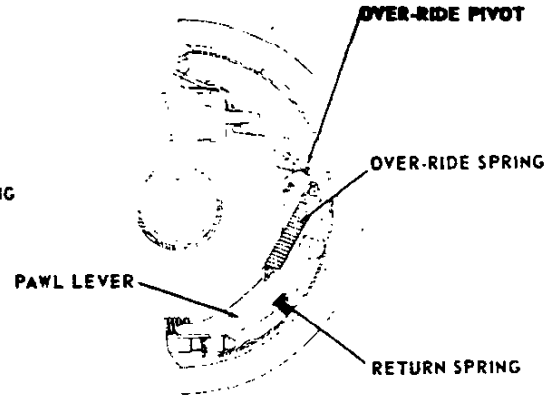
Pinion gear ---------- 9

POSITRACTION DIFFERENTIAL (for availability, see POWER TRAINS)

Type ---------- 4 pinion with dual disk clutches

BRAKES





SELF-ADJUSTING MECHANISM

SERVICE BRAKES, Regular Production

General
- Type ---------- Duo servo, 4-wheel Hydraulic, reverse self-adjusting
- Line pressure, psi, @ 100 lb pedal load ---------- 750
- Braking ratios
  - Pedal ---------- 6.21:1
  - Hydraulic ---------- 4.82:1
  - Overall ---------- 29.93:1
- Distribution of braking effort (theoretical, percent)
  - Front wheels ---------- 58.5
  - Rear wheels ---------- 41.5

Brake drum
- Construction ---------- Composite, web cast into rim
- Material
  - Web ---------- HR steel
  - Rim ---------- Cast iron alloy
- Web thickness
  - Front ---------- .109-.119
  - Rear ---------- .095-.105
- Swept drum area, sq. inches ---------- 328
- Diameter, front and rear ---------- 11.0

Brake lining
- Material ---------- Full molded asbestos composition
- Length
  - Primary shoe ---------- 9.34
  - Secondary shoe ---------- 11.75
- Width
  - Front shoes ---------- 2.75
  - Rear shoes ---------- 2.00
- Thickness, minimum @ centerline ---------- .168
- Method of attachment ---------- Bonded
- Total effective area, sq. inches ---------- 185.2
- Gross lining area, sq. inches ---------- 200.4

Master Cylinder
- Location -------- Engine compartment on dash panel
- Piston diameter ---------- 1.00
- Piston travel (with available pedal travel) ------ 1.03

Wheel cylinders
- Location
  - Front ---------- Steering knuckle
  - Rear ---------- On backing plate
- Piston diameter
  - Front ---------- 1.1875
  - Rear ---------- 1.00

Foot pedal
- Type ---------- Pendant
- Travel ---------- 6.38

PARKING BRAKE
- Type ---------- Mechanical pull rods and cables operate two rear service brakes
- Total effective area, sq. inches ---------- 77
- Control ---------- Apply by pendulum foot pedal; release by T handle below instrument panel to left of steering column.

STOPLIGHT SWITCH
- Type ---------- Mechanical, make-break, normally on
- Location ---------- On dash panel brace
- Activation ---------- Brake pedal

Continued on page 10

SERVICE BRAKES, METALLIC, RPO 1-J65

Same as Service Brakes, Regular Production, except as follows

General
- Line pressure, psi, @ 100 pedal load ---------- 980
- *Braking ratios*
  - Pedal ---------- 6.21:1
  - Hydraulic ---------- 6.30:1
  - Overall ---------- 39.12:1

Brake drum
- *Web thickness*
  - Front ---------- .125-.135

Brake lining
- Material ---------- Sintered iron segments
- Size
  - *Front wheel segments*
    - Primary ---------- 1.64 x 1.37 x .175
    - Secondary ---------- 1.64 x 1.37 x .295
  - Rear wheel segments
    - Primary ---------- 2.00 x 1.00 x .175
    - *Secondary* ---------- 2.00 x 1.00 x .295
- Segments per shoe
  - Primary, front and rear ---------- 6
- Secondary
  - Front ---------- 12
  - Rear ---------- 10
- Method of attachment ---------- Welded
- ● Total effective area, sq. inches ---------- 145.2

Master cylinder
- Piston diameter ---------- .875

POWER BRAKES, RPO 1-J50

Same as service brakes, regular production, except as follows

General
- Type ---------- Vacuum power unit added to assist regular production master cylinder
- Pedal effort ----- Approximately 30% less than regular production brakes at same deceleration rate
- ● Braking ratios
  - With regular production linings
    - Pedal ---------- 3.43
    - Hydraulic ---------- 4.82
    - Overall ---------- 16.53
  - With metallic linings
    - Pedal ---------- 3.43
    - Hydraulic ---------- 6.30
    - Overall ---------- 21.61

Master cylinder
- Piston travel (with foot pedal) ---------- 1.31

Foot pedal
- Travel ---------- 4.50

WHEELS AND TIRES

WHEELS, regular production
- Type ---------- Short spoke spider
- Attachment to hub ---------- 5 hex nuts, 7/16-20 UNF-2B, arranged on a 4.75 dia bolt circle
- Rim size
  - Except wagons ---------- 14 x 5J
  - Wagons ---------- 14 x 6JK
- Offset ---------- 1.00
  - 14 x 5J ---------- .56
  - 14 x 6JK ---------- .06

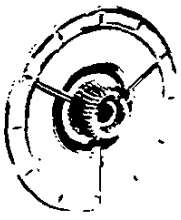
TIRES, regular production
- Type ---------- Rayon, tubeless, blackwall
- Construction ---------- 2 ply
- Size
  - Except convertibles and wagons ------ 7.00 x 14-4PR
  - Convertibles ---------- 7.50 x 14-4PR
  - Wagons ---------- 8.00 x 14-4PR

Specifications

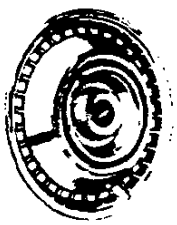
7.00 x 14-4PR
- Loaded rolling radius ---------- 12.35
- Loaded rev/mi ---------- 817
- Capacity (lb @ psi) ---------- 975
- *Recommended inflation, psi (cold)*
  - Front ---------- 24
  - Rear ---------- 24

7.50 x 14-4PR
- Loaded rolling radius ---------- 12.60
- *Loaded rev/mi* ---------- 800
- Capacity (lb @ psi) ---------- 1085
- Recommended inflation, psi (cold)
  - Front ---------- 24
  - Rear ---------- 24

8.00 x 14-4PR
- Loaded rolling radius ---------- 12.85
- Loaded rev/mi ---------- 785
- Capacity (lb @ psi) ---------- 1175
- Recommended inflation, psi (cold)
  - Front ---------- 24
  - ● Rear ---------- 24 except wagons 28



SUPER SPORT WHEEL DISK



ACCESSORY WHEEL DISK

LAMP	NO. REQUIRED	TRADE NO.	CANDLE POWER PER LAMP
Ash tray	1	1445	1
Automatic trans. dial indicator	1	1445	1
Back up	2	1156	32
Compass	1	53	1
Courtesy			
Instrument panel	2	631	6
Rear quarter	1	90	6
Seat separator	1	211	12
Direction signal indicator	2	1445	1
Dome			
Roof center	1	211	12
Rear quarter	2	90	6
Side rail	2	90	6
Fuel gage	1	1895	2
Generator indicator	1	1895	2
Glove compartment			
Instrument panel	1	1895	2
Seat separator	1	1816	2
Headlamp			
Outer	2	4002	High beam 37.5W Low beam 55W ●
Inner	2	4001	High beam 37.5W
Headlamp hi-beam indicator	1	1895	2
Heater controls	1	1895	2
Ignition switch	1	1445	1
Instrument cluster	4	1895	2
License plate, rear	1	1155	4
Luggage compartment	1	1003	15
Oil pressure indicator	1	1895	2
Parking			
Park	2	1157	4
Turn			32
Parking brake alarm	1	257	2
Radio	1	1893	2
Spot lamp			
Inside operated	1	4405	30W
Portable	1	4416	30W
Tachometer	1	53	1
Tail			
Tail only	2	1155	4
Tail,	2		4
Stop and	or	1157	32
Turn	4		32
Temperature indicators	2	1895	2
Traffic hazard indicator	1	1445	1
Underhood	1	93	15

DEVICE PROTECTED	TYPE OF PROTECTION	LOCATION AND CIRCUIT *
Air conditioning	2 AGC 30 fuses	In line Fuse panel (f)
Ash tray lamp	AGC 3 fuse	Fuse panel (c)
Automatic trans. dial indicator lamp	AGC 3 fuse	Fuse panel (c)
Backup lamps	AGC 10 fuse	Fuse panel (d)
Cigarette lighter	AGC 15 fuse	Fuse panel (b)
Clock	AGC 15 fuse	Fuse panel (b)
Compass lamp	AGC 3 fuse	Fuse panel (c)
Courtesy lamps	AGC 15 fuse	Fuse panel (b)
Defogging blower	AGC 5 fuse	Fuse panel (d)
Direction signal indicator lamps	AGC 3 fuse	Fuse panel (c)

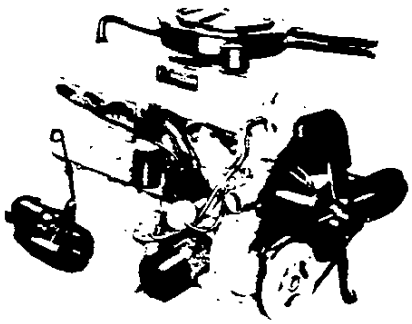
*Letter suffix indicates same circuit ●

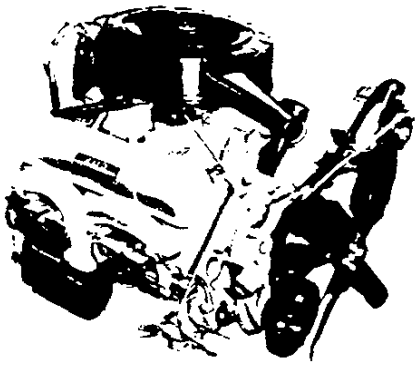
Continued on page 12

DEVICE PROTECTED	TYPE OF PROTECTION	LOCATION AND CIRCUIT *
Dome lamps	AGC 15 fuse	Fuse panel (b)
Fuel gage	AGC 10 fuse	Fuse panel (d)
Folding top motor	40 amp CB	Hinge pillar (h)
Generator indicator lamp	AGC 10 fuse	Fuse panel (d)
Glove compartment lamp	AGC 15 fuse	Fuse panel (b)
Headlamps	15 amp CB	Light switch (a)
Headlamps hi-beam indicator lamp	15 amp CB	Light switch (a)
Heater	AGC 10 fuse	Fuse panel (f)
Heater controls lamp	AGC 3 fuse	Fuse panel (c)
Ignition switch lamp	AGC 3 fuse	Fuse panel (c)
Instrument cluster lamps	AGC 3 fuse	Fuse panel (c)
License lamp	AGC 15 fuse	Fuse panel (b)
Luggage compartment lamp	AGC 15 fuse	Fuse panel (b)
Oil pressure indicator lamp	AGC 10 fuse	Fuse panel (d)
Overdrive solenoid	AGC 15 fuse	In line
Park and turn lamps	15 amp CB	Light switch (a)
Parking brake alarm	AGC 10 fuse	Fuse panel (d)
Power seats	40 amp CB	Hinge pillar (i)
Power windows	40 amp CB	Hinge pillar (j)
Radio and radio lamp	AGC 2.5 fuse	Fuse panel (g)
Spot lamp		
Inside operated	AGC 15 fuse	In line
Portable	AGC 15 fuse	Fuse panel (b)
Tachometer	AGC 10 fuse	Fuse panel (d)
Tachometer lamp	AGC 3 fuse	Fuse panel (c)
Tail lamps	AGC 15 fuse	Fuse panel (b)
Tailgate motor	40 amp CB	Hinge pillar (k)
Temp. indicator lamps	AGC 10 fuse	Fuse panel (d)
Traffic hazard indicator	AGC 15 fuse	Fuse panel (b)
Underhood lamp	SAE 4 fuse	In line
W/S wiper, single speed	SAE 20 fuse	Fuse panel (c)
W/S wiper, two speed	SAE 20 fuse	Fuse panel (e)
	14 amp CB	Switch (l)

*Letter suffix indicates same circuit ●

POWER TRAINS





POWER TEAM COMBINATIONS

ENGINE	EQUIPMENT	TRANSMISSION	AXLE RATIOS** General Purpose Standard	Special Purpose or Mountain	Performance	Performance Cruise	High Performance
230 CUBIC INCH L-6 TURBO-THRIFT 230 140 HORSEPOWER	SINGLE BARREL CARBURETOR HYDRAULIC LIFTERS	3-SPEED & POWERGLIDE SEDANS & COUPES CONVERTIBLE STATION WAGONS OVERDRIVE	3.08:1 3.36:1 3.55:1 3.70:1	3.55:1 3.55:1	3.36:1		
283 CUBIC INCH V-8 TURBO-FIRE 283 195 HORSEPOWER	2-BARREL CARBURETOR HYDRAULIC LIFTERS	3-SPEED & POWERGLIDE 12 and 1600 SEDANS 14 and 1800 MODELS ALL STATION WAGONS OVERDRIVE	3.08:1 3.36:1 3.36:1 3.70:1	3.55:1 3.55:1 3.55:1	3.36:1		
327 CUBIC INCH V-8 TURBO-FIRE 327 250 HORSEPOWER RPO L30	4-BARREL CARBURETOR HYDRAULIC LIFTERS	3-SPEED (2.58:1 low) 4-SPEED (2.56:1 low) POWERGLIDE	3.36:1 3.36:1			3.08:1 (Std.)	
327 CUBIC INCH V-8 TURBO-FIRE 327 300 HORSEPOWER RPO L74	LARGE 4-BARREL ALUMINUM CARBURETOR HYDRAULIC LIFTERS	3-SPEED (2.58:1 low) 4-SPEED (2.56:1 low) POWERGLIDE	3.36:1 3.36:1 3.36:1				
● 409 CUBIC INCH V-8 TURBO-FIRE 409 340 HORSEPOWER RPO L33	LARGE 4-BARREL CARBURETOR HYDRAULIC LIFTERS	4-SPEED (2.56:1 low) POWERGLIDE	3.36:1 3.08:1				
409 CUBIC INCH V-8 TURBO-FIRE 409 400 HORSEPOWER RPO L31	LARGE 4-BARREL ALUMINUM CARBURETOR SPECIAL CAMSHAFT MECHANICAL LIFTERS	4-SPEED (2.20:1 low) 4-SPEED (2.56:1 low)	3.36:1 3.36:1				4.11:1, 4.56:1
409 CUBIC INCH V-8 TURBO-FIRE 409 425 HORSEPOWER RPO L80	TWO 4-BARREL ALUMINUM CARBURETOR SPECIAL CAMSHAFT MECHANICAL LIFTERS	4-SPEED (2.20:1 low) 4-SPEED (2.56:1 low)	3.36:1		3.36:1*	3.08:1 (Std.)	4.11:1, 4.56:1

** – POSITRACTION AXLE RATIOS AVAILABLE IN COMBINATIONS SHOWN

* – AVAILABLE AS POSITRACTION AXLE ONLY

1964

MULTIPLICATION FACTORS

WITH **MANUAL TRANSMISSIONS**

ENGINE	CARBU-RETION	TRANS-MISSION		TOTAL GEAR REDUCTION* 1st	2nd	3rd	4th	Rev	AXLE RATIO	MAX. AXLE TORQUE LOW# GEAR (LB-FT)
140 HP Six Cyl *Turbo-Thrift*	Single Barrel	3-Speed		9.06	5.17	3.08		9.06	3.08:1	1579
		Overdrive	out	10.88	6.22	3.70		10.88	3.70:1	1896
			in	7.62	4.35	2.59		7.62	3.70:1	1326
195 HP V-8 Turbo-Fire	2-Barrel	3-Speed		9.06	5.17	3.08		9.06	3.08:1	1887
		Overdrive	out	10.88	6.22	3.70		10.88	3.70:1	2265
			in	7.62	4.35	2.59		7.62	3.70:1	1585
250 HP V-8 Turbo-Fire RPO L30	4-Barrel	3-Speed		8.67	4.97	3.36		8.67	3.36:1	2321
		4-Speed		8.60	6.42	4.97	3.36	8.87	3.36:1	2303
300 HP V-8 Turbo-Fire RPO L74	4-Barrel Aluminum	3-Speed		8.67	4.97	3.36		8.67	3.36:1	
		4-Speed		8.60	6.42	4.97	3.36	8.87	3.36:1	
340 HP V-8 Turbo-Fire RPO-L33	4-Barrel	4-Speed		8.60	6.42	4.97	3.36	8.87	3.36:1	
400 HP V-8 Turbo-Fire RPO L31	4-Barrel Aluminum Special Cam	4-Speed		8.60	6.42	4.97	3.36	8.87	3.36:1	
		4-Speed		7.39	5.51	4.30	3.36	7.63	3.36:1	
425 HP V-8 Turbo-Fire RPO L80	2 x 4 Barrel Special Cam	4-Speed		7.88	5.88	4.55	3.08	8.13	3.08:1	
		4-Speed		7.39	5.88	4.30	3.36	7.63	3.36:1	

WITH **AUTOMATIC TRANSMISSIONS**

ENGINE	TRANSMISSION	SELECTOR POSITION	TOTAL TORQUE MULTIPLICATION*	AXLE RATIO
140 HP Six Cyl Turbo-Thrift	Powerglide	Drive Low & Reverse	11.77:1 - 3.08:1 11.77:1 - 5.61:1	3.08:1
195 HP V-8 Turbo-Fire	Powerglide	Drive Low & Reverse	11.77:1 - 3.08:1 11.77:1 - 5.61:1	3.08:1
250 HP V-8 Turbo-Fire RPO-L30	Powerglide	Drive Low & Reverse	11.40:1 - 3.08:1 11.40:1 - 5.42:1	3.08:1
300 HP V-8 Turbo-Fire RPO-L74	Powerglide	Drive Low & Reverse	12.43:1 - 3.36:1 12.43:1 - 5.91:1	3.36:1
340 HP V-8 Turbo-Fire RPO-L33	Powerglide	Drive Low & Reverse	11.40:1 - 3.08:1 11.40:1 - 5.42:1	3.08:1

* - Axle ratio x transmission ratio.

\# - Gear reduction x maximum net torque x efficiency factor (0.90 in drive, 0.85 all others).

230 CUBIC INCH SIX CYLINDER ENGINE

1964

GENERAL DATA

		Synchromesh	Overdrive	Powerglide
Piston Displacement (Cu. In.)		230		
Type		Valve-in-head		
Number Cylinder		6		
Bore and Stroke (nominal)		3.875 x 3.25		
Compression Ratio		8.5:1		
Taxable (SAE) Horsepower		36		
Firing Order		1-5-3-6-2-4		
Idling Speed (RPM)		500 in neutral		475 in drive
Compression Press. (PSI) @ Cranking Speed, Engine Hot		140		
Lubrication		Full pressure		
Power Plant Mounting		Two at center, combination compression & shear type; one rear, full shear type		
Measurements	Fan to rear of engine block	34.96 (a)		
	Top of oil filler to bottom of oil pan	26.67		
	Oil filter to air cleaner (width)	28.37		

(a) - Including fan spacer of 2.29 inches.

ADVERTISED ENGINE RATINGS

Engine		Turbo-Thrift 230
Carburetor		Single Barrel
Brake Horsepower	Gross	140 @ 4400 RPM
	Net	120 @ 3600 RPM
Torque (Lb-Ft)	Gross	220 @ 1600 RPM
	Net	205 @ 1600 RPM

ENGINE SPEED AND PISTON TRAVEL

Transmission		3-Speed	3-Speed with Overdrive		Powerglide
			OD Locked Out	OD Locked In	
Rear Axle Ratio		3.08:1#	3.70:1		3.08:1#
Tire Size		7.00 x 14-4 PR*			
Crankshaft Revolutions per Mile		2516.4	3022.9	2116.0	2516.4
Crankshaft RPM @ 1 MPH	Low	123.3	148.1	103.7	76.3
	Second	70.5	84.6	59.3	
	Third	41.9	50.4	35.3	41.9 (direct)
	Reverse	123.3	148.1	103.7	76.3
Piston Travel (ft/mile)		1363.1	1637.4	1146.2	1321.5

* - 7.50 x 14-4 PR standard on Convertible and 8.00 x 14-4 PR standard on Station Wagons.

- 3.36:1 on Model 1767 Impala convertible and 3.55:1 on Station Wagons.

VEHICLE PERFORMANCE FACTORS

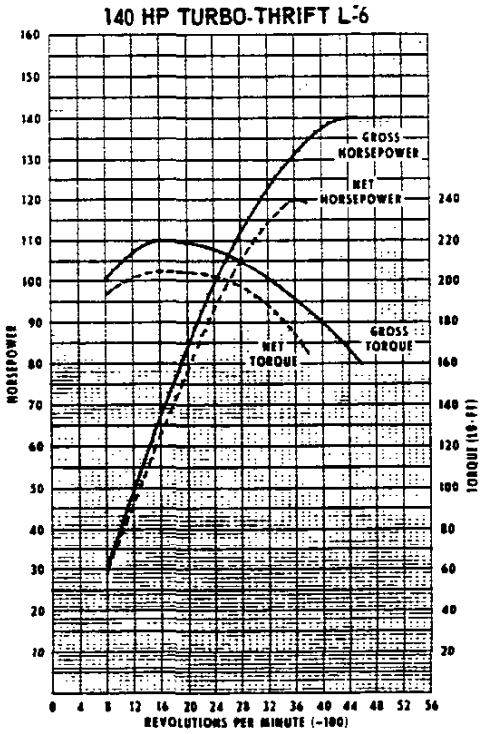
(Model 1569)

Transmission	3-Speed	3-Speed with Overdrive		Powerglide*
		Locked out	Locked in	
Performance Weight (pounds)	4054	4088		4070
Pounds per Gross Horsepower	28.96	29.20		29.07
Pounds per Cu. In. Displacement	17.63	17.77		17.70
Gross HP per Cu. In. Displacement	.609			
Power Displacement (Cu. Ft/mile)	167.47	201.18	140.82	167.47
Displacement Factor (Cu. Ft/ton mile)	82.62	98.42	68.90	82.29

* - Data computed assuming zero slippage in torque converter.

GLOSSARY

Performance Weight	Curb Weight plus 600 Lb (weight of four 150 lb passengers)
Power Displacement	$\frac{\text{Crankshaft Revs/Mi x Piston Displacement}}{2 \times 1728}$
Displacement Factor	$\frac{\text{Power Displacement}}{\text{Performance Wt (tons)}}$



The engine performance curves represent full throttle performance as obtained from dynamometer test data corrected to standard barometric pressure 29.92 inches of mercury and standard temperature of 60 degrees F.

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

NET POWER and TORQUE were obtained from a dynamometer test simulating actual operating conditions when the engine is in its vehicle, except the generator is not charging.

PRINCIPAL COMPONENTS

CYLINDER BLOCK
- Material ---------- Cast alloy iron
- Bore Diameter ---------- 3.8745-3.8775
- No. of Bulkheads ---------- 7
- Water Jacket ---------- Full length
- Cylinder Numbering Arrangement
  - Front to Rear ---------- 1-2-3-4-5-6
- Bore Spacing (Centerline to centerline) ---------- 4.4

CYLINDER HEAD
- Material ---------- High chrome cast alloy iron
- Bolt No. & Size ---------- 10; .500 dia., 13 threads/in.

● COMBUSTION CHAMBER VOLUME ---------- 5.31 cu.in.

INLET MANIFOLD
- Material ---------- Cast alloy iron
- Type ---------- 3 port, rectangular section
- Heat Provision ---------- Headed by exhaust gases

EXHAUST MANIFOLD
- Material ---------- Cast alloy iron
- Type ---------- 4 port, rectangular section
- Outlet Diameter (nominal) ---------- 2.00

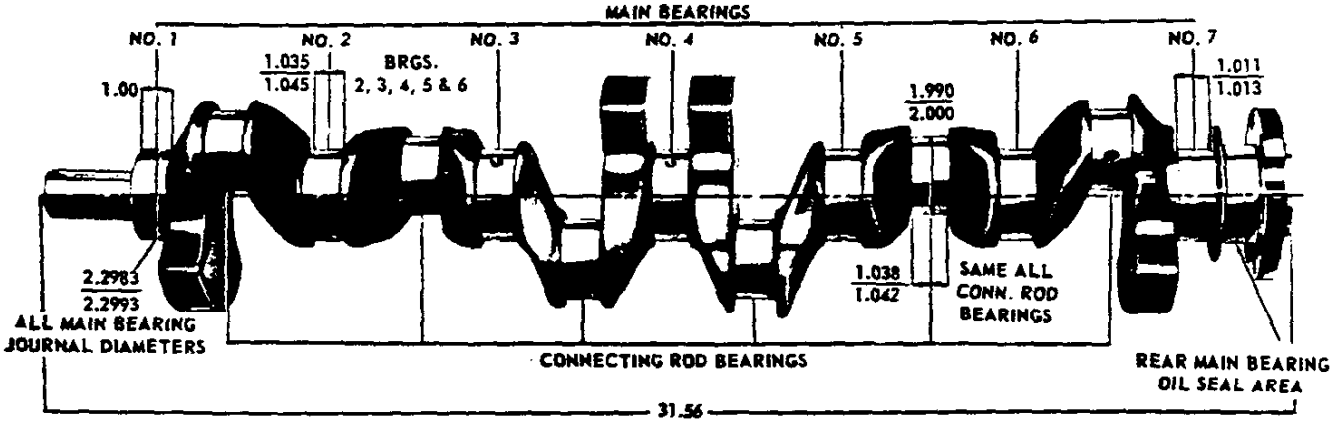
CRANKSHAFT
- Material ---------- Nodular iron casting
- End Play ---------- .002-.006
- Counter Weights ---------- 4
- Crank Arm Length ---------- 1.625
- Vibration Damper ---------- Rubber mounted inertia
- Timing Gear and Tooth Type ---------- Steel, helical cut
- Pulley Pitch Diameter ---------- 6.64

MAIN BEARING
- Material ----- Copper lead alloy or steel backed babbitt
- Type ---------- Precision removable
- Thrust Against Bearing No. ---------- 7
- Clearance ---------- .0003-.0029
- Dimensions

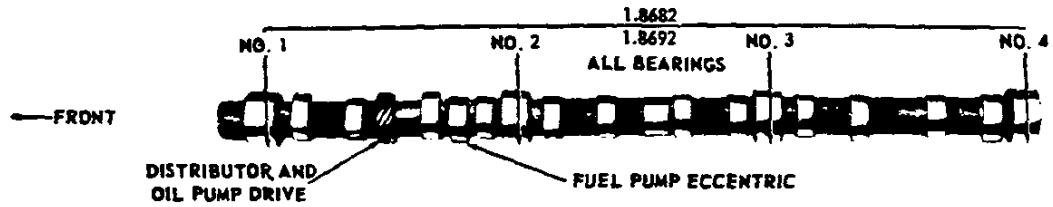
Bearing	Theoretical Inner Dia.	Effective Length	Projected Area
1-6	2.3004	.7[illegible]	1.7299
7	2.3004	.7[illegible]	1.7483

CAMSHAFT
- Material ---------- Cast alloy iron
- Drive ---------- Gear; bakelite and fabric composition with steel hub
- Lobe Lift
  - Inlet ---------- .1914
  - Exhaust ---------- .1914
- Bearings
  - Number ---------- 4
  - Material ---------- Steel backed babbitt

CRANKSHAFT AND BEARINGS



CAMSHAFT AND BEARINGS



PRINCIPAL COMPONENTS – Continued

VALVE TRAIN
- Type ---------- Individually mounted overhead rocker arms, push rod actuated
- Lifters ---------- Hydraulic
- Push Rods
  - Type & Material ---------- Hollow steel
  - Ends ---------- Hardened
- Rocker Arms
  - Material ---------- Stamped steel
  - Ratio ---------- 1.75:1

VALVE SPRINGS
- Diameter (I.D.) ---------- .880
- Installed Length (in. @ lb.)
  - Valves Closed ---------- 1.66 @ 84-92
  - Valves Open ---------- 1.33 @ 166-176
- Free Length ---------- 2.03
- Valve Spring Damper ---------- None

VALVES
- Inlet Material ---------- Carbon steel
  - Coating ---------- None
- Exhaust Material ---------- High alloy steel
  - Coating ---------- None

VALVE LIFT
- Inlet ---------- .3350
- Exhaust ---------- .3350

VALVE TRAIN LASH
- Inlet ---------- Zero
- Exhaust ---------- Zero

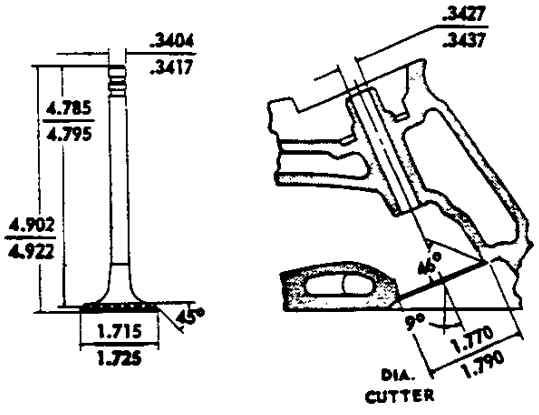
VALVE TIMING

	Excluding Ramps	Including Ramps
Inlet Valve		
Opens - BTC	18°	34°
Closes - ABC	54°	86°
Duration	252°	300°
Exhaust Valve		
Opens - BBC	52°	68°
Closes - ATC	20°	52°
Duration	252°	300°

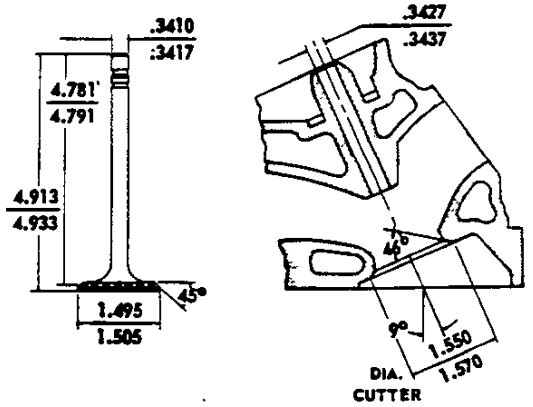
PISTON
- Material ---------- Cast aluminum alloy
- Head Type ---------- Flat notched
- Skirt Type ---------- Slipper
- Top Land Clearance ---------- .035-.044
- Skirt Clearance ---------- .0005-.0011
- Compression Ring Groove Depth ---------- .2153-.2218
- Oil Ring Groove Depth ---------- .2093-.2158
- Pin Bore Offset ---------- .055-.065
- Compression Height ---------- 1.799-1.801

COMPRESSION RING - UPPER
- Material ---------- Cast alloy iron
- Inside Bevel ---------- Bottom of ring 30 degrees to piston vertical axis
- Ring Face ---------- Tapered
- Coating ---------- Flash chrome plating
- Width ---------- .0775-.0780
- Wall Thickness ---------- .179-.194
- Gap ---------- .010-.020

INLET VALVE



EXHAUST VALVE



PRINCIPAL COMPONENTS – Continued

COMPRESSION RINGS - LOWER
- Material ---------- Cast alloy iron
- Inside Bevel ---------- Top of ring 30 degrees to piston vertical axis
- Ring Face ---------- Tapered
- Coating ---------- Wear resistant
- Width ---------- .0770-.0780
- Wall Thickness ---------- .184-.194
- Gap ---------- .010-.020

OIL CONTROL RINGS
- Material ---------- Steel
- Type ---------- *Multi-piece (2 rails and one spacer)*
- Width ---------- .184-.188 assembled
- Wall Thickness ---------- .150-.156
- Gap ---------- .015-.055
- Rail Coatings (O.D.) ---------- Chrome plated

PISTON PINS
- Material ---------- Chromium steel
- Length ---------- 2.990-3.010
- Diameter ---------- .9270-.9273
- Clearance in piston ---------- .00015-.00025
- Pin Mounting ---------- Locked in rod by shrink fit

CONNECTING RODS
- Material ---------- Forged steel
- Length (center to center) ---------- 5.70

CONNECTING ROD BEARINGS
- Material ---- Copper lead alloy or steel backed babbitt
- Type ---------- *Precision removable*
- Clearance ---------- .0007-.0027
- Theo I.D. ---------- 2.0016
- Effective Length ---------- .807
- End Play ---------- .008-.014

FUEL SYSTEM

FUEL TANK
- Capacity (Gal)
  - Sedans & Coupes ---------- 20
  - Station Wagon ---------- 19
- Fuel Tank Location
  - Station Wagon ---------- In left quarter panel behind rear wheel
  - Remaining Models ---------- Rearward of rear axle kick-up, in shelf area
- Filler Location ---------- *Behind opening in left rear quarter panel*

FUEL FILTER
- In Fuel Tank ---------- Mesh strainer in fuel line
- In Carburetor Inlet ---------- Sintered bronze filter

FUEL PUMP ASSEMBLY
- Drive ---------- Camshaft eccentric
- Type ---------- Diaphragm
- Location ---------- Right side front of engine
- ●Pressure Range ---------- 3.50-4.50 PSI

AIR CLEANER
- Type ---------- Oil wetted polyurethane element

CARBURETOR
- Make ---------- Rochester
- Type ---------- Single barrel, downdraft
- SAE Flange Size ---------- 1.50
- Throttle Bore ---------- 1.56
- Venturi Diameter ---------- 1.34

EXHAUST and VENTILATION SYSTEM

EXHAUST SYSTEM
- Type ---------- Single

MUFFLERS
- Type ---------- Oval, reverse flow
- Construction ---------- Heads and body joined by rolled lock seam construction
- Shell ---------- .048 sheet steel
- Head ---------- .048 sheet steel
- Baffles ---------- 6; - .036 sheet steel
- Coating ---- Interior and exterior completely aluminized
- *Length, Body* ---------- 29.25
- Width (I.D.) ---------- 3.24
- Height (I.D.) ---------- 7.74

EXHAUST PIPE
- Dimensions (O.D.) ---------- 2.00
- Wall Thickness ---------- .057-.069

TAIL PIPE
- Dimensions (O.D.) ---------- 1.875
- Wall Thickness ---------- .062-.076

ENGINE VENTILATION
- Type ---------- Positive; Fumes withdrawn into induction system, fresh air enters the crankcase through oil breather cap and oil filler tube.

LUBRICATION SYSTEM

GENERAL
- Type ---------- Controlled full pressure
- Main Bearings ---------- Pressure
- Connecting Rods ---------- Pressure
- Piston Pins ---------- Splash
- Cylinder Walls ------ Main & conn. rod brg. throwoff
- Camshaft Bearings ---------- Pressure
- Valve Lifters ---------- Pressure
- Rocker Arms ---------- Pressure
- Timing Gears ---------- Oil nozzle
- Oil Pressure Sending Unit
  - Type ---------- Electric
  - Actuation ------ Opens or closes circuit @ 2 to 6 PSI
- Oil Filler
  - Cap --------- Oil wetted crimped aluminum breather
  - Location ----------Forward end rocker cover

CRANKCASE CAPACITY (Quarts)
- Refill ---------- 4.0
- Refill with Filter Change ---------- 5.0

OIL PUMP
- Type ---------- Gear
- Regulator Valve ---------- Opens between 40-45 lbs
- Oil Pressure @ 1500 RPM ---------- 30-45 PSI
- Intake Type ---------- Fixed pickup with screen
- Capacity (GPM @ Eng RPM) ---------- 4.3 @ 2000

OIL FILTER
- Type ---------- Full flow throwaway cannister
- Location ---------- Right side front
- Capacity (qts) ---------- One
- By Pass Valve ---------- Opens between 9 to 11 PSI drop in pressure

LUBRICANT GRADES AND TEMPERATURES
- 32° F and Above ---- SAE 20W, SAE 20 or SAE 10W-30
- 0° F and Above ---------- SAE 10W or SAE 10W-30
- Below 0° F ---------- SAE 5W or SAE 5W-20

OIL PAN
- Type of drain plug ---------- Hex head
- Location ---------- Rear lower part of oil pan sump
- Size Hex Head ---------- .860-.875
- Thread ---------- 1/2-20 UNF-2A
- Length ---------- 0.81
- Diameter ---------- .410-.430

COOLING SYSTEM

GENERAL
- Type ---------- Pressure
- Capacity with Heater (Standard Equipment) ----- 12 Qts

RADIATOR
- Type ---------- Tube on center
- Core Constant and Thickness
- ● Distance between fins ----------.28 (Syn) .25 (P/Gld)
- Distance between tubes ---------- .55
- Thickness of core ---------- 1.26
- Frontal Area (Sq. In.) ---------- 323

RADIATOR, HEAVY DUTY (RPO-V01)
- Core Constant and Thickness
- Distance between fins ---------- .22
- Distance between tubes ---------- .55
- Thickness of core ---------- 1.75
- Frontal Area (Sq. In.) ---------- 429

RADIATOR CAP RELIEF VALVE
- Opens at ---------- Approx 13 PSI

THERMOSTAT
- Type ---------- Pellet
- Begins to Open at ---------- 177°-183° F
- Fully Opened at ---------- 212° F

RADIATOR HOSE
- Outlet, Lower (radiator to water pump) -------- 1.75 ID
- Inlet, Upper (thermostat hsg. to radiator) ------ 1.50 ID

FAN
- Number of Blades ---------- 4, staggered
- Diameter ---------- 17.62
- Fan Pulley Pitch Diameter ---------- 7.00

WATER PUMP
- Type ---------- Centrifugal
- Capacity ----------60 GPM @ 4400 RPM
- Bearing ------- Permanent lubricated double row ball
- Drive ---------- Fan belt
- Ratio (pump to engine RPM) ---------- .949:1

BELT, CRANKSHAFT, FAN AND GENERATOR
- Number used ---------- One
- Angle of "V" ---------- 38°- 42°
- Pitch Line ---------- 39.00
- Width ---------- .380

DRAIN LOCATIONS
- Radiator ---------- Right side bottom
  - Type ---------- Petcock
- Engine Block ---------- Left rear side
  - Type ---------- Plug

ELECTRICAL SYSTEM

SUPPLY SYSTEM
BATTERY
Make ---------- Delco-Remy
Voltage Rating ---------- 12
Capacity (SAE) ---------- 44 Amp hr @ 20 hr rate
Heavy Duty (RPO T60) ---- 70 Amp hr @ 20 hr rate
Total Number of Plates ---------- 54; Heavy Duty 66
Number of Cells ---------- 6
Terminal Grounded ---------- Negative
Location ---------- Right front engine compartment

GENERATOR
Make ---------- Delco-Remy
Type ---------- Diode rectified
Rating
Amps ---------- 9-37
Volts ---------- 12-15
Drive ---------- By fan belt
Pulley Pitch Diameter ---------- 2.70
Ratio (Gen to Engine Speed) ---------- 2.46:1

REGULATOR
Make ---------- Delco-Remy
Type ---------- Two unit, Vibrator
Voltage Regulator
Voltage ---------- 13.8-14.8 @ 85°F
Field Relay (Combination light and field relay)
Closing Voltage ---------- 1-3 Volts @ 80°F
Location ---------- Left side front engine compartment

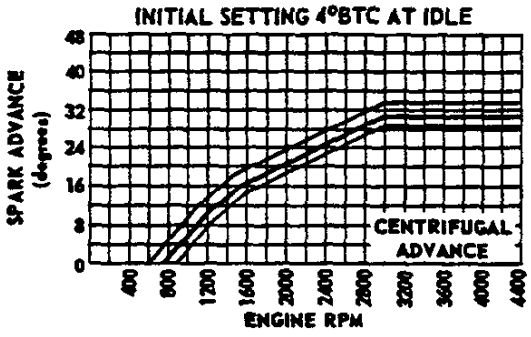
STARTING SYSTEM
STARTING MOTOR
Make ---------- Delco-Remy
Rotation (drive end view) ---------- Clockwise
Test Conditions ---------- Engine at operating temp
No Load Test
Amps ---------- 49-76
Volts ---------- 10.6
RPM ---------- 6200-9400
Motor Drive
Engagement ---------- Solenoid
Pinion meshes at ---------- Rear
Pinion tooth no. ---------- 9
Flywheel tooth no. ---------- 153
Mounting ---------- Cylinder block flange

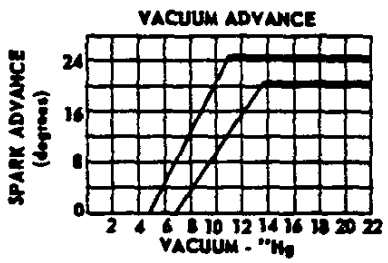
IGNITION SYSTEM
COIL
Make ---------- Delco-Remy
Type ---------- 12 volt
Amperes Drawn
Engine stopped ---------- 4.0
Engine idling ---------- 1.8

DISTRIBUTOR
Make ---------- Delco-Remy
Type ---------- Single breaker
Cam angle ---------- 31°-34°
Breaker Gap ---------- .019 (new)
Breaker Arm Tension ---------- 19-23 oz
Centrifugal Advance Begins (RPM) ---------- 800
Max Degrees @ RPM ---------- 30° @ 3000
Vacuum Advance Begins (In Hg) ---------- 6
● Max Degrees @ In Hg ---------- 21° @ 14.5
Timing (Initial Design Setting)
Crankshaft Degrees @ RPM - 4° ± 1° BTC @ 450-500 with vacuum spark line disconnected
Timing Mark Location ---------- Harmonic balancer
Firing Order ---------- 1-5-3-6-2-4

CABLE ------- Linen core impregnated with electrical conducting material and insulation of rubber with neoprene jacket.

SPARK PLUGS
Make ---------- AC46N (long reach)
Thread Size (mm) ---------- 14
Gap ---------- .033-.038
Torque ---------- 25 lb ft





1964

GENERAL DATA

		Synchromesh	Overdrive	Powerglide
Piston Displacement (Cu. In.)		283		
Type		Valve-in-head		
Number Cylinders		8		
Bore and Stroke (nominal)		3.875 x 3.000		
Compression Ratio		9.25:1		
Taxable (SAE) Horsepower		48.0		
Firing Order		1-8-4-3-6-5-7-2		
Idling Speed (RPM)		500 in neutral		475 in drive
Compression Press. (PSI) @ Cranking Speed Engine Hot		150		
Lubrication		Full pressure		
Power Plant Mounting		Two front, combination compression & shear type; one rear, full shear type		
Measurements	Fan to rear of engine block	30.14		
	Top air cleaner to bottom oil pan	29.57		
	Exhaust manifold to generator (width)	28.92		

ADVERTISED ENGINE RATINGS

Engine		Turbo-Fire 283
Carburetor		2-Barrel
Brake Horsepower	Gross	195 @ 4800
	Net	150 @ 4400
Torque (Lb-Ft)	Gross	285 @ 2400
	Net	245 @ 2400

ENGINE SPEED AND PISTON TRAVEL

Transmission		3-Speed	3-Speed with Overdrive		Powerglide
			Locked out	Locked in	
Rear Axle Ratio		3.08:1 *	3.70:1		3.08:1 *
Tire Size		7.00 x 14-4 PR#			
Crankshaft Revolutions per Mile		2516.4	3022.9	2116.0	2516.4
Crankshaft RPM @ 1 MPH	Low	123.3	148.1	103.7	76.3
	Second	70.5	84.6	59.3	
	● Third	41.9	50.4	35.3	41.9 (direct)
	Reverse	123.3	148.1	103.7	76.3
Piston Travel (ft/mile)		1258.2	1511.5	1058.0	1258.2

* - 3.36:1 on 1400 & 1800 models and Station Wagons

\# - 7.50 x 14-4 PR on Convertible and 8.00 x 14-4 PR on Station Wagon

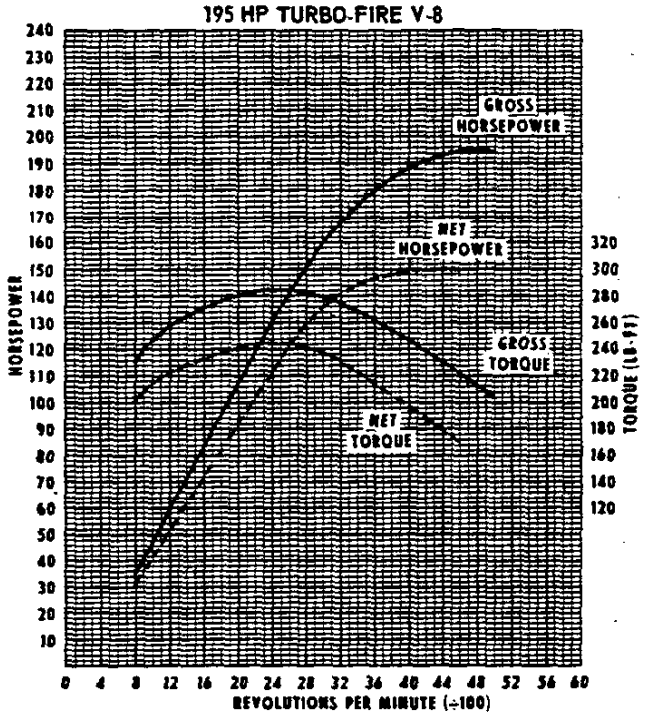
VEHICLE PERFORMANCE FACTORS

(Model 1669)

Transmission	3-Speed	3-Speed with Overdrive		Powerglide*
		Locked out	Locked in	
Performance Weight (pounds)	4197	4231		4211
Pounds per Gross Horsepower	21.52	21.70		21.60
Pounds per Cu. In. Displacement	14.83	14.95		14.88
Gross HP per Cu. In. Displacement		.689		
Power Displacement (Cu. Ft/mile)	206.06	247.54	173.27	206.06
Displacement Factor (Cu. Ft/ton mile)	98.2[illegible]	117.04	81.93	97.89

* - Data computed assuming zero slippage in torque converter.

GLOSSARY	
Performance Weight	Curb Weight plus 600 Lb (weight of four 150 lb passengers)
Power Displacement	$\frac{\text{Crankshaft Revs/Mi x Piston Displacement}}{2 \times 1728}$
Displacement Factor	$\frac{\text{Power Displacement}}{\text{Performance Wt (tons)}}$



The engine performance curves represent full throttle performance as obtained from dynamometer test data corrected to standard barometric pressure 29.92 inches of mercury and standard temperature of 60 degrees F.

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

NET POWER and TORQUE were obtained from a dynamometer test simulating actual operating conditions when the engine is in its vehicle, except the generator is not charging.

PRINCIPAL COMPONENTS

CYLINDER BLOCK
- Material ---------- Cast alloy iron
- Bore Diameter ---------- 3.8745-3.8775
- No. of Bulkheads ---------- 5
- Water Jacket -------- Full length around each cylinder
- Cylinder Numbering Arrangement (Front to Rear)
  - Left bank ---------- 1-3-5-7
  - Right bank ---------- 2-4-6-8
- Bore Spacing (℄ to ℄) ---------- 4.4

CYLINDER HEAD
- Material ---------- High chrome cast alloy iron
- Bolt No. & Size ---------- 34; .4375 dia. 14 threads/in.

● *COMBUSTION CHAMBER VOLUME* --------- 4.39 cu. in.

INLET MANIFOLD
- Material ---------- Cast alloy iron
- Type ---------- 8 port *double-deck*
- Heat Provision -------- By exhaust through crossover at carburetor base

EXHAUST MANIFOLD
- Material ---------- Cast alloy iron
- Type ---------- Dual, 4 port, center downtake
- Outlet Diameter (nominal) ---------- 2.00

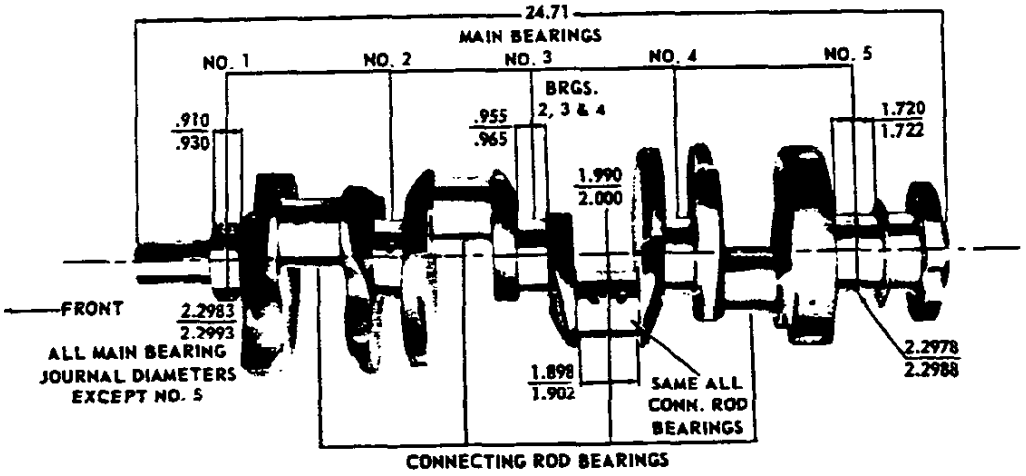
CRANKSHAFT
- ● Material ---------- Cast nodular iron or forged steel
- End Play ---------- .002-.006
- Counter Weights ---------- 6
- Crank Arm Length ---------- 1.50
- Vibration Damper ---------- None
- Timing Gear & Mtl. ---------- Sprocket & Chain; Steel
- Pulley Pitch Diameter ---------- 6.64

MAIN BEARINGS
- Material ---- Copper lead alloy or steel backed babbitt
- Type ---------- *Precision* removable
- End Thrust Against Bearing No. ---------- 5
- Clearance ---------- .0003-.0029
- Dimensions

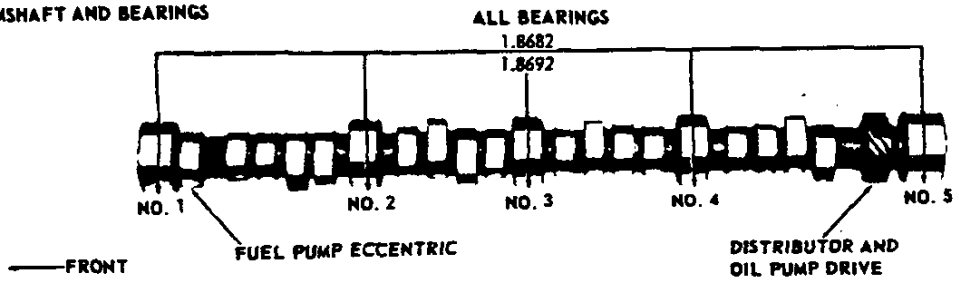
Bearing	Theoretical Inner Dia.	Effective Length	Projected Area
1-4	2.3004	.752	1.7299
5	2.3004	1.177	2.7076

CAMSHAFT
- Material ---------- Cast alloy iron
- Lobe Lift
  - Inlet ---------- .2658
  - Exhaust ---------- .2658
- Bearings
  - Number ---------- 5
  - Material ---------- Extra life steel backed babbitt

CRANKSHAFT AND BEARINGS



CAMSHAFT AND BEARINGS



PRINCIPAL COMPONENTS – Continued

VALVE TRAIN
- Type ---------- Individually mounted overhead rocker arms, push rod actuated
- Lifters ---------- Hydraulic
- Push Rods
  - Type & Material ---------- Hollow steel
  - Ends ---------- Hardened
- Rocker Arms
  - Material ---------- Stamped steel
  - Ratio ---------- 1.5:1

VALVE SPRINGS
- Diameter (I.D.) ---------- .872-.888
- Installed Length (in. @ lb.)
  - Valves Closed ---------- 1.66 @ 78-86
  - Valves Opened ---------- 1.26 @ 170-180
- Free Length ---------- 2.08
- Valve Spring Dampers ---------- Steel-4 Coils

VALVES
- Inlet Material ---------- Carbon steel
  - Coating ---------- None
- Exhaust Material ---------- High alloy steel
  - Coating, face ---------- Aluminized

VALVE LIFT
- Inlet ---------- .3987
- Exhaust ---------- .3987

VALVE TRAIN LASH
- Inlet ---------- Zero
- Exhaust ---------- Zero

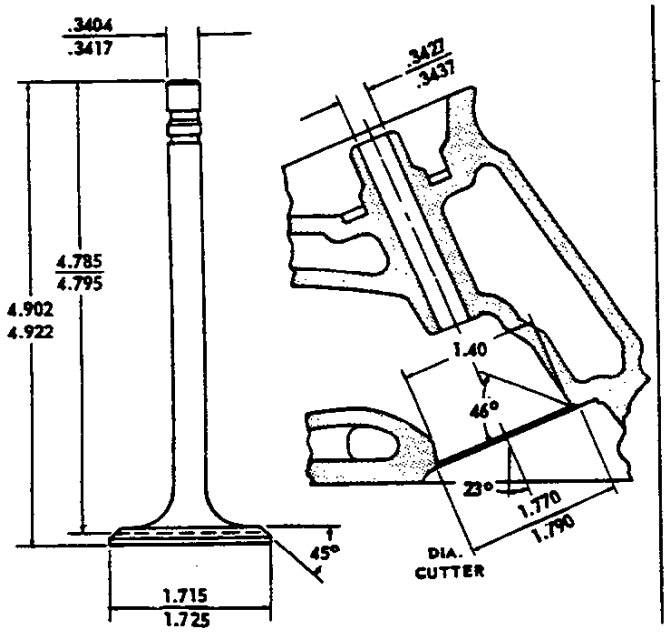
VALVE TIMING

	Excluding Ramps	Including Ramps
Inlet Valve		
Opens-BTC	12°30'	32°30'
Closes-ABC	57°30'	87°30'
Duration	250°	300°
Exhaust Valve		
Opens-BBC	54°30'	74°30'
Closes-ATC	15°30'	45°30'
Duration	250°	300°

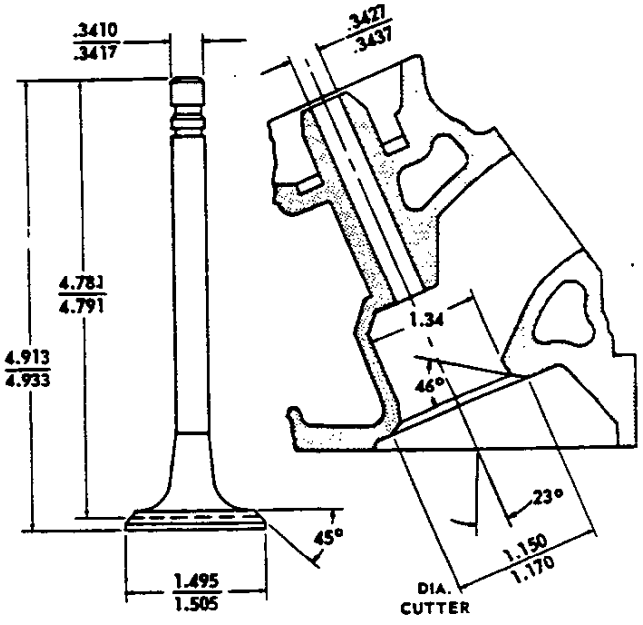
PISTON
- Material ---------- Cast aluminum alloy
- Head Type ---------- Flat, notched
- Skirt Type ---------- Slipper
- Top Land Clearance ---------- .035-.044
- Skirt Clearance ---------- .0005-.0011
- Compression Ring Groove Depth ---------- .2153-.2218
- Oil Ring Groove Depth ---------- .2093-.2158
- Pin Bore Offset ---------- .055-.065
- Compression Height ---------- 1.799-1.801

COMPRESSION RING - UPPER
- Material ---------- Cast alloy iron
- Inside Bevel ---------- Bottom edge 30 degrees to piston vertical axis
- Ring Face ---------- Tapered
- Coating ---------- Flash chrome plate
- Width ---------- .0775-.0780
- Wall Thickness ---------- .179-.194
- Gap ---------- .010-.020

INLET VALVE



EXHAUST VALVE



PRINCIPAL COMPONENTS – Continued

COMPRESSION RINGS - LOWER
- Material ---------- Cast alloy iron
- Inside Bevel ---------- Top edge 30 degrees to piston vertical axis
- Ring Face ---------- Tapered
- Coating ---------- Wear resistant
- Width ---------- .0770-.0780
- Wall Thickness ---------- .184-.194
- Gap ---------- .010-.020

OIL CONTROL RINGS
- Material ---------- Steel
- Type ---------- Multi-piece (2 rails and one spacer)
- Width ---------- .1840-.1880 assembled
- Wall Thickness ---------- .150-.156
- Gap ---------- .015-.055
- Rail Coatings ---------- Chrome plated

PISTON PINS
- Material ---------- Chromium steel
- Length ---------- 2.990-3.010
- Diameter ---------- .9270-.9273
- *Clearance in Piston* ---------- .00015-.00025
- Pin Mounting ---------- Locked in rod by shrink fit

CONNECTING RODS
- Material ---------- Forged steel
- *Length (center to center)* ---------- 5.699-5.701

CONNECTING ROD BEARINGS
- Material ----- Copper lead alloy or Steel backed babbitt
- Type ---------- Precision removable
- Clearance ---------- .0007-.0027
- Theo. I.D. ---------- 2.0016
- *Effective Length* ---------- .807
- End Play ---------- .009-.013

FUEL SYSTEM

FUEL TANK
- Capacity (Gal)
  - Sedans & Coupes ---------- 20
  - Station Wagon ---------- 19
- Fuel Tank Location
  - *Station Wagon* ---------- In left quarter panel behind rear wheel
  - Remaining Models ---------- Rearward of rear axle kick-up, in shelf area
  - Filler Location ---------- Behind opening in left rear quarter panel

FUEL FILTER
- In Fuel Tank ---------- Mesh strainer
- In Carburetor Inlet ---------- Sintered bronze filter

CARBURETOR
- Make ---------- Rochester
- Type ---------- 2 barrel, downdraft
- SAE Flange Size ---------- 1.25
- Throttle Bore ---------- 1.44
- *Venturi Diameter* ---------- 1.09

AIR CLEANER
- Type ---------- Resin impregnated paper type element

FUEL PUMP ASSEMBLY
- Drive ---------- Camshaft eccentric
- Type ---------- Diaphragm
- Location ---------- Lower right front of engine
- Pressure Range ---------- 5.25-6.50 PSI

EXHAUST and VENTILATION SYSTEM

EXHAUST SYSTEM
- Type ---------- Single

MUFFLERS
- Type ---------- Oval, reverse flow
- Construction ---------- Heads and body joined by rolled lock seam construction
- Shell ---------- .036 sheet steel
- Wrap ---------- .030 indented asbestos steel
- Cover ---------- .018 sheet steel
- Heads ---------- .048 sheet steel
- Baffles ---------- 5; -.036 sheet steel
- *Coating -- Interior and exterior completely aluminized*
- Length, Body ---------- 29.24
- Width (I.D.) ---------- 3.24
- Height (I.D.) ---------- 7.74

EXHAUST CROSS OVER PIPE
- Dimensions (O.D.) ---------- 2.00
- Wall Thickness ---------- .067-.083

EXHAUST PIPE
- Dimensions (O.D.) ---------- 2.00
- Wall Thickness ---------- .057-.069

TAIL PIPE
- Dimensions (O.D.) ---------- 1.875
- Wall Thickness ---------- .062-.076

ENGINE VENTILATION
- Type ---------- Positive; Fumes withdrawn into induction system, fresh air enters the crankcase through oil breather cap and oil filler tube.

LUBRICATION SYSTEM

GENERAL
- Type ---------- Controlled full pressure
- Main Bearings ---------- Pressure
- Connecting Rods ---------- Pressure
- Piston Pins ---------- Splash
- Cylinder Wall ---------- Pressure, jet cross sprayed
- Camshaft Bearings ---------- Pressure
- Valve Lifters ---------- Pressure
- Rocker Arms ---------- Pressure
- Timing Gears ---------- Nozzle sprayed
- Oil Pressure Sending Unit
- Type ---------- Electric
- Actuation ----- Opens or closes circuit @ 2 to 6 PSI
- Oil Filler
- Cap ---------- Oil wetted crimped aluminum breather
- Location ---------- Left front of intake manifold

CRANKCASE CAPACITY (Quarts)
- Refill ---------- 4.0
- Refill with Filter Change ---------- 5.0

OIL PUMP
- Type ---------- Gear
- Regulator Valve ---------- Opens between 40-45 lbs
- Oil Pressure at @ 1500 RPM ---------- 35-45 PSI
- Intake Type ---------- Fixed
- Capacity (GPM @ Eng. RPM) ---------- 4.3 @ 2000

OIL FILTER
- Make ---------- AC
- Type ---------- Full flow, replaceable element
- Location ---------- Left rear, underside of engine
- Capacity (Qts.) ---------- 1
- By-Pass Valve ---------- Opens between 9 to 11 PSI drop in pressure

LUBRICANT GRADES AND TEMPERATURES
- 32°F and Above ----- SAE 20W, SAE 20 or SAE 10W-30
- 0° F and Above ---------- SAE 10W, or SAE 10W-30
- Below 0°F ---------- SAE 5W or SAE 5W-20

OIL PAN
- Type of Drain Plug ---------- Screw, Hex head
- Location ---------- Lower front face of oil pan sump
- Size Hex Head ---------- .860-.875
- Thread ---------- 1/2-20-UNF 2A
- Length ---------- 0.81
- Diameter ---------- .410-.430

COOLING SYSTEM

GENERAL
- Type ---------- Liquid, Pressurized
- Capacity with Heater (Standard Equipment) ------ 17 qts

RADIATOR
- Make and Type ---------- Harrison, tube on center
- Core Constant and Thickness
- Distance between fins ---------- .20 (Syn).18(P/G)
- Distance between tubes ---------- .55
- Thickness of Core ---------- 1.26
- Frontal Area (Sq. In.) ---------- 357

RADIATOR HEAVY DUTY (RPO-V01)
- Core Constant and Thickness
- Distance between fins ---------- .18(Syn).16(P/G)
- Distance between tubes ---------- .55
- Thickness of Core ---------- 1.75
- Frontal Area (Sq. In.) ---------- 429

RADIATOR CAP RELIEF VALVE
- Opens at ---------- Approx. 13 PSI

THERMOSTAT
- Type ---------- Pellet
- Begins to Open ---------- 177°-183° F
- Fully Opened ---------- 212° F

RADIATOR HOSE
- Outlet, Lower (radiator to water pump) ------- 1.75 ID
- Inlet, Upper (thermostat hsg. to radiator) ------ 1.50 ID

FAN
- Number of Blades ---------- 4
- Diameter ---------- 17.62
- Fan Pulley Pitch Diameter ---------- 7.00

BELT, CRANKSHAFT, FAN AND GENERATOR
- Number Used ---------- One
- Angle of "V" ---------- 38°-42°
- Pitch Line ---------- 53.25
- Width ---------- .380

WATER PUMP
- Type ---------- Centrifugal
- Capacity ---------- 53 GPM @ 4200 RPM
- Bearing ------- Permanently lubricated double row ball
- Drive ---------- Fan Belt
- Ratio (pump to engine RPM) ---------- .949:1

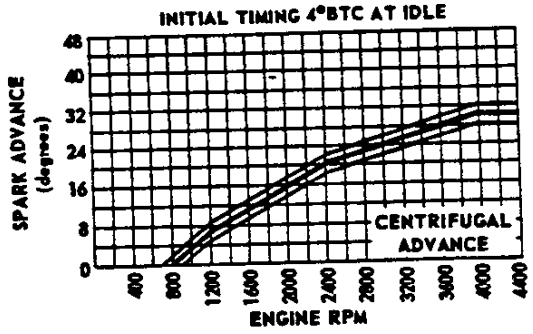
DRAIN LOCATIONS
- Radiator ---------- Rightside bottom
- Type ---------- Petcock
- Engine Block ---------- Right and left center
- Type ---------- Plug

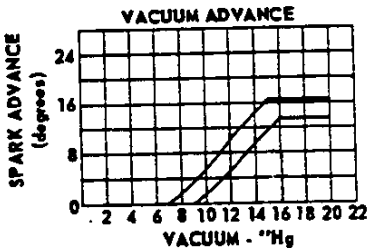
ELECTRICAL SYSTEM

SUPPLY SYSTEM
- BATTERY
  - Make ---------- Delco-Remy
  - Voltage Rating ---------- 12
  - Capacity ---------- 44 amp. hr. @ 20 hr. rate
  - Heavy Duty (RPO T60) ----- 70 amp. hr. @ 20 hr. rate
  - Total Number of Plates ---------- 54; Heavy Duty 66
  - Number of Cells ---------- 6
  - Terminal Grounded ---------- Negative
  - Location ---------- Right front engine compartment
- GENERATOR
  - Make ---------- Delco-Remy
  - Type ---------- Diode rectified
  - Rating
    - Amps ---------- 9-37
    - Volts ---------- 12-15
  - Drive ---------- By fan belt
  - Pulley Pitch Diameter ---------- 2.70
  - Ratio (Gen to Engine Speed) ---------- 2.46:1
- REGULATOR
  - Make ---------- Delco-Remy
  - Type ---------- Two unit, Vibrator
  - Voltage Regulator
    - Voltage ---------- 13.8-14.8 @ 85°F
  - Field Relay (Combination light and field relay)
    - Closing Voltage ---------- 1-3 Volts @ 80°F
  - Location ---------- Left side front engine compartment

STARTING SYSTEM
- STARTING MOTOR
  - Make ---------- Delco-Remy
  - Rotation (drive end view) ---------- Clockwise
  - Test Conditions ---------- Engine at operating temp
  - No Load Test
    - Amps ---------- 49-76
    - Volts ---------- 10.6
    - RPM ---------- 6200-9400
  - Motor Drive
    - Engagement ---------- Solenoid
    - Pinion meshes at ---------- Rear
    - Pinion tooth no. ---------- 9
    - Flywheel tooth no. ---------- 153
  - ● Mounting ---------- Bolted to cylinder block flange

IGNITION SYSTEM
- COIL
  - Make ---------- Delco-Remy
  - Type ---------- 12 Volt
  - Amperes Drawn
    - Engine stopped ---------- 4.0
    - Engine idling ---------- 1.8
- DISTRIBUTOR
  - Make ---------- Delco-Remy
  - Type ---------- Single breaker
  - Cam Angle ---------- 28°-32°
  - Breaker Gap ---------- .019 (new)
  - Breaker Arm Tension ---------- 19-23 oz
  - Centrifugal Advance Begins (RPM) ---------- 800
  - Max Degrees @ RPM ---------- 30° @ 4000
  - Vacuum Advance Begins (In Hg) ---------- 8
  - Max Degrees @ RPM ---------- 15 @ 15.5
  - Timing (Initial Design Setting)
    - Crankshaft Degrees @ RPM -------- 4° ± 1° @ 550 with vacuum spark line disconnected
  - Timing Mark Location ----- On crankshaft pulley hub
  - Firing Order ---------- 1-5-3-6-2-4
- CABLE ------- Linen core impregnated with electrical conducting material and insulation of rubber with neoprene jacket.
- SPARK PLUGS
  - Make ---------- AC45
  - Thread Size (mm) ---------- 14
  - Gap ---------- .033-.038
  - Torque ---------- 25 lb ft





327 CUBIC INCH V-8 ENGINE

1964

GENERAL DATA

		Synchromesh	4-Speed	Powerglide
Piston Displacement (Cu In)		327		
Type		Valve-in-head		
Number Cylinders		8		
Bore and Stroke (nominal)		4.0 x 3.25		
Compression Ratio		10.5:1		
Taxable (SAE) Horsepower		51.2		
Firing Order		1-8-4-3-6-5-7-2		
Idling Speed (RPM)		500		475
Compression Press (PSI) @ Cranking Speed, Engine hot		160		
Lubrication		Full pressure		
Power Plant Mounting		Two front, combination compression & shear type; one rear, full shear type		
Measurements	Fan to rear of engine block	30.64		
	Top air cleaner to bottom oil pan	29.9[illegible]		
	Exhaust manifold to generator (width)	28.92		

ADVERTISED ENGINE RATINGS

Engine		Turbo-Fire 327 250 HP	Turbo-Fire 327 300 HP
Option		RPO L30	RPO L74
Carburetor		4 Barrel	Large 4 Barrel Aluminum
Brake Horsepower	Gross	250 @ 4400 RPM	300 @ 5000 RPM
	Net	210 @ 4400 RPM	
Torque (Lb-Ft)	Gross	350 @ 2800 RPM	360 @ 3200 RPM
	Net	315 @ 2600 RPM	

ENGINE SPEED AND PISTON TRAVEL

Transmission		3-Speed	4-Speed	Powerglide
Rear Axle Ratio		3.36:1		3.08:1**
Tire Size		7.50 x 14-4 PR*		
Crankshaft Revolutions per Mile		2688.0		2464.0
Crankshaft RPM @ 1 MPH	Low	115.6	114.7	72.3
	Second	66.3	85.6	
	Third	44.8	66.3	
	Fourth		44.8	41.1 (direct)
	Reverse	115.6	118.2	72.3
Piston travel (Ft/mile)		1456.0		1334.7

* - 8.00 x 14-4 PR Tires standard on Station Wagons
** - 3.36:1 on 300 HP RPO L74

VEHICLE PERFORMANCE FACTORS
(Model 1669)

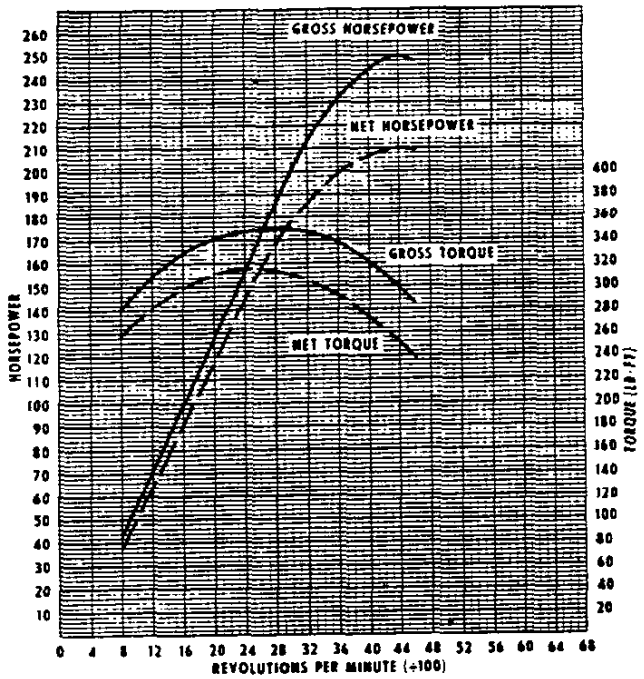
ENGINE - 327 Cu. In. V-8	250 HP RPO L30	300 HP RPO L74
3-Speed Transmission		
Performance Weight (pounds)	4276	4286
Pounds per Gross Horsepower	17.10	14.29
Pounds per Cu. In. Displacement	13.08	13.11
Gross HP per Cu. In. Displacement	.765	.917
Power Displacement (Cu. Ft./mile)	254.33	254.33
Displacement Factor (Cu. Ft./ton mile)	119.01	118.68
4-Speed Transmission		
Performance Weight (pounds)	4282	4293
Pounds per Gross Horsepower	17.13	14.31
Pounds per Cu. In. Displacement	13.10	13.12
Gross HP per Cu. In. Displacement	.765	.917
Power Displacement (Cu. Ft./mile)	254.33	254.33
Displacement Factor (Cu. Ft./ton mile)	118.79	118.49
Powerglide*		
Performance Weight (pounds)	4290	4300
Pounds per Gross Horsepower	17.16	14.33
Pounds per Cu. In. Displacement	13.12	13.15
Gross HP per Cu. In. Displacement	.765	.917
Power Displacement (Cu. Ft./mile)	233.14	254.33
Displacement Factor (Cu. Ft./ton mile)	108.69	118.29

* - Data computed assuming zero slippage in torque converter.

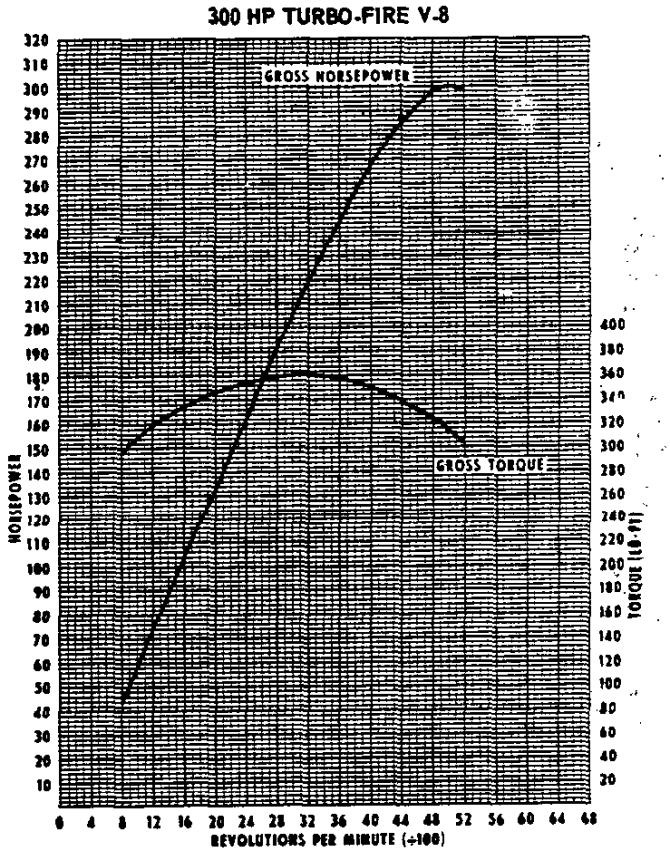
GLOSSARY

Performance Weight	Curb Weight plus 600 Lb (weight of four 150 lb passengers)
Power Displacement	$\frac{\text{Crankshaft Revs/Mi x Piston Displacement}}{2 \times 1728}$
Displacement Factor	$\frac{\text{Power Displacement}}{\text{Performance Wt (tons)}}$

250 HP TURBO-FIRE V-8



300 HP TURBO-FIRE V-8



The engine performance curves represent full throttle performance as obtained from dynamometer test data corrected to standard barometric pressure 29.92 inches of mercury and standard temperature of 60 degrees F.

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

NET POWER and TORQUE were obtained from a dynamometer test simulating actual operating conditions when the engine is in its vehicle, except the generator is not charging.

PRINCIPAL COMPONENTS

CYLINDER BLOCK
- Material ---------- Cast alloy iron
- Bore Diameter ---------- 3.9995-4.0025
- No. of Bulkheads ---------- 5
- Water Jackets -------- Full length around each cylinder
- *Cylinder Numbering Arrangement (Front to Rear)*
  - Left Bank ---------- 1-3-5-7
  - Right Bank ---------- 2-4-6-8
- Bore Spacing (℄ to ℄) ---------- 4.4

CYLINDER HEAD
- Material ---------- High chrome cast alloy iron
- Bolt No. & Size -------- 34; .4375 dia., 14 Threads/in.

● COMBUSTION CHAMBER VOLUME
- RPO-L30 ---------- 4.43 Cu In
- RPO-L74 ---------- 4.49 Cu In

INLET MANIFOLD
- Material ---------- Cast alloy iron
- Type -------- 8 port double deck; (RPO-L74) large port
- Heat Provision ---------- By exhaust, through crossover at carburetor base

EXHAUST MANIFOLD
- Material ---------- Cast alloy iron
- *Type* ---------- *Dual, 4 port, center downtake*
- Outlet Diameter (nominal) ---------- 2.0 (RPO-L74) 2.5

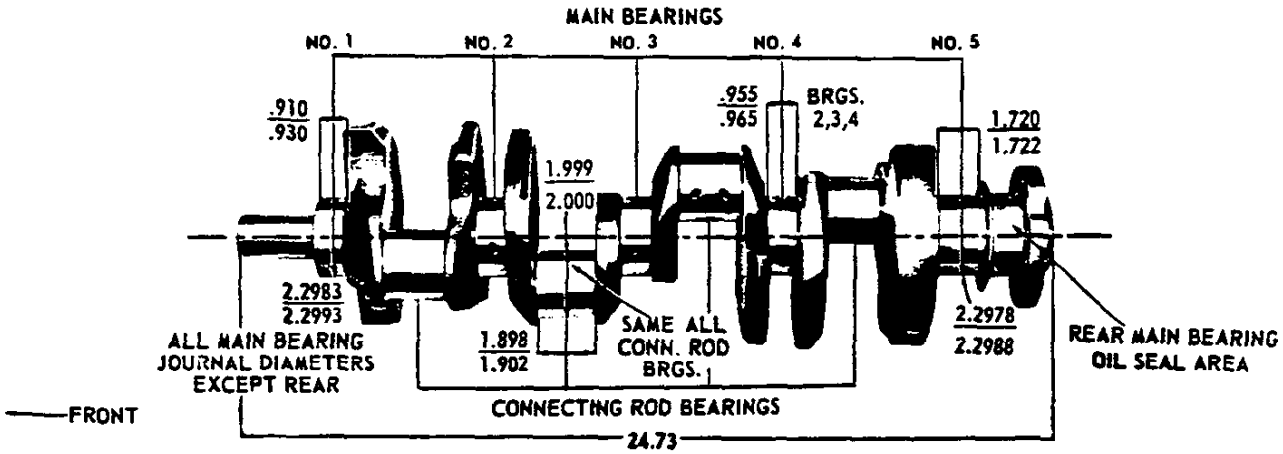
CRANKSHAFT
- Material ---------- Forged steel
- End Play ---------- .002-.006
- Counter Weights ---------- 6
- Crank Arm Length ---------- 1.625
- *Vibration Damper* ---------- *Rubber mounted inertia*
- Timing Gear & Material ------ Sprocket & chain; steel
- Pulley Pitch Diameter ---------- 6.64

MAIN BEARINGS
- Material ---------- Premium aluminum except No. 5 upper - steel backed babbitt
- Type ---------- Precision removable
- End Thrust Against Bearing No. ---------- 5
- Clearance ---------(#1-4) .0008-.0034 (#5) .0010-.0036

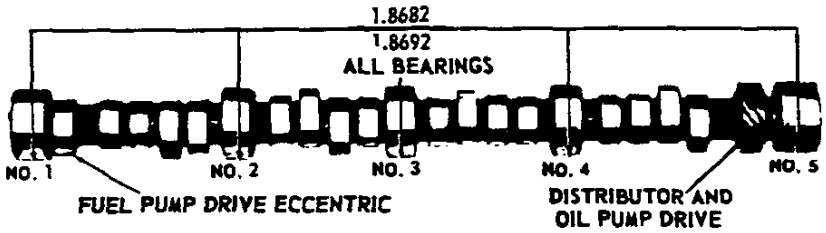
Dimensions / Bearings	Theoretical Inner Dia.	Effective Length	Projected Area
1-4	2.3009	.752	1.7303
5	2.3006	1.1824	2.7202

CAMSHAFT
- Material ---------- Cast alloy iron
- Lobe Lift
  - Inlet ---------- .2658
  - Exhaust ---------- .2658
- Bearings
  - *Number* ---------- 5
  - Material ---------- Extra life steel backed babbitt

CRANKSHAFT AND BEARINGS



CAMSHAFT AND BEARINGS



PRINCIPAL COMPONENTS – Continued

VALVE TRAIN
- Type ---------- Individually mounted overhead rocker arms push rod actuated
- Lifters ---------- Hydraulic
- Push Rods
  - Type of Material ---------- Hollow steel
  - Ends ---------- Hardened
- Rocker Arms
  - Type & Material ---------- Stamped steel
  - Ratio ---------- 1.5:1

VALVE SPRINGS
- Diameter (I.D.) ---------- .872-.888
- Installed Length (in. @ lb)
  - Valves Closed ---------- 1.66 @ 78-86
  - Valves Opened ---------- 1.26 @ 170-180
- Free Length ---------- 2.08
- Valve Spring Damper ---------- Steel - 4 Coils

VALVES
- Inlet Material ---------- Carbon steel; (L74) Alloy steel
  - Coating ---------- None
- Exhaust Material ---------- High alloy steel
  - Coating, face ---------- Aluminized

VALVE LIFT
- Inlet ---------- .3987
- Exhaust ---------- .3987

VALVE TRAIN LASH
- Inlet ---------- Zero
- Exhaust ---------- Zero

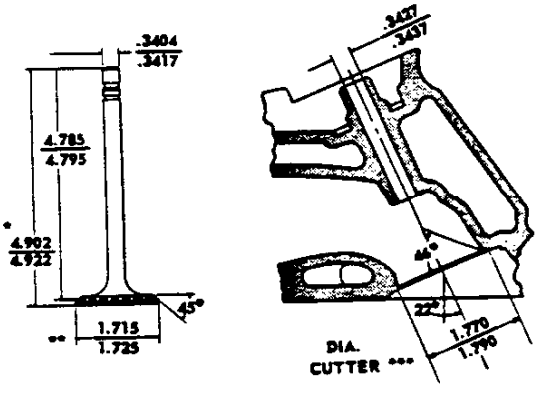
VALVE TIMING

	Excluding Ramps	Including Ramps
Inlet Valve		
Opens - BTC	12° 30'	32° 30'
Closes - ABC	57° 30'	87° 30'
Duration	250°	300°
Exhaust Valve		
Opens - BBC	54° 30'	74° 30'
Closes - ATC	15° 30'	45° 30'
Duration	250°	300°

PISTON
- Material ---------- Cast aluminum alloy
- Head Type ---------- Flat, notched
- Skirt Type ---------- Slipper
- Top Land Clearance ---------- .0365-.0455
- Skirt Clearance ---------- .0005-.0011
- Compression Ring Groove Depth ---------- .2217-.2283
- Oil Ring Groove Depth ---------- .2038-.2103
- Pin Bore Offset ---------- .055-.065
- Compression Height ---------- 1.674-1.676

COMPRESSION RING - UPPER
- Material ---------- Cast alloy iron
- Inside Bevel ---------- Bottom edge 30 degrees to piston vertical axis
- Ring Face ---------- Tapered
  - Coating ---------- Flash chrome plate
- Width ---------- .0775-.0780
- Wall Thickness ---------- .190-.200
- Gap ---------- .013-.023

INLET VALVE

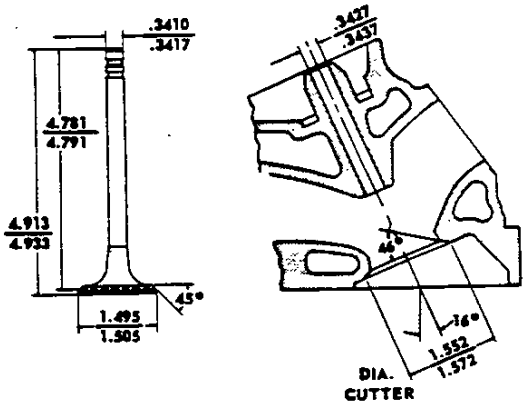


* 4.870 / 4.889 on RPO L74

** 1.935 / 1.945 on RPO L74

*** 1.990 / 2.010 on RPO L74

EXHAUST VALVE



PRINCIPAL COMPONENTS – Continued

COMPRESSION RINGS - LOWER
- Type ---------- One ring and one expander
- Ring
  - Material ---------- Cast alloy iron
  - Inside Bevel ---------- Top edge 30 degrees to piston vertical axis
  - Ring Face ---------- Tapered
  - Coating ---------- Wear resistant
  - Width ---------- .0770-.0775
  - Wall Thickness ---------- .164-.170
  - Gap ---------- .013-.025
- Expander
  - Material ---------- Steel
  - Width ---------- .068-.074

OIL CONTROL RINGS
- Material ---------- Steel
- Type ---------- (2 rails and one spacer)
- Width ---------- .1840-.1880 assembled
- Wall Thickness ---------- .150-.156
- Gap ---------- .015-.055
- Rail Coatings ---------- Chrome plated

PISTON PINS
- Material ---------- Chromium steel
- Length ---------- 2.990-3.010
- Diameter ---------- .9270-.9273
- Clearance in Piston ---------- .00015-.00025
- Pin Mounting ---------- Locked in rod by shrink fit

CONNECTING RODS
- Material ---------- Drop forged steel
- Length (center to center) ---------- 5.699 - 5.701

CONNECTING ROD BEARINGS
- Material ---------- Premium aluminum
- Type ---------- Precision removable
- Clearance ---------- .0007-.0028
- Theo I.D. ---------- 2.0017
- Effective Length ---------- .807
- End Play ---------- .009-.013

FUEL SYSTEM

FUEL TANK
- Capacity (Gal)
  - Sedan & Coupes ---------- 20
  - Station Wagons ---------- 19
- Fuel Tank Location
  - Station Wagon ---------- In left quarter panel behind rear wheel
  - Remaining Models ---------- Rearward of rear axle kick-up in shelf area
- Filler Location ---------- Behind opening in left rear quarter panel

FUEL FILTERS, DUAL
- In Fuel Tank ---------- Mesh strainer
- RPO-L30 ---------- Sintered bronze filter in carburetor inlet
- RPO-L74 ---------- Glass bowl with paper element between fuel pump and carburetor

FUEL PUMP ASSEMBLY
- Drive ---------- Camshaft, eccentric
- Type ---------- Diaphragm
- Location ---------- Lower right front of engine
- Pressure Range ---------- 5.25-6.50 PSI

CARBURETOR
- Make ---------- Carter, synchromesh Carter & Rochester, Powerglide
- Type
  - RPO-L30 ---------- 4 barrel downdraft
  - RPO-L74 ---------- 4 barrel aluminum downdraft
- SAE Flange Size ---------- 1.50
- Throttle Bore
  - Primary ---------- 1.4375 (RPO-L30) 1.5625 (RPO-L74)
  - Secondary ---------- 1.4375 (RPO-L30) 1.6875 (RPO-L74)
- Secondary Throttle Actuation ---------- By linkage approximately when primary valves are opened half way between closed and full open
- Venturi Diameter
  - Primary ---------- 1.06 (RPO-L30) 1.25 (RPO-L74)
  - Secondary ---------- 1.25 (RPO-L30) 1.56 (RPO-L74)

AIR CLEANER
- Type ---------- AC, Resin impregnated paper type element

EXHAUST and VENTILATION SYSTEM

EXHAUST SYSTEM
- Type ---------- Dual

MUFFLERS
- Type ---------- Dual, reverse flow
- Construction ---------- Heads and body joined by rolled lock seam construction
- Shell
  - Right hand ---------- .036 stainless steel
  - Left hand ---------- .036 sheet steel aluminum coating
- Wrap ---------- .060 indented asbestos sheet
- Cover ---------- .018 sheet steel aluminum coating
- Heads
  - Right hand ---------- .048 stainless steel
  - Left hand ---------- .048 sheet steel aluminum coating
- Baffles
  - Right hand ---------- 5;-.036 stainless steel
  - Left hand ---------- 5;-.036 sheet steel alum. coating
- *Length, Body* ---------- 29.24
- Width (ID) ---------- 3.24
- Height (ID) ---------- 7.74

RESONATORS
- Type ---------- Straight through
- Material ---------- .036 sheet steel
- Corrosion prevention ---------- Interior & exterior aluminum coated

EXHAUST PIPES
- *Dimensions* ---------- 2.00 (RPO-L30) 2.50 (RPO-L74)
- Wall Thickness ---------- .062-.063 (RPO-L30) .067-.081 (RPO-L74)

TAIL PIPES
- Dimensions ---------- 1.87 (RPO-L30) 2.00 (RPO-L74)
- Wall Thickness ---------- .052-.066

ENGINE VENTILATION
- Type ---------- Positive; Fumes withdrawn into induction system, fresh air enters the crankcase through oil breather cap and oil filler tube

LUBRICATION SYSTEM

GENERAL
- Type ---------- Controlled full pressure
  - Main Bearings ---------- Pressure
  - Connecting Rods ---------- Pressure
  - Piston Pins ---------- Splash
  - Cylinder Walls ---------- Pressure, jet cross sprayed
  - Camshaft Bearings ---------- Pressure
  - Valve Lifters ---------- Pressure
  - Rocker Arms ---------- Pressure
  - Timing Gears ---------- Nozzle sprayed
- Oil Pressure Sending Unit
  - *Type* ---------- *Electric*
  - Actuation ---------- Opens or closes circuit @ 2 to 6 PSI
- Oil filler
  - Cap ---------- Oil wetted crimped aluminum breather
  - Location ---------- Left front of intake manifold

CRANKCASE CAPACITY (Quarts)
- Refill ---------- 4.0
- Refill with Filter Change ---------- 5.0

OIL PUMP
- *Type* ---------- *Gear*
- Normal Oil Pressure ----------30-45 PSI @ 1500 RPM
- *Intake Type* ---------- *Fixed*
- Capacity (GPM @ Eng RPM) ---------- 4.3 @ 2000
- Regulator Valve ---------- Opens between 40-45 lbs

OIL FILTER
- Type ---------- Full flow, replaceable element
- Location ---------- Left rear underside of engine
- Capacity (Qts) ---------- 1
- By-Pass Valve ---------- Opens between 9 to 11 PSI drop in pressure

LUBRICANT GRADES AND TEMPERATURES
- 32 degrees F and Above - SAE 20W SAE 10 or SAE 10W-30
- 0 degrees F and Above ------ SAE 10W, or SAE 10W-30
- Below 0 degrees F ---------- SAE 5W or SAE 5W-20

OIL PAN
- Type of Drain Plug ---------- Hex head
- Location ---------- Lower front edge of oil pan sump
- Size Hex Head ---------- .860-.875
- Thread ---------- 1/2-20 UNF 2A
- Length ---------- .081
- Diameter ---------- .410-.430

COOLING SYSTEM

GENERAL
- Type ---------- Liquid, pressurized
- Capacity with Heater ---------- 16 qts; (RPO L74) 18 qts

RADIATOR
- Make & Type ---------- Harrison; tube on center
- Core Constant and Thickness
  - Distance between fins ---------- .20 (Syn) .18 (P/G)
    RPO L74 --- .22 (Syn & P/G)
  - Distance between tubes ---------- .55
  - Thickness of core ---------- 1.26; (RPO L74) 1.75
- Frontal Area (Sq. In) ---------- 357; (RPO L74) 429

RADIATOR HEAVY DUTY (RPO-V01)
- Distance between fins ---------- .18 (Syn) .16 (P/G)
  RPO L74 --- .18 (Syn & P/G)
- Distance between tubes ---------- .55
- Thickness of core ---------- 1.75
- Frontal Area (Sq. In) ---------- 429; (RPO L74) 439

RADIATOR CAP RELIEF VALVE
- Opens at ---------- Approx 13 PSI

THERMOSTAT
- Type ---------- Pellet
- Begins to Open ---------- 177°-183° F
- Fully Opened ---------- 212° F

RADIATOR HOSE
- Outlet Lower (radiator to waterpump) ---------- 1.75 ID
- Inlet, Upper (thermostat hsg to radiator) ------- 1.50 ID

FAN
- Number of Blades ---------- 5, staggered
- Diameter ---------- 18.00
- Fan Pulley Pitch Diameter ---------- 7.00
- Drive
  - Type ---------- Thermo modulated fluid coupling
  - Performance --------- At 4000 RPM input, fan speed
    3200-3500 RPM @ 135°-150°F;
    800-1600 RPM @ 120 F and below

BELT, CRANKSHAFT, FAN AND GENERATOR
- Number Used ---------- One
- Angle of "V" ---------- 38°-42°
- Pitch Line ---------- 53.25
- Width ---------- .380

WATER PUMP
- Type ---------- Centrifugal
- Capacity ---------- 55 GPM @ 4000 RPM
- Bearing -------- Permanent lubricated double row ball
- Drive ---------- Fan belt
- Ratio Pump to Engine RPM ---------- .949:1

DRAIN LOCATIONS
- Radiator
  - RPO-L30 ---------- Left side bottom
  - RPO-L74 ---------- Right side bottom
- Type ---------- Petcock
- Engine Block ---------- Right and left center
- Type ---------- Plug

ELECTRICAL SYSTEM

SUPPLY SYSTEM
- BATTERY
  - Make ---------- Delco-Remy
  - Voltage ---------- 12
  - Capacity (SAE) ---------- 61 amp. hr. @ 20 hr. rate
  - Heavy Duty (RPO-T60) ---- 70 amp. hr. @ 20 hr. rate
  - Total Number of Plates ---------- 66
  - Number of Cells ---------- 6
  - Terminal Grounded ---------- Negative
  - Location ---------- Right front engine compartment

GENERATOR
- Make ---------- Delco-Remy
- Type ---------- Diode rectified
- Rating
  - Amps ---------- 9.37
  - Volts ---------- 10-15
- Drive ---------- By fan belt
- Pulley Pitch Diameter ---------- 2.70
- Ratio (Gen to Engine Speed) ---------- 2.46:1

REGULATOR
- Make ---------- Delco-Remy
- Type ---------- Two unit; Vibrator
- Voltage Regulator
  - Voltage ---------- 13.8-14.8 @ 85°F
- Field Relay (Combination light & field relay)
  - Closing Voltage ---------- 1-3 volts @ 80°F
- Location ---------- Left side front eng. compartment

ELECTRICAL SYSTEM - Continued

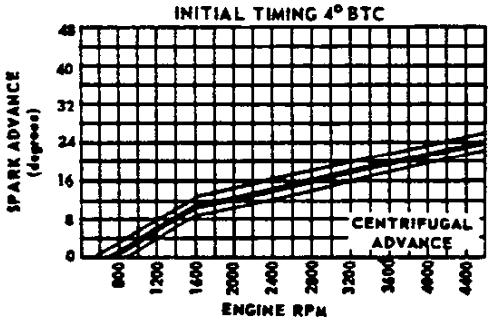
STARTING SYSTEM
STARTING MOTOR
Make ---------- Delco-Remy
Rotation (drive end view) ---------- Clockwise
Test Conditions ---- Engine at operating temperature
No Load Test
Amps ---------- 65-100
Volts ---------- 10.6
RPM ---------- 3600-5100
Motor Drive
Engagement ---------- Solenoid
Pinion meshes at ---------- Rear
Pinion tooth no. ---------- 9
Flywheel tooth no. ---------- 153
● Mounting ---------- Bolted to cylinder block flange

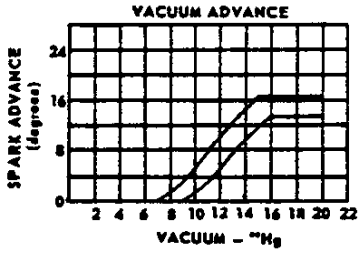
IGNITION SYSTEM
COIL
Make ---------- Delco-Remy
Type ---------- 12 Volt
Amperes Drawn
Engine stopped ---------- 4.0
Engine idling ---------- 1.8

DISTRIBUTOR
Make ---------- Delco-Remy
Type ---------- Single breaker
Cam Angle ---------- 28°-32°
Breaker Gap ---------- .019 (new)
Breaker Arm Tension ---------- 19-23 oz
Centrifugal Advance begins (RPM) ---------- 700
Max Degrees @ RPM ---------- 24 @ 4600
Vacuum Advance begins (In Hg) ---------- 8
Max Degrees in Hg ---------- 15 @ 15.5
Timing (Initial Design Setting)
● Crankshaft Degrees@RPM --------- 4°±1° BTC @ 550 (RPO-L30) 8° @550 (RPO-L74) with vacuum spark line disconnected
Timing Mark Location ---------- On harmonic balancer
Firing Order ---------- 1-8-4-3-6-5-7-2

SPARK PLUGS
Make ---------- AC44
Thread Size (mm) ---------- 14
Gap ---------- .033-.038
Torque ---------- 25 lb ft

CABLE --------- Linen core impregnated with electrical conducting material and insulation of rubber with neoprene jacket





1964

GENERAL DATA

		3-Speed	4-Speed
Piston Displacement (Cu In.)		409	
Type		Valve-in-head	
Number Cylinders		8	
Bore and Stroke (nominal)		4.3125 x 3.50	
Compression Ratio		11.00:1*	
Taxable (SAE) Horsepower		59.5	
Firing Order		1-8-4-3-6-5-7-2	
Idling Speed (RPM)		700#	
Compression Press (PSI) @ Cranking Speed, Engine Hot		150	
Lubrication		Full pressure	
Power Plant Mounting		Two front, combination compression & shear type; one rear, full shear type	
Measurements	Fan to rear of engine block	32.47	
	Top air cleaner to bottom oil pan	31.60	
	Exhaust manifold to generator (width)	31.43	

* 10.00:1 on RPO-L33
\# 500 on RPO-L33

ADVERTISED ENGINE RATINGS

Engine	Turbo-Fire 409 340 HP	Turbo-Fire 409 400 HP	Turbo-Fire 409 425 HP
Carburetor	4-Barrel	Large 4-Barrel Aluminum	Two 4-Barrel Aluminum
Option	RPO-L33	RPO-L31	RPO-L80
Brake Gross Horsepower	340 @ 5000	400 @ 5800	425 @ 6000
Gross Torque (Lb-Ft)	420 @ 3200	425 @ 3600	425 @ 4200

ENGINE SPEED AND PISTON TRAVEL

Transmission		4-Speed		Powerglide (a) ●
Rear Axle Ratio		3.36:1 (b)	3.08:1 (c)	3.08:1
Tire Size		8.00 x 14-4PR		
Crankshaft Revolutions per Mile		2637.6	2417.8	2417.8
Crankshaft RPM @ 1 MPH	Low	112.5	103.2	70.9
	Second	84.0	77.0	
	Third	65.1	59.6	
	Fourth	44.0	40.3	40.3 (direct)
	Reverse	116.1	106.4	70.9
Piston Travel (Ft/Mile)		1538.6	1410.4	1410.4

(a) - Available with RPO-L33 only
(b) - Optional 4.11 & 4.56 axles available with 4-speed on RPO-L31 & L80
(c) - Available with RPO-L80 only

VEHICLE PERFORMANCE FACTORS
(Model 1669)

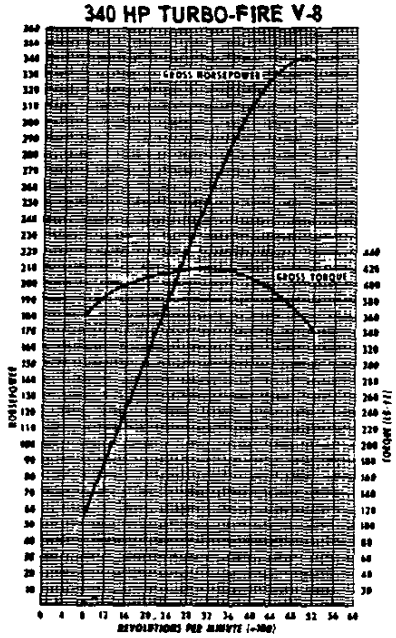
ENGINE - 409 Cu. In. V-8	340 HP RPO L33	400 HP RPO L31	425 HP RPO L80
4-Speed Transmission			
Performance Weight (pounds)	4445	4424	4433
Pounds per Gross Horsepower	13.07	11.06	10.43
Pounds per Cu. In. Displacement	10.87	10.82	10.84
Gross HP per Cu. In. Displacement	.831	.978	1.039
Power Displacement (Cu. Ft./mile)	312.15	312.15	312.15
Displacement Factor (Cu. Ft./ton mile)	140.48	141.11	140.86
Powerglide *			
Performance Weight (pounds)	4457		
Pounds per Gross Horsepower	13.11		
Pounds per Cu. In. Displacement	10.89		
Gross HP per Cu. In. Displacement	.831		
● Power Displacement (Cu. Ft./mile)	286.14		
● Displacement Factor (Cu. Ft./ton mile)	128.43		

* - Data computed assuming zero slippage in torque converter.

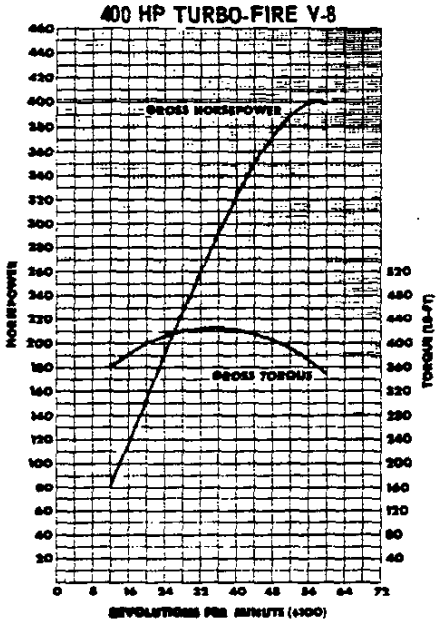
GLOSSARY

Performance Weight	Curb Weight plus 600 Lb (weight of four 150 lb passengers)
Power Displacement	$\frac{\text{Crankshaft Revs/Mi x Piston Displacement}}{2 \times 1728}$
Displacement Factor	$\frac{\text{Power Displacement}}{\text{Performance Wt (tons)}}$

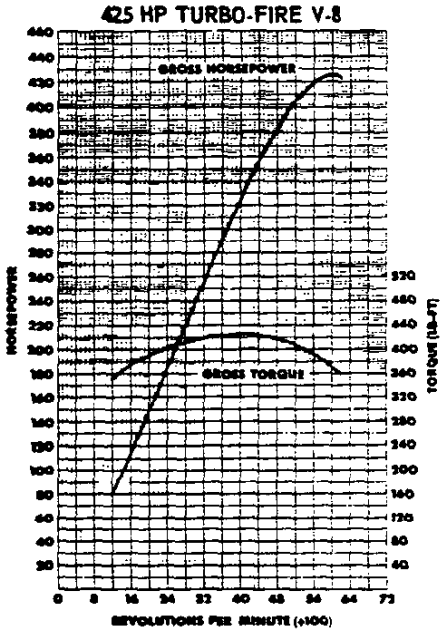
340 HP TURBO-FIRE V-8



400 HP TURBO-FIRE V-8



425 HP TURBO-FIRE V-8



The engine performance curves represent full throttle performance as obtained from dynamometer test data corrected to standard barometric pressure 29.92 inches of mercury and standard temperature of 60 degrees F.

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

NET POWER and TORQUE were obtained from a dynamometer test simulating actual operating conditions when the engine is in its vehicle, except the generator is not charging.

PRINCIPAL COMPONENTS

CYLINDER BLOCK
- Material ---------- Cast alloy iron
- Bore Diameter ---------- 4.3120-4.3150
- No. of Bulkheads ---------- 5
- Water Jacket --------- Full length around each cylinder
- Cylinder Numbering Arrangement (front to rear)
  - Left Bank ---------- 1-3-5-7
  - Right Bank ---------- 2-4-6-8
- Bore Spacing (Centerline to Centerline) ---------- 4.84

CYLINDER HEAD
- Material ---------- High chrome cast alloy iron
- Bolt No. Size ---------- 36; .4375 dia. 14 threads/in.

● COMBUSTION CHAMBER VOLUME - (L37 & L80) 5.27 cu.in. (L33) 6.14 cu.in.

INLET MANIFOLD
- Material ---------- Cast aluminum alloy (RPO L33) Cast alloy iron
- Type ---------- 8 port double-deck
- Heat Provision ---------- By exhaust gases

EXHAUST MANIFOLD
- Material ---------- Cast alloy iron
- Type ---------- 4 Port; Center downtake (RPO L31 & L80) Long runners (RPO L33) Short runners

CRANKSHAFT
- Material ---------- Forged steel
- End Play ---------- .006-.010
- Counter Weights ---------- 6
- Crank Arm Length ---------- 1.75
- Vibration Damper ---------- Rubber mounted inertia
- Timing Gear & Mtl. ---------- Steel sprocket & chain
- Pulley Pitch Diameter ---------- Dual; 6.64

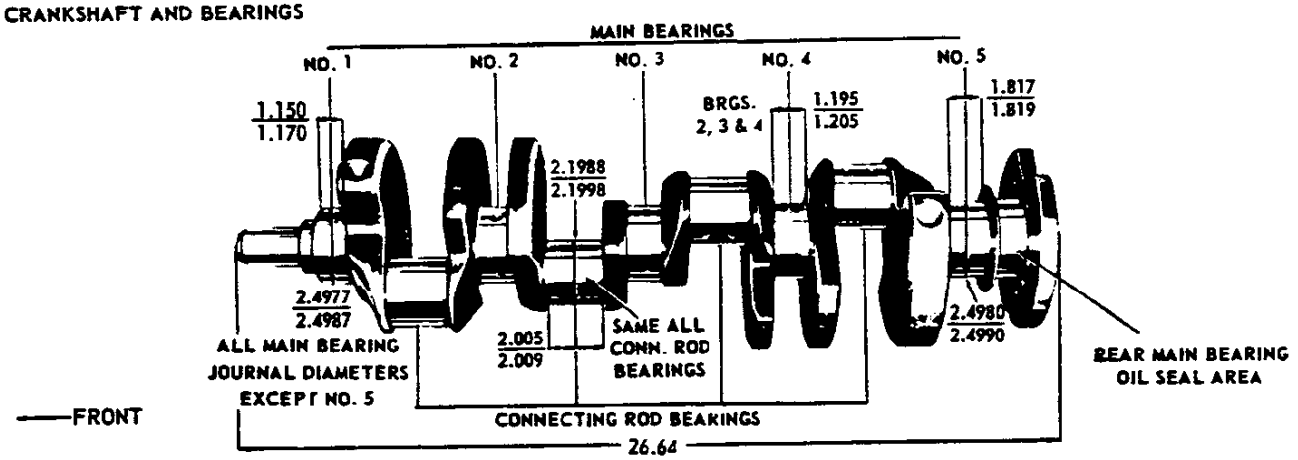
MAIN BEARINGS
- Material ---------- #1-4 Premium aluminum #5 Steel backed babbitt
- End Thrust Against Bearing No. ---------- 5
- Clearance ---------- (#1-4) .0006-.0032 (#5) .0018-.0034

Dimensions Bearing	Theoretical Inner Dia.	Effective Length	Projected Area
1-4	2.5001	.992	2.4801
5	2.5008	1.2525	3.1323

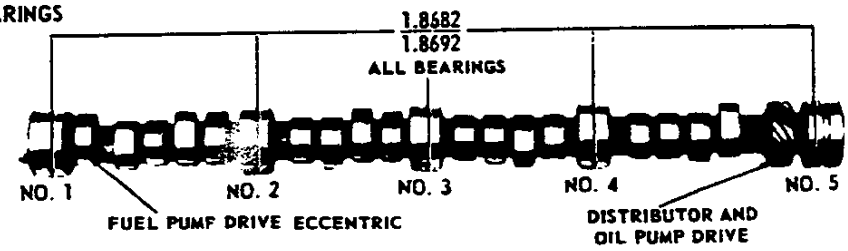
CAMSHAFT
- Material ---------- Cast alloy iron
- Lobe Lift
  - ● RPO L31 & L80 ---------- Inlet & Exhaust .3181
  - RPO L33 ---------- Inlet .2289 Exhaust .2354
- Bearings
  - Number & Material ---------- 5; Steel backed babbitt

VALVE TRAIN
- Type ---------- Individually mounted over head rocker arms
- Lifters ---------- Mechanical; (RPO L33) Hydraulic
- Push Rods
  - Type & Material ---------- Hollow steel
  - Ends ---------- Hardened steel inserts
  - RPO L33 ---------- Rocker arm end - Hardened steel inserts; Valve lifter end - Hardened tip
- Rocker Arms
  - Type & Material ---------- Stamped steel
  - Ratio ---------- 1.75:1

CRANKSHAFT AND BEARINGS



CAMSHAFT AND BEARINGS



VALVE SPRINGS	RPO L33	RPO L31 & L80
Diameter (L.D.)	.872-.888	1.070-1.090
Installed Length (in. @ lb.)		
● Valves Closed	1.66 @ 84-92	1.74 @ 94-106
● Valves Opened	1.33 @ 166-176	1.26 @ 271-299
Free Length	2.03	2.01
Valve Spring Damper	Inner Spring*	Steel 3.75 coils
Oil Shield	Steel cup	

Inner Spring
Diameter (O.D.) ---------- .863-.873
Free Length ---------- 1.84
Installed Length (in. @ lb.)
Valves closed ---------- 1.488 @ 20-24
Valves opened ---------- 1.106 @ 55-61

VALVES
Inlet Material ---------- Alloy steel
Coating ---------- Face & head aluminized; Stem chrome flash*
Exhaust Material ---------- High alloy steel
Coating ---------- Face & head aluminized; Stem chrome flash*
*No chrome flash on RPO L33

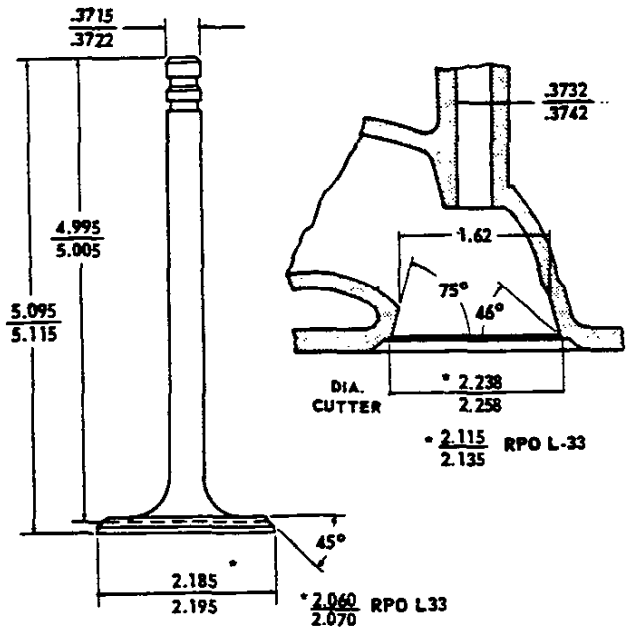
● VALVE LIFT
Inlet ---------- (RPO L31 & L80) .5567 (RPO L33) .4005
Exhaust ------- (RPO L31 & L80) .5567 (RPO L33) .4119

VALVE TRAIN LASH
Inlet ---------- (RPO L31 & L80) .018 (RPO L33) zero
Exhaust -------- (RPO L31 & L80) .030 (RPO L33) zero

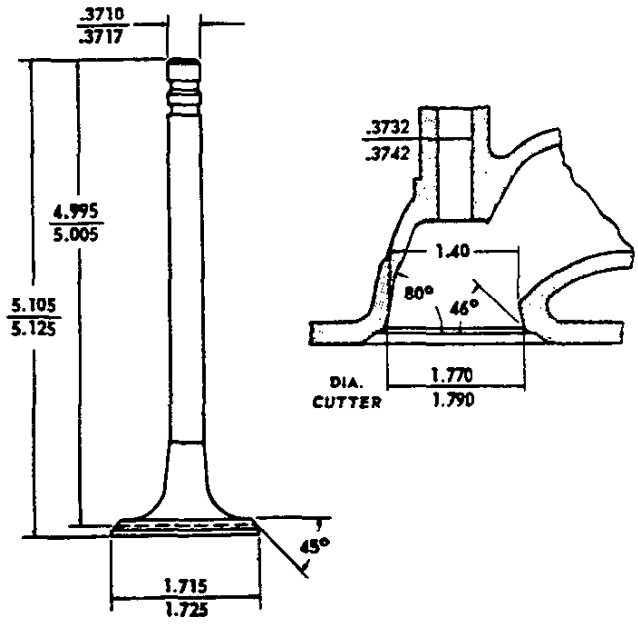
● VALVE TIMING	Exc'l Ramps		Inc'l Ramps	
	L31 & L80	L33	L31 & L80	L33
Inlet Valve			.030 lash	
Open-BTC	38°	18°30'	50°46' 40"	38°30"
Closes-ABC	82°	67°30'	94°46' 40"	93°30"
Duration	300°	266°	325°33'20"	312°
Exhaust Valve			.030 lash	
Opens-BBC	85°	68°30'	97°46' 40"	88°30"
Closes-ATC	35°	25°30'	47°46' 40"	51°30"
Duration	300°	274°	325°33'20"	320°

PISTON
Material ---------- Aluminum impact extruded (RPO L33) Cast aluminum alloy
Head Type
RPO L31 & L80 ---------- Half flat, half slant with valve cutout
RPO L33 ------- 2/3 flat, 1/3 slant with valve cutout
Top Land Clearance ---------- .0520-.0610 (RPO L33) .0360-.0450
Skirt Clearance -----.0030-.0036 (RPO L33) .0005-.0011
Compression Ring Groove Depth ----------.2390-.2455
Oil Ring Groove Depth ----------.2125-.2190
Pin Bore Offset (RPO L33 only) ---------- .055-.065
Compression Height ---------- 2.304-2.308 (RPO-L33) 2.220-2.260

INLET VALVE



EXHAUST VALVE



PRINCIPAL COMPONENTS - Continued

COMPRESSION RINGS - UPPER
- Material ---------- Cast alloy iron
- Inside Bevel --- Bottom edge 28° – 52° (RPO L31 & L80) 30° (RPO L33) to piston vertical axis
- Ring Face ---------- Tapered
- Coating ---------- Chrome plate
- ● Width ---------- .0775-.0780; .0770-.0775 (L33)
- ● Wall Thickness ---------- .191-.201; .194-.204 (L33)
- Gap ---------- .015 - .025

COMPRESSION RINGS - LOWER
- Type ---------- One ring and one expander
- Ring
  - Material ---------- Cast alloy iron
  - Inside Bevel ---------- Top edge 48° - 52° to piston vertical axis
  - Ring Face ---------- Tapered
  - Coating ---------- Wear resistant
  - Width ---------- .0770 - .0775
  - Wall Thickness ---------- .174 - .180
  - Gap ---------- .015 - .025
- Expander
  - Material ---------- Steel
  - Width ---------- .068 - .074

OIL CONTROL RINGS
- Material ---------- Steel
- Type ---------- (2 rails and one spacer)
- Width ---------- .1835 - .1885 assembled
- Wall Thickness ---------- .135 - .141
- Gap ---------- .015 - .055
- Rail Coatings ---------- Chrome plated O.D.

PISTON PINS
- Material ---------- Chromium steel
- Length ---------- 3.250 - 3.270
- Diameter ---------- .9895 - .9898
- Clearance in Piston ---------- .00015 - .00035
- Pin Mounting ---------- Locked in rod by shrink fit

CONNECTING RODS
- Material ---------- Drop forged steel
- Length (center to center) ---------- 6.009 - 6.011

CONNECTING ROD BEARINGS
- Type ---------- Premium aluminum
- Clearance ---------- .0007 - .0028
- Theo. I.D. ---------- 2.2011
- Effective Length ---------- .857
- End Play ---------- .016 - .020

FUEL SYSTEM

FUEL TANK
- Capacity (Gal)
  - Sedans & Coupes ---------- 20
  - Station Wagons ---------- 19
- Fuel Tank Location
  - Station Wagon ---------- In left quarter panel behind rear axle
  - Remaining Models ---------- Rearward of rear axle kick-up in shelf area
  - Filler Location ---------- Behind opening in left rear quarter panel
  - Gauge ---------- AC, electric

FUEL FILTER
- In Fuel Tank ---------- Mesh strainer
- To Carburetor Inlet -- Glass bowl with paper element

FUEL PUMP ASSEMBLY
- Drive ---------- Camshaft eccentric
- Type ---------- Diaphragm
- Location ---------- Lower right front of engine
- Pressure Range ---------- 7.25 - 8.75 psi

CARBURETOR
- Make & Type
  - RPO L31 ---------- Carter; 4 bbl downdraft
  - RPO L33 ---------- Rochester; 4 bbl downdraft
  - RPO L80 ---------- Carter; 2 x 4 bbl downdraft
- SAE Flange Size ---------- 1.50
- Throttle Bore

	Primary	Secondary
RPO L31	1.625	1.6875
RPO L33	1.56	1.68
RPO L80 (front & rear carb)	1.5625	1.6875

- Secondary Throttle Actuation ---------- By linkage approximately when primary valves are opened half way between closed and full open
- Venturi Diameter

	Primary	Secondary
RPO L31	1.34	1.5625
RPO L33	1.3125	1.4688
RPO L80 (front & rear carb)	1.25	1.5625

AIR CLEANER
- Type
  - RPO L31 ---------- Oil wetted polyurethane element
  - RPO L33, L80 ------ Resin impregnated paper element

EXHAUST and VENTILATION SYSTEM

GENERAL
- Type ---------- Dual

MUFFLERS
- Type ---------- Dual; reverse flow
- Construction ---------- Heads and body joined by rolled lock seam construction
- Shell
  - Right hand (L33) - Left hand (L31 & L80) ---.036 stainless steel
  - Left hand (L33) - Right hand (L31 & L80) ---.036 sheet steel, aluminum coating
- Wrap ---------- .060 indented asbestos sheet
- Cover ---------- .018 sheet steel, aluminum coating
- Heads
  - Right hand (L33) - Left hand (L31 & L80) ---.048 stainless steel
  - Left hand (L33) - Right hand (L31 & L80) ---.048 sheet steel, aluminum coating
- Baffles
  - Right hand (L33) - Left hand (L31 & L80) ----- 5; .036 stainless steel
  - Left hand (L33) - Right hand (L31 & L80) ----- 5; .036 sheet steel aluminum coating
- Length ---------- 29.24
- Width (I.D.) ---------- 3.24
- Height (I.D.) ---------- 7.74

RESONATORS
- Type ---------- Straight through
- Material ---------- .036 sheet steel, alum. coating

EXHAUST PIPE
- Dimensions (O.D.) ---------- 2.50
- Wall Thickness ---------- .067-.081

TAIL PIPE
- Dimensions (O.D.) ---------- 2.00
- Wall Thickness ---------- .052-.066

ENGINE VENTILATION
- ● Type ---------- Closed-Positive; fumes withdrawn into induction system from crankcase via oil filler tube and hose through fitting, with a metering orifice, at base of carburetor.

LUBRICATION SYSTEM

GENERAL
- Type ---------- Controlled full pressure
- Main Bearings ---------- Pressure
- Connecting Rods ---------- Pressure
- Piston Pins ---------- Splash
- Cylinder Walls --------- Pressure, jet cross sprayed
- Camshaft Bearings ---------- Pressure
- Valve Lifters ---------- Pressure
- Rocker Arms ---------- Pressure
- Timing Gears ---------- Nozzle sprayed
- Oil Pressure Sending Unit
  - Type ---------- Electric
  - Actuation ------- Opens or closes circuit @ 2 to 6 PSI
- Oil Filler
  - Cap ---------- Positive seal
  - Location ---------- Right front of intake manifold

CRANKCASE CAPACITY (Quarts)
- Refill ---------- 5
- Refill with Filter Change ---------- 6

OIL PUMP
- Type ---------- Gear
- Normal Oil Pressure -------- 50 PSI (min) @ 2000 RPM
- Intake Type ---------- Fixed
- Capacity (GPM @ Eng RPM) ---------- 4.3 @ 2000
- Regulator Valve ---------- Opens between 40-45 lb

OIL FILTER
- Type ---------- Full flow replaceable element
- Location ---------- Left rear at engine
- Capacity (Qts) ---------- 1
- By-Pass Valve ---------- Opens between 9 to 11 PSI

LUBRICANT GRADES AND TEMPERATURES
- 32°F and Above ------ SAE20W, SAE20, or SAE 10W-30
- 0°F and Above ---------- SAE 10W or SAE 10W-30
- Below 0°F ---------- SAE 5W or SAE 5W-20

OIL PAN DRAIN SCREW
- Type ---------- Hex head
- ● Location ---------- Lower front face of oil pan sump
- Size Hex Head ---------- .860-.875
- Thread ---------- 1/2-20 UNF 2A
- Length ---------- 0.81
- Diameter ---------- .410-.430

COOLING SYSTEM

GENERAL
- Type ---------- Liquid, Pressurized
- Capacity with Heater (standard equipment) ------ 22 qts

RADIATOR
- Make & Type ---------- Harrison, tube on center
- Core Constant and Thickness
  - Distance between fins ---------- .18
  - Distance between tubes ---------- .55
  - Thickness of core ---------- 1.98
- Front Area (Sq In) ---------- 439

RADIATOR CAP RELIEF VALVE
- Opens at ---------- Approx 13 psi

THERMOSTAT
- Make and Type ---------- Harrison, Pellet
- Begins to Open ---------- 177°-183°F
- Fully Opened ---------- 212°F

RADIATOR HOSE
- Outlet, Lower (radiator to water pump) -------- 1.88 ID
- Inlet, Upper (thermostat hsg to radiator) ------ 1.50 ID

FAN
- Number of Blades ---------- 5, staggered
- Diameter ---------- 18.00
- Fan Pulley Pitch Diameter ---------- 7.00
- Drive
  - Type ---------- Thermo modulated fluid coupling
  - Performance --------- At 4000 RPM input, fan speed 3200-3500 RPM @ 135°-150°F 800-1600 RPM @ 120°F and below

BELT, CRANKSHAFT, FAN AND GENERATOR
- Number used ---------- Two
- Angle of "V" ---------- 38°-42°
- Pitch Line
  - Fan, Generator and Water Pump Belt --------- 58.00
  - Fan and Water Pump Belt ---------- 43.00
- Width ---------- .380

WATER PUMP
- Type ---------- Centrifugal
- Capacity ---------- 78 GPM @ 5200 RPM
- Bearing ------- Permanently lubricated double row ball
- Drive ---------- Fan belt
- Ratio (pump to engine RPM) ---------- .949:1

DRAIN LOCATIONS
- Radiator ---------- Left side bottom
- Type ---------- Petcock
- Engine Block ---------- Right and left center
- Type ---------- Plug

ELECTRICAL SYSTEM

SUPPLY SYSTEM
- BATTERY
  - Make ---------- Delco-Remy
  - Voltage Rating ---------- 12
  - Capacity (SAE) ---------- 61 amp hr @ 20 hr rate
    - RPO L33 ---------- 70 amp hr @ 20 hr rate
    - Heavy Duty (T60) --------- 70 amp hr @ 20 hr rate
  - Total Number of Plates ---------- 66
  - Number of Cells ---------- 6
  - Terminal Grounded ---------- Negative
  - Location ---------- Right front engine compartment

GENERATOR
- Make ---------- Delco-Remy
- Type ---------- Diode Rectified
- Rating
  - Amps ---------- 9-37
  - Volts ---------- 12-15
- Drive ---------- By fan belt
- Pulley, Pitch Diameter ---------- 2.70
- Ratio (Gen to Engine Speed) ---------- 2.46:1

REGULATOR
- Make ---------- Delco-Remy
- Type ---------- Two-unit, Vibrator
- Voltage Regulator
  - Voltage ---------- 13.8-14.8 @ 85°F
- Field Relay (Combination light & field relay)
  - Closing Voltage ---------- 1-3 Volts @ 80°F
- Location ---------- Left side front engine compartment

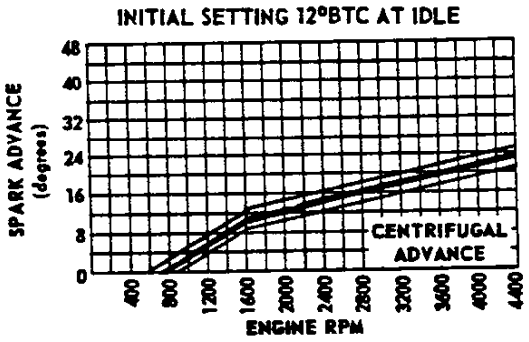
STARTING SYSTEM
STARTING MOTOR
- Make ---------- Delco-Remy
- Rotation (drive end view) ---------- Clockwise
- Test Conditions ---- Engine at operating temperature
- No Load Test
  - Amps ---------- 65-100
  - Volts ---------- 10.6
  - RPM ---------- 3600-5100
- Motor Drive
  - Engagement ---------- Solenoid
  - Pinion meshes at ---------- Rear
  - Pinion tooth no. ---------- 9
  - Flywheel tooth no. ---------- 168
- Mounting ---------- Bolted to clutch housing

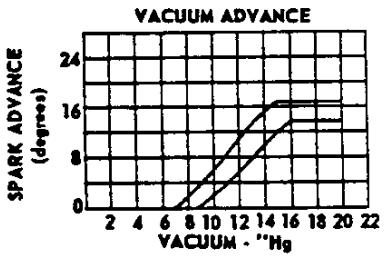
IGNITION SYSTEM
COIL
- Make ---------- Delco-Remy
- Type ---------- 12 Volt
- Amperes Drawn
  - Engine stopped ---------- 4.0
  - Engine idling ---------- 1.8

DISTRIBUTOR
- Make ---------- Delco-Remy
- Type ---------- Single breaker
- Cam Angle ---------- 28°-32°
- Breaker Gap ---------- .019 (new)
- Breaker Arm Tension ---------- 19-23 oz
- Centrifugal Advance Begins (RPM) ---------- 700
  - Max Degrees @ RPM ---------- 24 @ 4600
- Vacuum Advance Begins (In Hg) ---------- 8
  - Max Degrees @ In Hg ---------- 15 @ 15.5
- Timing (Initial Design Setting)
  - Crankshaft Degrees @ RPM ---- 12° ±1° BTC @ 600
  - RPO L33 --- 6°±1°BTC @ 550
  - Timing Mark Location ------ On harmonic balancer
- Firing Order ---------- 1-8-4-3-7-5-7-2

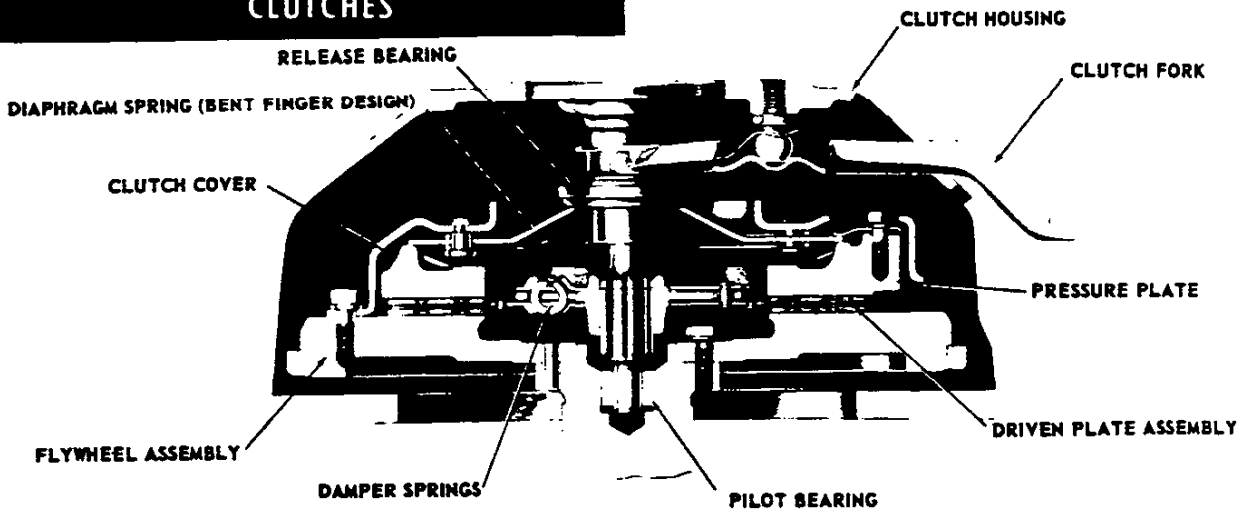
SPARK PLUGS
- Make ---------- AC43N
- Thread Size (mm) ---------- 14
- Gap ---------- .033-.038
- Torque ---------- 25 lb ft

CABLE ---------- Linen core impregnated with electrical conducting material and insulations of rubber with neoprene jacket



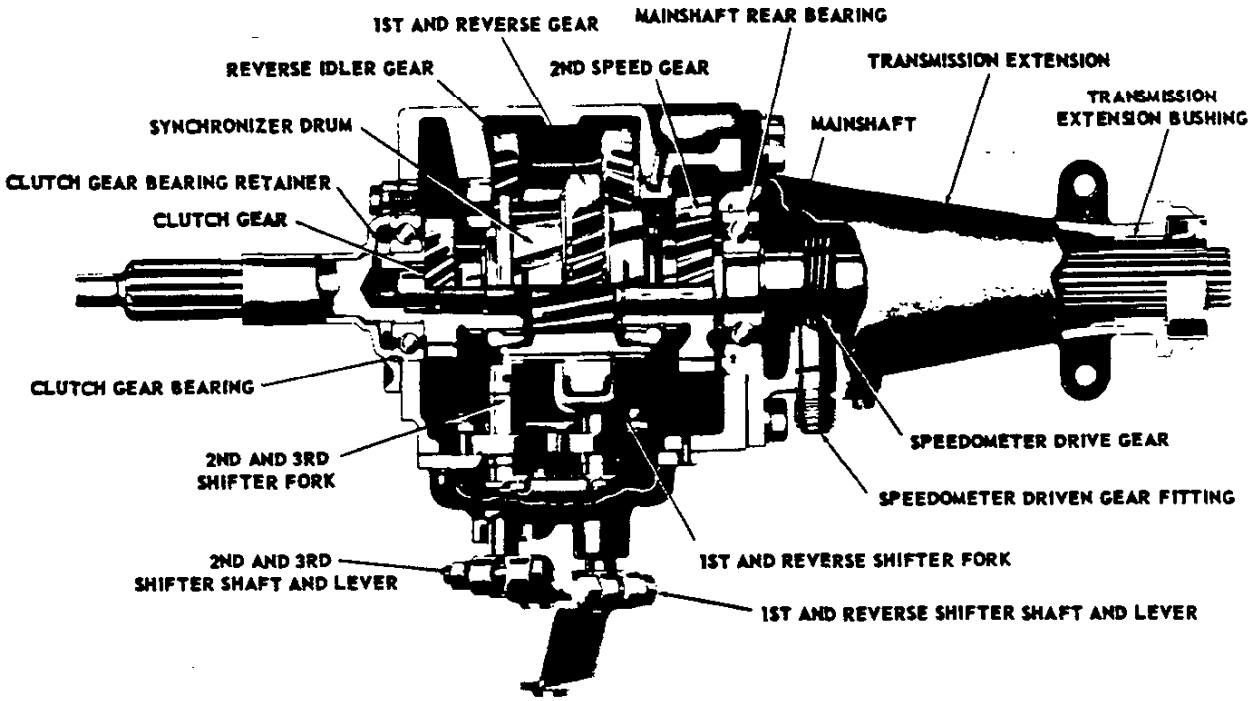


CLUTCHES



ENGINE	Name		Turbo-Thrift L6		Turbo-Fire V8			
	Horsepower		125		195	250	340	
			140			300	400	
							425	
	Displacement, cubic inches		230		283	327	409	
Clutch Identification			Regular Production (b)	Heavy Duty	Regular production (c)		4-Speed	
Clutch assembly								
Type			Single dry disk			(d)		
Clutch Cover and Pressure Plate Assembly	Effective plate load, lb		1500-1800	1900-2200	1700-1950	2100-2300	2300-2600	●
	Type of drive		Steel straps					
	Pressure Plate	Material	Cast iron			(e)		
		Outside diameter	10.14			10.48		
	Clutch Spring	Type	Diaphragm			Diaphragm, bent fingers		
		Material	Heat treated spring steel					
	Attachment to flywheel		6 bolts, 3/8-16 UNC 3A, 1.00 long					
Driven plate assembly	Type		Single disk with 2 friction surfaces					
	Cushions		Flat steel springs between friction rings					
	Dampers		6 coil springs		12 coil springs (6 sets of 2)	10 coil springs (5 sets of 2)		
	Friction Rings	Outside diameter	9.12	10.0	10.0	10.4		
		Inside diameter	6.12	6.0	6.5	6.5		
		Total area (square inches)	71.80	100.5	90.7	103.5		
		Material	Woven asbestos	(a)	Woven asbestos	Premium woven asbestos		
Flywheel Assembly	Flywheel	Material	Cast iron					
		Outside diameter	12.54				13.44	
	Ring Gear	Material	Heat treated HR steel					
		No. of teeth	153				168	
		Width	.4070				.4160	
		Pitch diameter	12.75				14.00	
		Attachment	Shrink fit					
Bearings	Release	Type	Single row ball					
		Lubrication	None, prepacked					
	Pilot	Type	Bronze bushing					
		Lubrication	None, sintered and oil impregnated					
Controls	Clutch fork		Drop forged steel, pivot mounted on ball					
	Pedal mounting		Pendent, from brace on dash					●
	Lubrication		Crossover shaft					
Clutch housing	Material		Aluminum alloy					
	Attachment to engine		6 bolts, 3/8-16 UNC-2A, 1.25 long					

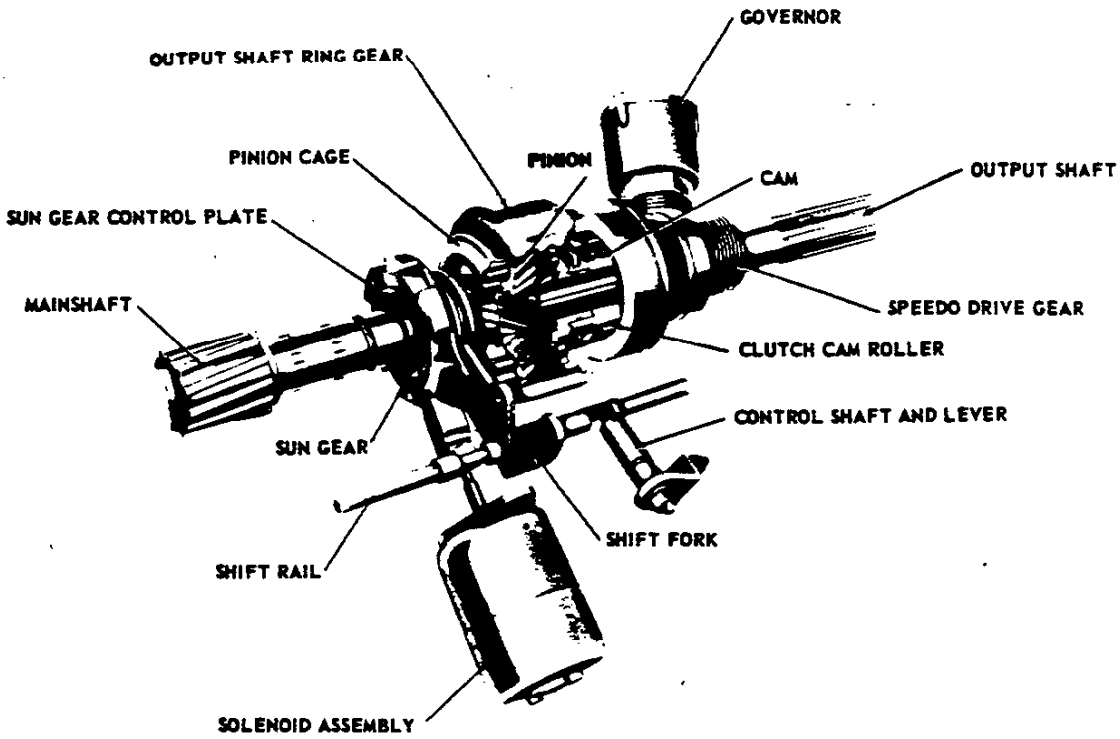
(a) Woven asbestos front and molded asbestos rear.
(b) Also for overdrive transmission
(c) Also for 283 cubic inch engine overdrive and 327 cubic inch engine 4-speed
(d) Single dry disk, centrifugal
● (e) Nodular iron



3-SPEED TRANSMISSION

Engine	Name		Turbo-Thrift L-6	Turbo-Fire V8			
	Horsepower		125 140	195	250 300	250 300	340 400 425
	Displacement, in.^{3}		230	283	327	327	409
Transmission type			3-SPEED			4-SPEED	
Case material			Cast Iron			Aluminum	
Gear Shift	Type		Remote				
	Control		Lever				
	Location		Steering Column			Floor	
Gears	Type		Helical				
	Material		Forge Steel, Hardened				
	Synchronization		Second and Third			All Forward Gears	
	Constant mesh gears		Second			All forward gears	
	Sliding gears		First and Reverse			Reverse	
	Ratios	First	2.94		2.58	2.56@	
		Second	1.68		1.48	1.91	
		Third	1.0		1.0	1.48	
		Fourth	---		---	1.0	
		Reverse	2.94		2.58	2.64	
Lubricant	Type		Meeting Military Specification MIL-L-2105-B				
	Capacity (Pints)		2			2.5	
Extension	Material		Aluminum				
	Oil Seal		Steel encased double seal of spring loaded rubber or felt				

@ Close ratio offered optionally with 400 and 425 HP engines; 2.20, 1.64, 1.28, 1.0 and 2.27.



OVERDRIVE TRANSMISSION – RPO 1-M10

GENERAL

Type ---------- 3-pinion planetary drive unit

Description ---------- Adaptable to 3-speed transmission. Overdrive drive unit with integral mainshaft replaces mainshaft and extension of 3-speed.

Operation ---------- Activation by manually operated pull type lockout switch located under instrument panel to right of steering column; when fully extended, overdrive unit is inoperative. Overdrive unit can be over-ridden by a downshift switch located at the carburetor and controlled by the accelerator pedal; over-riding achieved by tramping accelerator.

Lubricant

Type ---------- Meeting Military Specification MIL-L-2105-B

Viscosity ---------- SAE 80

Capacity (pts) ---------- Total 3 pints, 2 for transmission, 1 for overdrive unit

Gear ratios with overdrive locked in

First ---------- 2.058

Second ---------- 1.176

Third ---------- 0.700

● Output Shaft RPM

Cut-in ---------- 1440

Cut-out ---------- 1100

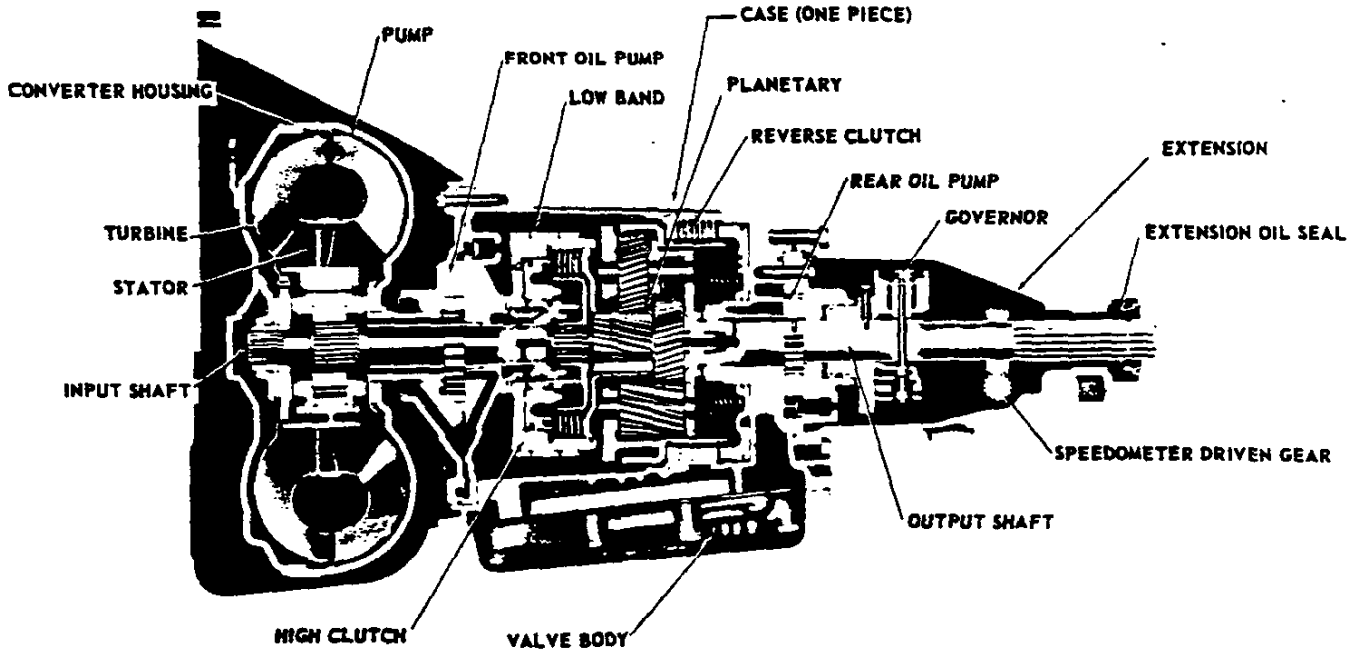
AUTOMATIC TRANSMISSION – RPO 1-M35

Engine	Displacement, cubic inches		230		283	327	327	409
	Horsepower		125	140	195	250	300	340
	RPO 1 -		Z05	---	---	L30	L74	L33
AUTOMATIC TRANSMISSION								
General data	Type		Automatic hydraulic torque converter with planetary gear system for low and reverse					
	Selector level	Location	Steering column @					
		Operation	Actuates manual valve in hydraulic control system					
		Quadrant position	P-R-N-D-L					
	Parking lock	Type	Pawl and gear (on planetary)					
		Operation	Applied by selector lever thru spring loaded linkage					
	Method of cooling		Air		Water			
	Flywheel assembly		Steel stamping with welded on ring gear					
Hydraulic controls ●	Manual valve type		Spool					
	Pressure regulator valve type		Spool					
	Pressure range, psi @ idle	Drive – Minimum	49					
		Drive – Maximum	53					
		Low – Minimum	127					
		Low – Maximum	136					
		Reverse – Minimum	82					
		Reverse – Maximum	88					
Converter assembly	Type		Three element					
	Pump		Inner and outer sheet steel shells separated by sheet steel vanes. Outer shell is pump housing which is welded to converter housing.					
	Turbine		Inner and outer shells separated by sheet steel vanes. Assembly supported in converter cover. Operation independent of cover and pump housing					
	Stator		Aluminum air foil supported on a stationary sleeve by an over-running clutch of cam and roller design.					
	Stall torque ratio		2.10:1					
	Diameter (nominal)		11.0		11.75			
Planetary gear set	Type		Compound planetary					
	Range	Drive	1.82:1 to 1:1			1.76:1 to 1:1		
		Low	1.82:1			1.76:1		
		Reverse	1.82:1			1.76:1		
	Low band		Three linked circular segments					
	Low band servo		Piston with release spring and inner cushion spring					
Case	Material		Aluminum (one piece)					
Output shaft RPM and vehicle speed (MPH) ●	N/V		40.8			39.6	42.2	
	Upshift	Closed throttle	650 (16)			650 (16)	660 (16)	
		Throttle at detent	1900 (47)	2060 (51)		2125 (54)	2335 (55)	
		Full throttle	2205 (54)	2400 (59)		2495 (63)	2740 (64)	
	Downshift	Closed throttle	605 (15)			605 (15)	615 (15)	
		Throttle at detent	1165 (29)	825 (20)		825 (21)	865 (20)	880 (21)
		Full throttle	2055 (51)	2280 (56)		2350 (59)	2600 (62)	2585 (61)

@ Floor mounted on 13-1400 series models.

Continued on page 40

Engine	Displacement, cubic inches		230		283	327	327	409
	Horsepower		125	140	195	250	300	340
	RPO I -		205	-	-	L30	L74	L33
AUTOMATIC TRANSMISSION - Continued								
High clutch	Type		Multi-disk					
	Drive plates	Description	Waved steel with bonded organic facings					
		Number	3		4			
	Driven plates	Description	Flat steel					
		Number	4		5			
Reverse clutch	Type		Multi-disk					
	Drive plates	Description	Flat steel with bonded organic facings					
		Number	4		5	6		
	Reaction plates	Description	Flat steel					
		Number	3		4	5		
Torque mult.	Maximum overall ratio		3.82:1			3.70:1		
	Low and reverse		3.82:1 to 1.82:1			3.70:1 to 1.76:1		
Lubricant	Type		Type A, suffix A					
	Capacity (pints)	Dry	15		18			
		Refill	3					
Governor	Type		Centrifugal					
	Operation		Regulates pump oil pressure to automatic shift control valve body					
	Drive		Mounted on output shaft					
	Location		In extension					
Oil pumps	Type		Internal-external gear					
	Number		Two, front and rear					
	Function		To supply pressure					
	From pump	Drive	Converter pump					
		Function	Supply main system pressure at low vehicle speeds					
	Rear pump	Drive	Output shaft					
		Function	Supply main system pressure at high vehicle speeds and during push starts					



AMA-40A

AMA Specifications – Passenger Car

The information contained herein is prepared, distributed by, and is solely the responsibility of the automobile manufacturing company to whose products it relates. Questions concerning these specifications should be directed to the manufacturer whose address is shown below. This uniform specification form was developed by the automobile manufacturing companies under the auspices of the Automobile Manufacturers Association.

MANUFACTURER Chevrolet Motor Division General Motors Corporation	CAR NAME CHEVROLET 12-14-16-1800 Series, With 327 Cu. In. V-8 and 409 Cu. In. V-8 Engine
MAILING ADDRESS [redacted]	MODEL YEAR 1964
	ISSUED: 9-23-63
	REVISED (e): 3 1[illegible]4 C

NOTES:

1. The Specifications herein are those in effect at date of compilation and are subject to change without notice by the manufacturer.
2. UNLESS OTHERWISE INDICATED:
   a. Specifications apply to standard models without optional equipment. Significant deviations are noted.
   b. Nominal design dimensions are used throughout these specifications.

TABLE OF CONTENTS

BODY—TYPES AND STYLE NAMES—

Body type, number of passenger & style names; use manufacturer's code for series & body style.

	327 cu. in. V-8	409 cu. in. V-8
Biscayne	1211	2-Door Sedan - 6-Passenger
	1235	4-Door Station Wagon- 6-Passenger
	1269	4-Door Sedan- 6-Passenger
Bel Air	1611	2-Door Sedan- 6-Passenger
	1635	4-Door Station Wagon- 6-Passenger
	1645	4-Door Station Wagon- 9-Passenger
	1669	4-Door Sedan- 6-Passenger
Impala	1835	4-Door Station Wagon- 6-Passenger
	1839	4-Door Sport Sedan- 6-Passenger
	1845	4-Door Station Wagon- 9-Passenger
	1847	2-Door Sport Coupe- 5-Passenger
	1867	2-Door Convertible- 5-Passenger
	1869	4-Door Sedan- 6-Passenger
Impala Super Sport	1447	2-Door Sport Coupe- 4-Passenger
	1467	2-Door Convertible- 4-Passenger

AMA Specifications — Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED(•)

GENERAL SPECIFICATIONS

(All dimensions in inches unless otherwise indicated)

MODEL 12, 14, 16 and 1800		Additional Information Page No.	327 Cu. In. V-8		409 Cu. In. V-8		
			250 HP	300 HP	340 HP	400 HP	425 HP
Wheelbase (L101)		23	119.0				
Tread	Front (W101)	22	60.3, 61.3 Wagons				
	Rear (W102)	22	59.3, 60.3 Wagons				
Maximum Overall Dimensions	Length (L103)	23	209.9 (a)				
	Width (W103)	22	● 78.1				
	Height (H101)	24	Sedans 56.2	Sp. Sedan 54.9	Sp. Coupe 55.1	Convertible 55.8	St. Wagon 56.7
Transmission—(Specify trade name - opt., not available)	Manual	15	Synchromesh: 3-Speed Std.; 4-Speed, Optional.		Synchromesh: 4-Speed, Optional		
	Overdrive	16	Not offered				
	Automatic	16	Powerglide: Optional		Powerglide: Optional with 340 HP engine		
Axle ratio	Manual	17	3.36:1		3.36:1	3.36:1	3.36:1(b)
	Overdrive	17	Not Offered				
	Automatic	17	3.08:1	3.36:1	3.36:1	-----	
Tire size		18	7.50 x 14		8.00 x 14		
Engine	Type, no. cyl., valve arr.	2	90° OHV V-8				
	Fuel system (Carb., other)	8	Carburetor				
	Bore and stroke	2	4.001 x 3.250		4.313 x 3.500		
	Piston displ., cu.in.	2	327		409		
	Std. compression ratio	2	10.5:1		10.0:1	11.0:1	
	Max. bhp at engine rpm	2	250 @ 4400	300 @ 5000	340 @ 5000	400 @ 5800	425 @ 600
	Max. torque at rpm	2	350 @ 2800	360 @ 3200	420 @ 3200	425 @ 3600	425 @ 420

(a) 210.8 on station wagon.
(b) With 2.56:1 Low Gear Set, 3.08:1

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AMA Specifications—Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (e)12-3-63

MODEL	327 Cu. In. V-8		409 Cu. In. V-8		
	250 HP	300 HP	340 HP	400 HP	425 HP

ENGINE—GENERAL

Type, no. cyls., valve arr.		90° OHV V-8				
Bore and stroke (nominal)		4.001 x 3.250		4.313 x 3.500		
Piston displacement, cu. in.		327		409		
Bore spacing (C/L to C/L)		4.40		4.84		
No. system (front to rear)	L. Bank	1-3-5-7				
	R. Bank	2-4-6-8				
Firing order		1-8-4-3-6-5-7-2				
Compres. ratio (nominal)		10.5:1		10.0:1		11.0:1
Cylinder Head Material		Cast alloy iron				
Cylinder Block Material		Cast alloy iron				
Cylinder Sleeve-Wet, dry, none		None				
Number of mounting points	Front	Two				
	Rear	One				
Engine installation angle		5° 11' (5° with 4-Speed and Powerglide)				
Taxable horsepower $\frac{\text{Dia.}^2 \times \text{No. Cyl.}}{2.5}$		51.2		59.5		
Published max. bhp* @ eng. RPM		250 @ 4400	300 @ 5000	340 @ 5000	400 @ 5800	425 @ 6000
Published max. torque* (lb. ft. @ RPM)		350 @ 2800	360 @ 3200	420 @ 3200	425 @ 3600	425 @ 4200
Recommended fuel regular – premium		Premium				
Idle speed (spec. neutral or drive)	Manual	500 in neutral			700 in neutral	
	Automatic	475 in drive			--	

ENGINE—PISTONS

Material		Cast Aluminum		Aluminum impact extruded	
Description and finish		Flat head; notched, slipper skirt	2/3 flat head 1/3 slant; Valve cutout	Half flat head and half slant with valve cutout, slipper skirt	
Weight (piston only) oz.		21.6	30.37	30.00	
Clearance (limits)	Top land	.0365-.0455	.0360-.0450	.0520-.0610	
	Skirt Top	.0005-.0011 (a)		.0030-.0036 (b)	
	Skirt Bottom	---			
Ring groove depth	No. 1 ring	.2217-.2283	.2390-.2455		
	No. 2 ring	.2217-.2283	.2390-.2455		
	No. 3 ring	.2038-.2103	.2125-.2190		
	No. 4 ring	None			

* Max. bhp (brake horsepower) and max. torque corrected as defined by SAE Engine Test Code.

(a) Measured 2.24 from top of piston.

(b) Measured 2.94 from top of piston.

AMA Specifications – Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED(a) _____

POWER TEAMS
(Indicate whether standard or optional)

MODEL AVAILABILITY	ENGINE					TRANSMISSION	AXLE RATIO (Std. first)			
	Displ. cu. in.	Carburetor	Compr. Ratio	BHP @ RPM	Torque @ RPM		A	* B	* C	* D
1200-1400 1600-1800 V-8	327 *	4 Bbl	10.5:1	250 @ 4400	350 @ 2800	3-Speed	3.36:1	-	--	-
						4-Speed *	3.36:1			
						Powerglide *	-	-	3.08:1 (std)	-
		Large 4 Bbl Alum	10.5:1	300 @ 5000	360 @ 3200	3-Speed	3.36:1	-	-	-
						4-Speed *	3.36:1	-	-	-
						Powerglide *	3.36:1	-	-	-
	409 *	Large 4 Bbl	10.0:1	340 @ 5000	420 @ 3200	4-Speed * (2.56:1 Low)	3.36:1	-	-	-
						Powerglide *	3.36:1	-	-	-
		Large 4 Bbl Alum	11.0:1	400 @ 5800	425 @ 3600	4-Speed * (2.20:1 Low)	3.36:1	-	-	4.11:1 & 4.56:1
						4-Speed * (2.56:1 Low)	3.36:1	-	-	-
		2 x 4 Bbl Alum	11.0:1	425 @ 6000	425 @ 4200	4-Speed * (2.20:1 Low)	3.36:1	-	-	4.11:1 & 4.56:1
						4-Speed * (2.56:1 Low)	-	3.36:1	3.08:1 (std)	-

* - Optional
A - General Purpose Standard (Also available as positraction)
B - Performance (Available as positraction only)
C - Performance Cruise (Also available as positraction)
D - High Performance (Available as positraction only)

AMA Specifications – Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (•) 12-3-63

MODEL 1200-1400 / 1600-1800	327 Cu. In. V-8		409 Cu. In. V-8		
	250 HP	300 HP	340 HP	400 HP	425 HP

ENGINE—RINGS

Function (top to bottom)	No. 1, oil or comp.	Compression			
	No. 2, oil or comp.	Compression			
	No. 3, oil or comp.	Oil Control			
	No. 4, oil or comp.	None			
Compression	Description – material, type, coating, etc.	Upper: Cast alloy iron, inside bevel, chrome plated Lower: Two piece; Cast alloy iron ring, wear resistant coatin and steel expander			
	Width	Upper .0775-.0780 (a)	.0775 - .0780	.0770-.0775	
	Gap	Upper .013 -.023 (b)		.015 -.025	
Oil	Description – material, type, coating, etc.	Multi-piece (2 rails and one spacer expander) Rails-Steel, chrome plated OD Expander-Stainless Steel			
	Width	.1840-.1880 assembled		.1835-.1885 assembled	
	Gap	.015-.055		.015-.055	
Expanders		In oil ring assembly			

ENGINE—PISTON PINS

Material		Chromium Steel		
Length		2.990-3.010		3.250-3.270
Diameter		.9270-.9273		.9895-.9898
Type	Locked in rod, in piston, floating, etc.	Locked in rod		
	Bushing: In rod or piston	None		
	Bushing: Material			
Clearance	In piston	.00015-.00025		.00015-.00035
	In rod	None		
Direction & amount offset in piston		Major thrust side .060		

ENGINE—CONNECTING RODS

Material		Drop forged steel	
Weight (oz.)		20.00	27.63
Length (center to center)		5.699-5.701	6.009-6.011
Bearing	Material & Type	Premium Aluminum	
	Overall length	.807	.857
	Clearance (limits)	.0007-.0028	.0007-.0028
	End play	.009-.013	.016-.020

(a) - Lower .0770-.0775

(b) - Lower .013-.025

AMA Specifications—Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (•)

MODEL	1200-1400 / 1600-1800	327 Cu. In. V-8		409 Cu. In. V-8		
		250 HP	300 HP	340 HP	400 HP	425 HP

ENGINE—CRANKSHAFT

Material			Forged Steel	
Vibration damper type			Rubber mounted inertia damper	
End thrust taken by bearing (No.)			Five	
Crankshaft end play			.002-.006	.006-.010
Main bearing	Material & type		Premium Aluminum	Premium Aluminum except No. 5 - Steel backed babbitt
	Clearance		See below	#1-4 .0006-.0032; #5 .0013-.0034
	Journal dia. and bearing overall length	No. 1	2.3009 x .752	2.5001 x .992
		No. 2	2.3009 x .752	2.5001 x .992
		No. 3	2.3009 x .752	2.5001 x .992
		No. 4	2.3009 x .752	2.5001 x .992
		No. 5	2.3006 x 1.1824	2.5008 x 1.2525
		No. 6	None	
		No. 7	None	
	Dir. & amt. cyl. offset		None	
Crankpin journal diameter			1.999-2.000	2.1988-2.1998

ENGINE—CAMSHAFT

Location			In block above crankshaft	
Material			Cast alloy iron	
Bearings	Material		Extra life steel backed babbitt	
	Number		Five	
Type of Drive	Gear or chain		Chain	
	Crankshaft gear or sprocket material		Steel Sprocket	
	Camshaft gear or sprocket material		Cast alloy iron	
	Timing chain	No. of links	40	48
		Width	.875	
		Pitch	.500	

ENGINE—VALVE SYSTEM

Hydraulic lifters (Std, opt, NA)		Standard	NA
Valve rotator, type (intake, exhaust)		None	
Rocker ratio		1.5:1	1.75:1
Operating tappet clearance (indicate hot or cold)	Intake	Zero	.018
	Exhaust	Zero	.030
Timing marks on flywheel, damper, other		Damper	

#1-4 .0008-.0034
#5 .0010-.0036

(Continued)

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AMA Specifications–Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (*)

MODEL	1200-1400 / 1600-1800	327 Cu. In. V-8		409 Cu. In. V-8		
		250 HP	300 HP	340 HP	400 HP	425 HP

ENGINE—VALVE SYSTEM (cont.)

Timing *	Intake	Opens (°BTC)	32° 30'	38° 30'	49° 13'20"	
		Closes (°ABC)	87° 30'	93° 30'	93° 13'20"	
		Duration - deg.	300°	312°	322° 26'40"	
	Exhaust	Opens (°BBC)	74° 30'	88° 30'	95° 20'	
		Closes (°ATC)	45° 30'	51° 30'	45° 20'	
		Duration - deg.	300°	320°	320° 40'	
	Valve opening overlap		78°	90°	94° 33'20"	
Intake	Material		Carbon Stl.	Alloy Steel		
	Overall length		4.902-4.922	4.870-4.889	5.095-5.115	
	Actual overall head dia.		1.715-1.725	1.935-1.945	.2060-.2070	2.185-2.195
	Angle of seat & face		46° (seat) 45° (face)			
	Seat insert material		None			
	Stem diameter		.3404-.3417	.3715-.3722		
	Stem to guide clearance		.0010-.0033	.0010-.0027		
	Lift (@ zero lash)		.3987 (Theoretical)	.4005	.5069 (Theoretical)	
	Outer spring press. and length	Valve closed (lb. @ in.)	78-86 @ 1.660	84-92 @1.66	128-140 @ 1.68	
		Valve open (lb. @ in.)	170-180 @ 1.260	166-176 @1.33	315-339 @ 1.20	
	Inner spring press. and length	Valve closed (lb. @ in.)	Spring Damper	20-24 @1.488	Spring Damper	
		Valve open (lb. @ in.)	Spring Damper	55-61 @1.106	Spring Damper	
Exhaust	Material		High Alloy Steel			
	Overall length		4.913-4.933	5.105-5.125		
	Actual overall head dia.		1.495-1.505	1.715-1.725		
	Angle of seat & face		46° (seat) 45° (face)			
	Seat insert material		None			
	Stem diameter		.3410-.3417	.3710-.3717		
	Stem to guide clearance		.0010-.0027	.0015-.0032		
	Lift (@ zero lash)		.3987 (Theoretical)	.4119	.5185 (Theoretical)	
	Outer spring press. and length	Valve closed (lb. @ in.)	78-86 @ 1.660	84-92 @1.66	128-140 @ 1.68	
		Valve open (lb. @ in.)	170-180 @ 1.260	166-176 @1.33	315-339 @ 1.20	
	Inner spring press. and length	Valve closed (lb. @ in.)	Spring Damper	20-24 @1.488	Spring Damper	
		Valve open (lb. @ in.)	Spring Damper	55-61 @1.106	Spring Damper	

ENGINE—LUBRICATION SYSTEM

Type of lubrication (splash, pressure, etc)	Main bearings	Pressure
	Connecting rods	Pressure
	Piston pins	Splash
	Camshaft bearings	Pressure
	Tappets	Pressure
	Timing gear or chain	Nozzle
	Cylinder walls	Pressure, jet cross sprayed

* - Including Ramps

(Continued)

AMA Specifications – Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (e)

MODEL 1200-1400 / 1600-1800

327 Cu. In. V-8		409 Cu. In. V-8		
250 HP	300 HP	340 HP	400 HP	425 HP

ENGINE—LUBRICATION SYSTEM (cont.)

Oil pump type	Gear	
Normal oil pressure (lb. @ engine rpm)	30-45 PSI @ 1500	50 PSI @ 2000
Oil pressure sending unit (elect. or mech.)	Electric	
Type oil intake (floating, stationary)	Stationary	
Oil filter system (full flow, partial, other)	Full Flow	
Filter replacement (element, complete)	Element	
Capacity of crankcase, less filter-refill (qt.)	4	5
Oil grade recommended (SAE viscosity and temperature range)	32°F and Above ----- SAE 20W, SAE 20, or SAE 10W-30 0°F and Above ----- SAE 10W or SAE 10W-30 Below 0°F ----- SAE 5W or SAE 5W-20	
Engine Service Requirement (MM, MS, etc.)	MS or DG	

ENGINE—EXHAUST SYSTEM

Type (single, single with cross-over, dual, other)		Dual	
Muffler No. & type (reverse flow, straight thru, separate resonator)		Two, reverse flow with resonators	
Exhaust pipe dia. (O.D. & wall thickness)	Branch		
	Main	2.00 x .062	2.50 x .074
Tail pipe diameter (O.D. & wall thickness)		1.87 x .059	2.00 x .059

ENGINE—CRANKCASE VENTILATION SYSTEM

Type (ventilates to atmos., induction system, other)		Standard	Ventilates to induction system	
		Optional	--	
Control unit	Make and model			
	Location		Rear of Carburetor	
	Energy source (manifold vacuum, carburetor air stream, other)		Manifold vacuum	
	Control method (variable orifice, fixed orifice, other)		Variable orifice	
Complete system	Discharges (to intake manifold, carb. air intake, air cleaner intake, other		Intake manifold	
	Air inlet (breather cap, carburetor air cleaner, other)		Breather cap	Carburetor air cleaner
	Flame arrestor (screen, check valve, other)		Check Valve	

Form Rev.

AMA Specifications– Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (•)

MODEL 1200-1400 / 1600-1800

	327 Cu. In. V-8		409 Cu. In. V-8		
	250 HP	300 HP	340 HP	400 HP	425 HP

ENGINE—FUEL SYSTEM

(See Supplement to Page 8 for Details of Fuel Injection, Supercharger, etc. if used)

Induction type: Carburetor, fuel injection, supercharger.			Carburetor		
Fuel Tank	Capacity (gals.)		20 (19 on station wagons)		
	Filler location		In left rear quarter panel		
Fuel Pump	Type (elec. or mech.)		Mechanical		
	Location		Lower right front corner of engine		
	Pressure range		5.25-6.50 PSI	7.25-8.75	
Vacuum booster (std., optional, none)			None		
Fuel Filter	Type		Fine mesh plastic strainer in gas tank		
	Location		* Glass bowl with paper element between pump & carb.		
Carburetor	Choke type		Automatic		
	Intake manifold heat control (exhaust or water)		Exhaust		
	Air clnr. type	Standard	Paper element	Foam	Paper
		Optional	--		

CARBURETOR SUPPLEMENTARY INFORMATION

Model Usage	Engine Displ.	Transmission	Carburetors Make	Carburetors Model	No. Used and Type	Barrel Size
1200-1400 1600-1800	327 250 hp	3-Speed 4-Speed	Carter	3846247	4 bbl Down-draft	1.4375 (P
		Powerglide	Carter Rochester	3846246 7024121		1.4375 (S)
	327 300 hp	3-Speed 4-Speed	Carter	3826004	4 bbl Alum Down-draft	1.5625 (P
		Powerglide	Carter	3826006		1.6875 (S)
	409 340 hp	3-Speed 4-Speed	Rochester	7024123	4 bbl Down-draft	1.56 (P
		Powerglide	Rochester	7024124-		1.68 (S)
	409 400 hp	3-Speed 4-Speed	Carter	3827324	4 bbl Alum Down-draft	1.625 (P 1.6875 (S
	409 425 hp	3-Speed 4-Speed	Carter	3815403(ft) 3815404(rr)	2 x 4 Bbl Alum	1.5625 (P 1.6875 (S

* 250 HP - Sintered bronze filter in carburetor inlet

AMA Specifications – Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (•)

MODEL 1200-1400 / 1600-1800

ENGINE—COOLING SYSTEM

Type system (pressure, pressure vented, atmospheric, other)		Pressure				
Radiator cap relief valve pressure		13 ± 1 PSI				
Circulation thermostat	Type (choke, bypass)	Choke				
	Starts to open at (°F)	177°-183° F				
Water pump	Type (centrifugal, other)	Centrifugal				
	GPM @ 1000 pump rpm	55 GPM @ 4000		78 GPM @ 5200*		
	Number of pumps	One				
	Drive (V-belt, other)	V-Belt				
	Bearing type	Double, roll ball				
By-pass recirculation type (internal, external)		Internal		External		
Radiator core type (cellular, tube and fin, other)		Tube on Center				
Cooling system capacity	With heater (qt.)	16	18	22		
	Without heater (qt.)	15	17	21		
	Opt. equipment–specify (qt.)	18	18			
Water jackets full length of cylinder (yes, no)		Yes				
Water all around cylinder (yes, no)		Yes				
Radiator hose	Lower: Number and type (molded, straight)	One, molded				
	Lower: Inside diameter	1.75		1.88		
	Upper: Number and type (molded, straight)	One, molded				
	Upper: Inside diameter	1.50		1.50		
	By-pass: Number and type (molded, straight)	None		One, molded		
	By-pass: Inside diameter	None		.610		
Fan	Number of blades & Spacing	5, Staggered				
	Diameter	18.00				
	Ratio–fan to crankshaft rev.	.949:1				
	Fan cutout type	Thermo-modulated-viscous coupling				
	Bearing type	Double row ball				
*Drive belts (indicate belt used by letter)	Fan	A		D E		
	Generator	A		D		
	Water Pump	A		D E		
	Power Steering	B		F		
	Air Conditioning	C		G		

* Drive Belt Dimensions	A	B	C	D	E	F	G
Angle of V	38°-42°						
Nominal length (SAE)	53.25	41.50	57.50	58.00	43.00	44.00	61.00
Width	.380						

* - Actual flow through engine

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AMA Specifications – Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (a)

MODEL	1200-1400 / 1600-1800	327 Cu. In. V-8		409 Cu. In. V-8		
		250 HP	300 HP	340 HP	400 HP	425 HP

ELECTRICAL—SUPPLY SYSTEM

Battery	Make and Model		Delco #1983506 (#1983508 on 340 HP)
	Voltage Rtg. & Total Plates		12 Volt 66 plates
	SAE Designation & Amp Hr. Rtg		61 Amp hr. @ 20 hr. (a)
	Location		Right front of engine compartment
	Terminal grounded		Negative
Generator	Make		Delco-Remy
	Model		#1100668
	Type		Diode rectified
	Ratio—Gen. to Cr/s rev.		2.46:1
	Gen. cut-in (hot)—engine rpm		
Regulator	Make		Delco-Remy
	Model		#1119515
	Type		Vibrator
	Cutout relay	Closing voltage @ generator rpm	None
		Reverse current to open	
	Regulated	Voltage	13.8-14.8 @ 85°F
		Current	
	Voltage test conditions	Temperature	Operating
		Load	3-8 Amperes
		Other	None

ELECTRICAL—STARTING SYSTEM

Starting motor	Make		Delco-Remy		
	Model		#1107320	#1107274	#1107286
	Rotation (drive end view)		Clockwise		
	Engine cranking speed				
	Test conditions		Engine at operating temperatures		
	Lock test	Amps			
		Volts			
		Torque (lb. ft.)			
	No load test	Amps	65-100		
		Volts	10.6		
		RPM (min.)	3600-5100		
Motor control	Switch (solenoid, manual)		Solenoid		
	Starting procedure		SYNCHROMESH - Place gearshift in neutral and depress clutch to floor POWERGLIDE - Place control lever in N or P position INITIAL START - Press accelerator pedal to floor once to set automatic choke, then release. Turn ignit to START - release as soon as engine starts		

(a) - 70 Amp hr @ 20 hr rate for 340 HP

(Continued)

AMA Specifications – Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (e)12-3-

MODEL	327 Cu. In. V-8		409 Cu. In. V-8		
	250 HP	300 HP	340 HP	400 HP	425 HP

ELECTRICAL—STARTING SYSTEM (cont.)

Motor Drive	Engagement type		Positive shift solenoid
	Pinion meshes (front, rear)		Rear
	Number of teeth	Pinion	9
		Flywheel	168
	Flywheel tooth face width		.4135

ELECTRICAL—IGNITION SYSTEM

Coil	Make		Delco-Remy			
	Model		#1115115	●#1115198	#1115083	
	Amps	Engine stopped	4.0			
		Engine idling	1.8			
Distributor	Make		Delco-Remy			
	Model		#1111016		#1111023	
	Cent'fgal adv. in crankshaft degrees @ engine rpm (nominal)	Start (rpm)	700			
		Intermediate points deg. @ rpm				
		Max deg. @ rpm	24 @ 4600			
	Vacuum adv. in crankshaft degrees @ in. Hg. (nominal)	Start (in Hg)	8			
		Intermediate points, deg @ in Hg				
		Max. deg. in. Hg.	15 @ 15.5			
	Breaker gap (in.)		.019			
	Cam angle (deg.)		28-32			
	Breaker arm tension (oz.)		19-23			
Timing	Crankshaft deg. @ rpm. ●		4° @ 550	8° @ 550	6°±1° @ 550	12°±1° @ 600
	Mark location		Vibration damper			
	Cylinder numbering system (see page 2)		Left bank 1-3-5-7 Right bank 2-4-6-8			
	Firing order (see page 2)		1-8-4-3-6-5-7-2			
Spark Plug	Make and model		AC44	AC43N		
	Thread (mm)		14			
	Tightening torque (lb. ft.)		25			
	Gap		.033-.038			
Cable	Conductor type		Linen core impregnated with electrical conducting material			
	Insulation type		Rubber with neoprene jacket			
	Spark plug protector		Hypalon jacket			

ELECTRICAL—SUPPRESSION

Locations & type	Non-Metallic High Tension Ignition Cable

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AMA Specifications – Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (•) 3-16-64

MODEL 12-14-16-1800 | 327 and 409 In^3 Engines

ELECTRICAL—INSTRUMENTS AND SWITCHES

Speedometer	Make	AC
	Trip odometer (yes, no)	NO
Charge indicator—type		Tell-tale lamp
Temperature indicator—type		Tell-tale lamps (cold green; hot red)
Oil pressure indicator—type		Tell-tale lamp
Fuel indicator—type		Electric, gauge
Other		Parking brake flasher (a)
Ignition switch	Identify positions in order and circuits controlled	2nd position CCW from vertical - ACC (accessories) 1st position CCW from vertical - LOCK (off, locked) Vertical - OFF (Unlocked) 1st position CW from vertical - ON (ignition, batt., access.) 2nd position CW from vertical - START (ignition, batt., accessories, starter; spring return to O
	Provision for illumination	1445 Lamp
	Location	Instru. panel to right of steering column
Main lighting switch	Identify positions and lamps controlled	Fully depressed - off 1st notch - Instru. panel, tail and license lamps 2nd notch - Instru. panel, head, tail and license lamps CW rotation of knob - dim and turn off instru. panel lamps CCW rotation of knob - turn on and brighten instru. panel lamps; Full CCW rotation - turn on dome lamp and/or courtesy lamps •
Other light switches	Locations and lamps controlled	Toe panel - Head lamp dimmer Glove compartment - Glove comp. lamp (b) Front door hinge pillar - Dome and courtesy lamps (c) Steering column - Turn signal lamps Under instru. panel - Stop lamps Steering mast jacket - Back-up lamps (a)
Other switches	Locations and devices controlled	Console compartment - Console compartment light (d) Accelerator linkage - Overdrive kick-down (e) Instru. panel to right of steering column - Heater blower Doors or qtr. trim panels - Power windows (e) Instru. panel, center - Radio (e) Instru. panel, left of steering column - W/S wiper Instru. panel, left of steering column - Tailgate window (h) Steering column - Trans. Neu. Saf. Sw. (e) Front seat lower panel, LH side - Power seat (j) Under instru. panel to left of steering column - Power top (k) • Instru. panel, left of strng column - CRUISE CONTROL
Windshield wiper	Make	Delco
	Type	Electric, Single-speed (f)
	Vacuum booster provision	None
	Washer provision	None (g)
Horn	Type	Vibrator
	Number used	2
	Amp draw (each)	8.00-11.0 @ 12.5 V

(a) Std. on 13, 14, 17 and 1800
(b) Std. on 13, 14, 15, 16, 17 and 1800
(c) Std. on 13 thru 1800 except instru. panel courtesy, opt. except convertibles; door jam switches std. except 11 and 1200.
(d) Std. on 13 and 1400
(e) Optional equipment
(f) Optional electric two-speed incl. washer
(g) Optional dealer installed accessory
(h) Standard on 15, 16, 17 and 1845
(j) Optional on 13, 14, 15, 16, 17 and 1800
(k) Standard on 13, 14, 17 and 1867

AMA Specifications – Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (*)3-16-6

MODEL 12-14-16-1800 | 327 and 409 In^3 Engines

ELECTRICAL—LAMP BULBS

Give quantity used and trade number, e.g., Headlamp 2-5400 S, dual headlight 2-4001, 2-4002.

Headlamps & arrangement		Dual, Horizontal: Outer, 2-4002; Inner, 2-4001	
Headlamp beam indicator		1-1895	
Parking		2-1157	
Tail		Except Wagons, 2 or 4-1157 (a); Wagons, 2-1157	
Stop		Except Wagons, 2 or 4-1157 (b); Wagons, 2-1157	
Direction signal	Front	2-1157	
	Rear	Except Wagons, 2 or 4-1157; Wagons, 2-1157	
	Indicator	2-1445	
License Plate		1-1155	
Oil pressure indicator		1-1895	
Charge indicator		1-1895	
Instrument		4-1895	
Clock		(Instrument)	
Radio		1-1893	Optional

Indicate also whether the following lamp assemblies are standard equipment, optional, or NA.

Ignition lock	1-1445	Reg. Prod.
Back up	2-1156	(c)
Dome	Roof Center, 1-211; Rear qtr., 2-90; Side Rail 2-90;	Reg. Prod.
Glove compartment	Instr. Panel, 1-1895 (d); Seat Separator, 1-1816	Reg. Prod.
Prkg. brake signal	1-257	(c)
Luggage compartment	(Except Wagons) 1-1003 Except when DIA 1-93	(c)
Underhood	1-93	
Courtesy	Instru. Panel, 2-631(e); Rear Qtr., 1-90 Reg. Prod; Seat Sep. 1-211 Reg. P;	
Ash Tray	1-1445	Opt.
Spot Lamps	Inside Operated, 1-4405: Portable, 1-4416	Optional
Traffic Hazard	Indicator 1-1445	Optional
Compass	1-53	Optional
Tachometer	1-53	Optional

(a) Two "tail only" on 15-1600 (inboard lamps); trade No. 1155.
(b) Two on 11-1200, and 15-1600; four on 13-1400, and 17-1800.
(c) Optional for 11-1200, and 15-1600.
(d) Optional for 11-1200.
(e) Optional except convertible.

Regular Production Items Continued

Heater Controls	1-1895
Fuel Gage	1-1895
Temp. Indicators	2-1895
Auto. Trans. Dial Indicator	1-1445

AMA Specifications – Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (•) 3-16-64

MODEL 12-14-16-1800 | 327 and 409 In^3 Engines

ELECTRICAL—FUSE & CIRCUIT BREAKER DATA

Fuses in Fuse Panel unless otherwise indicated

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

Headlamp	15 C.B.	(a)	Courtesy Lamps		-
Headlamp beam indicator		(a)	Instr. Panel		(b)
Parking lamp		(a)	Seat Separator		(b)
Tail lamp	AGC 15	(b)	Rear Qtr.		(b)
Stop lamp		(b)	Additional Dome Lamps		-
Direction indicator	AGC 3	(c)	Rear Qtr.		(b)
License plate lamp		(b)	Side Rail		(b)
Instrument lamp		(c)	Heater	AGC 10; IF A. C.,	
Ignition lamp		(c)		AGC 30	(f)
Back up lamp	AGC 10	(d)	Spotlamp		
Dome lamp		(b)	Inside Operated	AGC 15	(in line)
Clock		(b)	Portable		(b)
Clock lamp	(Instrument lamp)		Underhood Lamp	SAE 4	(in line)
Radio	AGC 2.5	(g)	Traffic Hazard Indicator		(b)
Glove compartment lamp		(b)	Compass Lamp		(c)
Lugg. Compt. Lamp		(b)	Air Conditioning		
Park. Brake Alarm		(d)	Blower Motor	AGC 30	(in line)
Heater Controls Lamp		(c)	Circuit	AGC 30	(f)
Fuel Gage Lamp		(c)	Defogging Unit	AGC 5	(d)
W/S Wiper (Single Speed)	SAE 20	(e)	W/S Wiper (Two-Speed)	14 C.B.	(switch)
Fuel Gage		(d)			(e)
Cig. Lighter		(b)	Tachometer		
Oil, Temp. & Gen. Indicators		(d)	Lamp		(c)
Auto. Trans. ind. Dial		(c)	Circuit		(d)
Ash Tray Lamp		(c)	Cruise Control		(d) ⊕

ELECTRICAL—LOCATION OF OUTSIDE LAMPS

			Sedans	Coupes	Convertible	Wagon
Height above ground to center of bulb	Tail	Lowest	23.4	23.7		22.7
		Highest	23.4	23.7		22.7
	Stop		23.4	23.7		22.7
	Backup		23.4	23.7		22.7
	License, rear		19.3	19.6		17.1
	Directional	Front	16.9	17.2		17.5
		Rear	23.4	23.7		22.7
	Headlamp	Inside	27.6	27.6		27.9
		Outside*	27.6	27.6		27.9
Distance from C/L of car to center of bulb	Tail	Inside		17.3 Impala, 23.9 Biscayne, Bel Air		
		Outside	30.6			32.1
	Stop			17.3 Impala. 23.9 Biscayne, Bel Air		
	Backup			23.9		
	License, rear			On Centerline		
	Directional	Front		27.4		
		Rear		17.3 Impala, 23.9 Biscayne. Bel Air		
	Headlamp	Inside		23.5		
		Outside*		63.2		

* *If single headlamps are used enter here.*

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AMA Specifications – Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (•)

MODEL 1200-1400-1600-1800 | 327 In^3 Engines - 250 and 300 HP. 409 In^3 Engines - 340, 400 and 425 HP

DRIVE UNITS—CLUTCH (Manual Transmission)

Make & type		Chevrolet, Single Dry Disk, Centrifugal
Type pressure plate springs		Diaphragm, Bent Finger Design
Effective plate pressure (lb.)		For 327 In^3 Engines - 2100-2300; 409 In^3 Engines - 2300-2600
No. of clutch driven discs		1 with 2 friction surfaces
Clutch facing	Material	Premium woven asbestos
	Outside & inside dia.	10.4, 6.5
	Total eff. area (sq.in.)	103.54
	Thickness	.135 each unloaded
	Engagement cushioning method	Flat Spring steel between facings
Release bearing	Type & method of lubrication	Single row ball, packed and sealed
Torsional damping	Methods: springs, friction material	Coil Springs

DRIVE UNITS—TRANSMISSIONS

Manual (std. or opt.)	3-Speed Standard with 327 in^3 Engines; 4-Speed Optional
Manual with overdrive (std. or opt.)	Not Offered
Automatic (std. or opt.)	Optional with 250, 300 and 340 HP engines

DRIVE UNITS—MANUAL TRANSMISSION			4-Speed (a)	
Number of forward speeds		3-Speed	A	B
Transmission ratios	In first	2.58	2.56	2.20
	In second	1.48	1.91	1.64
	In third	1.00	1.48	1.28
	In fourth	----	1.00	1.00
	In reverse	2.58	2.64	2.27
Synchronous meshing, specify gears		2nd & 3rd	All forward gears	
Shift lever location		Steering column	Floor mounted	
Lubricant	Capacity (pt.)	2	2.5	
	Type recommended	Meeting Military Specification MIL-L-2105-B		
	SAE viscosity number: Summer	SAE80		
	SAE viscosity number: Winter	SAE80		
	SAE viscosity number: Extreme cold	SAE80		

(a) A for all engines, B offered optionally with A for 400 and 425 HP engines.

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AMA Specifications – Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (•) 3-16-64

MODEL 12-14-16-1800

327 In^3 Engines - 250 and 300 HP
409 In^3 Engines - 340, 400 and 425 HP

DRIVE UNITS—MANUAL TRANSMISSION WITH OVERDRIVE

For transmission data see manual transmission section

Overdrive	Type (planetary or other)			
	Manual lockout (yes, no)			
	Downshift accelerator control (yes, no)			
	Minimum cut-in speed			
	Gear ratio			
	Lubricant	Capacity (pt.) (Overdrive only)		Not Offered
		Separate filler (yes, no)		
		Type recommended		
		SAE viscosity number	Summer	
			Winter	
			Ext. cold	

DRIVE UNITS—AUTOMATIC TRANSMISSION

Trade name		Powerglide
Type describe		Torque Converter with Planetary Gears
Method of Selection (Lever, Push Button or other)		Lever (Floor-mounted on 1400, steering column mounted on all others)
Selector Pattern		P-R-N-D-L
List gear ratios Selector Pattern and indicate which are used in each selector position		D, 1.76:1 and 1:1 L, 1.76:1 R, 1.76:1
Max. upshift speeds—drive range		250 HP-63; 300 HP-65; 340 HP-65 •
Max. kickdown speeds—drive range		250 HP-59; 300 HP-62; 340 HP-61 •
Torque convertor	Number of elements	3
	Max. ratio at stall	2.10:1
	Type of cooling (air, water)	Water
Lubricant	Capacity—refill (pt.)	3
	Type recommended	Type A, Suffix A
Special transmission features		

DRIVE UNITS—PROPELLER SHAFT

Number used		2
Type (exposed, torque tube)		Tubular, Exposed
Outer diameter x length* x wall thickness	Manual transmission	Front 2 x 30.1 x .10 Rear 2 x 35.0 x .10
	Overdrive transmission	Front 2 x 25.0 x .10 Rear 2 x 35.0 x .10
	Automatic transmission	Front 2 x 27.2 x .10 Rear 2 x 35.0 x .10

*Center to center of universal joints, or to centerline of rear attachment.

(Continued)

AMA Specifications – Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (•) 3-16-64

MODEL 12-14-16-1800

327 In^3 Engines - 250 and 300 HP
409 In^3 Engines - 340, 400 and 425 HP

DRIVE UNITS—PROPELLER SHAFT (cont.)

Intermediate bearing	Type (plain, anti-friction)		Single Row Ball, Sealed
	Lubrication (fitting, prepack)		Prepack
Universal joints	Make		Chevrolet
	Number used		3
	Type (ball and trunnion, cross, other)		Cross
	Bearing	Type (plain, anti-friction)	Anti-Friction
		Lubric. (fitting, prepack)	Prepack
Drive taken through (torque tube or arms, springs)			Control arms
Torque taken through (torque tube or arms, springs)			Control arms

DRIVE UNITS—REAR AXLE

Description (see instructions)			Regular Production - Semi-Floating, overhung pinion gear
Limited Slip differential, type			Regular Production with Dual Disk Clutches
Drive Pinion Offset			1.5
No. of differential pinions			Regular Production - 2; Limited Slip, 4
Gear ratios (Std. equip.)	Manual transmission		3-Speed - 3.36:1; 4-Speed - 3.36:1, except 425 HP Engine with wide range 4-Speed - 3.08:1
	Overdrive transmission		Not offered
	Automatic transmission		For 250 HP Engine - 3.08:1; 300 & 340 HP Engines - 3.36:1
Ring gear O.D. (std. ratio)			8.375
Pinion adjustment (shim, other)			Shim
Pinion bearing adj. (shim, other)			None
Wheel bearing type			Single row ball, sealed
Lubricant	Capacity (pt.)		4
	Type recommended		Meeting Military Specification MIL-L-2105-B
	SAE viscosity number	Summer	SAE 80
		Winter	SAE 80
		Extreme cold	SAE 80

REAR AXLE RATIO TOOTH COMBINATIONS

(See page 3 for axle ratio usage)

Axle ratio		3.08:1	3.36:1	
No. of teeth	Pinion	12	11	
	Ring gear	37		

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AMA Specifications – Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (•) 3-16-6

MODEL 12-14-16-1800

327 In^3 Engine - 250 and 300 HP
409 In^3 Engine - 340, 400 and 425 HP

DRIVE UNITS—WHEELS

Type & material		Short Spoke Disk, Steel
Rim (size and flange type)	Std.	14 x 5J except Station Wagons, 14 x 6JK
	Opt.	14 x 6JK; 15 x 5K •
Attachment	Type (bolt or stud)	Stud
	Circle diameter	4.75
	Number and size	5 Hex Nuts, 7/16-20 UNF - 2B

DRIVE UNITS—TIRES

Tubeless unless indicated otherwise

Standard (List option below)	Size & ply	Wagons & 409 In^3 Engines-8.00 x 14-4PR; Balance-7.50x14-4PR
	Type - Nylon, etc.	Blackwall, Rayon
Rev/mile at 50 mph.		7.50 x 14-800; 8.00x14 - 785
Inflation press.(cold)	Front	24
	Rear	24 except Wagons, 28
Optional tires - size and ply		6.70 x 15-4PR (*), Hyway, Nylon, Blackwall; 6.70 x 15-4PR, Hyway, Rayon, Blackwall, Tube. 7.10 x 15-4 PR (*), Hyway, Nylon or Rayon, Blackwall. 8.00 x 14-4PR, Hyway, Rayon, Whitewall; 8.00x14-4PR(*), Hyway, Nylon, Blackwal

BRAKES—SERVICE

			Regular Production	Metallic	
Type (duo-servo, disc, balanced, etc.)			Duo-Servo, 4 Wheel Hydraulic, Reverse Self-Adjusting		
Self adjusting (std., opt., N.A.)			Regular Production		
Hydraulic system type (single, dual, etc.)			Single		
Power brake make & type (remote, integral, etc.)			Bendix or Delco Moraine Vacuum Power Unit Assisting Master Cylinder; Integral		
Effective area (sq. in.)*			186.2	145.2	•
Gross lining area (sq. in.)**			200.4	145.2	•
Swept drum area (sq. in.)***			328.0		
Percent brake effectiveness—front			58.5		
Drum	Diameter	Front	11.0		
		Rear	11.0		
	Type and material		Composite: Rim-Cast Iron; Web-Steel		
Wheel cylinder bore	Front		1.1875		
	Rear		1.00		
Master cylinder bore			1.00	.875	
Available pedal travel			6.38		
Line pressure at 100 lb. pedal load			750	980	
Shoe clearance adjustment			Self-Adjusting		

(Continued)

* Excludes rivet holes, grooves, chamfers, etc.
** Includes rivet holes, grooves, chamfers, etc.
*** Total swept areas for four brakes:
Widest lining contact width for each brake x its drum circumference.

(a) 7.00x14-4PR, Hyway, Rayon, Whitewall.
7.10x15-4PR (*), Hyway, Rayon, Blackwall; 7.10x15-4PR (*), Hyway, Nylon, Blackwall
7.50x14-4PR (*), Hyway, Nylon, Blackwall; 7.50x14-4PR (*), Hyway, Nylon, Whitewall
7.50x14-4PR, Hyway, Rayon, Whitewall; 7.50x14-6PR (**), Hyway, Rayon, Blackwall;
7.50x14-4PR, Hyway, Rayon, Blackwall;
8.00x14-4PR, Hyway, Rayon, Blackwall; 8.00x14-4PR, Hyway, Rayon, Whitewall;
8.00x14-4PR (*), Hyway, Nylon, Blackwall.

* - Items with "*" 4 ply construction.
** - Items with "**" 6 ply construction.

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AMA Specifications—Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (a) 3-16-6

MODEL 12-14-16-1800

327 In^3 Engines - 250 and 300 HP
409 In^3 Engines - 340, 400 and 425 HP

BRAKES—SERVICE (cont.)

				Production	Metallic
Brake lining	Bonded or riveted			Bonded	Welded
	Front Shoe	Material		Molded Asbestos	Sintered Iron
		Size (length x width x thickness)	Front wheel	9.34 x 2.75 x .168	1.64 x 1.37 x .175
			Rear wheel	9.34 x 2.00 x .168	2.00 x 1.00 x .175
		Segments per shoe		1	6
	Rear Shoe	Material		Moulded Asbestos	Sintered Iron
		Size (length x width x thickness)	Front wheel	11.75 x 2.75 x .168	1.64 x 1.37 x .295
			Rear wheel	11.75 x 2.00 x .168	2.00 x 1.00 x .295
		Segments per shoe		1	Front - 12; Rear - 10

BRAKES—PARKING

Type of control		Foot pedal for apply, "T" handled release
Location of control		Left of Steering Column
Operates on		Rear Service Brakes
If separate from service brakes	Type (internal or external)	--
	Drum diameter	--
	Lining size (length x width x thickness)	--

FRAME or UNITIZED CONSTRUCTION

Type and description: All welded "X" frame with box girder side rails, box section front suspension crossmember, channel section rear crossmember and reinforced box girder center beam. Special crossmember for mounting rear suspension upper control arm.

SUSPENSION—GENERAL (See Supplemental page 19 for details on Air Suspension)*

Provision for car leveling		Front Stabilizer Bar
Provision for brake dip control		Mounting Angle of Front Upper Control Arms
Provision for acc. squat control		Geometry of Rear Suspension Control Arms
Special provisions for car jacking		None
Shock absorber front & rear	Type	Direct, Double-Acting, Hydraulic
	Make	Delco
	Piston dia.	1.00
Other special features		--

SUSPENSION—FRONT

Type and description	Independent - SLA type with coil spring and concentric shock absorber, and spherically-jointed steering knuckle for each wheel.

(Continued)

* Air Suspension:
Air spring type
Compressor data
type
make
drive ratio
Normal operating pressures
spring rates
leveling data

AMA Specifications – Passenger Cars

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED 3-16-64

MODEL 12-14-16-1800

327 In^3 Engines - 250 and 300 HP
409 In^3 Engines - 340, 400 and 425 HP

SUSPENSION FRONT (cont.)

Spring	Type	Coil, Right Hand Helix	
	Material	Steel Alloy	
	Size (coil design height & I.D.; bar length x dia.	327 In^3 Engines: 10.50 and 3.802; 141.25 x .630	409 In^3 Engines: 10.50 x 3.802; 141.25 x .630
	Spring rate (lb. per in.)	275	275
	Rate at wheel (lb. per in.)	101.2	101.2
	Design load (lb. @ design height)	1880 @ 10.50	1960 @ 10.50
Stabilizer	Type (link, linkless, frameless)	Link	
	Material & bar diameter	Steel, .6875	

STEERING

Manual (std., opt., NA)				Regular Production
Power (std., opt., NA)				Optional
Adjustable steering wheel (tilt, swing, other)		Type and description		Tilt: Tilt achieved by universally-jointing steering shaft at base of steering wheel; five-inch vertical travel range
		(std., opt., NA)		Optional with power steering except with 3-Speed
Wheel diameter		Manual		16.5
		Power		16.5
Turning diameter	Outside front	Wall to wall (l. & r.)		44.1
		Curb to curb (l. & r.)		40.8
	Inside rear	Wall to wall (l. & r.)		24.2
		Curb to curb (l. & r.)		24.5
Outside wheel angle with inside wheel at 20°				17.87°
Manual	Gear	Type		Semi-Reversible, Recirculating Ball Nut
		Make		Saginaw
		Ratios	Gear	24.0:1
			Overall	28.0:1
	No. wheel turns			5.8 (Lock to Lock)
Power	Type (coaxial, linkage, etc.)			Linkage with Hydraulically operated cylinder
	Make			Saginaw
	Gear	Type		Same as Manual
		Ratios	Gear	20.0:1
			Overall	24.0:1
	Pump driven by			Crankshaft Pulley
	Number wheel turns			5.06 (Lock to Lock)
Linkage	Type			Relay
	Location (front or rear of wheels, other)			Front
	Drag link (trans. or longit.)			None
	Tie rods (one or two)			2

(Continued)

AMA Specifications – Passenger Car

MAKE OF CAR CHEVROLET **MODEL YEAR** 1964 **DATE ISSUED** 9-23-63 **REVISED** (•)3-16-6

MODEL 12-14-16-1800

327 In^3 Engines - 250 and 300 HP
409 In^3 Engines - 340, 400 and 425 HP

STEERING (cont.)

Steering Axis	Inclination at camber (deg.)		6-3/4 to 7-3/4
	Bearings (type)	Upper	Ball stud with non-metallic bearing surfaces
		Lower	Ball stud with non-metallic bearing surfaces
		Thrust	None required
Wheel alignment (range and preferred)	Caster (deg.)		N 1/2 to P 1/2 (Curb)
	Camber (deg.)		O to P 1 (Curb)
	Toe-in (outside tread-inches)		1/32-3/32, per wheel (Curb)
Steering spindle & joint type			Forging with pad for mounting brake cylinder, spherical
Wheel spindle	Diameter	Inner bearing	1.2493-1.2498
		Outer bearing	.7492-.7497
	Thread size		3/4-20 NEF 3 (modified)
	Bearing type		Taper Roller

SUSPENSION—REAR

Type and description				4-Link with 3 control arms and lateral control bar	
Drive and torq. taken through (see page 17)				3 control arms	
Spring	Type			Coil	
	Material			Steel Alloy	
	Size (length x width, coil design height and I.D.; bar length & dia.)			327 In^3: 9.88 & 3.638; 138.27 x .583	409 In^3: 9.88 x 3.638; 126.25 x .630
	Spring rate (lb. per in.)			230	340
	Rate at wheel (lb. per in.)			108.6	158.5 •
	Design load (lb. at design height)			1520@9.88	1520@9.88
	Mounting insulation type			None	
	If leaf	No. of leaves		--	
		Inserts	Type and size	--	
			Material	--	
		Shackle (comp. or tens.)		--	
Stabilizer	Type (link, linkless, frameless)			--	
	Material			--	
Track bar type				Lateral, frame to rear axle	

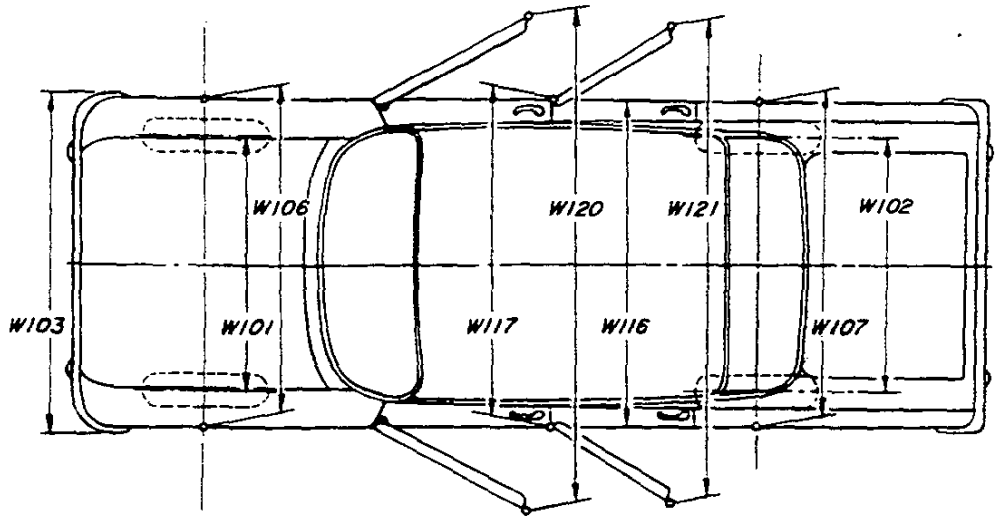
MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (•)3-16-6

CAR AND BODY DIMENSIONS—GENERAL

Dimensions herein are those adopted by the Society of Automotive Engineers. Brief descriptions of these dimensions are listed on pages 34-36. Complete definitions are listed in section E-1 of the SAE Aeronautical - Automotive Drawing Standards.
The dimensions are developed from the following basic points:

1. Body dimensions are for all body styles.
2. All interior dimensions are taken with manikin 15.0 inches outboard of car centerline unless otherwise stated.
3. All interior dimensions are measured with the front seat in the lowest and rearmost position.
4. Unless otherwise specified, all exterior height dimensions are taken with a full design load which consists of 5 passengers, 300 lbs. front, 450 lbs. rear; includes spare wheel, tire and tools, and full complement of gas, oil, water and tires to recommended pressure, etc.
5. The SAE manikin with 90th percentile leg length will be used for recording purposes.
6. The H Point is the pivot center of the manikin's torso and thigh.
7. The D Point is the point of tangency of a horizontal line and the lowest point of the manikin.
8. The Torso Line is a line parallel to the small of manikin's back and extending through the H Point.

EXTERIOR WIDTH DIMENSIONS



MODEL	Ref. No.	SEDANS 2-Dr.	SEDANS 4-Dr.	SPORT SEDAN	SPORT COUPE	CONVERTIBLE	STATION WAGONS
Tread - front	W101	60.3					61.3
Tread - rear	W102	59.3					60.3
Maximum overall car width	W103	78.1					
Maximum overall body width	W116	77.0					
Maximum body width at #2 pillar	W117	---	76.5		---		76.5
Front fender overall width	W106	76.7					
Rear fender overall width	W107	77.0					
Maximum overall car width - front doors open	W120	156.6	141.6		156.6		141.6
Maximum overall car width - rear doors open	W121	---	138.1	137.1	---		138.1

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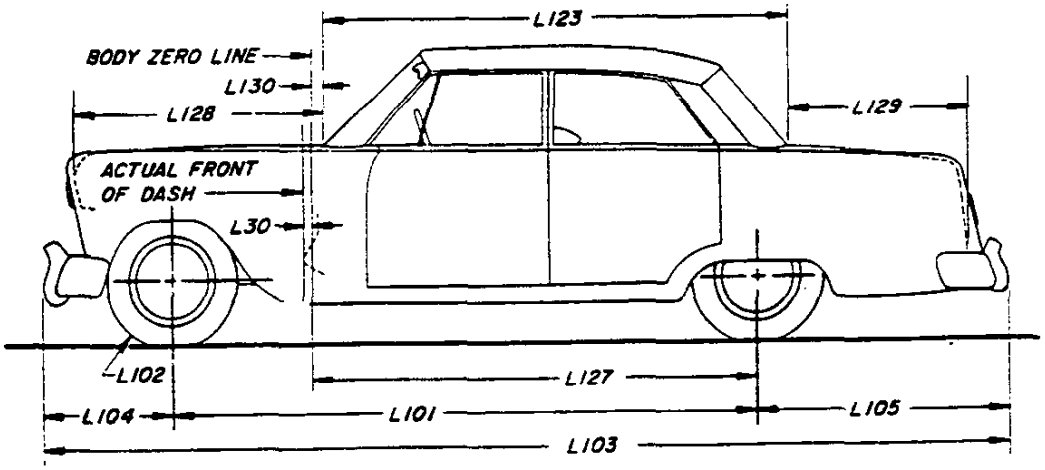
AMA Specifications – Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED(•) 3-16-64

EXTERIOR LENGTH DIMENSIONS



MODEL	Ref. No.	SEDANS 2-Dr.	SEDANS 4-Dr.	SPORT SEDAN	SPORT COUPE	CONVERTIBLE	STATION WAGONS
Body zero line to actual front of dash	L30	.5					
Wheelbase	L101	119.0					
Overhang - front	L104	33.3					
Overhang - rear	L105	57.6					58.5
Overall length	L103	209.9					210.8
Hood length at car centerline	L128	51.2					
Body upper structure length at car centerline	L123	102.6		105.3	102.6	105.1	140.6
Deck length at car centerline	L129	49.2		46.5	49.2	46.8	--
Body zero line to centerline of rear wheels	L127	100.0					
Body zero line to windshield cowl point	L130	4.8					
Tire size	L102	Refer to Page 18					

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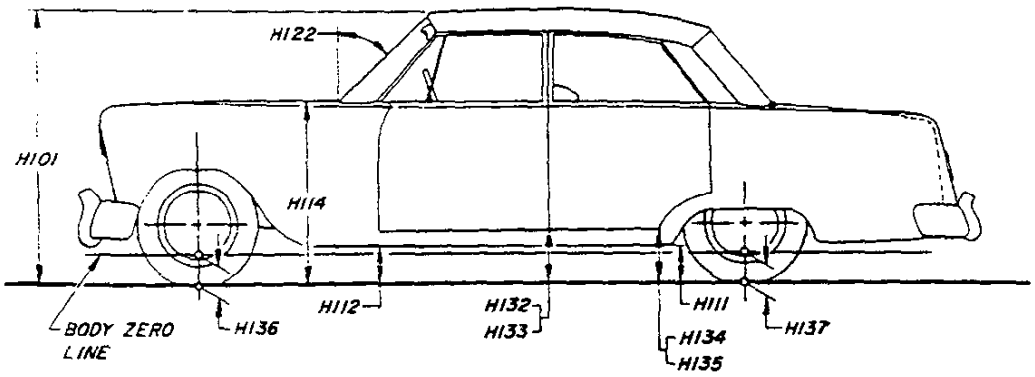
AMA Specifications– Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (•) 3-16-64

EXTERIOR HEIGHT DIMENSIONS



MODEL	Ref. No.	SEDANS 2-Dr.	SEDANS 4-Dr.	SPORT SEDAN	SPORT COUPE	CONVERTIBLE	STATION WAGONS
Overall height	H101	56.2		54.9	55.1	55.8	56.7
Hood at rear to ground	H114	37.7			38.0		38.3
Rocker panel to ground - front	H112	8.9			9.2		9.5
Rocker panel to ground - rear	H111	8.5			8.8		9.1
Bottom of door to ground, open - front	H132	12.8	12.7		12.9		12.7
Bottom of door to ground, closed - front	H133	11.5	11.6		11.5		11.7
Bottom of door to ground, open - rear	H134	--	11.3		--	--	11.5
Bottom of door to ground, closed - rear	H135	--	11.3		--	--	11.5
Windshield slope angle	H122	55.5°					
Body zero to ground - front	H136	5.4					
Body zero to ground - rear	H137	5.4					5.0

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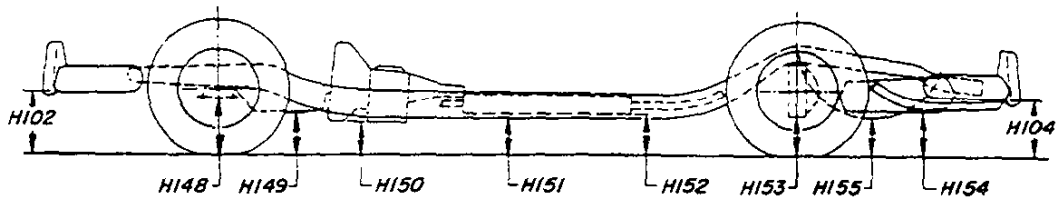
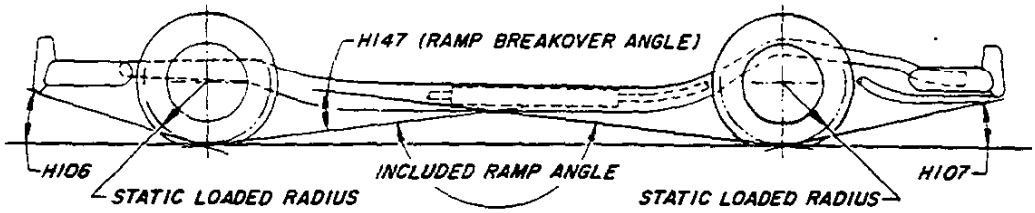
MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (•) 3-16-64

GROUND CLEARANCE DIMENSIONS



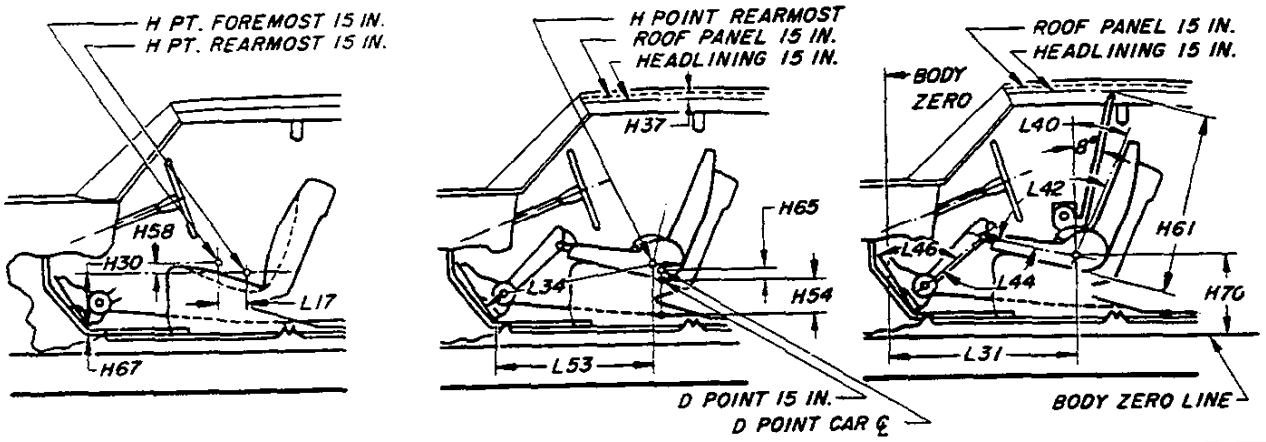


MODEL	Ref. No.	SEDANS 2-Dr.	SEDANS 4-Dr.	SPORT SEDAN	SPORT COUPE	CONVERTIBLE	STATION WAGONS
Front bumper to ground	H102	12.4			12.7		13.0
Rear bumper to ground	H104	12.1			12.4		9.9
Angle of approach	H106	26°			27°		30°
Angle of departure	H107	13°					12°
Ramp breakover angle	H147	10°			13°		
Front suspension to ground	H148	7.1			7.4		7.7
Oil pan to ground	H149	6.6			6.9		7.2
Flywheel housing to ground	H150	6.4			6.7		7.0
Frame structure to ground	H151	7.1			7.4		7.7
Exhaust system to ground	H152	5.5			5.8		6.1
Rear axle differential to ground	H153	7.1			7.4		7.7
Fuel tank to ground	H154	8.0			8.3		9.3
Spare tire well to ground	H155	--			--		8.5
Minimum running ground clearance	H156	5.5			5.8		6.1

AMA Specifications–Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (•)3-16-64

FRONT COMPARTMENT DIMENSIONS



MODEL	Ref. No.	SEDANS 2-DR.	SEDANS 4-DR.	SPORT SEDAN	SPORT COUPE (a)	SPORT COUPE (b)	CONVERTIBLE (a)	CONVERTIBLE (b)	STATION WAGONS
H Point to body zero line	L31	42.5			42.0	41.8	42.0	41.8	42.5
H Point to body zero line – front	H70	NA							
Effective head room	H61	39.2		38.5	38.1	38.3	39.1	39.3	39.2
Headlining to roof height	H37	.5					----		.9
Maximum effective leg room – accelerator	L34	41.8			41.4	41.3	41.4	41.3	41.8
H Point to heel point	H30	8.6				8.4	8.6	8.4	8.6
Depressed floor covering thickness	H67	.3				.2	.3	.2	
Back angle	L40	24°			26°	26°	23°	26°	25°
Hip angle	L42	96°			97°	95°	94°	95°	96°
Knee angle	L44	128°			125°	124°	125°	124°	128°
Foot angle	L46	87°			86°				88°
D Point differential, side to center	H65	.7			.5	--	.6	--	.7
D Point to tunnel	H54	2.8			2.7	--	2.7	--	2.8
H Point to accelerator floor point	L53	34.0			33.6	33.5	33.6	33.5	34.0
H Point travel	L17	4.8							
H Point rise	H58	.8			.7	.8	.7	.8	.7

(a) Bench seat; (b) Bucket seat

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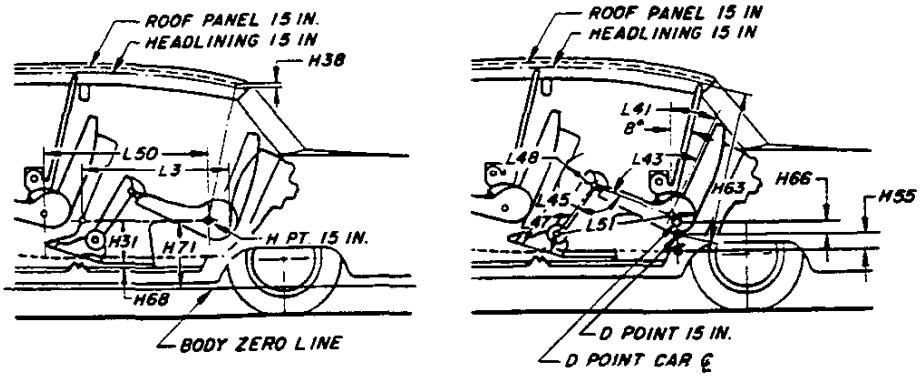
AMA Specifications – Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (•) 3-16-64

REAR COMPARTMENT DIMENSIONS



MODEL	Ref. No.	SEDANS 2-DR.	SEDANS 4-DR.	SPORT SEDAN	SPORT COUPE (a)	SPORT COUPE (b)	CONVERTIBLE (a)	CONVERTIBLE (b)	STATION WAGON
H Point couple distance	L50	34.8		33.7	33.1	33.2	33.1	33.2	34.9
H Point to body zero line – rear	H71	NA							
Effective head room	H63	38.0		37.2	38.3	38.3	38.1	38.1	39.8
Headlining to roof height	H38	.8		.6	.5	--	--	--	.8
Minimum effective leg room	L51	38.3		36.8	35.0	36.1	35.0	36.1	38.6
H Point to heel point	H31	11.8		12.0	10.5	10.4	10.5	10.4	11.7
Depressed floor covering thickness	H68	.4							
Minimum knee room	L48	4.6		3.6	3.4	3.7	3.4	3.7	4.9
Rear compartment room	L3	27.8		26.8	26.1	26.1	25.7	26.2	28.4
Back angle	L41	25°			19°				23°
Hip angle	L43	92°		90°	77°	79°	77°	79°	91°
Knee angle	L45	103°	106°	99°	90°	96°	90°	96°	108°
Foot angle	L47	114°		110°	110°	109°	110°	109°	114°
D Point differential, side to center	H66	.4		.8	.8	.8	.8	.8	.5
D Point to tunnel	H55	1.7		2.2	.7	.7	.7	.7	1.7

(a) Bench seat; (b) Bucket seat

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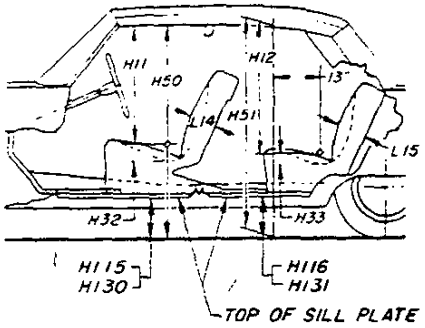
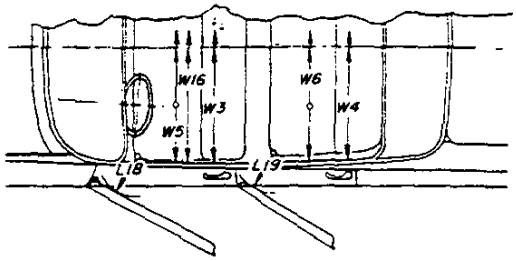
AMA Specifications – Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED 3-16-64

SEAT AND ENTRANCE DIMENSIONS





	Ref. No.	SEDANS 2-DR.	SEDANS 4-DR.	SPORT SEDAN	SPORT COUPE (a)	SPORT COUPE (b)	CONVERTIBLE (a)	CONVERTIBLE (b)	STATION WAGONS
Shoulder room – front	W3	58.8							
Hip room – front	W5	63.7		63.5	63.6				
Seat width – front	W16	57.6			27.4		57.6	27.4	57.6
Upper body opening to ground – front	H50	50.6		50.8	49.5	49.5	49.1	49.1	50.6
Entrance height – front	H11	30.1		30.3	29.1	29.3	28.7	28.8	30.1
Step height – front (design load)	H115	12.7			13.0				13.3
Step height – front (curb load)	H130	14.7			15.0				15.3
Entrance foot clearance – front	L18	14.9			14.3		14.9	14.3	14.9
Seat cushion deflection – front	H32	4.2		4.5	4.7	4.2	4.7	4.2	4.2
Seat back thickness – front	L14	7.1		7.4	7.4	7.4	7.4	6.4	7.4
Shoulder room – rear	W4	57.5	58.2		57.6		51.5		58.0
Hip room – ream	W6	62.6	63.3		55.2		51.7		63.4
Upper body opening to ground – rear	H51	--	50.3		--	--	--		50.5
Entrance height – rear	H12	--	30.5	30.1	--	--	--		30.7
Step height – rear (design load)	H116	--	12.7		--				13.3
Step height – rear (curb load)	H131	--	12.7		--				13.3
Entrance foot clearance – rear	L19	11.6	11.7	11.3	9.0	9.6	9.0	9.6	13.0
Seat cushion deflection – rear	H33	3.8	4.3	5.1	4.3				4.4
Seat back thickness – rear	L15	8.3		9.0	7.4	7.4	7.7	7.7	6.1

(a) Bench seat; (b) Bucket seat

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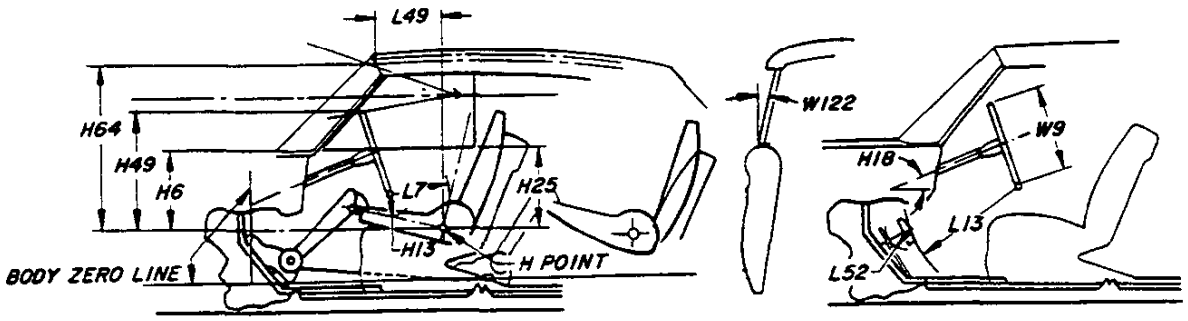
AMA Specifications – Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (•) 3-16-6

VISION AND CONTROL DIMENSIONS



MODEL	Ref. No.	SEDANS 2-DR.	SEDANS 4-DR.	SPORT SEDAN	SPORT COUPE (a)	SPORT COUPE (b)	CONVERTIBLE (a)	CONVERTIBLE (b)	STATION WAGONS
H Point to windshield bottom DLO	H6	19.0			19.2		19.0	19.2	19.0
H Point to windshield upper DLO	H64	33.1	32.8	31.0	31.8	32.0	31.7	31.9	32.8
H Point to windshield upper DLO	L49	12.0		15.0	13.7	13.5	13.7	13.5	12.0
Belt height – front	H25	16.8			17.0		16.8	17.0	16.8
Steering wheel center to centerline of car	W7	15.9							
Steering wheel maximum outside diameter	W9	17.0							
Steering column angle – horizontal	H18	16.5°							
H Point to top of steering wheel	H49	23.3°							
Steering wheel torso clearance	L7	11.3			10.9	10.8	10.7	10.8	11.3
Steering wheel thigh clearance	H13	3.5			3.4				3.5
Brake pedal knee clearance	L13	24.3							
Brake pedal to accelerator	L52	4.3							
Tumble-home	W122	11.8°							

(a) Bench seat; (b) Bucket seat

Form Rev. 5-6

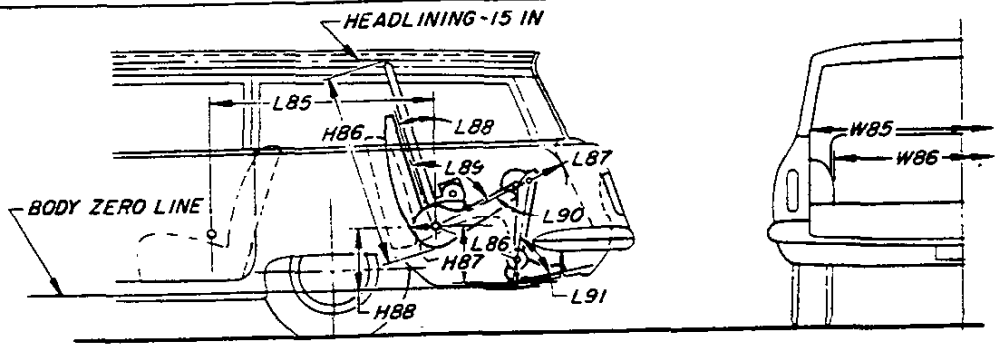
AMA Specifications – Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (•) 3-16-64

LUGGAGE COMPARTMENT

MODEL	Ref. No.	SEDANS 2-DR.	SEDANS 4-DR.	SPORT SEDAN	SPORT COUPE	CONVERTIBLE	STATION WAGONS
Usable luggage capacity (See instructions)		19.0					--
Liftover height	H195	22.1					--
Position of spare tire storage		Horizontal on trunk forward shelf, left side (b)					(a)
Method of holding lid open		Torsion Bars, Counterbalanced					

THIRD SEAT DIMENSIONS



MODEL	Ref. No.	1645-1845
Seat facing direction		Rearward
Shoulder room	W85	52.0
Hip room	W86	46.7
H Point couple distance	L85	40.0
H Point to body zero line – third seat	H88	NA
Effective head room	H86	37.2
Effective leg room	L86	32.5
H Point to heel point	H87	12.3
Knee room	L87	9.5
Back angle	L88	18°
Hip angle	L89	80°
Knee angle	L90	82°
Foot angle	L91	113°

(a) Behind right rear quarter access panel; (b) Horizontal, rear right side. Form Rev. 5-63

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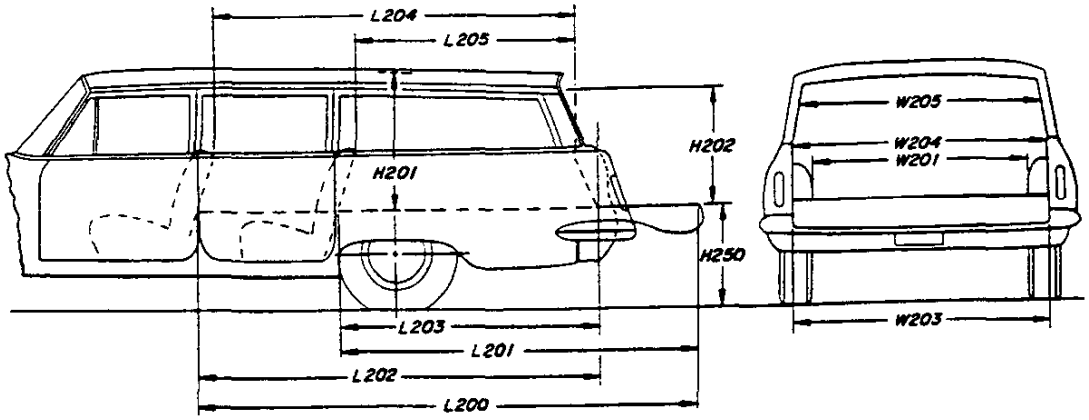
STATION WAGON—CARGO SPACE DIMENSIONS



MODEL	Ref. No.	6-PASSENGER	9-PASSENGER
Floor length from back of front seat at floor level to end of lowered tail gate or floor	L200	118.7	
Floor length from back of second seat at floor level to end of lowered tail gate or floor	L201	84.7	
Floor length from back of front seat at floor level to inside of closed tail gate	L202	94.2	
Floor length from back of second seat at floor level to inside of closed tail gate	L203	60.2	
Minimum horizontal distance from top rear of front seat back to inside of tail gate at belt	L204	82.2	
Minimum horizontal distance from top rear of second seat back to inside of tail gate at belt	L205	47.2	
Maximum width of cargo space at floor - specify location	W200	62.2	
Minimum distance between wheel houses at floor level	W201	46.1	
Rear end opening width at floor	W203	56.4	
Rear end opening width at belt	W204	54.7	
Maximum width of rear opening above belt	W205	54.2	
Maximum height - floor covering to headlining at centerline of rear axle	H201	31.5	
Maximum height of rear opening - tail and lift gates open	H202	30.5	
Platform height from ground to top of tail gate floor covering at rear most edge of tail gate - curb weight	H250	23.3	
Rear end closure (e.g., one piece door, hinged left - sliding glass, drop tail gate)		Hinged tailgate with folding link supports and manual retractable rear window (a)	
Cargo volume index (cu. ft.) W4 x L204 x H201 / 1728		87.0 (b)	

(a) Electrically operated window on 9-passenger (optional on 6-passenger)

(b) Plus 10.5 cu.ft. for hidden compartment in 6-passenger, plus 5.7 cu. ft. in 9-passenger.

Form Rev. 5-63

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MODEL

	SEDANS		SPORT	SPORT	CONVERTIBLE	STATION
	2-DR.	4-DR.	SEDAN	COUPE		WAGONS

BODY—MISCELLANEOUS INFORMATION

Drs. hinged (front, rear)	Front doors	Front					
	Rear doors	Front					
Type of finish (lacquer, enamel, other)		Acrylic Lacquer					
Hood counterbalanced (yes, no)		Yes					
Hood release control (internal, external)		External					
Vehicle (Serial) No. Location		Left front body hinge pillar					
Engine No. Location		On pad, front right hand side of cylinder block					
Theft protection - type		Shielded ignition lock terminals, key removable in "Lock" or "On" position					
Vent window control method (crank, friction pivot)	Front	Crank					
	Rear	None					
Seat cushion type	Front	Formed wire and foam pad					
	Rear	Formed wire and foam pad •					
	3rd seat	--- F.wire&foam pad •					
Seat back type	Front	Formed wire and cotton					
	Rear	Formed wire and cotton					
	3rd seat	---- F.wire & cotton •					
Windshield glass type (i.e., single curved - laminated plate)		One piece, single curved, laminated					
Backlight glass type (i.e., compound curved - tempered plate, three piece)		Compound curve, solid tempered plate (a)					
Side glass type (i.e., curved - tempered plate)		Flat, safety-solid plate					
Side glass exposed surface area		1346.3	1322.8	1360.6	1236.2	1115.5	2669.3
Windshield glass exposed surface area		1587.5		1405.7	1461.2	1461.2	1587.5
Backlight glass exposed surface area		1257.1		1239.9	941.9	1103.0	938.3
Total glass exposed surface area		4190.9	4167.4	4006.2	3639.3	3679.7	5200.1

BODY—CONVENIENCE EQUIPMENT (Indicate whether standard, optional or NA on each series)

Power windows	Side Windows	Optional
	Vent Windows	NA
	Backlight or tailgate	Standard on 9-passenger wagon, optional on 6-passenger
Power seats (specify type as well as availability)		6 way electric, optional
Reclining front seat back		NA
Front seat headrest		NA
Radios (specify type as well as availability)		Push Button, manual, AM-FM optional
Rear seat speaker		Optional
Power Antenna		NA
Clock		Standard on 13-14-17-1800, Optional on 11-12-15-1600
Air Conditioner (specify type and availability)		All weather, deluxe, cool pack optional

(a) Plastic on convertible.

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WEIGHTS

Model		CURB WEIGHT - POUNDS Front	Rear	Total	% PASS. WEIGHT DISTRIBUTION Pass. In Front Front	Pass. In Front Rear	Pass. In Rear Front	Pass. In Rear Rear	SHIPPING * WEIGHT
			327	409					327 409
Biscayne	1211		3598	3727					3440 3560
	1235		4050	4179					3895 4015
	1269		3663	3792					3505 3625
Bel Air	1611		3603	3732					3445 3565
	1635		4055	4184					3900 4020
	1645		4095	4224					3940 4060
	1669		3673	3802					3515 3635
Impala	1835		4080	4209					3925 4045
	1839		3723	3852					3565 3685
	1845		4125	4254					3970 4090
	1847		3648	3777					3490 3610
	1867		3758	3887					3600 3720
	1869		3693	3822					3535 3655
Impala Super Sport	1447		3683	3812					3525 3645
	1467		3788	3917					3630 3750

Accessories & Equipment Differential Weights	327	409	Remarks
Air Conditioning, (a)	+113	+102	
Brakes, Power	+ 10	+ 10	
Less Heater	- 22	- 22	
Radio, Manual	+ 7	+ 7	
Radio, Push button	+ 9	+ 9	
Seat, Power	+ 22	+ 22	
Steering, Power	+ 27	+ 22	
Transmission, 4-Speed	+ 9	+ 9	
Powerglide	+ 22	+ 30	
327 V-8	+ 84	-	
409 V-8	-	+230	
Windows, Power	+ 19	+ 19	
Air Conditioning, (b)	+103	+110	
Comfort & Convenience	+ 6	+ 6	
Radio, AM-FM	+ 10	+ 10	

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* These are weights that are reported to states for licensing purposes.

(a) Four Season

DIMENSION DEFINITIONS

W3 SHOULDER ROOM - FRONT. The minimum lateral dimension between the door garnish moldings or nearest interference. Measured at H Point station.

W4 SHOULDER ROOM - REAR. Measured in the same manner as W3.

W5 HIP ROOM - FRONT. The lateral dimension through H Point to trimmed surfaces.

W6 HIP ROOM - REAR. Measured in the same manner as W5.

W7 STEERING WHEEL CENTER TO CENTERLINE OF CAR. Measured horizontally from steering wheel center to centerline of car. The point at steering wheel center is located in the surface plane of wheel.

W9 STEERING WHEEL MAXIMUM OUTSIDE DIAMETER. Define if other than round.

W16 SEAT WIDTH - FRONT. The maximum trimmed width of front seat cushion.

W85 SHOULDER ROOM - THIRD SEAT. Measured in the same manner as W3.

W86 HIP ROOM - THIRD SEAT. Measured in the same manner as W5.

W101 TREAD - FRONT. Measured at centerline of tires, with nominal camber, at ground.

W102 TREAD - REAR. Measured at centerline of tires at ground.

W103 MAXIMUM OVERALL CAR WIDTH. Include bumpers, moldings, or sheet metal protrusions.

W106 FRONT FENDER OVERALL WIDTH. Measured at centerline of front wheels, excluding moldings.

W107 REAR FENDER OVERALL WIDTH. Measured at centerline of rear wheels, excluding moldings.

W116 MAXIMUM OVERALL BODY WIDTH. Measured across body, excluding hardware and applied moldings, but including fenders when integral with body.

W117 MAXIMUM BODY WIDTH AT #2 PILLAR. Measured across body at #2 pillar, excluding hardware and applied moldings.

W120 MAXIMUM OVERALL CAR WIDTH, FRONT DOORS OPEN. Measured with front doors in maximum hold-open position.

W121 MAXIMUM OVERALL CAR WIDTH, REAR DOORS OPEN. Measured in same manner as W120.

W122 TUMBLE-HOME. The angle from vertical to the front door glass outer surface or the chord of a curved door glass, measured at the front H Point station.

L3 REAR COMPARTMENT ROOM. The horizontal dimension from the back of front seat to front of rear seat back at a height tangent to the top of rear seat cushion.

L7 STEERING WHEEL TORSO CLEARANCE. The minimum distance from the back edge of steering wheel, in straight-ahead position, to the Torso Line.

L13 BRAKE PEDAL KNEE CLEARANCE. The minimum dimension from the lower edge of the steering wheel to the brake pedal face centerline.

L14 SEAT BACK THICKNESS - FRONT. The maximum thickness of the seat back, excluding bolsters.

L15 SEAT BACK THICKNESS - REAR. Measured in the same manner as L14.

L17 H POINT TRAVEL. The horizontal dimension between the H Point in the most forward and rearward seat positions.

L18 ENTRANCE FOOT CLEARANCE - FRONT. The minimum horizontal dimension between seat and normal line of door or pillar at a height between the sill plate bead and 4.0 inches above the bead. Door should be in the maximum hold-open position.

L19 ENTRANCE FOOT CLEARANCE - REAR. Measured in the same manner as L18 on four-door models. On two-door styles, the minimum dimension between rear corner of front seat, with front seat back tilted forward, and trimmed lock pillar, built-in quarter armrest panel, or rear seat cushion at a height between the sill plate bead and 4.0 inches above the bead.

L30 BODY ZERO LINE TO ACTUAL FRONT OF DASH. If actual Front of Dash is to the rear of Body Zero Line, it is identified by a minus (-) sign.

L31 H POINT TO BODY ZERO LINE - FRONT. Horizontal dimension.

L34 MAXIMUM EFFECTIVE LEG ROOM - ACCELERATOR. Measured along a diagonal line from ankle pivot center to H Point plus a constant of 10.0 inches. Measured with the right foot on accelerator pedal.

L40 BACK ANGLE - FRONT. The angle between a vertical line through the H Point and the Torso Line.

L41 BACK ANGLE - REAR. Measured in the same manner as L40.

L42 HIP ANGLE - FRONT. The angle between Torso Line and a line extending from knee pivot center to H Point.

L43 HIP ANGLE - REAR. Measured in the same manner as L42.

L44 KNEE ANGLE - FRONT. The angle between a line from H Point to knee pivot center and a line from the knee pivot center to the ankle pivot center.

L45 KNEE ANGLE - REAR. Measured in the same manner as L44.

L46 FOOT ANGLE - FRONT. The angle between a line extended from the knee pivot center through the ankle pivot center and a line tangent to the sole and heel of manikin bare foot.

L47 FOOT ANGLE - REAR. Measured in the same manner as L46.

L48 MINIMUM KNEE ROOM - REAR. The minimum dimension from the knee pivot center to the back of front seat back.

L49 H POINT TO WINDSHIELD UPPER DLO. The horizontal dimension from H Point to the point of tangency of horizontal line of vision (described in dimension H64) with body upper structure.

DIMENSION DEFINITIONS (cont.)

L50 H POINT COUPLE DISTANCE. The horizontal dimension from the front seat H Point to the rear seat H Point.

L51 MINIMUM EFFECTIVE LEG ROOM – REAR. Measured along a diagonal line from ankle pivot center to H Point plus a constant of 10.0 inches. Measured with the foot positioned to nearest interference between seat structure and toe, instep or lower leg.

L52 BRAKE PEDAL TO ACCELERATOR. The minimum dimension from center of brake pedal face to accelerator. Measured in the side view.

L53 H POINT TO ACCELERATOR FLOOR POINT. The horizontal dimension from intersection of accelerator and depressed floor covering to the H Point.

L85 H POINT COUPLE DISTANCE – THIRD SEAT. The horizontal dimension from the second seat H Point to the third seat H Point.

L86 EFFECTIVE LEG ROOM – THIRD SEAT. Measured in the same manner as L51. With rear-facing third seat, foot is positioned in foot well or to nearest interference with rear end or rear closure.

L87 KNEE ROOM – THIRD SEAT. Measured in the same manner as L48. With rear-facing third seat, dimension is measured to rear closure.

L88 BACK ANGLE – THIRD SEAT. Measured in the same manner as L40.

L89 HIP ANGLE – THIRD SEAT. Measured in the same manner as L42.

L90 KNEE ANGLE – THIRD SEAT. Measured in the same manner as L44.

L91 FOOT ANGLE – THIRD SEAT. Measured in the same manner as L46.

L101 WHEELBASE.

L102 TIRE SIZE.

L103 OVERALL LENGTH. Include bumper guards if standard equipment.

L104 OVERHANG – FRONT. Measured from C/L of front wheels to front of car, including bumper guards if standard equipment.

L105 OVERHANG – REAR. Measured from C/L of rear wheels to rear of car, including bumper guards if standard equipment.

L123 BODY UPPER STRUCTURE LENGTH AT CAR CENTERLINE. The horizontal dimension from the theoretical intersection of extended windshield glass plane and normal cowl surface to the theoretical intersection of extended back window glass plane and normal deck surface; or in the case of a Fastback roof or Station Wagon, to back glass lower reveal molding, or rubber when molding is not used.

L127 BODY ZERO LINE TO CENTERLINE OF REAR WHEELS. A horizontal dimension.

L128 HOOD LENGTH AT CAR CENTERLINE. The horizontal dimension from the foremost point on sheet metal hood surface, excluding series identification or ornamentation, to the theoretical intersection of extended windshield glass plane and normal cowl surface.

L129 DECK LENGTH AT CAR CENTERLINE. The horizontal dimension from the rearmost point of the body sheet metal (visible above bumper), excluding series identification or ornamentation, to the theoretical intersection of extended back window glass plane and normal deck surface.

L130 BODY ZERO LINE TO WINDSHIELD COWL POINT. The horizontal dimension from body zero line to the theoretical intersection of extended windshield glass plane and normal cowl surface.

H6 H POINT TO WINDSHIELD BOTTOM DLO. Vertical dimension.

H11 ENTRANCE HEIGHT – FRONT. The vertical dimension from H Point to upper trimmed body opening.

H12 ENTRANCE HEIGHT – REAR. The vertical dimension from H Point to the upper trimmed body opening at a section 13.0 inches forward of the H Point.

H13 STEERING WHEEL THIGH CLEARANCE. The minimum dimension from the bottom of steering wheel, in straight-ahead position, to centerline of thigh.

H18 STEERING COLUMN ANGLE – HORIZONTAL. The angle the centerline of steering column makes with the horizontal.

H25 BELT HEIGHT – FRONT. The vertical dimension from H Point to bottom of side window DLO.

H30 H POINT TO HEEL POINT – FRONT. The vertical dimension from the H Point to the manikin accelerator heel point on the depressed floor covering.

H31 H POINT TO HEEL POINT – REAR. The vertical dimension from the H Point to the manikin heel point on the depressed floor covering.

H32 SEAT CUSHION DEFLECTION – FRONT. The vertical dimension from a point on the undepressed seat cushion to the depressed seat cushion. Measured at the H Point station.

H33 SEAT CUSHION DEFLECTION – REAR. Measured in the same manner as H32.

H37 HEADLINING TO ROOF HEIGHT – FRONT. The dimension from the intersection of the headlining and the extended effective head room line to the roof panel. Measured perpendicularly to the roof panel.

H38 HEADLINING TO ROOF HEIGHT – REAR. Measured in the same manner as H37.

H49 H POINT TO TOP OF STEERING WHEEL. The vertical dimension from the H Point to top of steering wheel, in straight-ahead position.

H50 UPPER BODY OPENING TO GROUND – FRONT. The vertical dimension from a point on the trimmed body opening to the ground. Measured at the H Point station.

H51 UPPER BODY OPENING TO GROUND – REAR. The vertical dimension from a point on the trimmed body opening to the ground. Measured 13.0 inches forward of the H Point.

DIMENSION DEFINITIONS (cont.)

H54 D POINT TO TUNNEL – FRONT. The vertical dimension from the D Point, at car centerline, to top of tunnel.

H55 D POINT TO TUNNEL – REAR. Measured same manner as H54.

H58 H POINT RISE. The vertical dimension between the H Point in the most forward and rearward seat position.

H61 EFFECTIVE HEAD ROOM – FRONT. The dimension from H Point to the headlining, plus a constant of 4.0 inches. Measured along a line 8° to rear of vertical.

H63 EFFECTIVE HEAD ROOM – REAR. Measured same as H61.

H64 H POINT TO WINDSHIELD UPPER DLO. Vertical dimension from H Point to highest horizontal line of vision through windshield at 15 inch section.

H65 D POINT DIFFERENTIAL, SIDE TO CENTER – FRONT. Vertical dimension from side occupant to center occupant D Point.

H66 D POINT DIFFERENTIAL, SIDE TO CENTER – REAR. Measured in the same manner as H65.

H67 DEPRESSED FLOOR COVERING THICKNESS – FRONT. The vertical dimension from manikin accelerator heel point normally to underbody sheet metal immediately below heel point.

H68 DEPRESSED FLOOR COVERING THICKNESS – REAR. Measured same as H67.

H70 H POINT TO BODY ZERO LINE – FRONT. Vertical dimension.

H71 H POINT TO BODY ZERO LINE – REAR. Vertical dimension.

H86 EFFECTIVE HEAD ROOM – THIRD SEAT. Measured in the same manner as H61.

H87 H POINT TO HEEL POINT – THIRD SEAT. Measured in the same manner as H31.

H88 H POINT TO BODY ZERO LINE – THIRD SEAT. Vertical dimension.

H101 OVERALL HEIGHT. Measured with full design load.

H102 FRONT BUMPER TO GROUND. Minimum dimension

H104 REAR BUMPER TO GROUND. Minimum dimension.

H106 ANGLE OF APPROACH. The angle between the ground and a line tangent to the front tire static loaded radius arc and the first point of interference, i.e. bumper, guard, gravel deflector, fender or other interfering component, excluding license plate.

H107 ANGLE OF DEPARTURE. The angle between the ground and a line tangent to the rear tire static loaded radius arc and the first point of interference, i.e. bumper, guard, gravel deflector, tail pipe, fender or other interfering component, excluding license plate.

H111 ROCKER PANEL TO GROUND – REAR. The vertical dimension from ground to bottom of rocker panel, exluding flanges. Measured at front of rear wheel opening.

H112 ROCKER PANEL TO GROUND – FRONT. The vertical dimension from ground to bottom of rocker panel, excluding flanges. Measured at foremost point of rocker panel.

H114 HOOD AT REAR TO GROUND. Measured from hood opening line on shroud, exclusive of moldings.

H115 STEP HEIGHT – FRONT (DESIGN LOAD). The vertical dimension from top of sill plate bead, at C/L of front door sill plate, to ground.

H116 STEP HEIGHT – REAR (DESIGN LOAD). Measured in same manner as dimension H115.

H122 WINDSHIELD SLOPE ANGLE. The angle between a vertical line and the windshield surface at car centerline. On compound-curved windshields the chord of the arc is used and limited to that section of the windshield comprehended by an 18-inch chord.

H130 STEP HEIGHT – FRONT (CURB LOAD). The vertical dimension from top of sill plate, at C/L of front door sill plate, to ground.

H131 STEP HEIGHT – REAR (CURB LOAD). Measured same as H130.

H132 BOTTOM OF DOOR TO GROUND, OPEN – FRONT. Measured from bottom outside corner of door with door in maximum hold-open position.

H133 BOTTOM OF DOOR TO GROUND, CLOSED – FRONT. Same point on door as H132 dimension, with door closed.

H134 BOTTOM OF DOOR TO GROUND, OPEN – REAR. Measured in same manner as H132.

H135 BOTTOM OF DOOR TO GROUND, CLOSED – REAR. Measured in same manner as H133.

H136 BODY ZERO TO GROUND – FRONT. A vertical dimension measured at front wheel centerline.

H137 BODY ZERO TO GROUND – REAR. A vertical dimension measured at rear wheel centerline.

H147 RAMP BREAKOVER ANGLE. Supplement of included ramp angle (180° minus included ramp angle) over which car can pass without interference; measured with car sitting on a level surface, using lines tangent to arcs of front and rear static loaded radii and intersecting at point on underside of car which defines the smallest angle.

H148 FRONT SUSPENSION TO GROUND. Minimum clearance from lower control arm inner shaft or lowest point on the car centerline.

H149 OIL PAN TO GROUND. Minimum clearance measured from sheet metal or drain plug.

H150 FLYWHEEL/CONVERTER HOUSING AND TRANSMISSION ASSEMBLY TO GROUND. Minimum clearance.

H151 FRAME STRUCTURE TO GROUND. Minimum clearance measured approximately midway between front and rear axles. In this measurement, cross bars and X-members shall be considered part of frame.

H152 EXHAUST SYSTEM TO GROUND. Minimum clearance. Specify location.

H153 REAR AXLE DIFFERENTIAL SYSTEM TO GROUND. Minimum clearance.

H154 FUEL TANK TO GROUND. Minimum clearance measured from sheet metal or drain plug, but excluding supports or straps.

H155 SPARE TIRE WELL TO GROUND. Minimum clearance.

H156 MINIMUM RUNNING GROUND CLEARANCE. Location of measurement on the car is to be clearly recorded.

H195 LIFTOVER HEIGHT. Vertical dimension from luggage compartment lower opening to ground.

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GENERAL SPECIFICATIONS

(All dimensions in inches unless otherwise indicated)

MODEL 11-12-13-14-15-16-17-1800		Additional Information Page No.	Std. 230 Cu. In. L-6 1100-1300-1500-1700				283 Cu. In. V-8 1200-1400-1600-1800
Wheelbase (L101)		23	119.0				
Tread	Front (W101)	22	60.3, Wagons - 61.3				
	Rear (W102)	22	59.3, Wagons - 60.3				
Maximum Overall Dimensions	Length (L103)	23	209.9 (a)				
	Width (W103)	22	78.1				
	Height (H101)	24	Sedans 56.2	Sp. Sedan 54.9	Sp. Coupe 55.1	Convertible 55.8	St. Wagon 56.7
Transmission—(Specify trade name – opt., not available)	Manual	15	Synchromesh: 3-Speed, Standard				
	Overdrive	16	Optional				
	Automatic	16	Powerglide, Optional				
Axle ratio	Manual	17	Sedans & Coupes - 3.08:1 Convertibles - 3.36:1 Station Wagons - 3.55:1				12 & 1600 Sedans - 3.08:1 Balance - 3.36:1
	Overdrive	17	3.70:1				
	Automatic	17	Same as Manual				
Tire size		18	Wagons - 8.00 x 14; Convertibles - 7.50 x 14; Others - 7.00 x				
Engine	Type, no. cyl., valve arr.	2	In-Line 6 OHV				90° V-8 OHV
	Fuel system (Carb., other)	8	Carburetor				
	Bore and stroke	2	3.875 x 3.25				3.875 x 3.00
	Piston displ., cu.in.	2	230				283
	Std. compression ratio	2	8.5:1				9.25:1
	Max. bhp at engine rpm	2	140 @ 4400				195 @ 4800
	Max. torque at rpm	2	220 @ 1600				285 @ 2400

(a) 210.8 on station wagon.

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MODEL	230 Cu. In. L-6 1100-1300-1500-1700	283 Cu. In. V-8 1200-1400-1600-1800

ENGINE—GENERAL

Type, no. cyls., valve arr.		In-line 6- OHV	90° OHV V-8
Bore and stroke (nominal)		3.875 x 3.25	3.875 x 3.00
Piston displacement, cu. in.		230	283
Bore spacing (C/L to C/L)		4.4	4.4
No. system (front to rear)	L. Bank	1-2-3-4-5-6 (In-line)	1-3-5-7
	R. Bank		2-4-6-8
Firing order		1-5-3-6-2-4	1-8-4-3-6-5-7-2
Compres. ratio (nominal)		8.5:1	9.25:1
Cylinder Head Material		Cast Alloy Iron	
Cylinder Block Material		Cast Alloy Iron	
Cylinder Sleeve-Wet, dry, none		None	
Number of mounting points	Front	Two	
	Rear	One	
Engine installation angle		5°11' -(3-Speed); 5° - (Powerglide & Overdrive)	
Taxable horsepower $\frac{Dia.^2 \times No. Cyl.}{2.5}$		36.0	48.0
Published max. bhp* @ eng. RPM		140 @ 4400	195 @ 4800
Published max. torque* (lb. ft. @ RPM)		220 @ 1600	285 @ 2400
Recommended fuel regular - premium		Regular	
Idle speed (spec. neutral or drive)	Manual	500 in Neutral	
	Automatic	475 in Drive	

ENGINE—PISTONS

Material			Cast Aluminum Alloy	
Description and finish			Flat, notched head; Slipper skirt	
Weight (piston only) oz.			20.40	20.30
Clearance (limits)	Top land		.035-.044	
	Skirt	Top	.0005-.0011 (a)	
		Bottom		
Ring groove depth	No. 1 ring		.2153-.2218	
	No. 2 ring		.2153-.2218	
	No. 3 ring		.2093-.2158	
	No. 4 ring		None	

* Max. bhp (brake horsepower) and max. torque corrected as defined by SAE Engine Test Code.

(a) - Measured at 2.44 from top of piston.

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POWER TEAMS
(Indicate whether standard or optional)

MODEL AVAILABILITY	ENGINE					TRANSMISSION	AXLE RATIO # (Std. first)		
	Displ. cu. in.	Carburetor	Compr. Ratio	BHP @ RPM	Torque @ RPM		"A"	"B"	"C"
1100-1300 1500-1700	230	1-Bbl. Down-draft	8.5:1	140 @ 4400	220 @ 1600	3-Speed			
						Coupes & Sedans	3.08:1	3.55:1	3.36:1
						Convertibles	3.36:1	3.55:1	--
						Station Wagons	3.55:1	--	--
						Powerglide*			
						Coupes & Sedans	3.08:1	3.55:1	3.36:1
						Convertibles	3.36:1	3.55:1	--
						Station Wagons	3.55:1	--	--
						Overdrive*			
						All models	3.70:1	--	--
1200-1600 (excluding Station Wagons)	283	2-Bbl. Down-draft	9.25:1	195 @ 4800	285 @ 2400	3-Speed	3.08:1	3.55:1	3.36:1
						Powerglide*	3.08:1	3.55:1	3.36:1
						Overdrive*	3.70:1	--	--
1400-1800 (and all Station Wagons)	283	2-Bbl. Down-draft	9.25:1	195 @ 4800	285 @ 2400	3-Speed	3.36:1	3.55:1	
						Powerglide*	3.36:1	3.55:1	--
						Overdrive*	3.70:1	--	--

* - Optional
"A" - General Purpose (Standard)
"B" - Special Purpose or Mountain (Optional)
"C" - Performance (Optional)
- Positraction Axle Ratios available in combinations as shown.

AMA Specifications – Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (e)

MODEL			230 Cu. In. L-6	283 Cu. In. V-8
			1100-1300-1500-1700	1200-1400-1600-1800
ENGINE—RINGS				
Function (top to bottom)	No. 1, oil or comp.		Compression	
	No. 2, oil or comp.		Compression	
	No. 3, oil or comp.		Oil	
	No. 4, oil or comp.		None	
Compression	Description - material, type, coating, etc.		Cast alloy iron, inside bevel Upper - Flash chrome plate Lower - Wear resistant coating	
	Width		.0775-.0780 Upper; .0770-.0780 Lower	
	Gap		.010-.020	
Oil	Description - material, type, coating, etc.		Multi-piece (2 rails and one spacer expander) Spacer expander - Steel Rails - Stainless steel, chrome plated O. D.	
	Width		.1840 - .1880 (assembled	
	Gap		.015 - .055	
Expander			In oil ring assembly	
ENGINE—PISTON PINS				
Material			Chromium steel	
Length			2.990-3.010	
Diameter			.9270-.9273	
Type	Locked in rod, in piston, floating, etc.		Locked in rod	
	Bushing	In rod or piston	None	
		Material	-	
Clearance	In piston		.00015 - .00025	
	In rod		None	
Direction & amount offset in piston			Major thrust side .060	
ENGINE—CONNECTING RODS				
Material			Drop Forged Steel	
Weight (oz.)			20.80	20.00
Length (center to center)			5.699 - 5.701	
Bearing	Material & Type		Steel backed babbitt or Copper lead alloy	
	Overall length		.807	
	Clearance (limits)		.0007-.0027	
	End play		.009 - .013	

AMA Specifications—Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (•)12-2

MODEL	230 Cu. In. L-6 1100-1300-1500-1700	283 Cu. In. V-8 1200-1400-1600-1800

ENGINE—CRANKSHAFT

Material			Cast nodular iron	Cast nodular iron or forged steel
Vibration damper type			Rubber mounted inertia	None
End thrust taken by bearing (No.)			7	5
Crankshaft end play			.002 - .006	
Main bearing	Material & type		Steel-backed babbitt or Copper lead alloy	
	Clearance		.0003-.0029	
	Journal dia. and bearing overall length	No. 1	2.3004-.752	
		No. 2	2.3004-.752	
		No. 3	2.3004-.752	
		No. 4	2.3004-.752	
		No. 5	2.3004-.752	2.3004 x 1.177
		No. 6	2.3004-.752	None
		No. 7	2.3004-.760	None
	Dir. & amt. cyl. offset		None	
Crankpin journal diameter			1.999-2.000	

ENGINE—CAMSHAFT

Location			Above & to right of crankshaft	In block above crankshaft
Material			Cast alloy iron	
Bearings	Material		Steel - backed babbitt	
	Number		4	5
Type of Drive	Gear or chain		Gear	Chain
	Crankshaft gear or sprocket material		Steel	Steel sprocket
	Camshaft gear or sprocket material		Bakelite and fabric composition with steel hub	Cast alloy iron
	Timing chain	No. of links	None	46
		Width	None	.875
		Pitch	None	.500

ENGINE—VALVE SYSTEM

Hydraulic lifters (Std, opt, NA)		Standard	
Valve rotator, type (intake, exhaust)		None	
Rocker ratio		1.75:1	1.5:1
Operating tappet Clearance (indicate hot or cold)	Intake	Zero	
	Exhaust	Zero	
Timing marks on flywheel, damper, other		Harmonic Balancer	Crankshaft Pulley Hub

(Continued)

AMA Specifications—Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (*)

MODEL			230 Cu. In. L-6 1100-1300-1500-1700	283 Cu. In. V-8 1200-1400-1600-1800
ENGINE—VALVE SYSTEM (cont.)				
Timing *	Intake	Opens (°BTC)	34°	32° 30'
		Closes (°ABC)	86°	87° 30'
		Duration - deg.	300°	300°
	Exhaust	Opens (°BBC)	68°	74° 30'
		Closes (°ATC)	52°	45° 30'
		Duration - deg.	300°	300°
	Valve opening overlap		86°	78°
Intake	Material		Carbon Steel	
	Overall length		4.902 - 4.922	
	Actual overall head dia.		1.715 - 1.725	
	Angle of seat & face		46° (seat) - 45° (face)	
	Seat insert material		None	
	Stem diameter		.3404 - .3417	
	Stem to guide clearance		.0010 - .0033	
	Lift (@ zero lash)		.3350	.3987
	Outer spring press. and length	Valve closed (lb. @ in.)	84-92 @ 1.66	78-86 @ 1.66
		Valve open (lb. @ in.)	166-176 @ 1.33	170-180 @ 1.26
	Inner spring press. and length	Valve closed (lb. @ in.)	None	Spring Damper
		Valve open (lb. @ in.)	None	Spring Damper
Exhaust	Material		High Alloy Steel	
	Overall length		4.913 - 4.933	
	Actual overall head dia.		1.495 - 1.505	
	Angle of seat & face		46° (seat) - 45° (face)	
	Seat insert material		None	
	Stem diameter		.3410-.3417	
	Stem to guide clearance		.0010-.0027	
	Lift (@ zero lash)		.3350	.3987
	Outer spring press. and length	Valve closed (lb. @ in.)	84-92 @ 1.66	78-86 @ 1.66
		Valve open (lb. @ in.)	166-176 @ 1.33	170-180 @ 1.26
	Inner spring press. and length	Valve closed (lb. @ in.)	None	Spring Damper
		Valve open (lb. @ in.)	None	Spring Damper

ENGINE—LUBRICATION SYSTEM

Type of lubrication (splash, pressure, nozzle)	Main bearings	Pressure
	Connecting rods	Pressure
	Piston pins	Splash
	Camshaft bearings	Pressure
	Tappets	Pressure
	Timing gear or chain	Nozzle
	Cylinder walls	Conn. Rod Bearing Throw Off — Pressure, Jet Cross Sprayed

* - Including Ramps

(Continued)

AMA Specifications – Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (e)

MODEL	230 Cu. In. L-6	283 Cu. In. V-8
	1100-1300-1500-1700	1200-1400-1600-1800

ENGINE—LUBRICATION SYSTEM (cont.)

Oil pump type	Gear	
Normal oil pressure (lb. @ engine rpm)	30-45 PSI @ 1500 RPM	
Oil pressure sending unit (elect. or mech.)	Electric	
Type oil intake (floating, stationary)	Stationary	
Oil filter system (full flow, partial, other)	Full Flow	
Filter replacement (element, complete)	Complete	Element
Capacity of crankcase, less filter-refill (qt.)	4.0	
Oil grade recommended (SAE viscosity and temperature range)	32° F and above ---------- SAE 20W, SAE 20, SAE 10W 0° F and above ---------- SAE 10W, SAE 10W-30 Below 0° F ---------- SAE 5W, SAE 5W-20	
Engine Service Requirement (MM, MS, etc.)	MS or DG	

ENGINE—EXHAUST SYSTEM

Type (single, single with cross-over, dual, other)		Single	Single with crossover
Muffler No. & type (reverse flow, straight thru, separate resonator)		One; Reverse Flow	
Exhaust pipe dia. (O.D. & wall thickness)	Branch	---	2.00 x .067 - .083
	Main	2.00 x .057 - .069	2.00 x .057 - .069
Tail pipe diameter (O.D. & wall thickness)		1.875 x .062 - .076	

ENGINE—CRANKCASE VENTILATION SYSTEM

Type (ventilates to atmos., induction system, other)	Standard	Ventilates to Induction System	
	Optional		
Control unit	Make and model		
	Location	Top rear of rocker cover	At rear of carburetor
	Energy source (manifold vacuum, carburetor air stream, other)	Manifold Vacuum	
	Control method (variable orifice, fixed orifice, other)	Variable	
Complete system	Discharges (to intake manifold, carb. air intake, air cleaner intake, other	Intake Manifold	
	Air inlet (breather cap, carburetor air cleaner, other)	Breather Cap	
	Filter, check	Check	

AMA Specifications– Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (*) 12-2-63

MODEL	230 Cu. In. L-6 1100-1300-1500-1700	283 Cu. In. V-8 1200-1400-1600-1800

ENGINE—FUEL SYSTEM

(See Supplement to Page 8 for Details of Fuel Injection, Supercharger, etc. if used)

Induction type: Carburetor, fuel injection, supercharger.			Carburetor	
Fuel Tank	Capacity (gals.)		20 (19 on Station Wagons)	
	Filler location		Left rear quarter panel	
Fuel Pump	Type (elec. or mech.)		Mechanical	
	Location		Lower right front of engine	
	Pressure range		5.00 - 6.50 PSI	5.25 - 6.50 PSI
Vacuum booster (std., optional, none)			None	
Fuel Filter	Type		Fine mesh plastic strainer in gasoline	
	Location		tank & sintered bronze filter in carbureter	
Carburetor	Choke type		Automatic	
	Intake manifold heat control (exhaust or water)		Exhaust	
	Air clnr. type	Standard	Oil wetted polyurethane	Paper element
		Optional	Oil Bath Type	—

CARBURETOR SUPPLEMENTARY INFORMATION

Model Usage	Engine Displ.	Transmission	Carburetor Make	Carburetor Model	No. Used and Type	Barrel Size
1100-1300 1500-1700	230	Synchromesh Powerglide	Rochester Rochester	7023003 7023000	One; Single Barrel, Down-draft	1.56
1200-1400 1600-1800	283	Synchromesh Powerglide	Rochester Rochester	7024101 7024106 ●	One; Two Barrel Down-draft	1.44

AMA Specifications – Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (*)

MODEL	230 Cu. In. L-6 1100-1300-1500-1700	283 Cu. In. V-8 1200-1400-1600-1800

ENGINE—COOLING SYSTEM

Type system (pressure, pressure vented, atmospheric, other)		Pressure	
Radiator cap relief valve pressure		13 PSI ± 1	
Circulation thermostat	Type (choke, bypass)	Choke	
	Starts to open at (°F)	177° - 183° F	
Water pump	Type (centrifugal, other)	Centrifugal	
	GPM @ 1000 pump rpm	60 GPM @ 4400 RPM*	53 GPM @ 4200 RPM*
	Number of pumps	One	
	Drive (V-belt, other)	V-Belt	
	Bearing type	Permanently lubricated double roll bell	
By-pass recirculation type (internal, external)		Internal	
Radiator core type (cellular, tube and fin, other)		Tube on center	
Cooling system capacity	With heater (qt.)	12	17
	Without heater (qt.)	11	16
	Opt. equipment-specify (qt.)	12	18
Water jackets full length of cylinder (yes, no)		Yes	
Water all around cylinder (yes, no)		Yes	
Radiator hose	Lower: Number and type (molded, straight)	One, molded	
	Lower: Inside diameter	1.75	
	Upper: Number and type (molded, straight)	One, molded	
	Upper: Inside diameter	1.50	
	By-pass: Number and type (molded, straight)	None	
	By-pass: Inside diameter	- - -	
Fan	Number of blades & Spacing	4, Staggered	
	Diameter	17.62	
	Ratio-fan to crankshaft rev.	.949:1	
	Fan cutout type	None	5-blade 18" fan used with air/co
	Bearing type	Double Row Ball	
*Drive belts (Indicate belt used by letter)	Fan	A	D
	Generator	A	D
	Water Pump	A	D
	Power Steering	B	E
	Air Conditioning	C	F

* Drive Belt Dimensions	A	B	C	D	E	F
Angle of V	38° - 42°					
Nominal length (SAE)	39.00	49.50	54.75	53.25	41.50	57.50
Width	.380 ± .005					

* - Actual flow through the engine.

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MAKE OF CAR: CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (a)

MODEL	230 Cu. In. L-6 1100-1300-1500-1700	283 Cu. In. V-8 1200-1400-1600-1800

ELECTRICAL—SUPPLY SYSTEM

Battery	Make and Model		Delco #1983504
	Voltage Rtg. & Total Plates		12 Volt, 54 Plate
	SAE Designation & Amp Hr. Rtg.		44 Amp/Hr. @20 Hr. Rate
	Location		Right front engine compartment
	Terminal grounded		Negative
Generator	Make		Delco-Remy
	Model		#1100668
	Type		Diode rectified
	Ratio—Gen. to Cr/s rev.		2.46:1
	Gen. cut-in (hot)—engine rpm		
Regulator	Make		Delco-Remy
	Model		#1119515
	Type		Vibrator
	Cutout relay	Closing voltage @ generator rpm	None
		Reverse current to open	
	Regulated	Voltage	13.8 - 14.8 @ 85° F
		Current	
	Voltage test conditions	Temperature	Operating
		Load	3-8 Amperes
		Other	None

ELECTRICAL—STARTING SYSTEM

Starting motor	Make		Delco-Remy	
	Model		#1107259	#1107247
	Rotation (drive end view)		Clockwise	
	Engine cranking speed			
	Test conditions		Engine at Operating Temperature	
	Lock test	Amps		
		Volts		
		Torque (lb. ft.)		
	No load test	Amps	49-76	
		Volts	10.6	
		RPM (min.)	6200-9400	
Motor control	Switch (solenoid, manual)		Solenoid	
	Starting procedure		SYNCHROMESH - Place gearshift in neutral and depress clutch to floor. POWERGLIDE - Place control lever in N or P position. INITIAL START - Press accelerator pedal to floor once to set automatic choke, then release. Turn ignition to START & release as soon as engine start	

(Continued)

AMA Specifications – Passenger Car

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MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (•) 12-2

MODEL	230 Cu. In. L-6	283 Cu. In. V-8
	1100-1300-1500-1700	1200-1400-1600-1800

ELECTRICAL—STARTING SYSTEM (cont.)

Motor Drive	Engagement type		Positive Shift Solenoid
	Pinion meshes (front, rear)		Rear
	Number of teeth	Pinion	9
		Flywheel	153
	Flywheel tooth face width		.4070

ELECTRICAL—IGNITION SYSTEM

Coil	Make		Delco-Remy	
	Model		#1115184	#1115115
	Amps	Engine stopped	4.0	
		Engine idling	1.8	
Distributor	Make		Delco-Remy	
	Model		#1110280	#1111015
	Cent'fgal adv. in crankshaft degrees @ engine rpm (nominal)	Start (rpm)	800	
		Intermediate points deg. @ rpm		
		Max deg. @ rpm	30° @ 3000	30° @ 4000
	Vacuum adv. in crankshaft degrees @ in. Hg. (nominal)	Start (in Hg)	6	8
		Intermediate points, deg @ in Hg		
		Max. deg. in. Hg.	● 21 @ 14.5	15 @ 15.5
	Breaker gap (in.)		.019	
	Cam angle (deg.)		31° - 34°	28° - 32°
	Breaker arm tension (oz.)		19 - 23 oz.	
Timing	Crankshaft deg. @ rpm.		4° ± BTC @ 450-500	3° - 5° BTC @ 550
	Mark location		Harmonic Balancer	Crankshaft Pulley Hul
	Cylinder numbering system (see page 2)		Front to Rear 1-2-3-4-5-6	Left Bank 1-3-5-7 Right Bank 2-4-6-8
	Firing order (see page 2)		1-5-3-6-2-4	1-8-4-3-6-5-7-2
Spark Plug	Make and model		AC 46N (Long reach)	AC 45
	Thread (mm)		14	
	Tightening torque (lb. ft.)		25	
	Gap		.033 - .038	
Cable	Conductor type		Linen core impregnated with electrical conducting material	
	Insulation type		Rubber with Neoprene jacket	
	Spark plug protector		Neoprene	

ELECTRICAL—SUPPRESSION

Locations & type	Non-metallic high tension ignition cables

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MODEL 11-1800

230 In.^{3} L-6
283 In.^{3} V-8

ELECTRICAL—INSTRUMENTS AND SWITCHES

Speedometer	Make	AC
	Trip odometer (yes, no)	NO
Charge indicator—type		Tell-tale lamp
Temperature indicator—type		Tell - tale lamps (cold, green;hot, red)
Oil pressure indicator—type		Tell-tale lamp
Fuel indicator—type		Electric, gauge
Other		Parking brake flasher (a)
Ignition switch	Identify positions in order and circuits controlled	2nd position CCW from vertical - ACC (accessories) 1st position CCW from vertical - LOCK (off, locked) Vertical - OFF (Unlocked) 1st position CW from vertical - ON (ignition, batt., access.) 2nd position CW from vertical - START (ignition, batt., accessories, starter: spring return to ON)
	Provision for illumination	1445 Lamp
	Location	Instru. panel to right of steering column
Main lighting switch	Identify positions and lamps controlled	Fully depressed - off 1st notch - Instru. panel, parking, tail and license lamps 2nd notch - Instru. panel, head, tail and license lamps CW rotation of knob - dim and turn off instru. panel lamps CCW rotation of knob - turn on and brighten instru. panel lamps; Full CCW rotation - turn on dome lamp and/or courtesy lamps●
Other light switches	Locations and lamps controlled	Toe panel - Head lamp dimmer Glove compartment - Glove comp. lamp (b) Front door hinge pillar - Dome and courtesy lamps (c) Steering column - Turn signal lamps Under instru. panel - Stop lamps Steering mast jacket - Back-up lamps (a) Console compartment - Console compartment light (d)
Other switches	Locations and devices controlled	Accelerator linkage - Overdrive kick-down (e) Instru. panel to right of steering column - Heater blower Doors or qtr. trim panels - Power windows (e) Instru., panel, center - Radio (e) Instru. panel, left of steering column - W/S wiper Instru. panel, left of steering column - Tailgate window (h) Steering column - Trans. Neu. Saf. Sw. (e) Front seat lower panel, L. H. side - Power seat (j) Under instru. panel to left of steering column - Power top (k) ● Instru. panel, left of strng column - CRUISE CONTROL
Windshield wiper	Make	Delco
	Type	Electric, Single-speed (f)
	Vacuum booster provision	None
	Washer provision	None (g)
Horn	Type	Vibrator
	Number used	2
	Amp draw (each)	8.00-11.0 @ 12.5 V

(a) Std. on 13, 14, 17 and 1800
(b) Std. on 13, 14, 15, 16, 17 and 1800
(c) Std. on 13 thru 1800 except instru. panel courtesy, opt. except convertibles; door jam switches std. except 11 and 1200.
(d) Std on 13 and 1400
(e) Optional equipment
(f) Optional electric two-speed including washer
(g) Optional dealer installed access.
(h) Standard on 15, 16, 17 and 1845
(j) Optional on 13, 14, 15, 16, 17 and 1
(k) Standard on 13, 14, 17 and 1867

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MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (e)

MODEL 11-1800 | L-6 230 IN.^{3} ENGINE
V-8 283 IN.^{3} ENGINE

ELECTRICAL—LAMP BULBS

Give quantity used and trade number, e.g., Headlamp 2-5400 S, dual headlight 2-4001, 2-4002.

Headlamps & arrangement		Dual, Horizontal: Outer, 2-4002; Inner, 2-4001	
Headlamp beam indicator		1-1895	
Parking		2-1157	
Tail		Except Wagons, 2 or 4-1157 (a); Wagons, 2-1157	
Stop		Except Wagons, 2 or 4-1157 (b); Wagons, 2-1157	
Direction signal	Front	2-1157	
	Rear	Except Wagons, 2 or 4-1157; Wagons, 2-1157	
	Indicator	2-1445	
License Plate		1-1155	
Oil pressure indicator		1-1895	
Charge indicator		1-1895	
Instrument		4-1895	
Clock		(Instrument)	
Radio		1-1893	Optional

Indicate also whether the following lamp assemblies are standard equipment, optional, or NA.

Ignition lock	1-1445	Reg. Prod
Back up	2-1156	(c)
Dome	Roof Center, 1-211; Rear Qtr., 2-90; Side Rail 2-90;	Reg. Prod
Glove compartment	Instr. Panel, 1-1895 (d); Seat Separator, 1-1816	Reg. Prod
Prkg. brake signal	1-257	(c)
Luggage compartment	(Except Wagons) 1-1003 Except when DIA 1-93	(c)
Underhood	1-93	
Courtesy	Instru. Panel, 2-631 (e); Rear Qtr., 1-90 Reg. Prod; Seat Sep. 1-211 R	
Ash Tray	1-1445	Opt. (P
Spot Lamps	Inside Operated, 1-4405; Portable, 1-4416	Optional
Traffic Hazard	Indicator 1-1445	Optional
Compass	1-53	Optional
Tachometer	1-53	Optional

(a) Two "tail only" on 15-1600 (inboard lamps); trade No. 1155.
(b) Two on 11-1200, and 15-1600; four on 13-1400, and 17-1800.
(c) Optional for 11-1200, and 15-1600.
(d) Optional for 11-1200.
(e) Optional except convertible.

Regular Production Items Continued

Heater Controls	1-1895
Fuel Gage	1-1895
Temp. Indicators	2-1895
Auto. Trans. Dial Indicator	1-1445

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MODEL 11-1800 | 230 in.^{3} L-6 | 283 in.^{3} V-8

ELECTRICAL—FUSE & CIRCUIT BREAKER DATA

Fuses in Fuse Panel unless otherwise indicated

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

Headlamp	15 C.B.	(a)	Courtesy Lamps	-	
Headlamp beam indicator		(a)	Instr. Panel		(b)
Parking lamp		(a)	Seat Separator		(b)
Tail lamp	AGC 15	(b)	Rear Qtr.		(b)
Stop lamp		(b)	Additional Dome Lamps	-	
Direction indicator	AGC 3	(c)	Rear Qtr.		(b)
License plate lamp		(b)	Side Rail.		(b)
Instrument lamp		(c)	Heater	AGC 10; IF A. C., AGC 30	(f)
Ignition lamp		(c)			
Back up lamp	AGC 10	(d)	Spotlamp		
Dome lamp		(b)	Inside Operated	AGC 15	(in line)
Clock		(b)	Portable		(b)
Clock lamp	(Instrument lamp)		Underhood Lamp	SAE 4	(in line)
Radio	AGC 2.5	(g)	Traffic Hazard Indicator		(b)
Glove compartment lamp		(b)	Compass Lamp		(c)
Lugg. Compt. Lamp		(b)	Air Conditioning		
Park. Brake Alarm		(d)	Blower Motor	AGC 30	(in line)
Heater Controls Lamp		(c)	Circuit	AGC 30	(f)
Fuel Gage Lamp		(c)	Defogging Unit	AGC 5	(d)
W/S Wiper (Single Speed)	SAE 20	(e)	W/S Wiper (Two-Speed)	14 C.B.	(switch) (e)
Fuel Gage		(d)			
Cig. Lighter		(b)	Tachometer		
Oil, Temp. & Gen. Indicators		(d)	Lamp		(c)
Auto. Trans. Ind. Dial		(c)	Circuit		(d)
Ash Tray Lamp		(c)	Cruise Control		(d) •

ELECTRICAL—LOCATION OF OUTSIDE LAMPS

			Sedans	Coupes	Convertible	Wagon
Height above ground to center of bulb	Tail	Lowest	23.4	23.7		22.7
		Highest	23.4	23.7		22.7
	Stop		23.4	23.7		22.7
	Backup		23.4	23.7		22.7
	License, rear		19.3	19.6		17.1
	Directional	Front	16.9	17.2		17.5
		Rear	23.4	23.7		22.7
	Headlamp	Inside	27.6	27.6		27.9
		Outside*	27.6	27.6		27.9
Distance from C/L of car to center of bulb	Tail	Inside	17.3 Impala, 23.9 Biscayne, Bel Air			
		Outside	30.6			32.1
	Stop		17.3 Impala, 23.9 Biscayne, Bel Air			
	Backup		23.9			
	License, rear		On Centerline			
	Directional	Front	27.4			
		Rear	17.3 Impala, 23.9 Biscayne, Bel Air			
	Headlamp	Inside	23.5			
		Outside*	63.2			

* If single headlamps are used enter here.

AMA Specifications – Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (o)

SUPPLEMENTARY INFORMATION

MODEL 230 Cu. In. L-6, 1100-1300-1500-1700; 283 Cu. In. V-8, 1200-1400-1600-1

Power Seats - - - - - - - - - - - 40 C. B.
Power Windows - - - - - - - - - 40 C. B.
Folding Top Motor - - - - - - - 40 C. B.
Tailgate Motor - - - - - - - - - 40 C. B.
Overdrive Solenoid AGC 15 - - In Line

AMA Specifications – Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (e) 12-2-6

MODEL 11-1800	L-6 230 In.^{3} Engine	V-8 283 In.^{3} Engine

DRIVE UNITS—CLUTCH (Manual Transmission)

Make & type		Chevrolet, Single Dry Disk	
Type pressure plate springs		Diaphragm	
Effective plate pressure (lb.)		Reg. Prod.-15-1800;HD-19-2200	1700-1950 ●
No. of clutch driven discs		One with two friction surfaces	
Clutch facing	Material	Woven asbestos except HD clutch-front woven, rear molded	
	Outside & inside dia.	Reg. Prod.-9.12, 6.12; HD 10.0, 6.0	10.0, 6.5
	Total eff. area (sq.in.)	Reg. Prod.-71.8; HD-100.5	90.7
	Thickness	.135 ea., unloaded	
	Engagement cushioning method	Flat spring steel between facings	
Release bearing	Type & method of lubrication	Single row ball, packed and sealed	
Torsional damping	Methods: springs, friction material	Coil Springs	

DRIVE UNITS—TRANSMISSIONS

Manual (std. or opt.)	3-Speed Standard
Manual with overdrive (std. or opt.)	Optional
Automatic (std. or opt.)	Optional

DRIVE UNITS—MANUAL TRANSMISSION

Number of forward speeds			3
Transmission ratios	In first		2.94
	In second		1.68
	In third		1.0
	In fourth		--
	In reverse		2.94
Synchronous meshing, specify gears			2nd and 3rd
Shift lever location			Steering Column
Lubricant	Capacity (pt.)		3
	Type recommended		Meeting Military Specification Mil-L-2105-B
	SAE viscosity number	Summer	SAE 80
		Winter	SAE 80
		Extreme cold	SAE 80

AMA Specifications – Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (e) 12-2-63

MODEL 11-1800

DRIVE UNITS—MANUAL TRANSMISSION WITH OVERDRIVE

For transmission data see manual transmission section

			L-6 230 IN.^{3} ENGINE	V-8 283 IN.^{3} ENGINE
Overdrive	Type (planetary or other)		Planetary	
	Manual lockout (yes, no)		Yes	
	Downshift accelerator control (yes, no)		Yes	
	Minimum cut-in speed		Output Shaft RPM: Acceleration, 1440; Deceleration, 11(	
	Gear ratio		0.7:1	
	Lubricant: Capacity (pt.) (Overdrive only)		1	
	Lubricant: Separate filler (yes, no)		No	
	Lubricant: Type recommended		Meeting Military Specification Mil-L-2105-B	
	Lubricant: SAE viscosity number	Summer	SAE 80	
		Winter	SAE 80	
		Ext. cold	SAE 80	

DRIVE UNITS—AUTOMATIC TRANSMISSION

		L-6 230 IN.^{3} ENGINE	V-8 283 IN.^{3} ENGINE
Trade name		Powerglide	
Type: describe		Torque Converter with Planetary Gears	
Method of Selection (Lever, Push Button or other)		Lever-(Floor mounted on 13-1400 models, steering column mounted for all others)	
Selector Pattern		P-R-N-D-L	
List gear ratios Selector Pattern and indicate which are used in each selector position		D- 1.82:1 and 1:1 L- 1.82:1 R- 1.82:1	
Max. upshift speeds—drive range		54	59
Max. kickdown speeds—drive range		51	56
Torque converter	Number of elements	3	
	Max. ratio at stall	2.10	
	Type of cooling (air, water)	None	Water
Lubricant	Capacity—refill (pt.)	3	
	Type recommended	Type A, Suffix A	
Special transmission features			

DRIVE UNITS—PROPELLER SHAFT

Number used		2
Type (exposed, torque tube)		Tubular, Exposed
Outer diameter x length* x wall thickness	Manual transmission	Front 2 x 30.1 x .10 Rear 2 x 35.0 x .10
	Overdrive transmission	Front 2 x 25.0 x .10 Rear 2 x 35.0 x .10
	Automatic transmission	Front 2 x 27.2 x .10 Rear 2 x 35.0 x .10

*Center to center of universal joints, or to centerline of rear attachment.

(Continued)

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MODEL 11-1800

DRIVE UNITS—PROPELLER SHAFT (cont.)

			L-6 230 IN.^{3} ENGINE	V-8 283 IN.^{3} ENGINE
Intermediate bearing	Type (plain, anti-friction)		Single Row Ball, Sealed	
	Lubrication (fitting, prepack)		Prepack	
Universal joints	Make		Chevrolet	
	Number used		3	
	Type (ball and trunnion, cross, other)		Cross	
	Bearing	Type (plain, anti-friction)	Anti-Friction	
		Lubric. (fitting, prepack)	Prepack	
Drive taken through (torque tube or arms, springs)			Control arms	
Torque taken through (torque tube or arms, springs)			Control arms	

DRIVE UNITS—REAR AXLE

Description (see instructions)			Reg. Production - Semi-Floating, Overhung Pinion Gear	
Limited Slip differential, type			Reg. Production with Dual Disk Clutches	
Drive Pinion Offset			1.5	
No. of differential pinions			Reg. Production -2; Limited Slip - 4	
Gear ratios (Std. equip.)	Manual transmission		Sedans and Coupes - 3.08:1 Convertibles - 3.36:1 Sta. Wgns. - 3.55:1	1200 and 1600 Sedans - 3.08:1 Balance - 3.36:1
	Overdrive transmission		3.70:1	
	Automatic transmission		Same as Manual	
Ring gear O.D. (std. ratio)			8.375	
Pinion adjustment (shim, other)			Shim	
Pinion bearing adj. (shim, other)			None	
Wheel bearing type			Single Row Ball, Sealed	
Lubricant	Capacity (pt.)		4	
	Type recommended		Military Specification Mil-L-2105 B	
	SAE viscosity number	Summer	SAE 80	
		Winter	SAE 80	
		Extreme cold	SAE 80	

REAR AXLE RATIO TOOTH COMBINATIONS

(See page 3 for axle ratio usage)

Axle ratio		3.08:1	3.36:1	3.55:1	3.70:1
No. of teeth	Pinion	12	11	9	10
	Ring gear	37		32	37

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MODEL 11-1800

L-6 230 IN.^{3} ENGINE

V-8 283 IN.^{3} ENGINE

DRIVE UNITS—WHEELS

Type & material		Short Spoke Disk, Steel
Rim (size and flange type)	Std.	14 x 5J Except Wagons 14 x 6 JK
	Opt.	14 x 6JK; 15 x 5K
Attachment	Type (bolt or stud)	Stud
	Circle diameter	4.75
	Number and size	5 Hex Nuts, 7/16 - 20 UNF 2B

DRIVE UNITS—TIRES - Tubeless Unless Otherwise Indicated

Standard (List option below)	Size & ply	7.00 x14-4PR Except Conv., 7.50 x 14-4PR and Wagons 8.00 x 14-4
	Type - Nylon, etc.	Blackwall, Rayon
Rev/mile at 50 mph.		7.00 x 14-817; 7.50 x 14-800; 8.00 x 14-785
Inflation press.(cold)	Front	24
	Rear	24 Except Wagons 28
Optional tires - size and ply		6.70 x 15-4PR (*), Hyway, Nylon, Blackwall, Tube or Tubeless. 6.70 x 15-4PR (*), Hyway, Rayon, Blackwall, Tube or Tubeless. 6.70 x 15-6PR (**), Hyway, Rayon, Blackwall. 6.70 x 15-4PR (*), On-Off, Nylon, Blackwall, Tube. See foot note

BRAKES—SERVICE		Regular Production	Metallic
Type (duo-servo, disc, balanced, etc.)		Duo-Servo, 4 Wheel Hydraulic, Reverse Self-Adjusting	
Self adjusting (std., opt., N.A.)		Regular Production	
Hydraulic system type (single, dual, etc.)		Single	
Power brake make & type (remote, integral, etc.)		Bendix or Delco Moraine Vacuum Power Unit Assisting Master Cylinder; Integral	
Effective area (sq. in.)*		186.2	145.2 •
Gross lining area (sq. in.)**		200.4	145.2 •
Swept drum area (sq. in.)***		328.0	
Percent brake effectiveness—front		58.5	
Drum	Diameter Front	11.0	
	Diameter Rear	11.0	
	Type and material	Composite; Rim-Cast Iron; Web-Steel	
Wheel cylinder bore	Front	1.1875	
	Rear	1.00	
Master cylinder bore		1.00	.875
Available pedal travel		6.38	
Line pressure at 100 lb. pedal load		750	980
Shoe clearance adjustment		Self-Adjusting	

(Continued)

* Excludes rivet holes, grooves, chamfers, etc.
** Includes rivet holes, grooves, chamfers, etc.
*** Total swept areas for four brakes
Widest lining contact width for each brake x its drum circumference.

(a) 7.00 x 14-4PR, Hyway, Rayon, Whitewall.
7.10 x 15-4PR (*), Hyway, Rayon, Blackwall; 7.10 x 15-4PR (*), Hyway, Nylon, Blackw
7.50 x 14-4PR (*), Hyway, Nylon, Blackwall; 7.50 x 14-4PR(*), Hyway, Nylon, Whitew
7.50 x 14-4PR, Hyway, Rayon, Whitewall; 7.50 x 14-6PR (**), Hyway, Rayon, Blackwa
7.50 x 14-4PR, Hyway, Rayon, Blackwall;
8.00 x 14-4PR, Hyway, Rayon, Blackwall; 8.00 x 14-4PR, Hyway, Rayon, Whitewall;
8.00 x 14-4PR (*), Hyway, Nylon, Blackwall.

* - Items with "*" 4 ply construction.

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MODEL 11-1800

L-6 230 IN.^{3} ENGINE
V-8 283 IN.^{3} ENGINE

BRAKES—SERVICE (cont.)

				Regular Production	Metallic
Brake lining	Bonded or riveted			Bonded	Welded
	Front Shoe	Material		Molded Asbestos	Sintered Iron
		Size (length x width x thickness)	Front wheel	9.34 x 2.75 x .168	1.64 x 1.37 x .175
			Rear wheel	9.34 x 2.00 x .168	2.00 x 1.00 x .175
		Segments per shoe		1	6
	Rear Shoe	Material		Molded Asbestos	Sintered Iron
		Size (length x width x thickness)	Front wheel	11.75 x 2.75 x .168	1.64 x 1.37 x .295
			Rear wheel	11.75 x 2.00 x .168	2.00 x 1.00 x .295
		Segments per shoe		1	Front - 12; Rear - 10

BRAKES—PARKING

Type of control		Foot pedal for apply, "T" handled release
Location of control		Left of Steering Column
Operates on		Rear Service Brakes
If separate from service brakes	Type (internal or external)	--
	Drum diameter	--
	Lining size (length x width x thickness)	--

FRAME or UNITIZED CONSTRUCTION

Type and description: All welded "X" frame with box girder side rails, box section front suspension crossmember, channel section rear crossmember and reinforced box girder center beam. Special crossmember for mounting rear suspension upper control arms.

SUSPENSION—GENERAL (See Supplemental page 19 for details on Air Suspension)*

Provision for car leveling		Front Stabilizer Bar
Provision for brake dip control		Mounting Angle of Front Upper Control Arms
Provision for acc. squat control		Geometry of Rear Suspension Control Arms
Special provisions for car jacking		None
Shock absorber front & rear	Type	Direct, Double-Acting, Hydraulic
	Make	Delco
	Piston dia.	1.00
Other special features		--

SUSPENSION—FRONT

Type and description	Independent - SLA type with coil spring and concentric shock absorber, and spherically-jointed steering knuckle for each wheel.

(Continued)

* Air Suspension:
Air spring type
Compressor data
type
make
drive ratio
Normal operating pressures
spring rates
leveling data

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MODEL	L-6 230 IN.^{3} ENGINE	V-8 283 IN.^{3} ENGINE
11-1800		

SUSPENSION FRONT (cont.)

Spring	Type	Coil, Right Hand Helix	
	Material	Steel Alloy	
	Size (coil design height & I.D.; bar length x dia.)	10.50 and 3.802 141.25 x .630	10.50 and 3.802 141.25 x .630
	Spring rate (lb. per in.)	275	275
	Rate at wheel (lb. per in.)	101.2	101.2
	Design load (lb. @ design height)	1790 @ 10.50	1880 @ 10.50
Stabilizer	Type (link, linkless, frameless)	Link	
	Material & bar diameter	Steel, .6875	

STEERING

Manual (std., opt., NA)				Regular Production
Power (std., opt., NA)				Optional
Adjustable steering wheel (tilt, swing, other)	Type and description			Tilt: Tilt achieved by universally-jointing steering shaft at base of steering wheel; five-inch vertical travel range
	(std., opt., NA)			Optional with power steering except with 3-Speed
Wheel diameter	Manual			16.5
	Power			16.5
Turning diameter	Outside front	Wall to wall (l. & r.)		44.1
		Curb to curb (l. & r.)		40.8
	Inside rear	Wall to wall (l. & r.)		24.2
		Curb to curb (l. & r.)		24.5
Outside wheel angle with inside wheel at 20°				17.87°
Manual	Gear	Type		Semi-Reversible, Recirculating Ball Nut
		Make		Saginaw
		Ratios	Gear	24.0:1
			Overall	28.0:1
	No. wheel turns			5.8 (Lock to Lock)
Power	Type (coaxial, linkage, etc.)			Linkage with Hydraulically operated cylinder
	Make			Saginaw
	Gear	Type		Same as Manual
		Ratios	Gear	20.0:1
			Overall	24.0:1
	Pump driven by			Crankshaft Pulley
	Number wheel turns			5.06 (Lock to Lock)
Linkage	Type			Relay
	Location (front or rear of wheels, other)			Front
	Drag link (trans. or longit.)			None
	Tie rods (one or two)			2

(Continued)

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MODEL 11-1800

STEERING (cont.)

			L-6 230 IN.^{3} ENGINE	V-8 283 IN.^{3} ENGINE
Steering Axis	Inclination at camber (deg.)		6 3/4 to 7 3/4	
	Bearings (type)	Upper	Ball stud with non-metallic bearing surfaces	
		Lower	Ball stud with non-metallic bearing surfaces	
		Thrust	None required	
Wheel alignment (range and preferred)	Caster (deg.)		N 1/2 to P 1/2 (Curb)	
	Camber (deg.)		O to P 1 (Curb)	
	Toe-in (outside tread-inches)		1/32 - 3/32, per wheel (Curb)	
Steering spindle & joint type			Forging with pad for mounting brake cylinder, spherical	
Wheel spindle	Diameter	Inner bearing	1.2493 - 1.2498	
		Outer bearing	.7492 - .7497	
	Thread size		3/4-20 NEF 3 (modified)	
	Bearing type		Taper Roller	

SUSPENSION—REAR

Type and description				4-Link; 3 Control Arms and Lateral Control Bar	
Drive and torq. taken through (see page 17)				Control Arms	
Spring	Type			Coil, Right Hand Helix	
	Material			Steel Alloy	
	Size (length x width, coil design height and I.D.; bar length & dia.)			9.88 and 3.638; 138.27 x .583	9.88 x 3.638; 138.27 x .583
	Spring rate (lb. per in.)			230	230
	Rate at wheel (lb. per in.)			108.6	108.6
	Design load (lb. at design height)			1520 @ 9.88	1520 @ 9.88
	Mounting insulation type			None	
	If leaf	No. of leaves		--	
		Inserts	Type and size	--	
			Material	--	
		Shackle (comp. or tens.)		--	
Stabilizer	Type (link, linkless, frameless)			--	
	Material			--	
Track bar type				Lateral, frame to rear axle	

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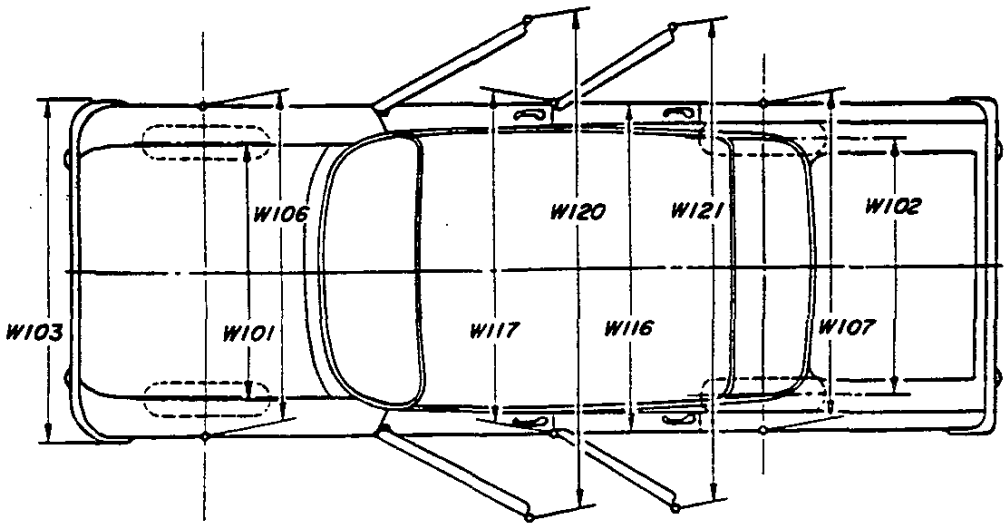
CAR AND BODY DIMENSIONS—GENERAL

Dimensions herein are those adopted by the Society of Automotive Engineers. Brief descriptions of these dimensions are listed on pages 34-36. Complete definitions are listed in section E-1 of the SAE Aeronautical - Automotive Drawing Standards.
The dimensions are developed from the following basic points:

1. Body dimensions are for all body styles.
2. All interior dimensions are taken with manikin 15.0 inches outboard of car centerline unless otherwise stated.
3. All interior dimensions are measured with the front seat in the lowest and rearmost position.
4. Unless otherwise specified, all exterior height dimensions are taken with a full design load which consists of 5 passengers, 300 lbs. front, 450 lbs. rear; includes spare wheel, tire and tools, and full complement of gas, oil, water and tires to recommended pressure, etc.
5. The SAE manikin with 90th percentile leg length will be used for recording purposes.
6. The H Point is the pivot center of the manikin's torso and thigh.
7. The D Point is the point of tangency of a horizontal line and the lowest point of the manikin.
8. The Torso Line is a line parallel to the small of manikin's back and extending through the H Point.

EXTERIOR WIDTH DIMENSIONS



MODEL	Ref. No.	SEDANS 2-Dr.	SEDANS 4-Dr.	SPORT SEDAN	SPORT COUPE	CONVERTIBLE	STATION WAGONS
Tread – front	W101	60.3					61.3
Tread – rear	W102	59.3					60.3
Maximum overall car width	W103	78.1					
Maximum overall body width	W116	77.0					
Maximum body width at #2 pillar	W117	---		76.5	---		76.5
Front fender overall width	W106	76.7					
Rear fender overall width	W107	77.0					
Maximum overall car width – front doors open	W120	156.6		141.6	156.6		141.6
Maximum overall car width – rear doors open	W121	---		138.1	137.1	---	138.1

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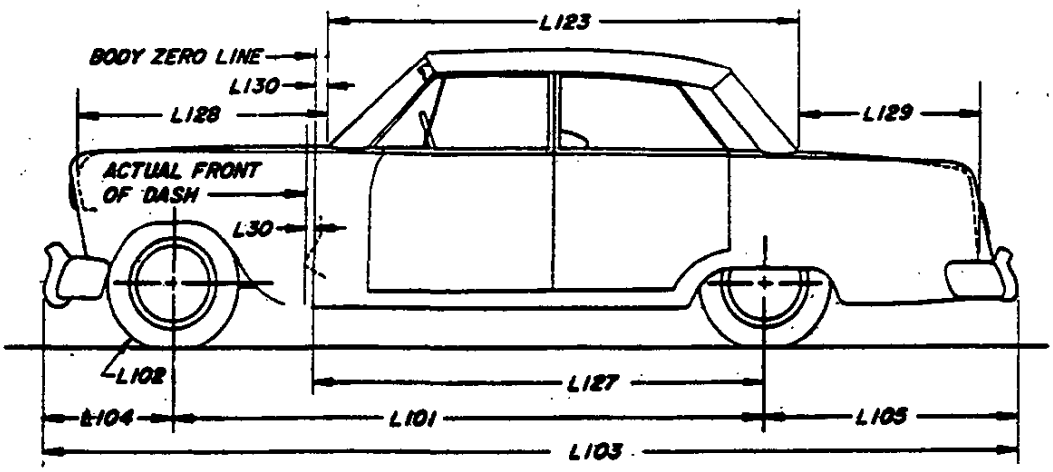
EXTERIOR LENGTH DIMENSIONS



MODEL	Ref. No.	SEDANS 2-DR.	SEDANS 4-DR.	SPORT SEDAN	SPORT COUPE	CONVERTIBLE	STATIC WAGO
Body zero line to actual front of dash	L30	.5					
Wheelbase	L101	119.0					
Overhang – front	L104	33.3					
Overhang – rear	L105	57.6					58.
Overall length	L103	209.9					210.
Hood length at car centerline	L128	51.2					
Body upper structure length at car centerline	L123	102.6		105.3	102.6	105.1	140.
Deck length at car centerline	L129	49.2		46.5	49.2	46.8	--
Body zero line to centerline of rear wheels	L127	100.0					
Body zero line to windshield cowl point	L130	4.8					
Tire size	L102	Refer to Page 18					

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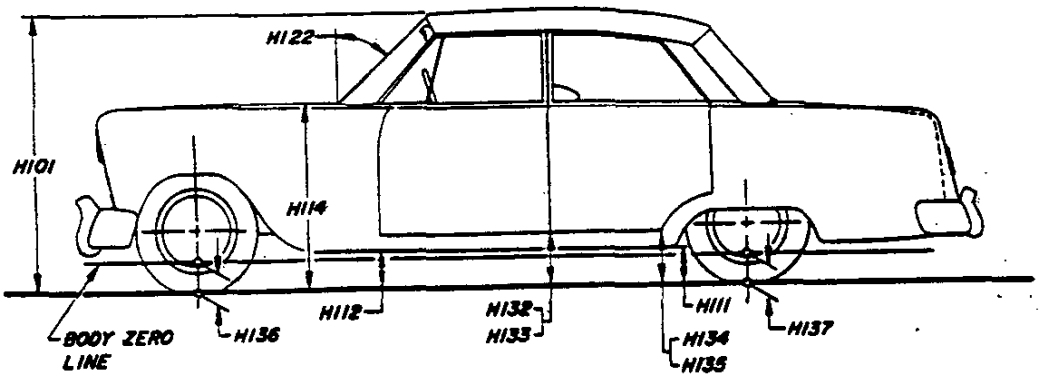
EXTERIOR HEIGHT DIMENSIONS



MODEL	Ref. No.	SEDANS 2-DR.	SEDANS 4-DR.	SPORT SEDAN	SPORT COUPE	CONVERTIBLE	STATION WAGON
Overall height	H101	56.2		54.9	55.1	55.8	56.7
Hood at rear to ground	H114	37.7			38.0		38.3
Rocker panel to ground – front	H112	8.9			9.2		9.5
Rocker panel to ground – rear	H111	8.5			8.8		9.1
Bottom of door to ground, open – front	H132	12.8	12.7		12.9		12.7
Bottom of door to ground, closed – front	H133	11.5	11.6		11.5		11.7
Bottom of door to ground, open – rear	H134	--	11.3		--	--	11.5
Bottom of door to ground, closed – rear	H135	--	11.3		--	--	11.5
Windshield slope angle	H122	55.5°					
Body zero to ground – front	H136	5.4					
Body zero to ground – rear	H137	5.4					5.0

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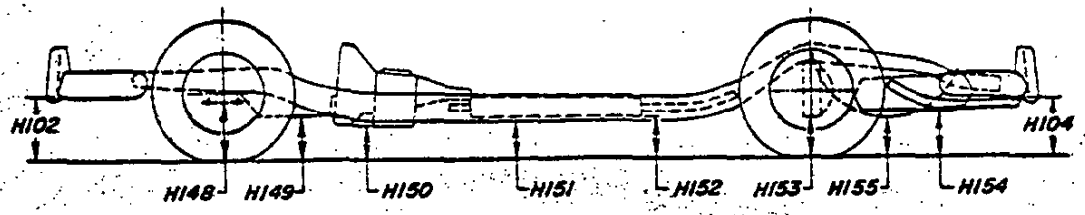
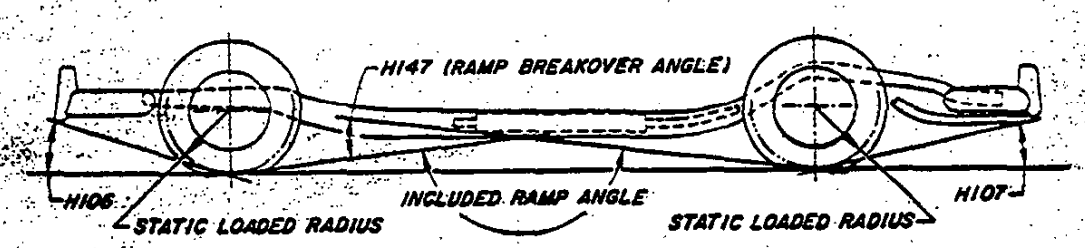
GROUND CLEARANCE DIMENSIONS





MODEL	Ref. No.	SEDANS 2-DR.	SEDANS 4-DR.	SPORT SEDAN	SPORT COUPE	CONVERTIBLE	STATION WAGON
Front bumper to ground	H102	12.4			12.7		13.0
Rear bumper to ground	H104	12.1			12.4		9.9
Angle of approach	H106	26°			27°		30°
Angle of departure	H107	13°					12°
Ramp breakover angle	H147	10°			13°		
Front suspension to ground	H148	7.1			7.4		7.7
Oil pan to ground	H149	6.6			6.9		7.2
Flywheel housing to ground	H150	6.4			6.7		7.0
Frame structure to ground	H151	7.1			7.4		7.7
Exhaust system to ground	H152	5.5			5.8		6.1
Rear axle differential to ground	H153	7.1			7.4		7.7
Fuel tank to ground	H154	8.0			8.3		9.3
Spare tire well to ground	H155	--			--		8.5
Minimum running ground clearance	H156	5.5			5.8		6.1

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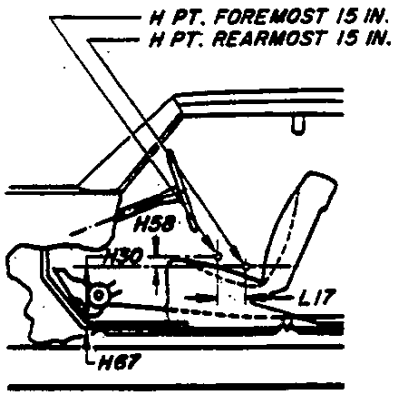
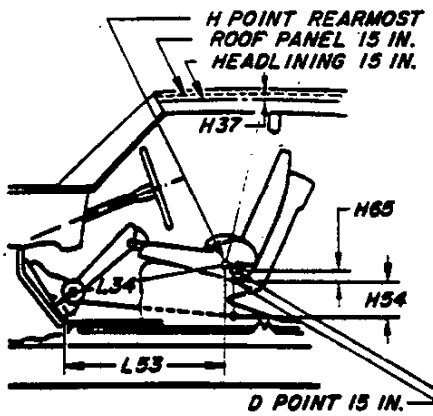
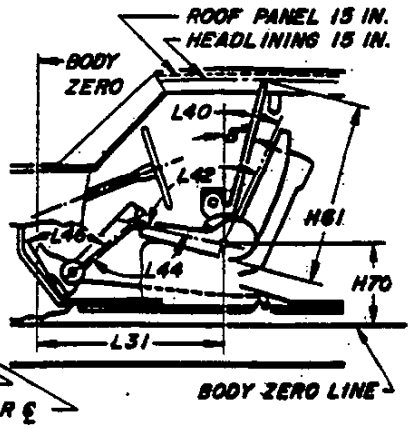
FRONT COMPARTMENT DIMENSIONS







MODEL	Ref. No.	SEDANS 2-DR.	SEDANS 4-DR.	SPORT SEDAN	SPORT COUPE (a)	SPORT COUPE (b)	CONVERTIBLE (a)	CONVERTIBLE (b)	STATION WAGON
H Point to body zero line	L31	42.5			42.0	41.8	42.0	41.8	42.5
H Point to body zero line - front	H70	NA							
Effective head room	H61	39.2		38.5	38.1	38.3	39.1	39.3	39.2
Headlining to roof height	H37	.5					—		.9
Maximum effective leg room - accelerator	L34	41.8			41.4	41.3	41.4	41.3	41.8
H Point to heel point	H30	8.6				8.4	8.6	8.4	8.6
Depressed floor covering thickness	H67	.3				.2	.3	.2	
Back angle	L40	24°			26°	26°	23°	26°	25°
Hip angle	L42	96°			97°	95°	94°	95°	96°
Knee angle	L44	128°			125°	124°	125°	124°	128°
Foot angle	L46	87°			86°				88°
D Point differential, side to center	H65	.7			.5	--	.6	--	.7
D Point to tunnel	H54	2.8			2.7	--	2.7	--	2.8
H Point to accelerator floor point	L53	34.0			33.6	33.5	33.6	33.5	34.0
H Point travel	L17	4.8							
H Point rise	H58	.8			.7	.8	.7	.8	.7

(a) Bench seat; (b) Bucket seat

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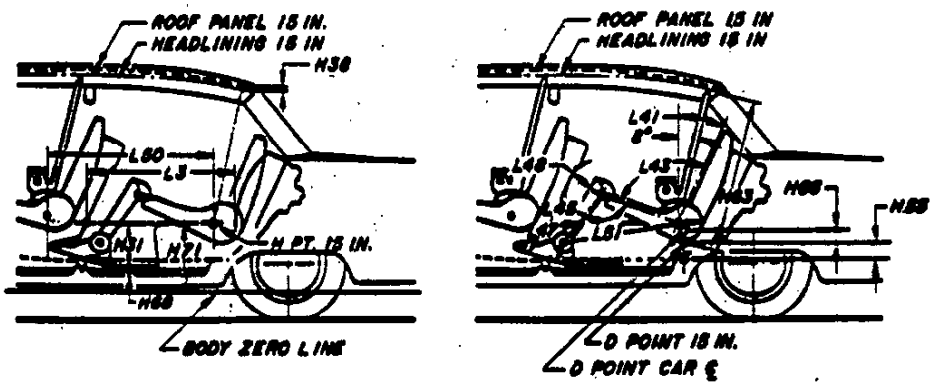
AMA Specifications – Passenger Car

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED(a) 12-2-

REAR COMPARTMENT DIMENSIONS



MODEL	Ref. No.	SEDANS 2-DR.	SEDANS 4-DR.	SPORT SEDAN	SPORT COUPE (a)	SPORT COUPE (b)	CONVERTIBLE (a)	CONVERTIBLE (b)	STATION WAGON
H Point couple distance	L50	34.8		33.7	33.1	33.2	33.1	33.2	34.9
H Point to body zero line – rear	H71	NA							
Effective head room	H63	38.0		37.2	38.3	38.3	38.1	38.1	39.8
Headlining to roof height	H38	.8		.6	.5	--	--	--	.8
Minimum effective leg room	L51	38.3		36.8	35.0	36.1	35.0	36.1	38.6
H Point to heel point	H31	11.8		12.0	10.5	10.4	10.5	10.4	11.7
Depressed floor covering thickness	H68	.4							
Minimum knee room	L48	4.6		3.6	3.4	3.7	3.4	3.7	4.9
Rear compartment room	L3	27.8		26.8	26.1	26.1	25.7	26.2	28.4
Back angle	L41	25°			19°				23°
Hip angle	L43	92°		90°	77°	79°	77°	79°	91°
Knee angle	L45	103°	106°	99°	90°	96°	90°	96°	108°
Foot angle	L47	114°		110°	110°	109°	110°	109°	114°
D Point differential, side to center	H66	.4		.8	.8	.8	.8	.8	.5
D Point to tunnel	H55	1.7		2.2	.7	.7	.7	.7	1.7

(a) Bench seat; (b) Bucket seat

AMA Specifications – Passenger Car

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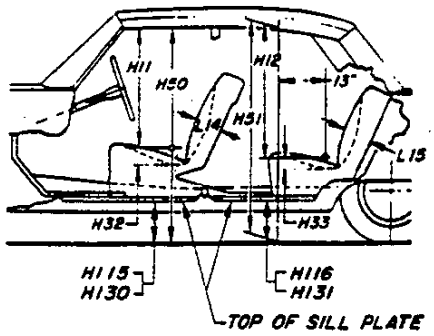
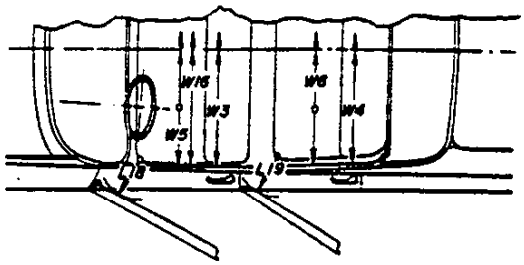
SEAT AND ENTRANCE DIMENSIONS





MODEL	Ref. No.	SEDANS 2-DR.	SEDANS 4-DR.	SPORT SEDAN	SPORT COUPE (a)	SPORT COUPE (b)	CONVERTIBLE (a)	CONVERTIBLE (b)	STATION WAGON
Shoulder room – front	W3	58.8							
Hip room – front	W5	63.7		63.5	63.6				
Seat width – front	W16	57.6				27.4	57.6	27.4	57.6
Upper body opening to ground – front	H50	50.6		50.8	49.5	49.5	49.1	49.1	50.6
Entrance height – front	H11	30.1		30.3	29.1	29.3	28.7	28.8	30.1
Step height – front (design load)	H115	12.7			13.0				13.3
Step height – front (curb load)	H130	14.7			15.0				15.3
Entrance foot clearance – front	L18	14.9			14.3		14.9	14.3	14.9
Seat cushion deflection – front	H32	4.2		4.5	4.7	4.2	4.7	4.2	4.2
Seat back thickness – front	L14	7.1		7.4	7.4	7.4	7.4	6.4	7.4
Shoulder room – rear	W4	57.5	58.2		57.6		51.5		58.0
Hip room – rear	W6	62.6	63.3		55.2		51.7		63.4
Upper body opening to ground – rear	H51	--	50.3		--	--	--		50.5
Entrance height – rear	H12	--	30.5	30.1	--	--	--		30.7
Step height – rear (design load)	H116	--	12.7		---				13.3
Step height – rear (curb load)	H131	--	12.7		---				13.3
Entrance foot clearance – rear	L19	11.6	11.7	11.3	9.0	9.6	9.0	9.6	13.0
Seat cushion deflection – rear	H33	3.8	4.3	5.1	4.3				4.4
Seat back thickness – rear	L15	8.3		9.0	7.4	7.4	7.7	7.7	6.1

(a) Bench seat; (b) Bucket seat

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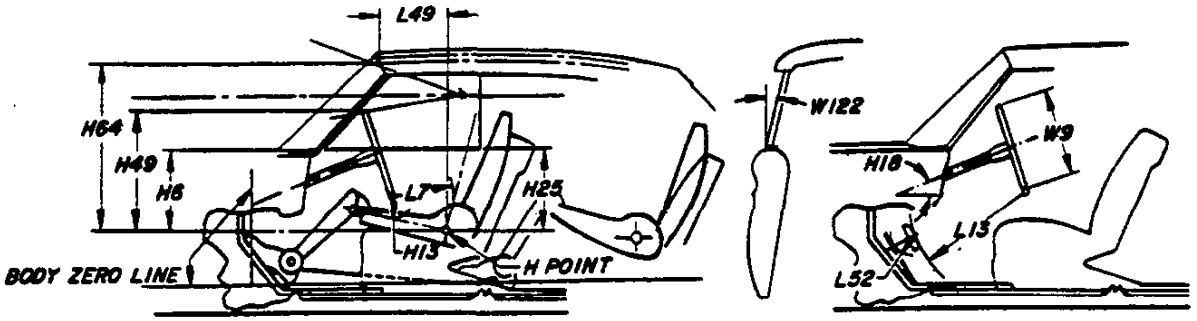
MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (e)

VISION AND CONTROL DIMENSIONS



MODEL	Ref. No.	SEDANS 2-DR.	SEDANS 4-DR.	SPORT SEDAN	SPORT COUPE (a)	SPORT COUPE (b)	CONVERTIBLE (a)	CONVERTIBLE (b)	STATION WAGON
H Point to windshield bottom DLO	H6	19.0				19.2	19.0	19.2	19.0
H Point to windshield upper DLO	H64	33.1	32.8	31.0	31.8	32.0	31.7	31.9	32.8
H Point to windshield upper DLO	L49	12.0		15.0	13.7	13.5	13.7	13.5	12.0
Belt height – front	H25	16.8				17.0	16.8	17.0	16.8
Steering wheel center to centerline of car	W7	15.9							
Steering wheel maximum outside diameter	W9	17.0							
Steering column angle – horizontal	H18	16.5°							
H Point to top of steering wheel	H49	23.3°							
Steering wheel torso clearance	L7	11.3			10.9	10.8	10.7	10.8	11.3
Steering wheel thigh clearance	H13	3.5			3.4				3.5
Brake pedal knee clearance	L13	24.3							
Brake pedal to accelerator	L52	4.3							
Tumble-home	W122	11.8°							

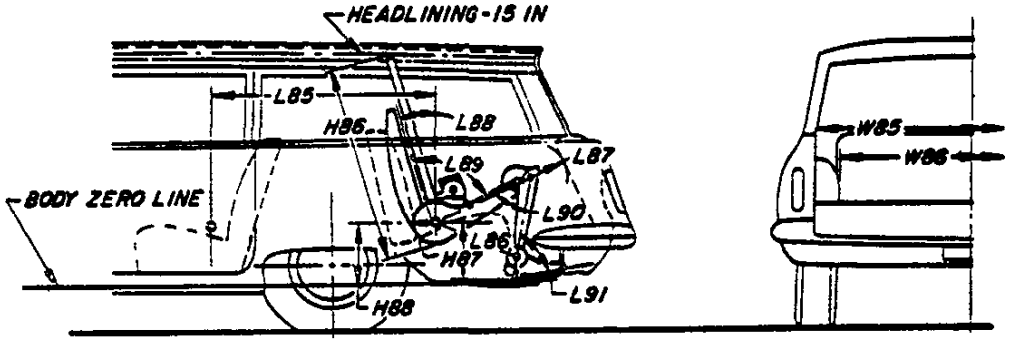
(a) Bench seat; (b) Bucket seat

MAKE OF CAR CHEVROLET MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED(o)

LUGGAGE COMPARTMENT

MODEL	Ref. No.	SEDANS 2-DR.	SEDANS 4-DR.	SPORT SEDAN	SPORT COUPE	CONVERTIBLE	STATION WAGON
Usable luggage capacity (See instructions)		19.0					--
Liftover height	H195	22.1					--
Position of spare tire storage		Horizontal on trunk forward shelf, left side (b)					(a)
Method of holding lid open		Torsion Bars, Counterbalanced					

THIRD SEAT DIMENSIONS



MODEL	Ref. No.	1645-1845
Seat facing direction		Rearward
Shoulder room	W85	52.0
Hip room	W86	46.7
H Point couple distance	L85	40.0
H Point to body zero line = third seat	H88	NA
Effective head room	H86	37.2
Effective leg room	L86	32.5
H Point to heel point	H87	12.3
Knee room	L87	9.5
Back angle	L88	18°
Hip angle	L89	80°
Knee angle	L90	82°
Foot angle	L91	113°

(a) Behind right rear quarter access panel; (b) Horizontal, rear right side.

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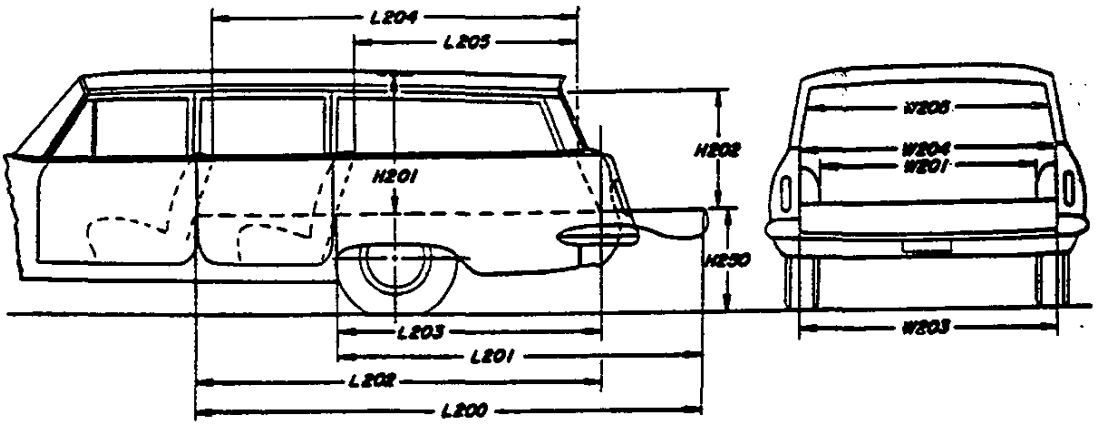
STATION WAGON—CARGO SPACE DIMENSIONS



MODEL	Ref. No.	6-PASSENGER	9-PASSENGER
Floor length from back of front seat at floor level to end of lowered tail gate or floor	L200	118.7	
Floor length from back of second seat at floor level to end of lowered tail gate or floor	L201	84.7	
Floor length from back of front seat at floor level to inside of closed tail gate	L202	94.2	
Floor length from back of second seat at floor level to inside of closed tail gate	L203	60.2	
Minimum horizontal distance from top rear of front seat back to inside of tail gate at belt	L204	82.2	
Minimum horizontal distance from top rear of second seat back to inside of tail gate at belt	L205	47.2	
Maximum width of cargo space at floor - specify location	W200	62.2	
Minimum distance between wheel houses at floor level	W201	46.1	
Rear end opening width at floor	W203	56.4	
Rear end opening width at belt	W204	54.7	
Maximum width of rear opening above belt	W205	54.2	
Maximum height - floor covering to headlining at centerline of rear axle	H201	31.5	
Maximum height of rear opening - tail and lift gates open	H202	30.5	
Platform height from ground to top of tail gate floor covering at rear most edge of tail gate - curb weight	H250	23.3	
Rear end closure (e.g., one piece door, hinged left - sliding glass, drop tail gate)		Hinged tailgate with folding link supports and manual retractable rear window (a)	
Cargo volume index (cu. ft.) $\frac{W4 \times L204 \times H201}{1728}$		87.0 (b)	

(a) Electrically operated window on 9-passenger (optional on 6-passenger)

(b) Plus 10.5 cu. ft. for hidden compartment in 6-passenger, plus 5.7 cu. ft. in 9-passenger.

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MODEL	SEDANS 2-DR.	SEDANS 4-DR.	SPORT SEDAN	SPORT COUPE	CONVERTIBLE	STATION WAGON

BODY—MISCELLANEOUS INFORMATION

Drs. hinged (front, rear)	Front doors	Front					
	Rear doors	Front					
Type of finish (lacquer, enamel, other)		Acrylic Lacquer					
Hood counterbalanced (yes, no)		Yes					
Hood release control (internal, external)		External					
Vehicle (Serial) No. Location		Left front body hinge pillar					
Engine No. Location		On pad, font right hand side of cylinder block					
Theft protection - type		Shielded ignition lock terminals, key removable in "Lock" or "On" position					
Vent window control method (crank, friction pivot)	Front	Crank					
	Rear	None					
Seat cushion type	Front	Formed wire and foam pad					
	Rear	Formed wire and foam pad					
	3rd seat	—				F.wire & foam pad	
Seat back type	Front	Formed wire and cotton					
	Rear	Formed wire and cotton					
	3rd seat	—				Formed wire & cot	
Windshield glass type (i.e., s curved - laminated plate)		One piece, single curved, laminated					
Backlight glass type (i.e., compound curved - tempered plate, three piece)		Compound curve, solid tempered plate (a)					
Side glass type (i.e., curved - tempered plate)		Flat, safety-solid plate					
Side glass exposed surface area		1346.3	1322.8	1360.6	1236.2	1115.5	2669.3
Windshield glass exposed surface area		1587.5		1405.7	1461.2	1461.2	1587.5
Backlight glass exposed surface area		1257.1		1239.9	941.9	1103.0	938.3
Total glass exposed surface area		4190.9	4167.4	4006.2	3639.3	3679.7	5200.1

BODY—CONVENIENCE EQUIPMENT (Indicate whether standard, optional or NA on each series)

Power windows	Side Windows	Optional
	Vent Windows	NA
	Backlight or tailgate	Standard on 9-passenger wagon, optional on 6-passenger
Power seats (specify type as well as availability)		6 way electric, optional
Reclining front seat back		NA
Front seat headrest		NA
Radios (specify type as well as availability)		Push Button, manual, AM-FM optional
Rear seat speaker		Optional
Power Antenna		NA
Clock		Standard on 13-14-17-1800, Optional on 11-12-15-1600
Air Conditioner (specify type availability)		All weather, deluxe, cool pack optional

(a) Plastic on convertible.

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WEIGHTS

Model	CURB WEIGHT – POUNDS Front	Rear	Total	% PASS. WEIGHT DISTRIBUTION Pass. In Front Front	Pass. In Front Rear	Pass. In Rear Front	Pass. In Rear Rear	SHIPPING * WEIGHT
		230	283					230 283
Biscayne								
1111 1211		3375	3520	30	70			3230 3365
1135 1235		3840	3975	30	70			3700 3820
1169 1269		3445	3590	30	70			3300 3430
Bel Air								
1511 1611		3380	3525	30	70			3235 3370
1535 1635		3845	3980	30	70			3705 3825
1545 1645		3885	4020	22	78			3745 3865
1569 1669		3450	3595	30	70			3305 3440
Impala								
1735 1835		3870	4000	30	70			3725 3850
1739 1839		3515	3645	30	70			3370 3490
1745 1845		3915	4045	22	78			3770 3895
1747 1847		3440	3570	37	63			3295 3415
1767 1867		3545	3680	37	63			3400 3525
1769 1869		3485	3615	30	70			3340 3460
Impala Super Sport								
1347 1447		3470	3605	37	63			3325 3450
1367 1467		3580	3710	37	63			3435 3555

Accessories & Equipment Differential Weights	230	283	Remarks
Air Conditioning, Deluxe	+122	+125	
Brakes, Power	+ 10	+ 10	
Less Heater	- 22	- 22	
Radio, Manual	+ 7	+ 7	
Radio, Push Button	+ 9	+ 9	
Seat, Power	+ 22	+ 22	
Steering, Power	+ 30	+ 30	
Transmission, Overdrive	+ 35	+ 35	
Transmission, Powerglide	+ 18	+ 18	
Windows, Power	+ 19	+ 19	
Air Conditioning, Custom	+106	+112	
Comfort & Convenience	+ 6	+ 6	
Radio, AM-FM	+ 10	+ 10	

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* These are weights that are reported to states for licensing purposes.

DIMENSION DEFINITIONS

W3 SHOULDER ROOM – FRONT. The minimum lateral dimension between the door garnish moldings or nearest interference. Measured at H Point station.

W4 SHOULDER ROOM – REAR. Measured in the same manner as W3.

W5 HIP ROOM – FRONT. The lateral dimension through H Point to trimmed surfaces.

W6 HIP ROOM – REAR. Measured in the same manner as W5.

W7 STEERING WHEEL CENTER TO CENTERLINE OF CAR. Measured horizontally from steering wheel center to centerline of car. The point at steering wheel center is located in the surface plane of wheel.

W9 STEERING WHEEL MAXIMUM OUTSIDE DIAMETER. Define if other than round.

W16 SEAT WIDTH – FRONT. The maximum trimmed width of front seat cushion.

W85 SHOULDER ROOM – THIRD SEAT. Measured in the same manner as W3.

W86 HIP ROOM – THIRD SEAT. Measured in the same manner as W5.

W101 TREAD – FRONT. Measured at centerline of tires, with nominal camber, at ground.

W102 TREAD – REAR. Measured at centerline of tires at ground.

W103 MAXIMUM OVERALL CAR WIDTH. Include bumpers, moldings, or sheet metal protrusions.

W106 FRONT FENDER OVERALL WIDTH. Measured at centerline of front wheels, excluding moldings.

W107 REAR FENDER OVERALL WIDTH. Measured at centerline of rear wheels, excluding moldings.

W116 MAXIMUM OVERALL BODY WIDTH. Measured across body, excluding hardware and applied moldings, but including fenders when integral with body.

W117 MAXIMUM BODY WIDTH AT #2 PILLAR. Measured across body at #2 pillar, excluding hardware and applied moldings.

W120 MAXIMUM OVERALL CAR WIDTH, FRONT DOORS OPEN. Measured with front doors in maximum hold-open position.

W121 MAXIMUM OVERALL CAR WIDTH, REAR DOORS OPEN. Measured in same manner as W120.

W122 TUMBLE-HOME. The angle from vertical to the front door glass outer surface or the chord of a curved door glass, measured at the front H Point station.

L3 REAR COMPARTMENT ROOM. The horizontal dimension from the back of front seat to front of rear seat back at a height tangent to the top of rear seat cushion.

L7 STEERING WHEEL TORSO CLEARANCE. The minimum distance from the back edge of steering wheel, in straight-ahead position, to the Torso Line.

L13 BRAKE PEDAL KNEE CLEARANCE. The minimum dimension from the lower edge of the steering wheel to the brake pedal face centerline.

L14 SEAT BACK THICKNESS – FRONT. The maximum thickness of the seat back, excluding bolsters.

L15 SEAT BACK THICKNESS – REAR. Measured in the same manner as L14.

L17 H POINT TRAVEL. The horizontal dimension between the H Point in the most forward and rearward seat positions.

L18 ENTRANCE FOOT CLEARANCE – FRONT. The minimum horizontal dimension between seat and normal line of door or pillar at a height between the sill plate bead and 4.0 inches above the bead. Door should be in the maximum hold-open position.

L19 ENTRANCE FOOT CLEARANCE – REAR. Measured in the same manner as L18 on four-door models. On two-door styles, the minimum dimension between rear corner of front seat, with front seat back tilted forward, and trimmed lock pillar, built-in quarter armrest panel, or rear seat cushion at a height between the sill plate bead and 4.0 inches above the bead.

L30 BODY ZERO LINE TO ACTUAL FRONT OF DASH. If actual Front of Dash is to the rear of Body Zero Line, it is identified by a minus (–) sign.

L31 H POINT TO BODY ZERO LINE – FRONT. Horizontal dimension.

L34 MAXIMUM EFFECTIVE LEG ROOM – ACCELERATOR. Measured along a diagonal line from ankle pivot center to H Point plus a constant of 10.0 inches. Measured with the right foot on accelerator pedal.

L40 BACK ANGLE – FRONT. The angle between a vertical line through the H Point and the Torso Line.

L41 BACK ANGLE – REAR. Measured in the same manner as L40.

L42 HIP ANGLE – FRONT. The angle between Torso Line and a line extending from knee pivot center to H Point.

L43 HIP ANGLE – REAR. Measured in the same manner as L42.

L44 KNEE ANGLE – FRONT. The angle between a line from H Point to knee pivot center and a line from the knee pivot center to the ankle pivot center.

L45 KNEE ANGLE – REAR. Measured in the same manner as L44.

L46 FOOT ANGLE – FRONT. The angle between a line extended from the knee pivot center through the ankle pivot center and a line tangent to the sole and heel of manikin bare foot.

L47 FOOT ANGLE – REAR. Measured in the same manner as L46.

L48 MINIMUM KNEE ROOM – REAR. The minimum dimension from the knee pivot center to the back of front seat back.

L49 H POINT TO WINDSHIELD UPPER DLO. The horizontal dimension from H Point to the point of tangency of horizontal line of vision (described in dimension H64) with body upper structure.

DIMENSION DEFINITIONS (cont.)

L50 H POINT COUPLE DISTANCE. The horizontal dimension from the front seat H Point to the rear seat H Point.

L51 MINIMUM EFFECTIVE LEG ROOM – REAR. Measured along a diagonal line from ankle pivot center to H Point plus a constant of 10.0 inches. Measured with the foot positioned to nearest interference between seat structure and toe, instep or lower leg.

L52 BRAKE PEDAL TO ACCELERATOR. The minimum dimension from center of brake pedal face to accelerator. Measured in the side view.

L53 H POINT TO ACCELERATOR FLOOR POINT. The horizontal dimension from intersection of accelerator and depressed floor covering to the H Point.

L85 H POINT COUPLE DISTANCE – THIRD SEAT. The horizontal dimension from the second seat H Point to the third seat H Point.

L86 EFFECTIVE LEG ROOM – THIRD SEAT. Measured in the same manner as L51. With rear-facing third seat, foot is positioned in foot well or to nearest interference with rear end or rear closure.

L87 KNEE ROOM – THIRD SEAT. Measured in the same manner as L48. With rear-facing third seat, dimension is measured to rear closure.

L88 BACK ANGLE – THIRD SEAT. Measured in the same manner as L40.

L89 HIP ANGLE – THIRD SEAT. Measured in the same manner as L42.

L90 KNEE ANGLE – THIRD SEAT. Measured in the same manner as L44.

L91 FOOT ANGLE – THIRD SEAT. Measured in the same manner as L46.

L101 WHEELBASE.

L102 TIRE SIZE.

L103 OVERALL LENGTH. Include bumper guards if standard equipment.

L104 OVERHANG – FRONT. Measured from C/L of front wheels to front of car, including bumper guards if standard equipment.

L105 OVERHANG – REAR. Measured from C/L of rear wheels to rear of car, including bumper guards if standard equipment.

L123 BODY UPPER STRUCTURE LENGTH AT CAR CENTERLINE. The horizontal dimension from the theoretical intersection of extended windshield glass plane and normal cowl surface to the theoretical intersection of extended back window glass plane and normal deck surface; or in the case of a Fastback roof or Station Wagon, to back glass lower reveal molding, or rubber when molding is not used.

L127 BODY ZERO LINE TO CENTERLINE OF REAR WHEELS. A horizontal dimension.

L128 HOOD LENGTH AT CAR CENTERLINE. The horizontal dimension from the foremost point on sheet metal hood surface, excluding series identification or ornamentation, to the theoretical intersection of extended windshield glass plane and normal cowl surface.

L129 DECK LENGTH AT CAR CENTERLINE. The horizontal dimension from the rearmost point of the body sheet metal (visible above bumper), excluding series identification or ornamentation, to the theoretical intersection of extended back window glass plane and normal deck surface.

L130 BODY ZERO LINE TO WINDSHIELD COWL POINT. The horizontal dimension from body zero line to the theoretical intersection of extended windshield glass plane and normal cowl surface.

H6 H POINT TO WINDSHIELD BOTTOM DLO. Vertical dimension.

H11 ENTRANCE HEIGHT – FRONT. The vertical dimension from H Point to upper trimmed body opening.

H12 ENTRANCE HEIGHT – REAR. The vertical dimension from H Point to the upper trimmed body opening at a section 13.0 inches forward of the H Point.

H13 STEERING WHEEL THIGH CLEARANCE. The minimum dimension from the bottom of steering wheel, in straight-ahead position, to centerline of thigh.

H18 STEERING COLUMN ANGLE – HORIZONTAL. The angle the centerline of steering column makes with the horizontal.

H25 BELT HEIGHT – FRONT. The vertical dimension from H Point to bottom of side window DLO.

H30 H POINT TO HEEL POINT – FRONT. The vertical dimension from the H Point to the manikin accelerator heel point on the depressed floor covering.

H31 H POINT TO HEEL POINT – REAR. The vertical dimension from the H Point to the manikin heel point on the depressed floor covering.

H32 SEAT CUSHION DEFLECTION – FRONT. The vertical dimension from a point on the undepressed seat cushion to the depressed seat cushion. Measured at the H Point station.

H33 SEAT CUSHION DEFLECTION – REAR. Measured in the same manner as H32.

H37 HEADLINING TO ROOF HEIGHT – FRONT. The dimension from the intersection of the headlining and the extended effective head room line to the roof panel. Measured perpendicularly to the roof panel.

H38 HEADLINING TO ROOF HEIGHT – REAR. Measured in the same manner as H37.

H49 H POINT TO TOP OF STEERING WHEEL. The vertical dimension from the H Point to top of steering wheel, in straight-ahead position.

H50 UPPER BODY OPENING TO GROUND – FRONT. The vertical dimension from a point on the trimmed body opening to the ground. Measured at the H Point station.

H51 UPPER BODY OPENING TO GROUND – REAR. The vertical dimension from a point on the trimmed body opening to the ground. Measured 13.0 inches forward of the H Point.

DIMENSION DEFINITIONS (cont.)

H54 D POINT TO TUNNEL – FRONT. The vertical dimension from the D Point, at car centerline, to top of tunnel.

H55 D POINT TO TUNNEL – REAR. Measured same manner as H54.

H58 H POINT RISE. The vertical dimension between the H Point in the most forward and rearward seat position.

H61 EFFECTIVE HEAD ROOM – FRONT. The dimension from H Point to the headlining, plus a constant of 4.0 inches. Measured along a line 8° to rear of vertical.

H63 EFFECTIVE HEAD ROOM – REAR. Measured same as H61.

H64 H POINT TO WINDSHIELD UPPER DLO. Vertical dimension from H Point to highest horizontal line of vision through windshield at 15 inch section.

H65 D POINT DIFFERENTIAL, SIDE TO CENTER – FRONT. Vertical dimension from side occupant to center occupant D Point.

H66 D POINT DIFFERENTIAL, SIDE TO CENTER – REAR. Measured in the same manner as H65.

H67 DEPRESSED FLOOR COVERING THICKNESS – FRONT. The vertical dimension from manikin accelerator heel point normally to underbody sheet metal immediately below heel point.

H68 DEPRESSED FLOOR COVERING THICKNESS – REAR. Measured same as H67.

H70 H POINT TO BODY ZERO LINE – FRONT. Vertical dimension.

H71 H POINT TO BODY ZERO LINE – REAR. Vertical dimension.

H86 EFFECTIVE HEAD ROOM – THIRD SEAT. Measured in the same manner as H61.

H87 H POINT TO HEEL POINT – THIRD SEAT. Measured in the same manner as H31.

H88 H POINT TO BODY ZERO LINE – THIRD SEAT. Vertical dimension.

H101 OVERALL HEIGHT. Measured with full design load.

H102 FRONT BUMPER TO GROUND. Minimum dimension

H104 REAR BUMPER TO GROUND. Minimum dimension.

H106 ANGLE OF APPROACH. The angle between the ground and a line tangent to the front tire static loaded radius arc and the first point of interference, i.e. bumper, guard, gravel deflector, fender or other interfering component, excluding license plate.

H107 ANGLE OF DEPARTURE. The angle between the ground and a line tangent to the rear tire static loaded radius arc and the first point of interference, i.e. bumper, guard, gravel deflector, tail pipe, fender or other interfering component, excluding license plate.

H111 ROCKER PANEL TO GROUND – REAR. The vertical dimension from ground to bottom of rocker panel, exluding flanges. Measured at front of rear wheel opening.

H112 ROCKER PANEL TO GROUND – FRONT. The vertical dimension from ground to bottom of rocker panel, exclusding flanges. Measured at foremost point of rocker panel.

H114 HOOD AT REAR TO GROUND. Measured from hood opening line on shroud, exclusive of moldings.

H115 STEP HEIGHT – FRONT (DESIGN LOAD). The vertical dimension from top of sill plate bead, at C/L of front door sill plate, to ground.

H116 STEP HEIGHT – REAR (DESIGN LOAD). Measured in same manner as dimension H115.

H122 WINDSHIELD SLOPE ANGLE. The angle between a vertical line and the windshield surface at car centerline. On compound-curved windshields the chord of the arc is used and limited to that section of the windshield comprehended by an 18-inch chord.

H130 STEP HEIGHT – FRONT (CURB LOAD). The vertical dimension from top of sill plate, at C/L of front door sill plate, to ground.

H131 STEP HEIGHT – REAR (CURB LOAD). Measured same as H130.

H132 BOTTOM OF DOOR TO GROUND, OPEN – FRONT. Measured from bottom outside corner of door with door in maximum hold-open position.

H133 BOTTOM OF DOOR TO GROUND, CLOSED – FRONT. Same point on door as H132 dimension, with door closed.

H134 BOTTOM OF DOOR TO GROUND, OPEN – REAR. Measured in same manner as H132.

H135 BOTTOM OF DOOR TO GROUND, CLOSED – REAR. Measured in same manner as H133.

H136 BODY ZERO TO GROUND – FRONT. A vertical dimension measured at front wheel centerline.

H137 BODY ZERO TO GROUND – REAR. A vertical dimension measured at rear wheel centerline.

H147 RAMP BREAKOVER ANGLE. Supplement of included ramp angle (180° minus included ramp angle) over which car can pass without interference; measured with car sitting on a level surface, using lines tangent to arcs of front and rear static loaded radii and intersecting at point on underside of car which defines the smallest angle.

H148 FRONT SUSPENSION TO GROUND. Minimum clearance from lower control arm inner shaft or lowest point on the car centerline.

H149 OIL PAN TO GROUND. Minimum clearance measured from sheet metal or drain plug.

H150 FLYWHEEL/CONVERTER HOUSING AND TRANSMISSION ASSEMBLY TO GROUND. Minimum clearance.

H151 FRAME STRUCTURE TO GROUND. Minimum clearance measured approximately midway between front and rear axles. In this measurement, cross bars and X-members shall be considered part of frame.

H152 EXHAUST SYSTEM TO GROUND. Minimum clearance. Specify location.

H153 REAR AXLE DIFFERENTIAL SYSTEM TO GROUND. Minimum clearance.

H154 FUEL TANK TO GROUND. Minimum clearance measured from sheet metal or drain plug, but excluding supports or straps.

H155 SPARE TIRE WELL TO GROUND. Minimum clearance.

H156 MINIMUM RUNNING GROUND CLEARANCE. Location of measurement on the car is to be clearly recorded.

H195 LIFTOVER HEIGHT. Vertical dimension from luggage compartment lower opening to ground.

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