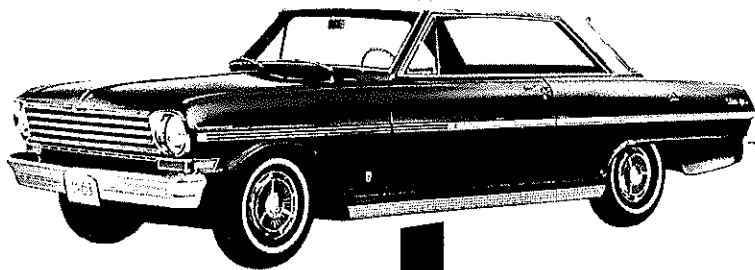


# CHEVY II GENERAL

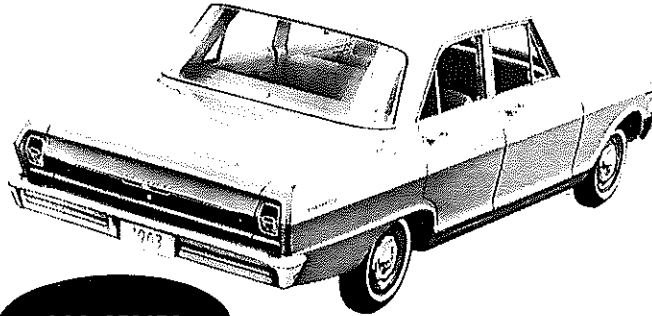


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## MODEL IDENTIFICATION

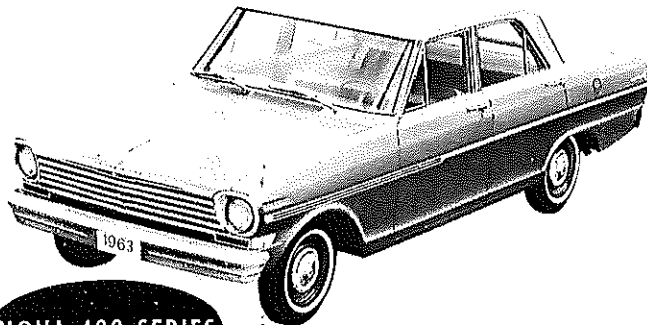
### 100 SERIES

MODEL 111-211 2-DOOR SEDAN, 6-PASSENGER  
MODEL 135-235 4-DOOR STATION WAGON, 2-SEAT  
MODEL 169-269 4-DOOR SEDAN, 6-PASSENGER



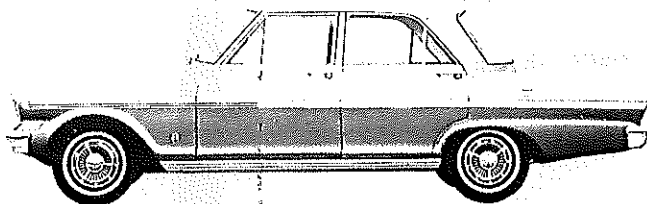
### 300 SERIES

MODEL 311-411 2-DOOR SEDAN, 6-PASSENGER  
MODEL 345-445 4-DOOR STATION WAGON, 3-SEAT  
MODEL 369-469 4-DOOR SEDAN, 6-PASSENGER



### NOVA 400 SERIES

MODEL 435 4-DOOR STATION WAGON, 2-SEAT  
MODEL 437 2-DOOR SPORT COUPE, 5-PASSENGER  
MODEL 449 4-DOOR SEDAN, 6-PASSENGER  
MODEL 467 2-DOOR CONVERTIBLE, 5-PASSENGER



# SERIAL NUMBERS AND IDENTIFICATION

ONLY BASIC DESIGNATIONS SHOWN

## VEHICLE SERIAL NUMBER

4-Cylinder Example:

Model Year	Model	Assembly Plant (Willow Run)	Unit Number (25th unit)
1963	0169	W	100025
3			

Thus: The 25th model built at Willow Run would be serial number 30169W100025

6-Cylinder Example:

Model Year	Model	Assembly Plant (Willow Run)	Unit Number (26th unit)
1963	0269	W	100026
3			

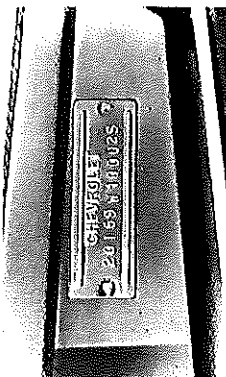
Thus: The 26th model built at Willow Run would be serial number 30269W100026

### ASSEMBLY PLANTS

- |               |                |
|---------------|----------------|
| G-Framingham  | O-Oakland      |
| K-Kansas City | W - Willow Run |
| N-Norwood     |                |

Starting unit number ----- 100001 and up at each assembly plant

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



## ENGINE IDENTIFICATION

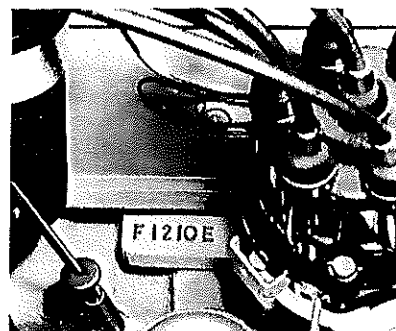
Example: F 1210 E

Source Designation	Production* Month and Date	Type Designation
F (Flint)	1210	E

153 Cubic inch 4-cylinder  
 E - Regular engine, 3-speed  
 EB - Regular engine, 3-speed, HD clutch  
 EG - Regular engine, Powerglide

194 Cubic inch 6-cylinder  
 H - Regular engine, 3-speed  
 HB - Regular engine, 3-speed, HD clutch  
 HF - Regular engine, Powerglide

\* - Month: February, 12; 10th day of February, 10



Location:

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

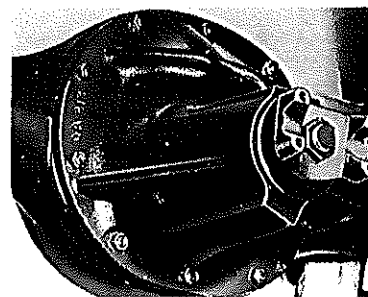
## REAR AXLE IDENTIFICATION

Example: DA 0212

Source and Type Designation	Production* Month and Day
DA (Year and Axle)	0212

DA ----- 3.08:1, 4-cyl, 3-speed (sedan)  
 DB ----- 3.08:1, 6-cyl, 3-speed (sedan)

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



Location ----- Right side of differential carrier

# REGULAR EQUIPMENT-EXTERIOR

		ITEM	MODELS	
Bright Metal Trim	Stainless Steel	Windshield reveal	All	
		Rear window reveal	All exc. Convertible	
		Rear belt reveal	Convertible	
		Roof drip gutter	300, Nova 400 exc. Convrt.	
		Belt reveal	Nova 400 Coupe & Convrt.	
		Windshield header and pillar	Convertible	
		Front door key locks	All	
	Anodized Aluminum	Body rear cove	300, Nova 400	
		Headlight bezels	All	
		Parking light bezels		
		Taillight bezels		
		Radiator grille	300, Nova 400	
		Parking light bezel extension		
		Body side (Painted insert on Nova 400)		
	Rocker sill	Nova 400		
	Chrome Plated Metal	Front and rear bumpers	All	
		Hood emblem and nameplate		
		Door handles		
		Ventipane channel		
		Series nameplates		
		Deck lid or tailgate emblem and nameplate		
		Hub caps		
		Engine identification emblem		All 6-cyl. models
		Hood center		300, Nova 400
	Tailgate window control	All station wagons		
	Manual tailgate window		100, Nova 400 sta. wgn.	
	Power tailgate window		300 Station Wagon	
Dual single speed electric windshield wipers		All		
Counterbalanced folding top		Convertible		
Backup lamps		Nova 400		

## REGULAR EQUIPMENT - INTERIOR

ITEM		MODELS
Instrument Panel	Instrument cluster bezel (bright)	All
	Ash tray	
	Manual interior light switch in headlamp switch	
	Glove box door lock	
	Glove box door nameplate	Nova 400
	Glove box lamp	
	Bright metal control knobs, bright bezels	
	Black plastic control knobs, bright bezels	
	Cigarette lighter	
	Choke control knob, black plastic	
	Tailgate window control switch	
Steering Wheel	Deep hub, dual solid spokes, horn button	100
	Deep hub, dual solid spokes, horn ring	300
	Deep hub, dual solid spokes, horn ring two-tone type	Nova 400
Dome lamp		All exc. Convertible
Dual courtesy lamps		Convertible
Automatic interior light switch, front doors		300, Nova 400
Front door armrests		All
Rear door or quarter armrests, with ashtrays		300, Nova 400
Friction type front ventpanes		All
Door locking knobs, rear only		4-Door models
Door and window control handles - single arm		100, 300
Door and window control handles - dual arm		Nova 400
Folding rear seat		All station wagons
Folding third seat, rear facing		300 Station Wagon
Dual sunshades, bright supports		All
Coat hooks		All exc. Convertible
Rear view mirror back and support, painted		100, 300
Rear view mirror back and support, bright		Nova 400
Seat adjuster handle, bright metal		All
Door sill plates, aluminum		
Tailgate window control switch-rear sidewall		300 Station Wagon
Deluxe heater		All

# REGULAR PRODUCTION OPTIONS

	ITEM	NUMBER	MODELS		
Engine	Battery, heavy-duty	T60	All		
	Clutch, heavy-duty	M01			
	Generators	Delcotron, 12-42 ampere		K79	
		Delcotron, 5-52 ampere		K82	
		Delcotron, 23-62 ampere		K81	
	Radiator, heavy-duty	V01			
Transmission	Powerglide (4-Speed - M20) ( 400 )	M35			
Chassis	Axle, rear	3.36:1 ratio	G76	6-cyl. exc. wgns.	
		3.55:1 ratio	G96	1-300 exc. wgns.	
		3.08:1, 3.36:1 ratios, limited slip	G80	All exc. wgns.	
		3.55:1 ratio, limited slip		All 4-cyl.	
	Brakes	Metallic	J65	All	
		Power	J50	200-400	
		Disks, wheel	P01	All	
		Disks, wheel (simulated wire)	P02		
		Police car chassis equipment	Z04	100 4-dr. sed, 6-cyl.	
		Special front and rear suspension	F40		
		Steering, power	N40	200-400	
	Tires		7.00-13-4 pr., blackwall	P55	Station Wagons
			6.00 x 13-4 pr., whitewall	P50	2-, 4-door sedans
			6.50 x 13-4 pr., blackwall	P52	
			6.50 x 13-4 pr., whitewall	P53	All
			6.50 x 14-4 pr., blackwall	P66	
			6.50 x 14-4 pr., whitewall	P67	
7.00 x 13-4 pr., whitewall			P54		
	Air conditioning	C60	200-400		
	Arm rests, rear	D10	100-200		
	Belt unit, front seat	A37	All		
	Bumper guard, rear	V32	All exc. wgns.		
Body	Comfort and Convenience Equipment	Back-up lamps; inside prismatic mirror, outside mirror, 2-speed w/s wipers and washers, glove box light *	Z01	All	
		Folding top equipment, electric	C06	467	
		Folding top colors	C05		
		Glass tinted	A01	All	
		Grille guard, front	V20		
		Less heater	C48		
		Pad, Instrument panel	B70		
		Police car body equipment	B01	269	
	Radio	Manual	U60	All	
		Push-button	U63		
		Push-button and auxiliary rear speaker	Z02		All exc. conv.
		Roof Luggage carrier	V55	Station Wagons	
		Second seat, split	A66	Station Wagons	
		Super Sport	Z03	437, 467	
		Tailgate window, power	A33	2-seat Sta. Wgns.	
		Taxicab equipment	B02	169, 269	
		Windshield Glass, tinted	A02	All	

\* - Back-up lamps and glove box light regular production equipment for Nova 400 models.

## DEALER INSTALLED ACCESSORIES

ITEM	MODELS
Alarm - Parking brake	All
Belt unit - Seat, front or rear	
Brake - Vacuum power	
Cap - Gasoline tank filler locking	Station Wagons
Carrier - Roof luggage	
Clock - Instrument panel	All
Conditioner - All weather air	
Cover - Accelerator pedal	
Cover - Roof luggage carrier	Station Wagons
Deflector - Rain	All except Spt. Cpe., Conv.
Disk - Wheel	All
Disk - Wheel, simulated wire	
Extension - Coat hook	All except Convertible
Guard - Bumper rear	All
Guard - Door edge	
Guard - Radiator grille	
Heater, Deluxe	All exc. Nova 400
Lamp - Back up	
Lamp - Courtesy	All except Convertible
Lamp - Luggage compartment	All except wagons
Lamp - Portable spot	All
Lamp - Glove compartment	All except Nova 400
Lamp - Underhood	All
Lamp, Traffic hazard flasher	
Lighter - Cigarette	100
Lock - Rear door safety	4-Door models
Mat-Front and Rear, Full width <sup>‡</sup>	All
Mirror - Outside rear view	
Mirror - Inside prismatic	
Mirror - Visor vanity	All except Nova 400
Molding - Body sill	
Radio - Manual	All
Radio - Push button	100
Rest - Rear door arm	
Screen - Radiator insect	All
Tool Kit	
Litter container	
Tissue dispenser	
Tissue dispenser and litter container	
Washer - Windshield push button	All exc. 2-Doors
Warning lamp, rear door	
Defogging Unit- Back window	All exc. conv, st. wagon
Mat-Front and rear, deluxe twins	All
Release - Rear compartment lid vacuum	All except wagons

<sup>‡</sup> Front deluxe twins on 437-467 with ZO3

# TAXI-CAB EQUIPMENT-RPO B02

MODEL APPLICATION:  
4-Door Sedan - 169, 269

## BODY EQUIPMENT

### INTERIOR TRIM

Standard ----- Cloth (fawn, aqua, or red)  
Optional ----- All vinyl (fawn)

### FLOORS

Covering  
Front and Rear ----- Waterproof asphalt  
impregnated paper felt  
Mats ----- Black rubber (no spatter)

### SEAT CUSHIONS AND BACKRESTS

Construction, front and rear ----- Heavy-duty wire springs, reinforced

### DOORS

Front and Rear  
Jamb switches (dome lamp) ----- Furnished  
on all four doors  
Armrests ----- LH & RH rear doors

### INSTRUMENT PANEL

Open-door red warning lamp (all doors)  
Location ----- Bright metal bracket  
under instrument panel, left of steering column  
Switch ----- All door jambs

## CHASSIS EQUIPMENT

### SUSPENSION

Front ----- Heavy-duty coil springs  
Rear ----- Heavy-duty leaf springs  
Shock absorbers ----- Heavy-duty front and rear

### LUBRICATION FITTINGS

Used on front and rear propeller shaft U-joints

BATTERY ----- Heavy-duty 53 ampere

### REAR AXLE (3.36:1)

TIRES AND WHEELS ----- 6.50 x 14-4 blackwall tires,  
14 x 5.00J wheels

## POWER TRAIN EQUIPMENT

### FOUR AND SIX CYLINDER MODELS

Spark plugs ----- AC 46  
Clutch ----- 10" heavy-duty  
Transmission (Powerglide) ----- Heavy-duty  
incorporates heavy-duty front pump and cooling  
provisions  
Radiator ----- Heavy-duty  
with built-in-oil cooler for Powerglide models



# POLICE CAR EQUIPMENT

MODEL APPLICATION:  
4-Door Sedan - 269

## BODY EQUIPMENT (RPO B01)

### INTERIOR TRIM

Standard ----- Cloth (fawn, aqua, or red)  
Optional ----- All vinyl (fawn)

### FLOORS

Covering  
Front and Rear ----- Waterproof asphalt  
impregnated felt paper  
Mats ----- Black rubber (no design)

### SEAT CUSHIONS AND BACKRESTS

Construction, front and rear ----- Heavy-duty wire springs, reinforced

## CHASSIS EQUIPMENT (RPO Z04)

### SUSPENSION

Front ----- Heavy-duty coil springs  
Rear ----- Heavy-duty leaf springs  
Shock absorbers ----- Heavy-duty rear

### FRONT STABILIZER SHAFT

Same as production shaft used on station wagons

### LUBRICATION FITTINGS

Used on front and rear propeller shaft U-joints

### REAR AXLE (3.36:1)

WHEELS AND TIRES ---- 6.50 x 19-4 blackwall tires,  
14 x 5.00J wheels

BATTERY ----- Heavy-duty 53 ampere

## POWER TRAIN EQUIPMENT (RPO Z04)

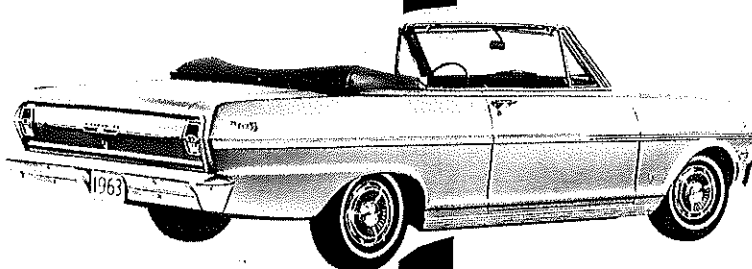
### SIX-CYLINDER MODELS (194 cu in)

Clutch ----- 10" heavy-duty  
Transmission (Powerglide) ----- Heavy-duty  
incorporates heavy-duty front pump and cooling  
provisions  
Radiator ----- Heavy-duty  
with built in oil cooler for Powerglide models



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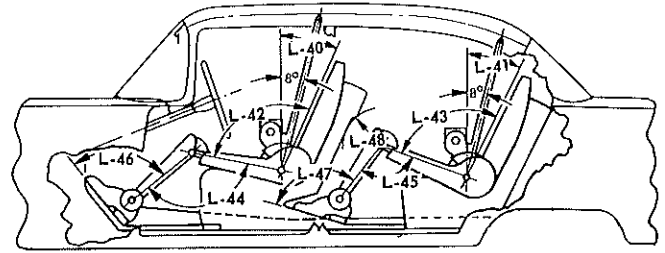
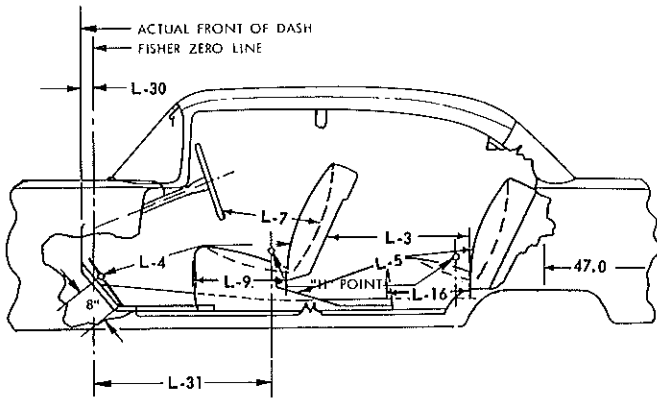
# DIMENSIONS AND WEIGHTS



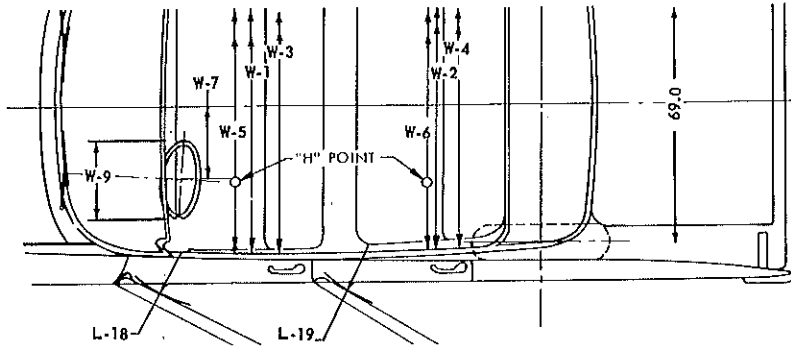
INTERIOR DIMENSIONS .....	2
EXTERIOR DIMENSIONS .....	4
STATION WAGON CARGO AND SEDAN TRUNK CAPACITIES ..	6
VEHICLE WEIGHTS .....	7

# INTERIOR DIMENSIONS

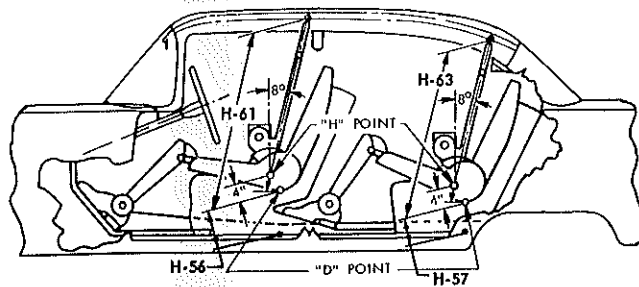
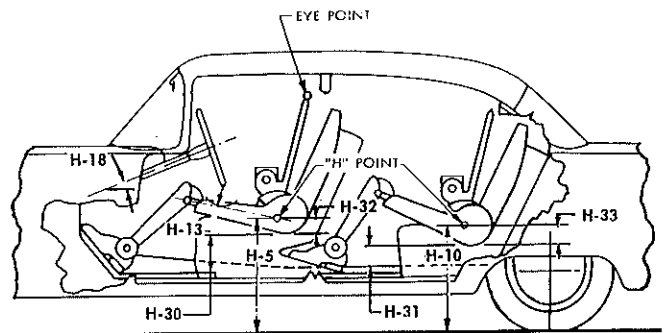
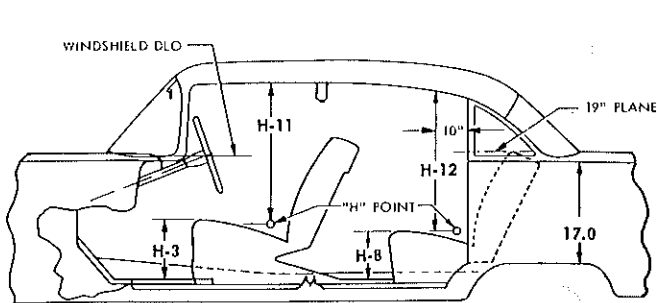
## INTERIOR LENGTHS



## INTERIOR WIDTHS

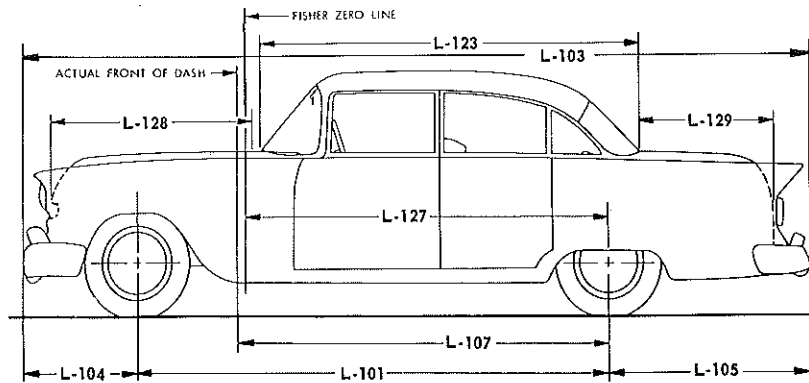


## INTERIOR HEIGHTS



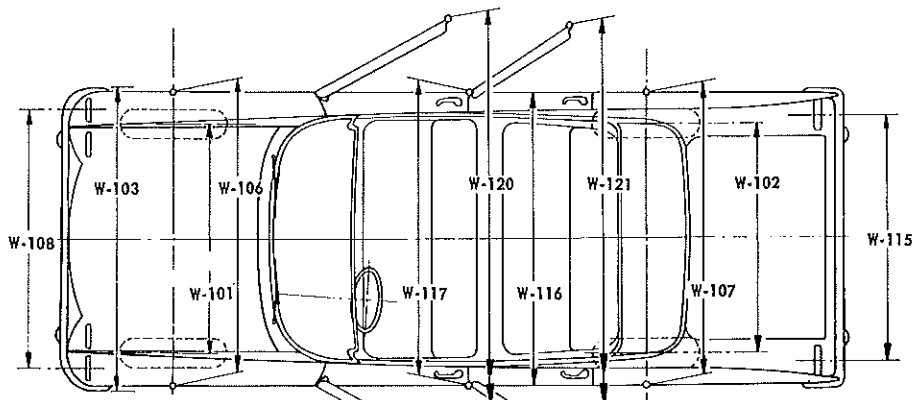
		MODELS						
		211 411	269 469 449	437	467	235 435 445		
L	CODE	DESCRIPTION						
	L-3	Rear compartment room		28.0	27.0	25.5	29.0	
	L-4	Leg room - front (effective)		40.5			40.0	
	L-5	Leg room	rear (effective)	36.5	34.5		37.5	
			third (effective)	-	-	-	31.5	
	L-7	Steering wheel to torso clearance		11.5				
	L-9	Seat depth - front		18.0				
	L-16	Seat depth	rear	17.5	16.5	15.5	18.0	
			third	-	-	-	16.5	
	L-17	"H" point travel		4.0				
	L-18	Entrance - foot clearance - front		15.0				
	L-19	Entrance - foot clearance - rear		12.5				
	L-30	Body "O" line to actual front of dash		.08				
	L-31	Body "O" line to "H" point - front		42.0				
	L-40	Back angle - front		25°				
	L-41	Back angle	rear	28°	27.5°	20°	27.5°	
			third	-	-	-	22.0	
	L-42	Hip angle - front		103°			102°	
	L-43	Hip angle	rear	91°	88°	79°	94°	
			third	-	-	-	81°	
L-44	Knee angle - front		141°	139°		140°		
L-45	Knee angle	rear	97°	91°	90°	104.5°		
		third	-	-	-	76°		
L-46	Foot angle - front		106°			107°		
L-47	Foot angle	rear	119°	116°	115°	122°		
		third	-	-	-	105°		
L-48	Knee clearance		4.0	3.0		5.0		
W	W-1	Hat room - front		53.5				
	W-2	Hat room	rear	51.0	46.5	51.0		
			third	-	-	-	52.5	
	W-3	Shoulder room - front		55.5				
	W-4	Shoulder room	rear	54.5	55.5	54.5	46.0	55.5
			third	-	-	-	-	54.0
	W-5	Hip room - front		59.0				
	W-6	Hip room	rear	58.5	59.0	58.5	47.0	59.0
			third	-	-	-	-	36.0
W-7	Steering wheel clearance to $\bar{C}$ of car		14.5					
W-9	Steering wheel outside diameter		16.5					
H	H-3	Chair height - front		12.0				
	H-5	"H" point to ground - front		19.5				
	H-8	Chair height	rear	13.0	12.5	13.0	12.5	
			third	-	-	-	13.5	
	H-10	"H" point to ground	rear	19.5			20.0	
			third	-	-	-	21.5	
	H-11	Entrance room - front		31.0	29.5		31.0	
	H-12	Entrance room - rear		-	29.0	-	30.0	
	H-13	Steering wheel thigh clearance		5.5				
	H-18	Steering column angle		26°				
	H-30	"H" point to heel point - front		10.0				
	H-31	"H" point to heel point	rear	11.0	10.5		11.0	
			third	-	-	-	12.0	
	H-32	Seat cushion deflection - front		4.0				
	H-33	Seat cushion deflection	rear	4.5	4.0		3.0	
third			-	-	-	3.0		
H-56	"D" point to floor - front		5.0					
H-57	"D" point to floor	rear	3.0			3.5		
		third	-	-	-	3.0		
H-61	Torso room - front (depressed)		39.0	38.0	39.0			
H-63	Torso room	rear (depressed)	38.0	37.0	37.5	38.5		
		third (depressed)	-	-	-	36.5		

# EXTERIOR DIMENSIONS

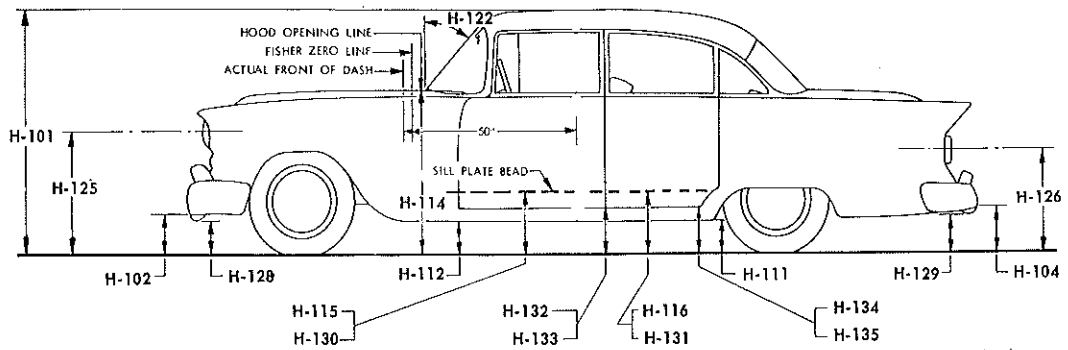


"C" SUFFIX DIMENSIONS NOT ILLUSTRATED

CODE	DESCRIPTION	MODELS				
		211 411	269 469 449	437	467	235 435 445
L-101	Wheelbase	110.0				
L-103	Overall length - bumper to bumper	183.0				187.4
L-104	Overhang - front	27.0				
L-105	Overhang - rear	46.0				50.4
L-107	Front of dash to $\phi$ of rear wheels	94.5				
L-123	Body upper structure length at $\phi$	93.0			94.0	123.0
L-127	Body "O" line to $\phi$ of rear wheels	94.5				
L-128	Hood length at $\phi$	47.5				
L-129	Deck length at $\phi$	34.5			33.5	
Lc-1	Overall length-less bumpers	180.5				184.0

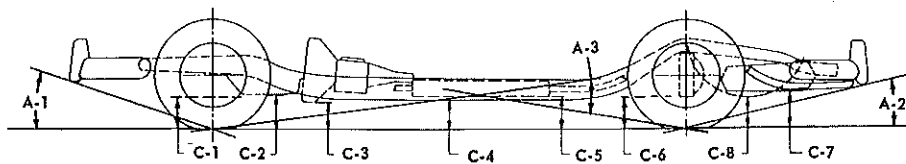


CODE	DESCRIPTION	MODELS				
		211 411	269 469 449	437	467	235 435 445
W-101	Tread - front	56.8				
W-102	Tread - rear	56.3				
W-103	Overall width (maximum)	70.8				
W-106	Front fender width at $\phi$ of wheel	70.0				
W-107	Rear fender width at $\phi$ of wheel	69.5				
W-108	Outer headlight centers width	57.0				
W-115	Taillight centers width	56.8				58.0
W-116	Maximum overall width of body	69.5				
W-117	Maximum body width at center pillar	69.0				
W-120	Overall width, front doors open	151.5	134.0	151.5	134.0	
W-121	Overall width, rear doors open	--	131.0	--	--	131.0
Wc-1	Front bumper width	68.5				
Wc-2	Rear bumper width	70.0				
Wc-3	Inner headlight centers width	--	--	--	--	--
Wc-4	Opening width at beltline - front door	40.5	29.5	40.5	29.5	
Wc-5	Opening width below beltline - front door	44.5	33.5	44.5	33.5	
Wc-6	Opening width below beltline - rear door	--	31.0	--	--	31.0
Wc-7	Door swing out distance - front	48.0	39.5	48.0	39.5	
Wc-8	Door swing out distance - rear	--	39.0	--	--	39.0
Wc-9	Windshield DLO width	56.5				
Wc-10	Rear window DLO width	55.0	56.0	45.5	47.0	



CODE	DESCRIPTION	MODELS				
		211 411	269 469 449	437	467	235 435 445
H-101	Overall height-loaded	55.0		54.0	54.5	55.0
H-102	Front bumper bottom to ground	13.0				
H-104	Rear bumper bottom to ground	13.0				10.5
H-111	Rocker panel to ground-rear	7.5				
H-112	Rocker panel to ground-front	8.0				
H-114	Hood at rear to ground	37.5				
H-115	Step height-front door-loaded	13.0				
H-116	Step height-rear door-loaded	13.0				
H-122	Windshield slope angle	48.5°				
H-125	Headlight centerline to ground	26.0				
H-126	Taillight centerline to ground	25.0				26.0
H-128	Bottom of front bumper guard to ground	--	--	--	--	--
H-129	Bottom of rear bumper guard to ground	--	--	--	--	--
H-130	Step height-front door-unloaded	14.5				
H-131	Step height-rear door-unloaded	14.5				
H-132	Bottom of front door to ground-open	11.0	11.5	11.0		11.5
H-133	Bottom of front door to ground-closed	11.0				
H-134	Bottom of rear door to ground-open	--	10.5	--	--	10.5
H-135	Bottom of rear door to ground-closed	--	11.0	--	--	11.0
Hc-1	Rear window slope angle	43°		49°	48°	29°
Hc-2	Windshield DLO vertical height	22.5		21.0	20.5	22.5
Hc-3	Rear window DLO vertical height	13.5		12.0		13.0
Hc-4	Front door opening height	37.5		36.5		37.5
Hc-5	Rear door opening height	--	37.5	--	--	37.5
Hc-7	Overall height-unloaded	56.5		55.5	56.0	56.5
Hc-8	Truck sill to ground-loaded	21.0				
Hc-9	Tailgate to ground	--	--	--	--	21.5
Hc-10	Deck at rear window to ground	37.5				

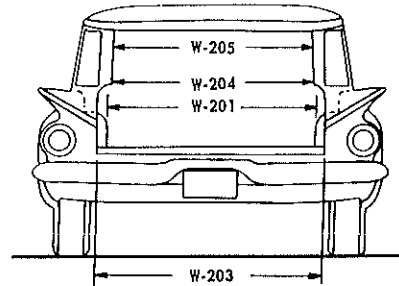
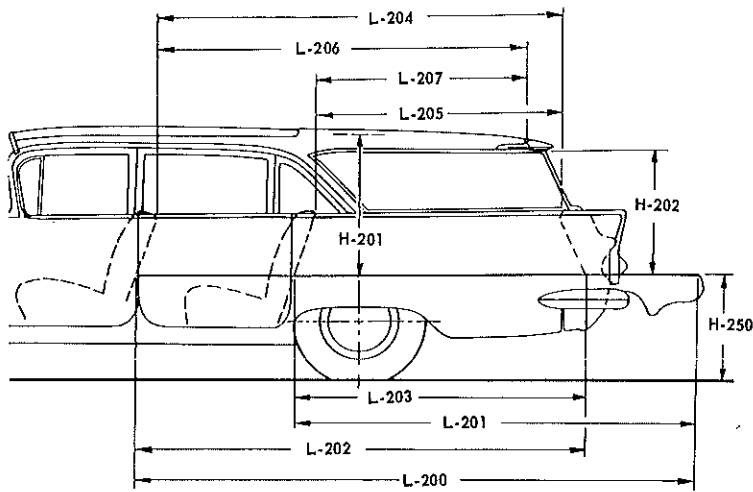
HEIGHTS



CODE	DESCRIPTION	MODELS		
		211 411	269 469 449	437 467 235 435 445
A-1	Angle of approach	32°		
A-2	Angle of departure	17.5°		14.5°
A-3	Ramp breakover angle	12°		
C-1	Front suspension to ground	7.5		8.5
C-2	Oil pan to ground	6.5		
C-3	Flywheel housing to ground	6.0		
C-4	Frame to ground	--		
C-5	Exhaust system to ground	6.0		
C-6	Rear axle to ground	6.0		
C-7	Fuel tank to ground	8.5		
C-8	Tire well to ground	--		
C-9	Minimum ground clearance	6.0		

CLEARANCES

# STATION WAGON CARGO AND SEDAN TRUNK CAPACITIES



## CARGO DIMENSIONS

CODE	DESCRIPTION	MODELS				
		135	235	435	345	445
L-200	Maximum cargo length			108.5		
L-201	Maximum cargo length-rear seat			74.5		
L-202	Cargo length at floor-front seat			86.0		
L-203	Cargo length at floor-second seat			52.5		
L-204	Cargo length at belt-front seat			73.0		
L-205	Cargo length at belt-second seat			37.5		
L-206	Cargo length at roof-front seat			65.0		
L-207	Cargo length at roof-second seat			31.5		
W-200	Cargo width-front (rr of frt. seat back, flr. level) †			57.0		
W-201	Cargo width-wheelhouse			43.0		
W-203	Rear opening width at floor			47.5		
W-204	Rear opening width at belt			47.0		
W-205	Maximum rear opening width above belt			47.0		
H-201	Maximum cargo height			32.5		
H-202	Rear opening height			28.5		
H-250	Tailgate to ground height			21.5		

† Not illustrated

## CARGO CAPACITIES (CU. FT.)

135	4-door 2-seat wagon	Rear seat folded	76.2
235		Rear seat erect	39.2
435	4-door 3-seat wagon	Rear and third seat folded	76.2
345		Rear seat erect and third seat folded	39.2
445		Rear and third seat erect	—

## TRUNK CAPACITIES (CU. FT.)

Model	Overall	Standard Luggage
Sedans and Coupes	25.5	13.3



# VEHICLE WEIGHTS

## 100 SERIES

VEHICLE TYPE		SHIPPING WEIGHT			CURB WEIGHT			DESIGN WEIGHT		
Model	Description	Front	Rear	Total	Front	Rear	Total	Front	Rear	Total
111	2-Door Sedan 4-Cylinder	1320	1110	2430	1320	1235	2555	1505	1650	3155
111P		1335	1115	2450	1335	1240	2575	1520	1655	3175
211	2-Door Sedan 6-Cylinder	1420	1100	2520	1425	1225	2650	1610	1640	3250
211P		1435	1110	2545	1440	1235	2675	1630	1645	3275
135	4-Door Station Wagon 4-Cylinder	1290	1435	2725	1290	1555	2845	1495	2100	3595
135P		1305	1440	2745	1305	1565	2870	1515	2105	3620
235	4-Door Station Wagon 6-Cylinder	1390	1420	2810	1395	1545	2940	1605	2085	3690
235P		1410	1430	2840	1415	1555	2970	1625	2095	3720
169	4-Door Sedan 4-Cylinder	1325	1130	2455	1320	1260	2580	1510	1670	3180
169P		1340	1135	2475	1335	1265	2600	1525	1675	3200
269	4-Door Sedan 6-Cylinder	1425	1120	2545	1425	1250	2675	1615	1660	3275
269P		1440	1130	2570	1445	1255	2700	1635	1670	3300

## 300 SERIES

311	2-Door Sedan 4-Cylinder	1325	1116	2440	1320	1245	2565	1510	1655	3165
311P		1345	1120	2465	1335	1250	2585	1525	1660	3185
411	2-Door Sedan 6-Cylinder	1425	1105	2530	1430	1230	2660	1620	1640	3260
411P		1450	1110	2560	1455	1235	2690	1640	1650	3290
345	4-Door Station Wagon 4-Cylinder*	1280	1530	2810	1285	1650	2935	1530	2605	4135
345P		1295	1535	2830	1300	1655	2955	1545	2610	4155
445	4-Door Station Wagon 6-Cylinder*	1385	1515	2900	1390	1640	3030	1635	2595	4230
445P		1405	1525	2930	1415	1645	3060	1655	2605	4260
369	4-Door Sedan 4-Cylinder	1335	1135	2470	1330	1265	2595	1520	1675	3195
369P		1350	1140	2490	1345	1270	2615	1535	1680	3215
469	4-Door Sedan 6-Cylinder	1425	1135	2560	1430	1260	2690	1620	1670	3290
469P		1445	1140	2585	1445	1270	2715	1635	1680	3315

## NOVA 400 SERIES

435	4-Door Station Wagon 6-Cylinder	1400	1435	2835	1405	1560	2965	1615	2100	3715
435P		1420	1440	2860	1420	1570	2990	1630	2110	3740
437	2-Door Sport Coupe 6-Cylinder	1455	1135	2590	1460	1260	2720	1650	1670	3320
437P		1475	1145	2620	1480	1270	2750	1675	1675	3350
449	4-Door Sedan 6-Cylinder	1435	1155	2590	1430	1280	2720	1625	1695	3320
449P		1455	1165	2620	1460	1290	2750	1650	1700	3350
467	2-Door Convertible 6-Cylinder	1500	1260	2760	1505	1385	2890	1695	1795	3490
467P		1515	1270	2785	1520	1395	2915	1715	1800	3515

**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 104 pounds. For the weight of water add 19 pounds to the 4-cylinder models, 25 pounds to the 6-cylinder models.

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

P - Powerglide

\* - 3-seat

‡DESIGN WEIGHT: The curb weight of the basic vehicle plus 150 pounds for each passenger. (4-passengers, 2-front, 2-rear)

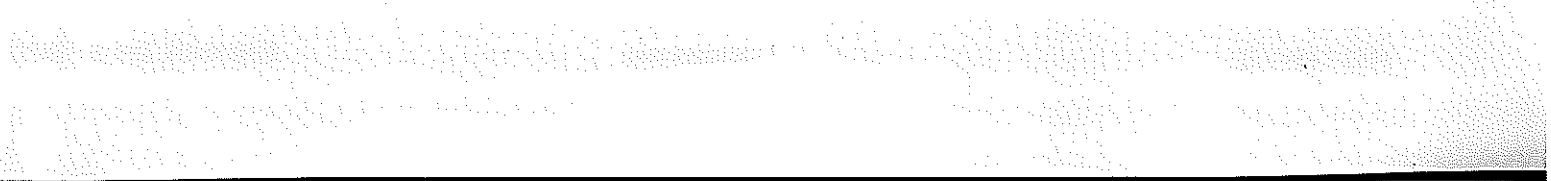
Example:

Model 269 (4-passenger) --- 2675 + 600=3275

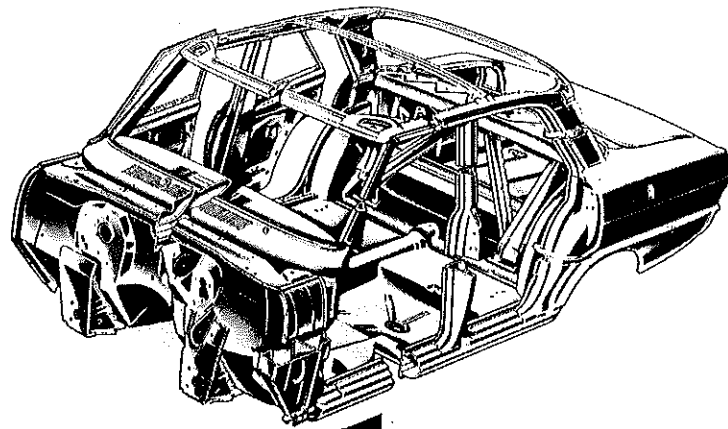
**PERFORMANCE WEIGHT:** The curb weight of the lowest priced 4-door sedan with regular equipment plus 600 pounds of 4-passengers.

Example:

Model 169 ---- 2580 + 600=3180

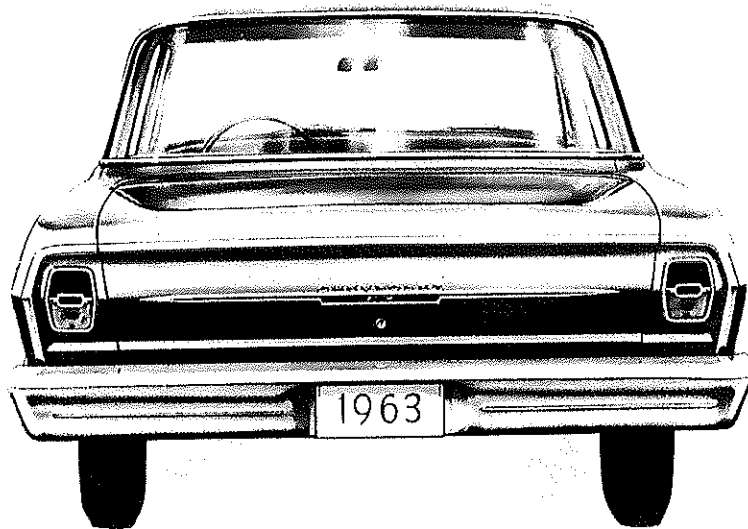


# BODY



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## 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.

# EXTERIOR - INTERIOR COLOR COMBINATIONS

## CHEVY II 100 SERIES

Exterior Colors and RPO Numbers		Interior Trim Colors and RPO Numbers					
		Models 1-211, 1-269			Model 1-235		
		Fawn 760	Aqua 752	Red 776	Fawn 761	Aqua 754	Red 777
900	Tuxedo Black	X	X	X	X	X	X
905	Laurel Green	X			X		
908	Ivy Green	X			X		
912	Silver Blue	X			X		
914	Monaco Blue	X			X		
918	Azure Aqua		X			X	
919	Marine Aqua		X			X	
920	Autumn Gold	X		X	X		X
922	Ember Red	X		X	X		X
932	Saddle Tan	X			X		
934	Cordovan Brown	X			X		
936	Ermine White	X	X	X	X	X	X
938	Adobe Beige	X		X	X		X
940	Satin Silver		X	X		X	X
948	Palomar Red	X		X	X		X
950	Ermine White/Tuxedo Black	X	X	X	X	X	X
954	Ermine White/Laurel Green	X			X		
959	Ermine White/Silver Blue	X			X		
962	Silver Blue/Monaco Blue	X			X		
963	Ermine White/Azure Aqua		X			X	
967	Azure Aqua/Marine Aqua		X			X	
970	Adobe Beige/Autumn Gold	X		X	X		X
971	Adobe Beige/Saddle Tan	X			X		
972	Adobe Beige/Cordovan Brown	X			X		
973	Ermine White/Ember Red	X		X	X		X
984	Ermine White/Satin Silver		X	X		X	X

# EXTERIOR - INTERIOR COLOR COMBINATIONS - Cont'd.



Exterior Colors and RPO Numbers		Interior Trim Colors and RPO Numbers			
		Models 3-411, 3-469, 3-445			
		Fawn 762	Aqua 749	Red 778	Blue 738
900	Tuxedo Black	X	X	X	X
905	Laurel Green	X			
908	Ivy Green	X			
912	Silver Blue				X
914	Monaco Blue				X
918	Azure Aqua		X		
919	Marine Aqua		X		
920	Autumn Gold	X		X	
922	Ember Red	X		X	
932	Saddle Tan	X			
934	Cordovan Brown	X			
936	Ermine White	X	X	X	X
938	Adobe Beige	X		X	
940	Satin Silver		X	X	X
948	Palomar Red	X		X	
950	Ermine White/Tuxedo Black	X	X	X	X
954	Ermine White/Laurel Green	X			
959	Ermine White/Silver Blue				X
962	Silver Blue/Monaco Blue				X
963	Ermine White/Azure Aqua		X		
967	Azure Aqua/Marine Aqua		X		
970	Adobe Beige/Autumn Gold	X		X	
971	Adobe Beige/Saddle Tan	X			
972	Adobe Beige/Cordovan Brown	X			
973	Ermine White/Ember Red	X		X	
984	Ermine White/Satin Silver		X	X	X

**CHEVY II NOVA 400  
SEDANS, SPORT COUPE  
AND STATION WAGON**

Exterior Colors and RPO Numbers		Interior Trim Colors and RPO Numbers					
		Models 437, 435, 449					
		Fawn	Aqua	Red	Blue	Saddle	Black ●
		763*	750*	772*	739*	707*	--
		767¢	721¢	775¢	740¢	708¢	702¢
		766\$	753\$	774\$	742\$	709\$	--
900	Tuxedo Black	X	X	X	X	X	X
905	Laurel Green	X					X
908	Ivy Green	X					
912	Silver Blue				X		X
914	Monaco Blue				X		
918	Azure Aqua		X				X
919	Marine Aqua		X				
920	Autumn Gold	X		X		X	X
922	Ember Red	X		X			X
932	Saddle Tan					X	
934	Cordovan Brown	X				X	
936	Ermine White	X	X	X	X	X	X
938	Adobe Beige	X		X		X	X
940	Satin Silver		X	X	X		X
948	Palomar Red	X		X			X
950	Ermine White/Tuxedo Black	X	X	X	X	X	X
954	Ermine White/Laurel Green	X					X
959	Ermine White/Silver Blue				X		
962	Silver Blue/Monaco Blue				X		
963	Ermine White/Azure Aqua		X				
967	Azure Aqua/Marine Aqua		X				
970	Adobe Beige/Autumn Gold	X		X		X	X
971	Adobe Beige/Saddle Tan					X	
972	Adobe Beige/Cordovan Brown	X				X	
973	Ermine White/Ember Red	X		X			X
984	Ermine White/Satin Silver		X	X	X		X

\* - Model 437, 449

¢ - Model 437 bucket seat option.

\$ - Model 435

# EXTERIOR - INTERIOR COLOR COMBINATIONS - Cont'd.

## CHEVY II NOVA 400 CONVERTIBLE

Exterior Colors and RPO Numbers		Interior Trim Colors and RPO Numbers					
		Model 467					
		Fawn	Aqua	Red	Blue	Saddle	Black
		766	753	774	742	709	--
		770(a)	722(a)	786(a)	741(a)	710(a)	714(a)
900	Tuxedo Black	X	X	X	X	X	X
905	Laurel Green	X					X
908	Ivy Green	X					
912	Silver Blue				X		X
914	Monaco Blue				X		
919	Marine Aqua		X				
918	Azure Aqua		X				X
920	Autumn Gold	X		X		X	X
922	Ember Red	X		X			X
932	Saddle Tan					X	
936	Ermine White	X	X	X	X	X	X
938	Adobe Beige	X		X		X	X
940	Satin Silver		X	X	X		X
948	Palomar Red	X		X			X
934	Cordovan Brown	X				X	

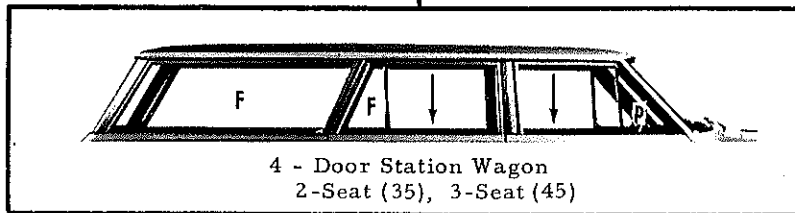
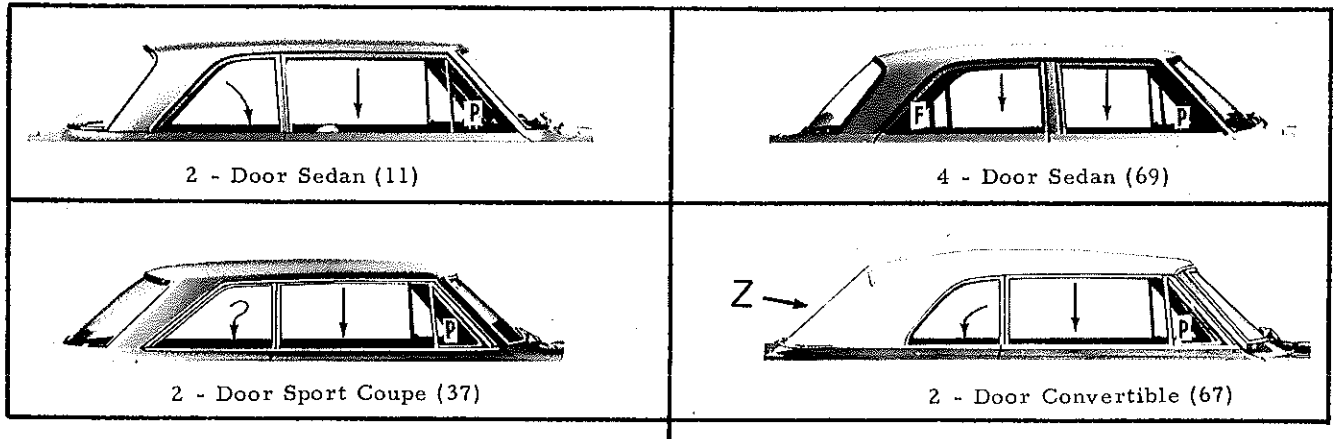
Exterior Colors and RPO Numbers		Folding Top Colors and RPO Numbers		
		Model 467		
		White	Black	Beige
		Reg. Prod.	CO5H	CO5J
900	Tuxedo Black	X	X	X
905	Laurel Green	X	X	X
908	Ivy Green	X	X	X
912	Silver Blue	X	X	X
914	Monaco Blue	X	X	X
919	Marine Aqua	X	X	X
918	Azure Aqua	X	X	X
920	Autumn Gold	X	X	X
922	Ember Red	X	X	X
932	Saddle Tan	X	X	X
936	Ermine White	X	X	X
938	Adobe Beige	X	X	X
940	Satin Silver	X	X	X
948	Palomar Red	X	X	X
934	Cordovan Brown	X	X	X

(a) Optional bucket seats.



# BODY GLASS

## WINDOW ACTION

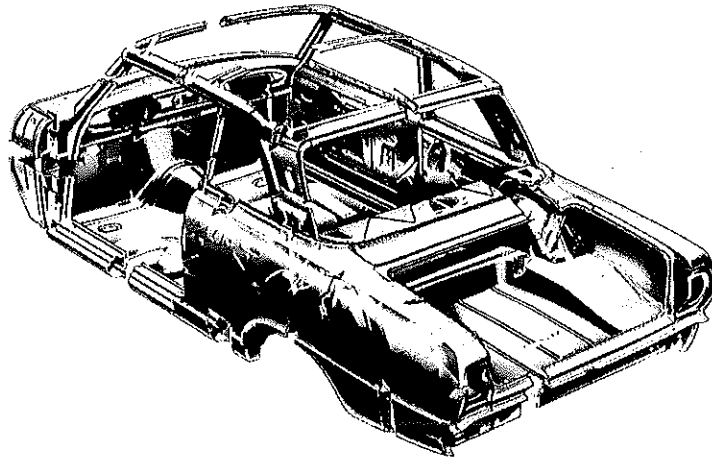


P - Pivoting - friction type  
 F - Fixed glass  
 Z - Zip out  
 ? - "Monkey" action  
 ↓ - Rotating

## BODY GLASS TYPE AND VISIBILITY AREA

Location	MODELS					
	11	49, 69	37	67	35	45
Windshield	Laminated Safety Plate					
	1007.5			898.0		1007.5
Front door	Ventipane	Safety Solid Plate				
		97.5				
Rear door	Window	Safety solid plate				
		839.0	536.0	744.0		536.0
Rear quarter	Ventipane	Safety solid plate				
			79.5	152.0		
Back window	Window	Safety solid plate				
		435.0		408.5	318.5	
Total DLO area	Rear side	Safety solid plate				
			566.0	1067.5		
Back window	Safety solid plate			Plastic		Safety solid plate
	1073.5			1117.0		698.5
Total DLO area		3452.5	3360.0	3265.0	2861.0	4150.5

## BODY CONSTRUCTION



### GENERAL

Type ----- Unitized front end assembly bolted to body-frame integral structure with framing members welded to underbody, forming box section side rails, cross bars, and stiffeners.

### Doors and Locks

Door construction --- Double panel, hinged at front  
Door handles ----- Push-button with rotary type latches. Inside push button locks on rear doors of 4-door models.

Door ventipanes ----- Friction pivot

### Hood and Trunk Lid

Type ----- Counterbalanced, with strap type hinges actuating torsions rods on trunk lid and spring loaded toggle-type hinges on rear of hood.

Hood release ----- External

### Ventilation

Type ----- High level with double wall plenum chamber.

### Seat Construction

#### Type

Front seat ----- 3/4 polyurethane  
(1-3/4 polyurethane on model 435, 437, & 467)

Second and third seats ----- Jute and cotton  
( 1.00 polyurethane on rear seat of 435, 437, & 467)

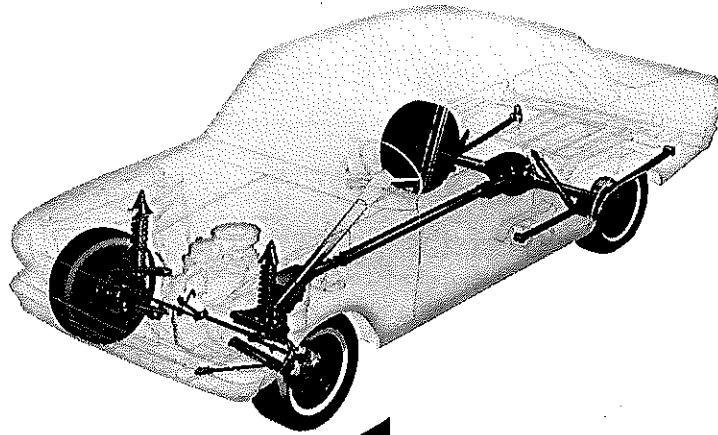
### Windshield Wipers

Type ----- Dual, single speed electric  
Linkage ----- Parallel acting

### Spare Tire and Tools

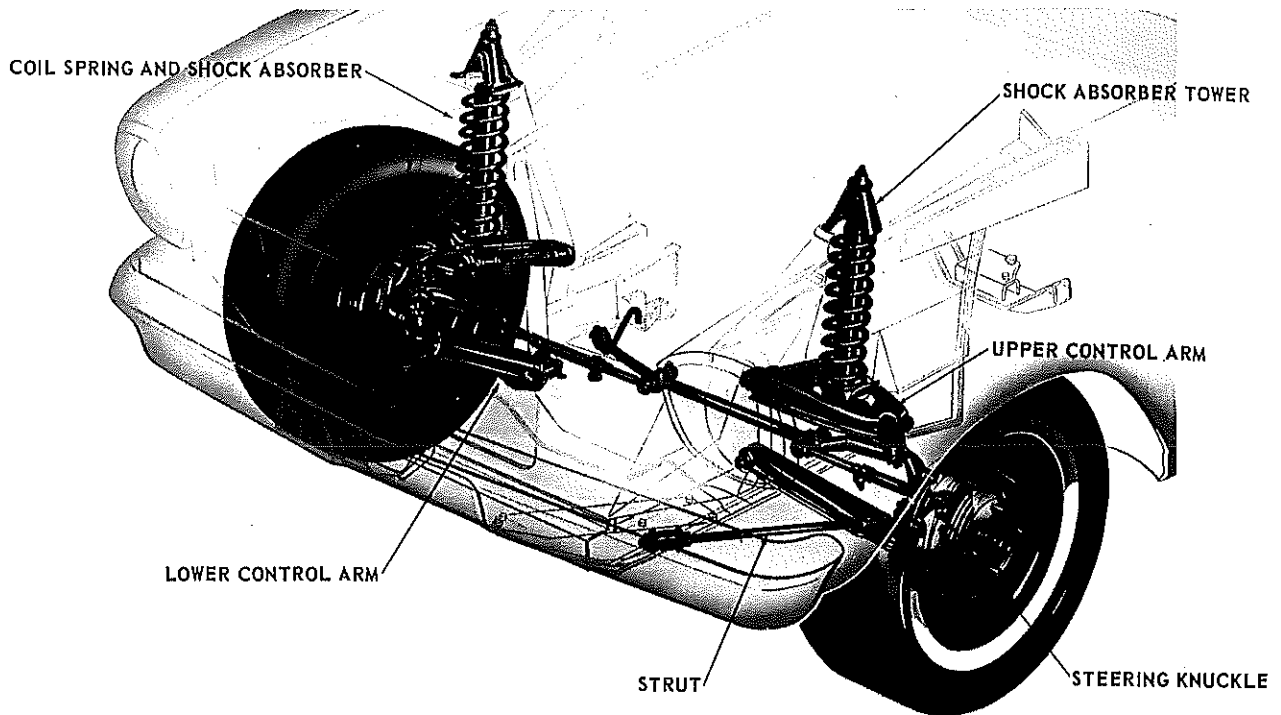
Location -Sed, & Spt. Cp, horizontal-right forward side of trunk floor: Convertible, horizontal-right rear side of trunk floor: Wagon, upright- right - rear quarter panel well. Tools consists of bumper jack and socket end type "L" wrench stored beneath tire.

# CHASSIS



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# FRONT SUSPENSION



## GENERAL

Description ----- Independent, each combining spherical jointed long and short control arms constrained by concentric spring and shock absorbers bearing from above on upper control arm. Lateral and longitudinal stability provided by rubber-bushed strut attached to each lower control arm.

### Provisions for Car Leveling

Station Wagons ----- Stabilizer bar  
Anti-Dive Control ----- Angle of upper control arm

## WHEEL TRAVEL

Vertical, Loaded  
Metal to Metal  
Jounce ----- 4.12  
Rebound ----- 4.50  
Wheel to Spring Ratio ----- 1.56

## SPHERICAL JOINTS

Type ----- Ball stud and socket-seat assembly  
Number ----- 1 at each end of steering knuckle  
Ball Stud  
Material ----- High Alloy Steel  
Ball Dimensions  
Upper, Spherical Diameter ----- 1.292-1.300  
Lower, Spherical Radius ----- .433-.438  
Seals  
Upper and Lower ----- Neoprene  
Socket and Seat Assembly

## SPHERICAL JOINTS (Continued)

Lubrication ----- Grease fitting atop each socket and seat assembly.

## STEERING KNUCKLE

Material and Type ----- Forged steel with integral brake cylinder mounting, detachable steering arms.  
Spindle Diameters  
Inner Bearing ----- 1.0618-1.0623  
Outer Bearing ----- .6868-.6873  
Spindle Thread ----- 11/16-24 NEF-3 (modified)

## SHOCK ABSORBER

Make ----- Delco  
Type ----- Direct, double acting, hydraulic  
Mounting ----- Vertically, inside of coil spring, from top of upper control arm to support at top of spring well in fender skirt.  
Piston Diameter and Travel ----- 1.00, 6.00

## CONTROL ARMS

Upper  
Type ----- Stamped "A" frame with pivot shaft bolted to spring well in fender skirt. Pivot shaft rubber bushed each end.  
Lower  
Type ----- Stamped, reinforced U-shaped piece, pivoted from extension welded to side rail plate. Rubber bushed at pivot which incorporates geometry adjustment.

## WHEEL BEARINGS

Type ----- Tapered roller, two per spindle

STABILIZER BAR

Type ----- Link  
Material ----- Heat-Treated Steel  
Diameter ----- .687  
Bushing Material ----- Natural or synthetic rubber

FRONT WHEEL ALIGNMENT

▲ Caster (as shipped) ----- (+) 1° ± 1/2°  
▲ Camber (as shipped) ----- (+) 1° ± 1/2°  
Toe-in (as shipped, per wheel) ----- .12-.18  
Steering Axis Inclination ----- 7°

FRONT SPRINGS

CONTROL ARM BUSHING ASSEMBLIES

Type and Number ----- Pre-Loaded; 6  
(1 at each end of upper pivot shaft; 1 at lower pivot shaft)

Material ----- Steel-encased rubber  
Size (approximate)

Upper

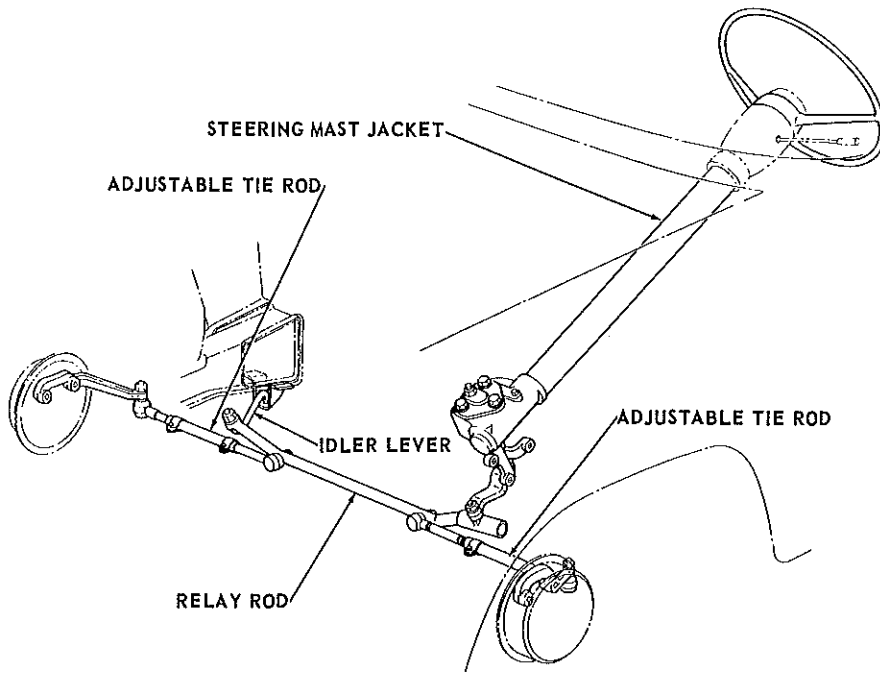
Diameter (outer) ----- 1.510-1.500  
Diameter (inner) ----- 1.383-1.388  
Length ----- 1.74

Lower

Diameter (outer) ----- 1.510-1.670  
Diameter (inner) ----- 1.603-1.608  
Length ----- 1.970-1.985

▲ Right and left sides equal within 1/2°

# STEERING



## MANUAL STEERING GEAR

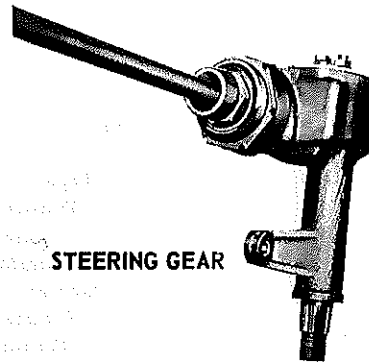
Make	Saginaw
Type	Semi-reversible Recirculating ball
Gear ratio (Steering shaft to pitman arm)	20:1
Overall ratio (turns of steering shaft to turns of wheels)	25.4:1
Steering shaft dia	.749
Steering wheel dia	16.24
Turning dia (ft)	
Outside front	
Right and left, wall to wall	39.5
Right and left, curb to curb	38.4
Inside rear	
Right and left, wall to wall	23.5
Right and left, curb to curb	23.8
Total turns of steering wheel to steering gear stops	4.72
Total turns of steering wheel to linkage stops	4.50

## LINKAGE

Construction	Parallelogram With center link
Location	Rear of wheels
No. of tie rods	2

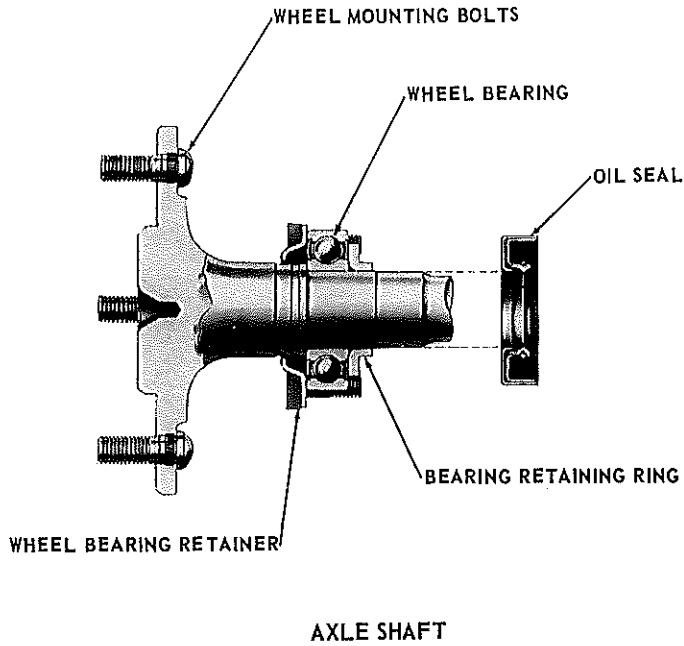
## POWER STEERING (RPO )

Make	Saginaw
Type	Hydraulic Pump
Type	Vane
Location	Above generator
Drive	Crankshaft pulley
Fluid Capacity (pts)	2.3
Power Application	Double-acting
Piston in power cylinder is actuated by control valve after applying approximately 3 pounds at the steering wheel	
Overall Ratio	25.4:1
Gear Ratio	20:1
Total turns of steering wheel to steering gear stops	4.72
Total turn of steering wheel to linkage stops	4.50



STEERING GEAR

# REAR AXLE



## HYPOID GEARS, FINAL DRIVE

AXLE RATIO	NO. OF TEETH	
	GEAR	PINION
3.08:1	37	12
3.36:1	37	11
3.55:1	39	11

### GENERAL

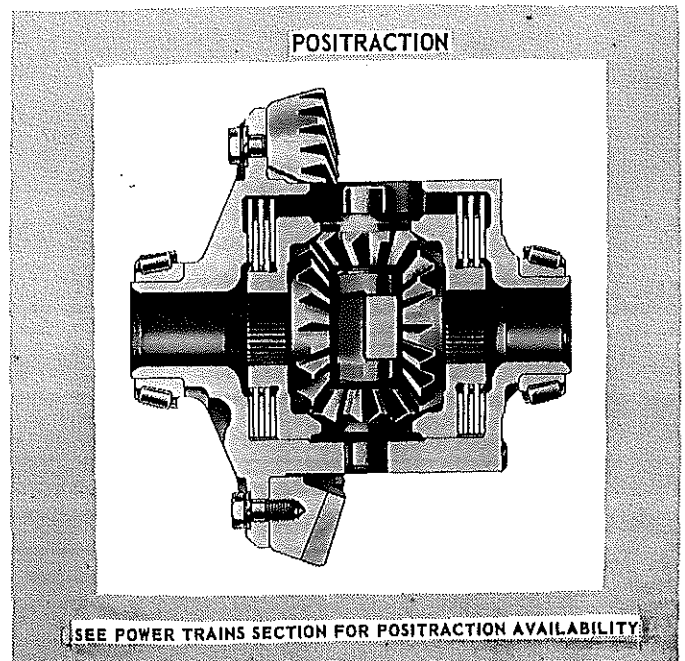
Rating (lb) ----- 2450  
 Description ----- Semi-Floating, hypoid gear, Hotchkiss drive type, with overhung drive pinion supported by two tapered roller bearings.  
 Method of Suspension ----- Rubber-Mounted on two single leaf springs assisted by shock absorbers  
 Housing ----- Pressed Steel banjo, two piece welded construction with axle housing cover welded in place  
 Lubricant -----  
 Capacity (Pints) ----- 4

### AXLE SHAFT

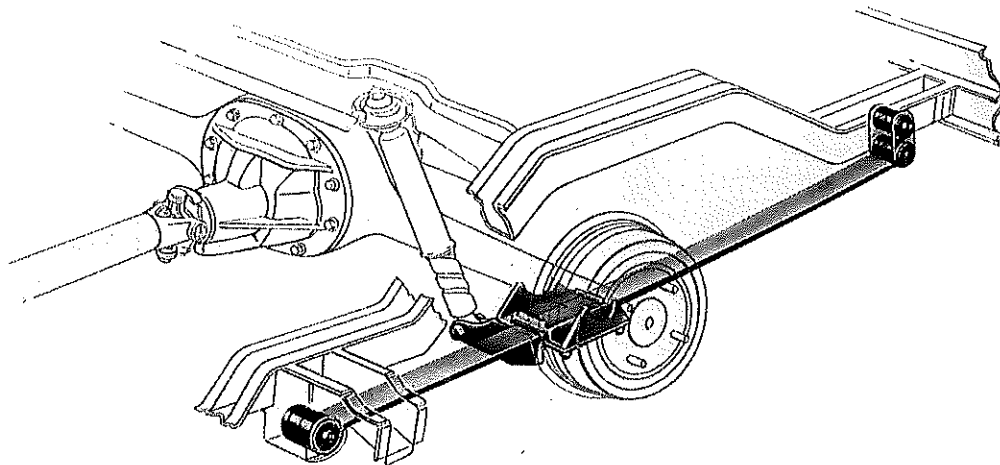
Construction ----- Drive flange integral with shaft  
 Material ----- Forged, heat-treated steel  
 Minimum Diameter ----- 1.06  
 Oil Seal ----- Steel encased spring loaded synthetic rubber  
 Provisions for Attaching Hub ----- 4 Bolts anchored  
 In drive flange; bolt circle diameter ----- 4.50  
 Wheel Bearings ----- Sealed, single row ball

### DIFFERENTIAL

Type ----- Two pinion with Arma Steel housing  
 Drive Pinion Offset ( $\phi$  differential pinion to  $\phi$  drive pinion, vertically) ----- 1.50  
 Hypoid Drive Gear, PD (and OD) ----- 8.125



# REAR SUSPENSION



## GENERAL

Description ----- Comprised of two longitudinally mounted semi-elliptical single leaf springs and two angularly mounted shock absorbers. Axle housing rubber-mounted on each spring which is rubber-bushed at shackle and hanger. Reaction torques resisted by springs.

## WHEEL TRAVEL

Vertical, loaded  
 Metal to Metal ----- Jounce 3.62, rebound 5.50  
 Wheel to Spring Ratio ----- 1:1

## SHOCK ABSORBERS

Make ----- Delco  
 Type ----- Direct, double-acting, hydraulic

Mounting ----- From underside of kickup to anchor plate at spring axle attachment.  
 Piston Diameter and Travel except Station Wagons --  
 ----- 1.00, 7.44  
 Station Wagons ----- 1.00, 7.50

## WHEEL BEARINGS

Type ----- Single row ball, sealed

## SUSPENSION BUMPERS

Material ----- Rubber  
 Number and Location ----- Two, one on underside of each side rail above axle housing.



# BRAKES

## SERVICE BRAKES

General ----- Duo-Servo, four wheel hydraulic  
 Brake Drum Assembly  
 Construction ----- Web cast into rim  
 Web Material ----- HR Steel  
 Rim Material ----- Cast iron alloy  
 Rim Bore Diameter ----- 8.9975-9.0075  
 Swept Drum Area (width of lining x bore  
 Circumference, sq. inches) ----- 226.3  
 Braking Effort, Front (%) ----- 56.7  
 Brake Lining  
 Material ----- Full molded asbestos composition  
 Width  
 Front ----- 2.25  
 Rear ----- 1.75  
 Thickness (after grinding, minimum) ----- .16  
 Length  
 Primary ----- 8.62  
 Secondary ----- 9.40  
 Per Wheel ----- 18.02  
 Method of Attachment ----- Bonded  
 Clearance ----- Adjust  
 to light drag, back off 12 notches (all wheels)  
 Total Effective Area (sq. inches) ----- 144.96  
 Master Cylinder  
 Mounting ----- Engine compartment,  
 left side of dash panel  
 Piston Diameter ----- 1.00  
 Piston Travel (maximum) ----- 1.00  
 Wheel Cylinders  
 Mounting  
 Front ----- Wheel spindle  
 Rear ----- Flange plate  
 Piston Diameter  
 Front ----- 1.00  
 Rear ----- .875  
 Foot Pedal  
 Type ----- Pendant  
 Travel ----- 6.4  
 Mounting ----- From bracket  
 secured to dash panel. Attached to master cylinder  
 push rod  
 Brake System Fluid Capacity (pints) ----- .65  
 Line Pressure @ 100 lb Pedal Load (psi) ----- 830  
 Braking Ratio  
 Pedal ----- 6.4:1  
 Hydraulic ----- 3.53:1  
 Overall ----- 22.6:1

## PARKING BRAKE

Type ----- Mechanically operated  
 pull rods and cables secure the two rear service  
 brakes  
 Total Effective Area (sq. inches) ----- 63.07  
 Control ----- Both activation and release  
 by pawl-type brake lever mounted horizontally to  
 right of steering column. Gripped with L-handle  
 which when turned releases brake.

## POWER BRAKES (RPO 403)

Make ----- Bendix, Delco  
 Type ----- Master cylinder  
 assisted by vacuum power unit  
 Power unit location ----- Mounted in  
 engine compartment on dash panel  
 Characteristics  
 Braking assistance (%)  
 Vacuum cylinder ----- 40 %  
 Foot pedal ----- 60 %  
 Braking ratio  
 Pedal ----- 3.58  
 Hydraulic ----- 3.53  
 Overall ----- 12.7  
 Pedal load to actuate power brakes (lb) ----- 10  
 Capacity (pts) ----- .76

## HEAVY DUTY SERVICE BRAKES (RPO 686)

Material ----- Sintered iron  
 Segments  
 Per shoe (front and rear)  
 Primary ----- 6  
 Secondary ----- 10  
 Size of segments  
 Front Primary  
 Length ----- 1.64  
 Width ----- 1.12  
 Thickness ----- .21  
 Secondary  
 Length ----- 1.64  
 Width ----- 1.12  
 Thickness ----- .33  
 Rear  
 Primary  
 Length ----- 1.64  
 Width ----- .87  
 Thickness ----- .21  
 Secondary  
 Length ----- 1.64  
 Width ----- .87  
 Thickness ----- .33  
 Method of attachment ----- Each segment  
 welded 2 places to shoe  
 Shoe clearance adjustment ----- Adjust to  
 light drag and back off 12 notches (all wheels)  
 Total effective area, approximate (sq. inches) ----- 104.5  
 Braking effort, front (%) ----- 56.7

## STOP LIGHT SWITCH

Type --- Mechanical, Make-break, normally "on"  
 Mounting ----- Under dash  
 Activation ----- By brake pedal

## DRIVELINES

### UNIVERSAL JOINTS

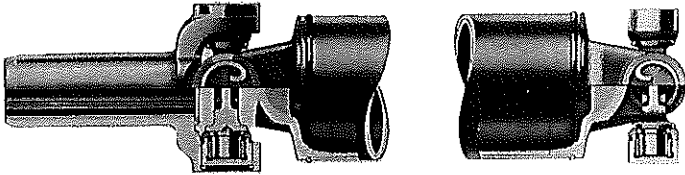
Quantity ----- Two  
 Construction ----- Yoke and yoke trunnion  
 Lubrication of trunnion bearings ----- Prepacked,  
 anti-friction

### PROPELLER SHAFT

Quantity ----- One  
 Construction ----- Welded steel  
 tubing incorporating a yoke at each end

#### OD

90 HP ----- 3.500  
 120 HP ----- 2.750  
 Wall thickness ----- 0.065  
 Length between axis of yoke bores ----- 52.10  
 Yoke construction ----- Forged steel incorpor-  
 ating two trunnion needle bearing assemblies.



## WHEELS AND TIRES

### TIRE DATA

TIRE SIZE	LOADED			INFLATION, LB (COLD)	
	ROLLING RADIUS	REV/ MI	CAP. / TIRE	FRT	REAR*

### ACCESSORY WHEEL DISK FOR REGULAR PRODUCTION WHEELS →

#### WHEELS

Description  
 Regular production  
 1, 2, 3, 400-11, -69 ----- 13 x 4J  
 Others ----- 13 x 5.5J  
 RPO ----- 14 x 5J  
 Construction ----- Short  
 spoke disk  
 Offset  
 13 x 4J ----- 0.74  
 13 x 5.5J ----- 1.00  
 14 x 5J ----- 1.00  
 Method of retension ----- 4 hexnuts,  
 7/16-20 UNF-2B 90° apart on a 4.50 diameter  
 circle

#### SPARE TIRE LOCATION

Sedans and coupes ----- Secured in approximate  
 horizontal attitude against kickup, somewhat to  
 right of center  
 Convertibles ----- Same as sedans  
 and coupes except secured on rear right sill  
 Station wagons ----- Vertically, in right  
 rear quarter panel, rear of wheelhouse

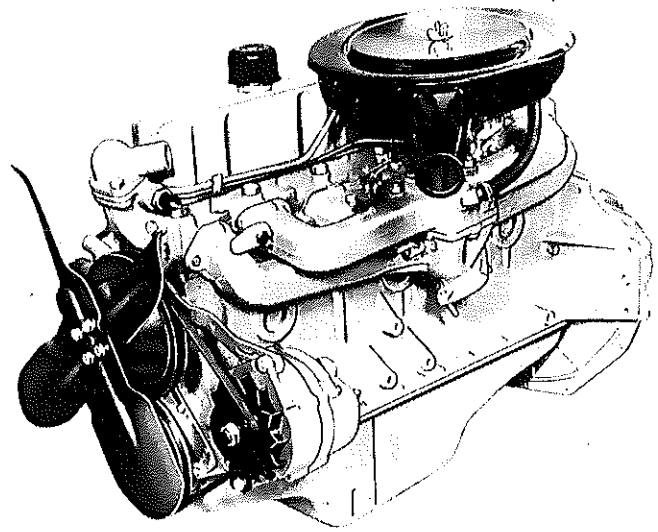
#### TIRES

Description ----- Rayon, tubeless, blackwall  
 Construction ----- 2 Ply  
 Size  
 Regular Production  
 1, 2, 3, 400-11, -69 ----- 6.00 x 13-4 pr  
 Others ----- 6.50 x 13-4 pr  
 RPO Tire ----- 6.50 x 14-4 pr

#### TOOLS

Jack  
 Type ----- Bumper  
 Stowage  
 Sedans, coupes and convertibles ----- Secured  
 under tire by tire  
 Station wagons ----- On bracket  
 on rear quarter panel, secured by tire  
 Wheel Rim Bolt Wrench  
 Type ----- Jack handle and hub cap remover  
 Stowage  
 Sedans, coupes and convertibles ----- Secured  
 by tire under tire  
 Station wagons ----- On floor, secured by tire

# POWER TRAINS



POWER TEAM COMBINATIONS .....	2
SUPER-THRIFT 153 FOUR CYLINDER ENGINE ....	3
HI-THRIFT 194 SIX CYLINDER ENGINE .....	10
CLUTCHES .....	17
THREE SPEED TRANSMISSION .....	18
POWERGLIDE .....	19

# POWER TEAM COMBINATIONS

ENGINE	TRANSMISSION	AXLE RATIO		OPTIONAL RATIOS		POSITION TRACTION RATIOS	
		*	**				
153 CUBIC INCH L-4 SUPER-THRIFT 153	3-SPEED .....	SEDANS .....	3.08:1	3.55:1	3.08:1	3.55:1	3.55:1
		STATION WAGONS .....	3.55:1		3.55:1		
	POWERGLIDE .....	SEDANS .....	3.08:1		3.08:1		3.08:1
		STATION WAGONS .....	3.55:1		3.55:1		3.55:1
194 CUBIC INCH L-6 HI-THRIFT 194	3-SPEED .....	SEDANS AND COUPES .....	3.08:1	3.36:1	3.08:1	3.36:1	3.36:1
		STATION WAGONS .....	3.36:1		3.36:1		3.36:1
	POWERGLIDE .....	SEDANS AND COUPES .....	3.08:1		3.08:1		3.08:1
		STATION WAGONS .....	3.36:1		3.36:1		3.36:1

\* - General Purpose Standard  
 \*\* - Special Purpose or Mountain

## MULTIPLICATION FACTORS

### WITH MANUAL TRANSMISSIONS

ENGINE	CARBURETION	TRANSMISSION	TOTAL GEAR REDUCTION*				AXLE RATIO	MAXIMUM AXLE TORQUE LOW GEAR-LB-FT#
			1st	2nd	3rd	Rev.		
90 HP Super-Thrift Four-Cylinder	Single Barrel	3-Speed	9.06	5.17	3.08	10.28	3.08:1	1108
120 HP Hi-Thrift Six-Cylinder	Single Barrel	3-Speed	9.06	5.17	3.08	10.28	3.08:1	1193

### WITH AUTOMATIC TRANSMISSIONS

ENGINE	TRANSMISSION	SELECTOR POSITION	TOTAL TORQUE MULTIPLICATION*	AXLE RATIO
90 HP Super-Thrift Four-Cylinder	Powerglide	Drive	14.01:1 - 3.08:1	3.08:1
		Low & Reverse	14.01:1 - 5.64:1	
120 HP Hi-Thrift Six-Cylinder	Powerglide	Drive	14.01:1 - 3.08:1	3.08:1
		Low & Reverse	14.01:1 - 5.64:1	

\* - Axle ratio x transmission ratio

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

# 153 CUBIC INCH FOUR CYLINDER ENGINE

## GENERAL DATA

Piston Displacement (Cu In)		Synchromesh	Powerglide
		153	
Type		Valve-in-head	
Number Cylinders		4	
Bore and Stroke (nominal)		3.88 x 3.25	
Compression Ratio		8.5:1	
Taxable (SAE) Horsepower		24.0	
Firing Order		1-3-4-2	
Idling Speed (RPM)		500 in neutral	500 in drive
Compression Press. (PSI) @ Cranking Speed, Engine Hot		140	
Lubrication		Full Pressure	
Power Plant Mounting		Two front, combination compression - shear type;	
		Two rear, shear type	One rear, shear type
Measurements	Fan to rear of engine block	24.23	
	Top of air cleaner to bottom of oil pan	26.49	
	Oil Filter to air cleaner (width)	21.11	

## ADVERTISED ENGINE RATINGS

Engine		Super-Thrift 153	
Carburetor		Single Barrel	
Brake Horsepower	Gross	90 @ 4000 RPM	
	Net	75 @ 4000 RPM	
Torque	Gross	152 @ 2400 RPM	
	Net	144 @ 2000 RPM	

## ENGINE SPEED AND PISTON TRAVEL

Transmission		Sedans		Station Wagon	
		Synchromesh	Powerglide	Synchromesh	Powerglide
Rear Axle Ratio		3.08:1		3.55:1	
Tire Size		6.00 x 13-4 PR		6.50 x 13-4 PR	
Crankshaft Revolutions per Mile		2747.3		3067.2	
Crankshaft RPM @ 1 MPH	Low	134.6	83.3	150.3	91.9
	Second	76.9		85.9	
	Third (N/V factor)	45.8		51.1	
	Reverse	152.9	83.3	170.7	93.0
Piston Travel (ft/mile)		1488.0		1661.3	

# 153 CUBIC INCH FOUR CYLINDER ENGINE - Cont'd.

## VEHICLE PERFORMANCE FACTORS (Model 169)

Transmission	3-Speed	Powerglide *
Performance Weight (pounds)	3180	3201
Pounds per Gross Horsepower	35.33	35.57
Pounds per Cu. In. Displacement	20.78	20.92
Gross Horsepower per Cu. In. Displacement		.588
Power Displacement (Cu. Ft/Mile)		121.63
Displacement Factor (Cu. Ft/Ton Mile)	76.49	76.02

\* - Data computed assuming zero slippage in torque converter.

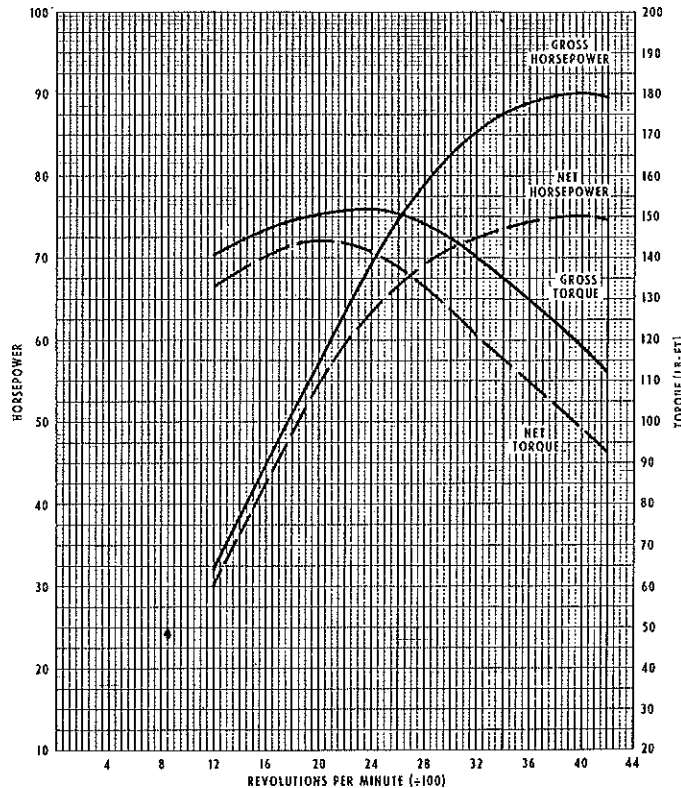
### GLOSSARY

Performance Weight = Curb Weight plus 600 Lb  
(weight of four 150 Lb passengers)

Power Displacement =  $\frac{\text{Crankshaft Revs/Mi} \times \text{Piston Displacement}}{2 \times 1728}$

Displacement Factor =  $\frac{\text{Power Displacement}}{\text{Performance Wt (tons)}}$

### 90 HP SUPER-THRIFT 4-CYLINDER



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°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  
 Cylinder Numbering Arrangement  
 Front to Rear ----- 1-2-3-4  
 Bore Spacing (C<sub>1</sub> to C<sub>5</sub>) ----- 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 ----- 2 Port, rectangular section  
 Heat Provision ----- Heated by exhaust gases

### EXHAUST MANIFOLD

Material ----- Cast alloy iron  
 Type ----- Low resistance  
 Outlet Diameter (Nominal) ----- 2, 00

### CRANKSHAFT

Material ----- High strength forged steel  
 or nodular iron casting  
 End Play ----- .002-.006  
 Counter Weights ----- 4  
 Crank Arm Length ----- 1, 625  
 Vibration Damper ----- None  
 Timing Gear & Tooth Type ----- Steel, Helical cut  
 Pulley Pitch Diameter ----- 6, 64

### MAIN BEARINGS

Material ----- Extra-life steel backed babbitt  
 Type ----- Precision removable  
 Thrust Against Bearing No. ----- 5  
 Clearance ----- .0008-.0034

Dimensions			
Bearing	Theoretical Inner Dia.	Effective Length	Projected Area
1-4	2, 3009	.752	1, 7303
5	2, 3004	.760	1, 7483

### CAMSHAFT

Material ----- Cast alloy iron  
 Drive ----- Gear; Bakelite and fabric composition with steel hub

#### Lobe Lift

Inlet ----- .2270  
 Exhaust ----- .2270

#### Bearings

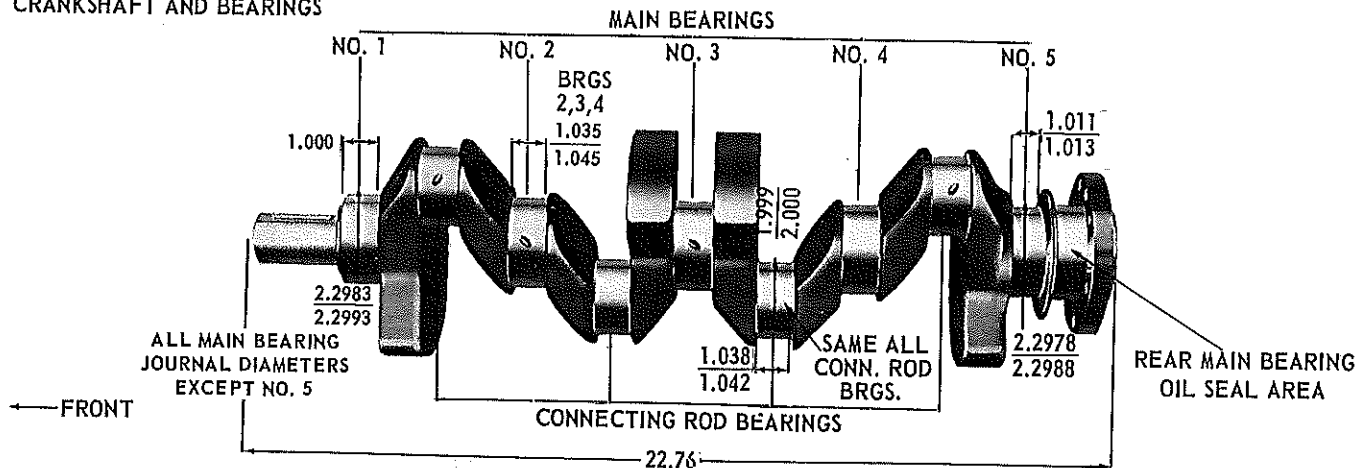
Material ----- Extra-life steel backed babbitt

Dimensions			
Bearing	Ream Diameter	Effective Length	Projected Area
1	1, 8712	.860	1, 6092
2	1, 8712	.860	1, 6092
3	1, 8712	.860	1, 6092

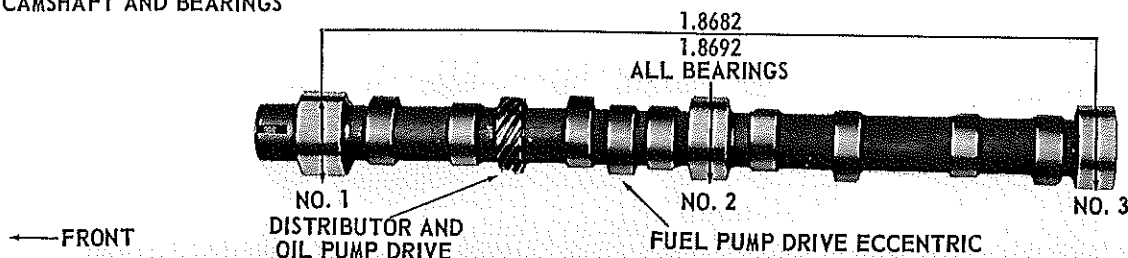
### ROCKER ARMS

Type & Material ----- Stamped steel  
 Ratio ----- 1, 75:1

### CRANKSHAFT AND BEARINGS



### CAMSHAFT AND BEARINGS



# 153 CUBIC INCH FOUR CYLINDER ENGINE - Cont'd.

## PRINCIPAL COMPONENTS - Continued

### VALVE TRAIN

Type ----- Individually mounted overhead  
rocker arms push rod operated  
Lifters ----- Hydraulic  
Push Rods  
Type & Material ----- Hollow steel  
Ends ----- Hardened

### VALVE SPRINGS

Diameter (ID) ----- .880  
Installed Length (In @ Lb)  
Valves Closed ----- 1.66 @ 84-92  
Valves Open ----- 1.33 @ 166-176  
Free Length ----- 2.03  
● Valve Spring Dampers ----- Steel, 4 Coils  
Oil Shields ----- Steel cup

### VALVES

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

### VALVE LIFT

Inlet ----- .3973  
Exhaust ----- .3973

### VALVE TRAIN LASH

Inlet ----- Zero  
Exhaust ----- Zero

### VALVE TIMING

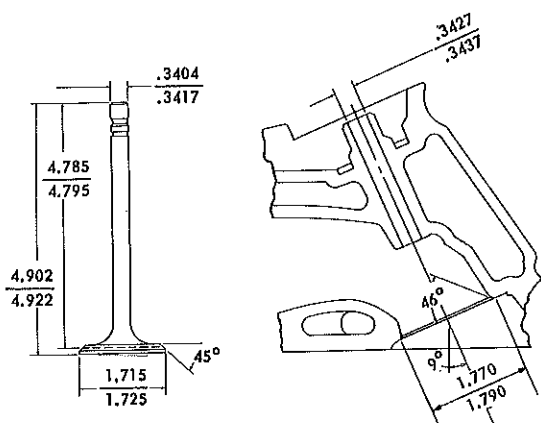
	Excluding Ramps	Including Ramps
<b>Inlet Valve</b>		
Opens - BTC	17° 30'	33° 30'
Closes - ABC	54° 30'	86° 30'
Duration	252°	300°
<b>Exhaust Valve</b>		
Opens - BBC	57°	73°
Closes - ATC	15°	47°
Duration	252°	300°

### PISTONS

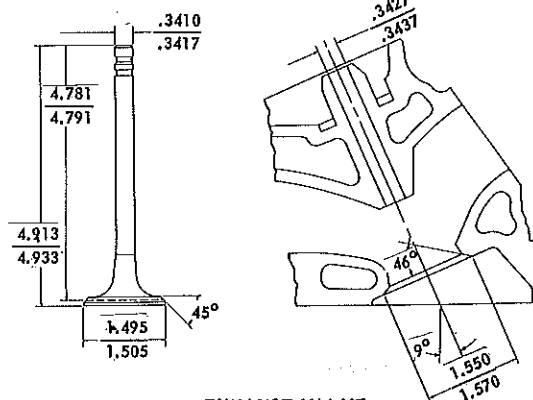
Material ----- Cast aluminum alloy  
Head Type ----- Flat notched  
Skirt Type ----- Slipper  
Top Land Clearance ----- .035-.044  
Skirt Clearance ----- .0006-.0010  
Compression Ring Groove Depth ----- .2153-.2218  
Oil Ring Groove Depth ----- .2093-.2158  
Pin Bore Offset ----- .055-.065  
● Compression Height ----- 1.799-1.801

### COMPRESSION RINGS - UPPER

Material ----- Cast alloy iron  
Inside Bevel ----- Bottom edge 30 degrees  
to piston vertical axis  
Ring Face ----- Tapered  
Coating ----- Flash chrome plating  
Width ----- .0775-.0780  
Wall Thickness ----- .179-.094  
Gap ----- .010-.020



INLET VALVE



EXHAUST VALVE





# 153 CUBIC INCH FOUR CYLINDER ENGINE - Cont'd.

## LUBRICATION SYSTEM

### GENERAL

Type ----- Controlled full pressure  
Main Bearings ----- Pressure  
Connecting Rods ----- Pressure  
Piston Pins ----- Splash  
Cylinder Wall ----- Main & Conn. rod brg. throw-off  
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 ----- Top forward section of rocker cover

### CRANKCASE CAPACITY (Quarts)

Refill (Without filter change) ----- 3.5

### OIL PUMP

Type ----- Gear  
Normal Oil Pressure ----- 30-45 PSI @ 1500 RPM

Regulator Valve ----- Opens between 40-45 lbs  
Intake Type ----- Fixed pickup with screen  
Capacity (Qts. per minute @ RPM) ----- 17.2 @ 2000

### OIL FILTER

Make ----- AC  
Type ----- Full flow, Removable throw away cannister  
Location ----- Right side front of engine  
Capacity ----- One pint  
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 DRAIN SCREW

Type ----- Hex head  
Location ----- Rear lower part of oil pan sump  
Size Hex Head ----- .860-.875  
Thread ----- 1/2 .20 UNF-2A  
Length ----- .81  
Diameter ----- .410-.430

## COOLING SYSTEM

### GENERAL

Type ----- Liquid Pressure  
Capacity (Qts)  
With Heater (Standard equipment) ----- 9.0

### RADIATOR

Make and Type ----- Harrison, tube on center  
Core Constant and Thickness  
Distance Between Fins ----- .25  
Distance Between Tubes ----- .55  
Thickness of Core ----- 1.26  
Front Area (Sq In) ----- 229

### RADIATOR, HEAVY-DUTY (RPO-V01)

Core Constant and Thickness  
Distance Between Fins ----- .16  
Distance Between Tubes ----- .55  
Thickness of core ----- 1.26  
Frontal Area (Sq In) ----- 229

### 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) ----- 1.75 ID  
Inlet, Upper (Thermostat Hsg. to Radiator) -- 1.28 ID

### FAN

Number of Blades ----- 4  
Diameter ----- 16.00  
Fan Pulley Pitch Diameter ----- 7.00

### WATER PUMP

Type ----- Centrifugal  
Capacity ----- 65 GPM @ 4000 RPM  
Bearing ----- Permanently lubricated double row ball  
Drive ----- Fan belt  
Ratio (Pump to Eng RPM) ----- .949:1

### BELT; CRANKSHAFT, FAN AND GENERATOR

Number Used ----- One  
Angle of "V" ----- 37°-44°  
Pitch Line ----- 41.50  
Width ----- .375

### DRAIN LOCATIONS

Radiator ----- Bottom center  
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  
 Amperes ----- 4-32  
 Volts ----- 12-15  
 Drive ----- By fan belt  
 Pulley Pitch Diameter ----- 2.88  
 Ratio (Gen to Engine Speed) ----- 2.30:1

#### 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 ----- 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

### STARTING

Ignition ----- Four (4) positions  
 Lock, Off, On, Start

#### Starting Procedure

Synchromesh --- Place gearshift lever in neutral and depress clutch pedal to floor  
 Powerglide -- Place control lever in N or P position  
 Initial start -- Depress accelerator pedal halfway, pull hand choke knob fully out and release pedal. Turn ignition switch to START and release as soon as engine starts. When engine is warm or outside temperature is below 0°F hold accelerator about half way open.

### IGNITION SYSTEM

#### COIL

Make ----- Delco-Remy  
 Type ----- 12 Volt  
 Amperes Drawn  
 Engine Stopped ----- 4.0  
 Engine Idling ----- 1.8

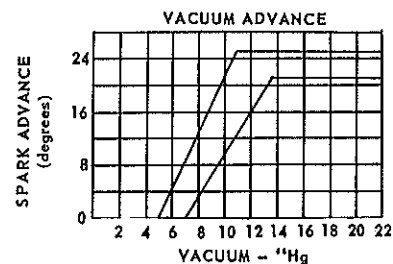
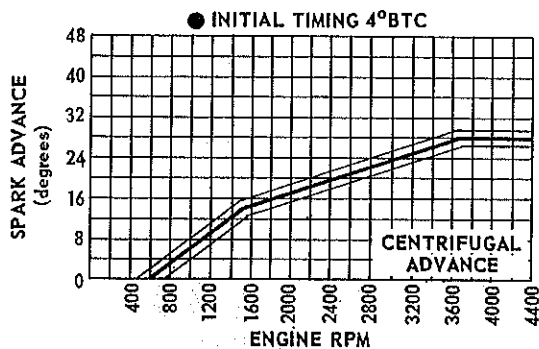
#### DISTRIBUTOR

Make ----- Delco-Remy  
 Type ----- Single breaker  
 Cam Angle ----- 31°-34°  
 Breaker Gap ----- .019 (new)  
 Breaker Arm Tension ----- 19-23 oz  
 Centrifugal Advance Begins (RPM) ----- 600  
 Max. Degrees @ RPM ----- 28° @ 3700  
 Vacuum Advance Begins (In Hg) ----- 6  
 Max. Degrees @ In Hg ----- 23 @ 12  
 Timing (Initial Design Setting)  
 Crankshaft Degrees @ RPM - 4°±1° BTC @ 450-500  
 with vacuum spark line disconnected  
 Timing Mark Location ----- Crankshaft pulley  
 Firing Order ----- 1-3-4-2

#### SPARK PLUGS

Make ----- AC 46N Long Reach  
 Thread Size (mm) ----- 14 x 1.25 (SAE)  
 Gap ----- .033-.038  
 Torque (lb ft) ----- 25

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



# 194 CUBIC INCH SIX CYLINDER ENGINE

## GENERAL DATA

Piston Displacement (Cu In)	Synchromesh	Powerglide
	194	
Type	Valve-in-head	
Number Cylinders	6	
Bore and Stroke (nominal)	3.563 x 3.25	
Compression Ratio	8.5:1	
Taxable (SAE) Horsepower	30.5	
Firing Order	1-5-3-6-2-4	
Idling Speed (RPM)	500 in neutral	500 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	33.09
	Top of air cleaner to bottom of oil pan	26.55
	Oil filter to air cleaner (width)	28.37

## ADVERTISED ENGINE RATINGS

Engine	Hi-Thrift 194	
Carburetor	Single Barrel	
Brake Horsepower	Gross	120 @ 4400
	Net	95 @ 4000
Torque	Gross	177 @ 2400
	Net	155 @ 2000

## ENGINE SPEED AND PISTON TRAVEL

Transmission	Sedans		Station Wagon		
	Synchromesh	Powerglide	Synchromesh	Powerglide	
Rear Axle Ratio	3.08:1		3.36:1		
Tire Size	6.00 x 13-4 PR*		6.50 x 13-4 PR		
Crankshaft Revolutions per Mile	2747.3		2903.0		
Crankshaft RPM @ 1 MPH	Low	134.6	83.3	142.2	88.1
	Second	76.9	83.3	81.3	88.1
	Third (N/V factor)	45.8		48.4	
	Reverse	152.9	83.3	161.6	88.1
Piston Travel (Ft/Mile)	1488.0		1572.5		

\* - All Nova Models use 6.50 x 13-4 PR

VEHICLE PERFORMANCE FACTORS  
(Model 269)

Transmission	3-Speed	Powerglide*
Performance Weight (pounds)	3274	3302
Pounds per Gross Horsepower	27.28	27.52
Pounds per Cu. In. Displacement	16.88	17.02
Gross Horsepower per Cu. In. Displacement		.618
Power Displacement (Cu. Ft/Mile)		154.2
Displacement Factor (Cu. Ft/Ton Mile)	94.21	93.40

\* - Data computed assuming zero slippage in torque converter.

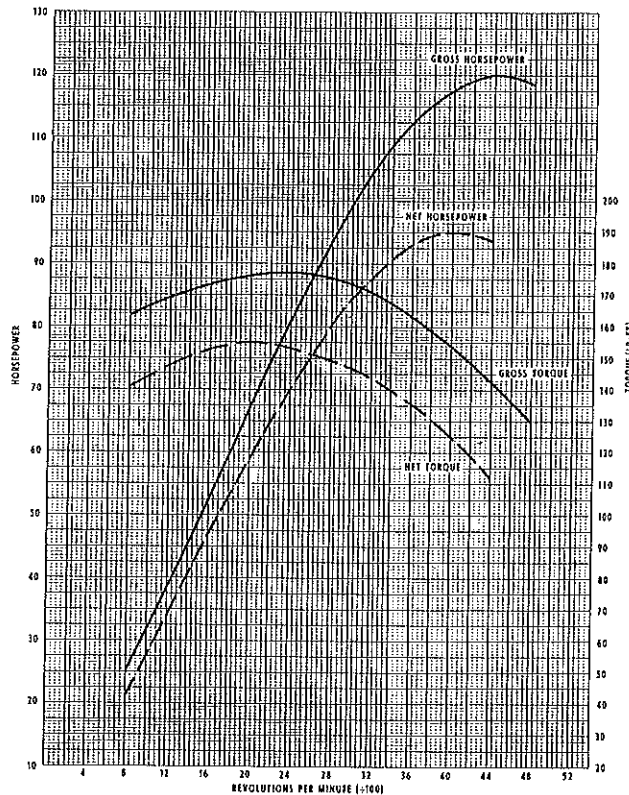
GLOSSARY

Performance Weight = Curb Weight plus 600 Lb  
(weight of four 150 Lb passengers)

Power Displacement =  $\frac{\text{Crankshaft Revs/Mi} \times \text{Piston Displacement}}{2 \times 1728}$

Displacement Factor =  $\frac{\text{Power Displacement}}{\text{Performance Wt (tons)}}$

120 HP HI-THRIFT 6-CYLINDER



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°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.

# 194 CUBIC INCH SIX CYLINDER ENGINE - Cont'd.

## PRINCIPAL COMPONENTS

### CYLINDER BLOCK

Material ----- Cast alloy iron  
 Bore Diameter ----- 3.562  
 No. of Bulkheads ----- 7  
 Water Jacket ----- Full-length  
 Cylinder Numbering Arrangement  
 Front to Rear ----- 1-2-3-4-5-6  
 ● Bore Spacing (℄ to ℄) ----- 4.4

### CYLINDER HEAD

Material ----- High chrome cast alloy iron  
 Bolt No. & Size ----- 14; .500 dia. 13 threads/in  
 Combustion Chamber Volume ----- 4.49 Cu In

### INLET MANIFOLD

Material ----- Cast alloy iron  
 Type ----- 3 Port rectangular section  
 Heat Provision ----- Heated by exhaust gases

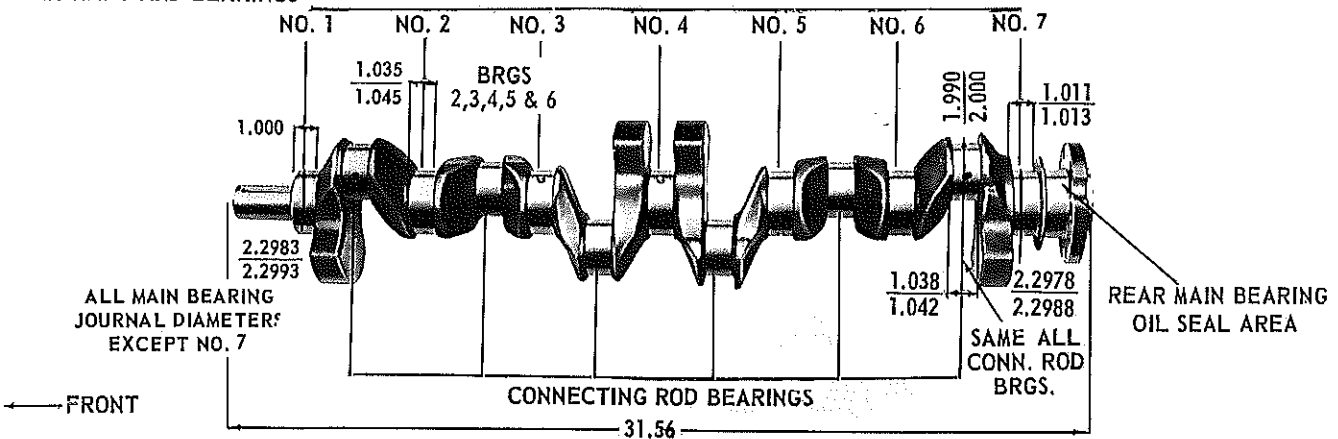
### EXHAUST MANIFOLD

Material ----- Cast alloy iron  
 Type ----- Low resistance  
 Outlet Diameter (nominal) ----- 2.00

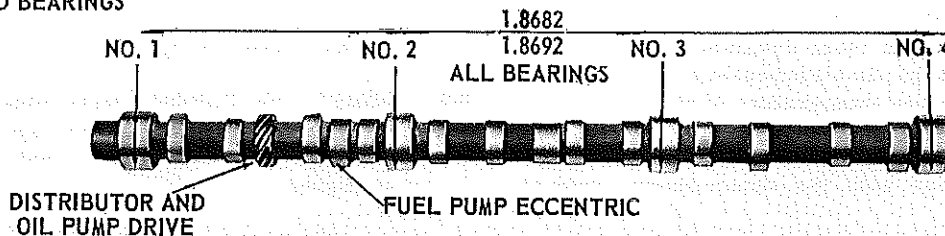
### CRANKSHAFT

Material ----- High strength forged steel  
 or nodular iron casting  
 End Play ----- .002-.006  
 Counter Weights ----- 4  
 Crank Arm Length ----- 1.625  
 Vibration Damper ----- Rubber mounted inertia  
 Timing Gear & Tooth Type ----- Steel, Helical cut  
 Pulley Pitch Diameter ----- 6.64

### CRANKSHAFT AND BEARINGS



### CAMSHAFT AND BEARINGS



### MAIN BEARINGS

Material ----- Extra life, steel backed babbitt  
 Type ----- Precision removable  
 Thrust Against Bearing No. ----- 7  
 Clearance ----- .0008-.0034  
 Dimensions

Bearing	Theoretical Inner Dia.	Effective Length	Projected Area
1-6	2.3009	.752	1.7303
7	2.3004	.760	1.7483

### CAMSHAFT

Material ----- Cast alloy iron  
 Drive ----- Gear; Bakelite and fabric composition  
 with steel hub

Lobe Lift  
 Inlet ----- .1914  
 Exhaust ----- .1914

### Bearings

Material ----- Extra life steel backed babbitt

### Dimensions

Bearing	Ream Diameter	Effective Length	Projected Area
1-4	1.8712	.860	1.6092

### VALVE TRAIN

Type ----- Individually mounted overhead  
 rocker arms, push rod operated  
 Lifters ----- Hydraulic  
 Push Rods  
 Type & Material ----- Hollow steel  
 Ends ----- Hardened

PRINCIPAL COMPONENTS - Continued

ROCKER ARMS

Type & Material ----- Stamped steel  
 Ratio ----- 1.75:1

VALVE SPRINGS

Diameter (I. D.) ----- .880  
 Installed Length (in @ 1b)  
     Valves closed ----- 1.66 @ 84-92  
     Valves open ----- 1.33 @ 166-176  
 Free Length ----- 2.03  
 Valve Spring Dampers ----- None  
 Oil Shields ----- Steel caps

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

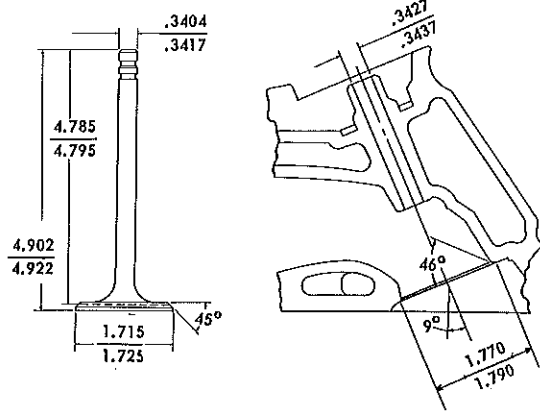
VALVE TIMING

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

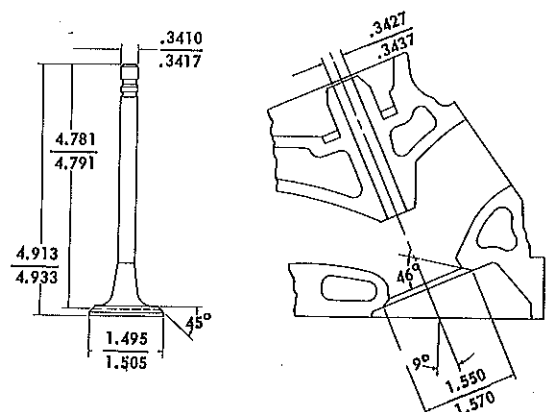
PISTON

Material ----- Cast aluminum alloy  
 Head Type ----- Flat  
 Skirt Type ----- Slipper  
 Top Land Clearance ----- .033-.044  
 Skirt Clearance ----- .0006-.0010  
 Compression Ring Groove Depth ----- .1960-.2025  
 Oil Ring Groove Depth ----- .1985-.2050  
 Pin Bore Offset ----- .055-.065  
 Compression Height ----- 1.799-1.801

● **COMPRESSION RINGS-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 ----- .168-.178  
 Gap ----- .010-.020



INLET VALVE



EXHAUST VALVE





## LUBRICATION SYSTEM

### GENERAL

Type ----- Controlled full pressure  
 Main bearings ----- Pressure  
 Connecting rods ----- Pressure  
 Piston pins ----- Splash  
 Cylinder walls --- Main & Conn. rod brg. throw-off  
 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 of rocker cover

### CRANKCASE CAPACITY (Quarts)

Refill ----- 4  
 With Oil Filter ----- 5

### OIL PUMP

Type ----- Gear  
 Normal Oil Pressure ----- 30-45 PSI @ 1500 RPM

Regulator Valve ----- Opens between 40-45 lbs  
 Intake Type ----- Fixed pickup with screen  
 Capacity (Qts per minute @ RPM) ----- 17.2 @ 2000

### OIL FILTER

Make ----- AC  
 Type ----- Full flow, Removable throwaway cannister  
 Location ----- Right side front  
 Capacity ----- One quart  
 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 DRAIN SCREW

Type ----- Hex head  
 Location ----- Rear lower part of oil pan sump  
 Size Hex Head ----- .860-.875  
 Thread ----- 1/2-20 UNF-2A  
 Length ----- .81  
 Diameter ----- .410-.430

## COOLING SYSTEM

### GENERAL

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

### RADIATOR

Make & Type ----- Harrison, Tube on center  
 Core Constant and Thickness  
 ● Distance between fins ----- .18  
 Distance between tubes ----- .55  
 Thickness of core ----- 1.26  
 Frontal Area (Sq. In.) ----- 255

### RADIATOR HEAVY DUTY (RPO-V01)

Core Constant and Thickness  
 Distance between fins ----- .16  
 Distance between tubes ----- .55  
 Thickness of core ----- 1.26  
 Frontal Area (Sq. In.) ----- 255

### RADIATOR CAP RELIEF VALVE

Opens at ----- 13 PSI

### THERMOSTAT

Make and Type ----- Harrison, Pellet  
 Begins to Open @ ----- 177°-180°F  
 Fully Opened ----- 212°F

### RADIATOR HOSE

Outlet, Lower (radiator to water pump) ---- 1.75 ID  
 Inlet, Upper (thermostat hsg. to radiator) -- 1.28 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" ----- 37°-44°  
 Pitch Line ----- 41.50  
 Width ----- .375

### WATER PUMP

Type ----- Centrifugal  
 Capacity ----- 70 GPM @ 4400 RPM  
 Bearing ----- Permanently lubricated double roll ball  
 Drive ----- Fan belt  
 Ratio (Pump to engine RPM) ----- .949:1

### DRAIN LOCATIONS

Radiator ----- Bottom center  
 Type ----- Petcock  
 Engine Block ----- Left rear side  
 Type ----- Plug

# 194 CUBIC INCH SIX CYLINDER ENGINE - Cont'd

## 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

#### GENERATOR

Make ----- Delco-Remy  
 Type ----- Diode rectified  
 Rating  
 Amps ----- 4-32  
 Volts ----- 12-15  
 Drive ----- By fan belt  
 Pulley Pitch Diameter ----- 2.88  
 Ratio (Gen to Engine Speed) ----- 2.30:1

#### REGULATOR

Make ----- Delco-Remy  
 Type ----- Two unit, Vibrator  
 Voltage Regulator  
 Voltage ----- 13.8-14.8 @ 85°F  
 Field Relay (Combined 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 ----- 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

### STARTING

Ignition Switch ----- Four (4) positions  
 Lock, Off, On, Start

#### Starting Procedure

Synchromesh ---- Place gearshift lever in neutral and depress clutch pedal to floor  
 Powerglide -- Place control lever in N or P position  
 Initial Start ----- Depress accelerator pedal to floor and release. Turn ignition to START and release as soon as engine starts. When engine is warm or outside temperature is below 0°F hold accelerator about half way open.

### IGNITION SYSTEM

#### COIL

Make ----- Delco-Remy  
 Type ----- 12 Volt  
 Amperes Drawn  
 Engine Stopped ----- 4.0  
 Engine Idling ----- 1.8

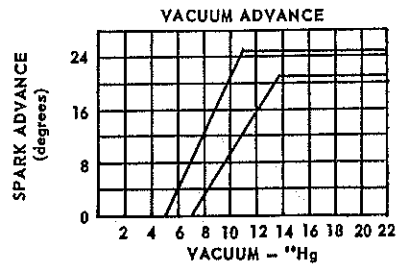
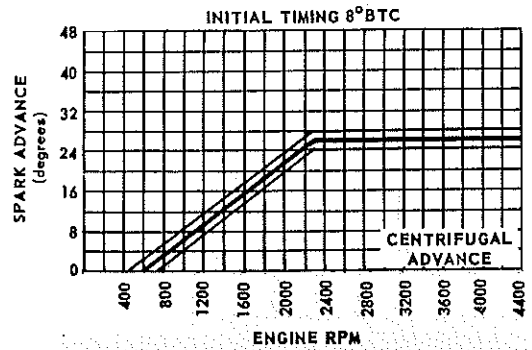
#### DISTRIBUTOR

Make ----- Delco-Remy  
 Type ----- Single breaker  
 Cam Angle ----- 31°-34°  
 Breaker Gap ----- .019 (new)  
 Breaker Arm Tension ----- 19-23 oz  
 Centrifugal Advance Begins (RPM) ----- 600  
 Max Degrees @ RPM ----- 26° @ 2300  
 Vacuum Advance Begins (In Hg) ----- 6  
 Max Degrees @ In Hg ----- 23 @ 12  
 Timing (Initial Design Setting)  
 Crankshaft Degrees @ RPM -- 8°±1° BTC@450-500 with vacuum spark line disconnected  
 Timing Mark Location ----- Harmonic balancer  
 Firing Order ----- 1-5-3-6-2-4

#### SPARK PLUG

Make ----- AC, 46N (long reach)  
 Thread size (mm) ----- 14 x 1.25 (SAE)  
 Gap ----- .033-.038  
 Torque ----- 25

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



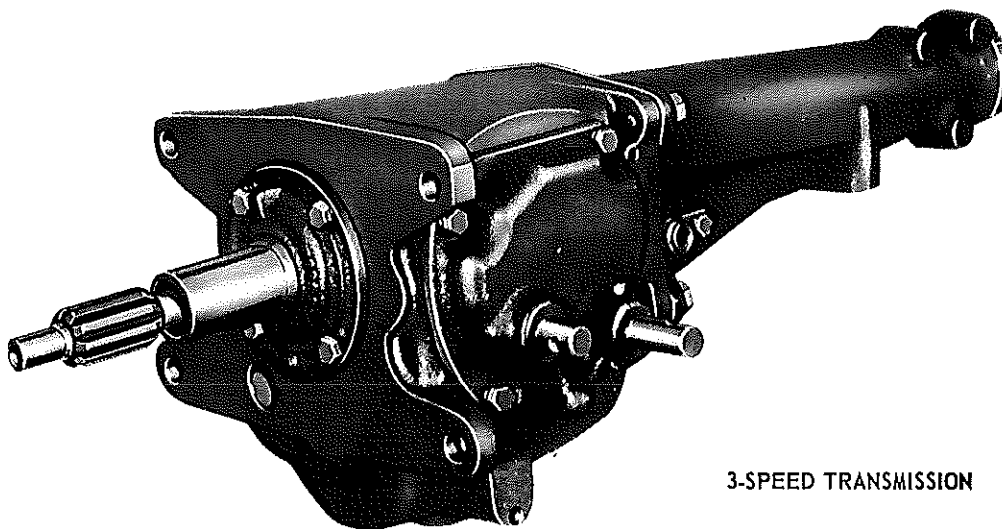
# CLUTCHES

ENGINE	Name		SUPER-THRIFT 153		HI-THRIFT 194		
	Horsepower		90		120		
	Displacement (in <sup>3</sup> )		153		194		
Transmission			3-Speed				
			Std.	Heavy Duty	Std.	Heavy Duty	
Type			Single plate, dry disk				
Drive (cover, to pressure plate)			Spring steel straps				
Clutch Spring	Type		Circular plate diaphragm				
	Material		Heat treated spring steel				
	Effective plate load (lb)		1250	1900-2100	1250	1900-2100	
	Release		Diaphragm action				
Driven Plate Assy	Type		Spring cushioned, double faced				
	Dampers		4 springs	6 springs		●	
	Friction Ring	Material		Woven asbestos *			
		OD		8.00	10.0	9.12	10.0
		ID		6.00	6.0	6.12	6.0
		Total area (sq. inches)		43.96	100.53	71.78	100.53
		Thickness (each)		.131	.135		
Throwout		Same as in Passenger Car clutch					
Pilot							
Controls	Clutch fork type		Same as in Passenger Car clutch				
	Pedal mounting						
Flywheel Assy	Flywheel	Material		Cast Iron Alloy			
		Material		.4375 HR steel			
	Ring Gear	Teeth no.		153			
		Depth		.4110-.4220			
		PD		12.75			
Clutch housing material			Aluminum Alloy				
Cover attachment to flywheel			6 5/16-18 bolts, 13/16 ong; shank dia. .311				

● - 5 sets of two concentrically mounted springs

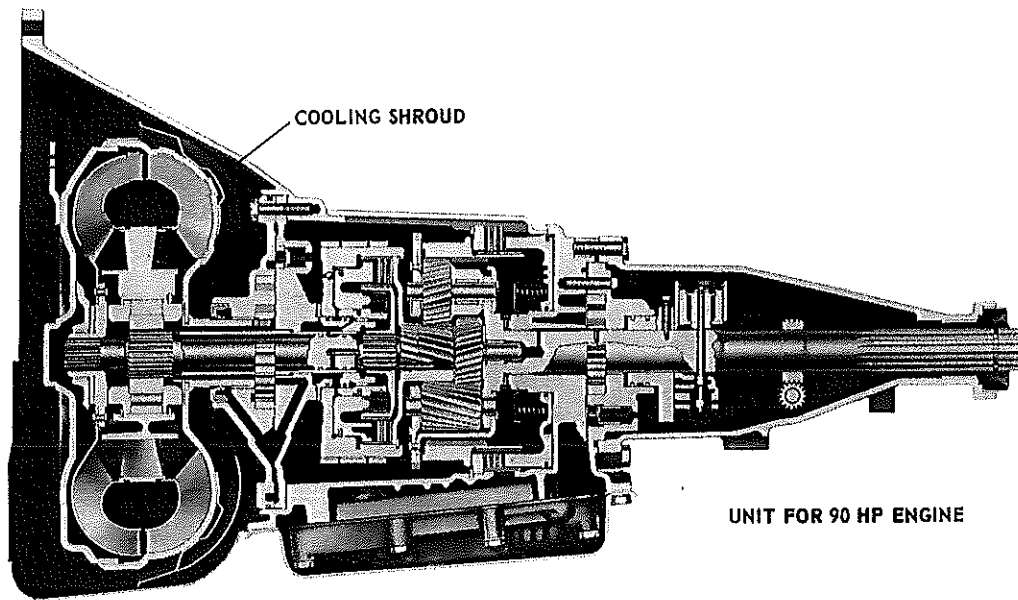
\* - Woven front ring and molded rear ring for heavy duty clutches

# TRANSMISSIONS



3-SPEED TRANSMISSION

Engine	Name	Super-Thrift 153	Hi-Thrift 194	
	Horsepower	90	120	
	Displacement (In <sup>3</sup> )	153	194	
TRANSMISSION TYPE		3-Speed		
Case Material		Cast Iron		
Gear-Shift	Control	Remote		
	Type	Lever		
	Location	Steering Column		
Gears	Type	Helical		
	Material	Forge Steel, Hardened		
	Synchronization	2nd and 3rd		
	Constant Mesh Gears	2nd		
	Sliding Gears	1st and Reverse		
	Ratio	First	2.94:1	
		Second	1.68:1	
Third		1:1		
Reverse		3.33:1		
Speedometer	Normal Pitch	30	28	
	No. of Drive	8		
Gears	Teeth	Driven	23	
			21	
Lubricant	Type Recommended	SAE 90 Multi-Purpose		
	Capacity (pts.)	2		
Transmission Ext. Oil Seal		Steel encased double seal of spring loaded synthetic rubber and felt		



**UNIT FOR 90 HP ENGINE**

**POWERGLIDE FOR 90 HP AND 120 HP ENGINES**

Same as Passenger Car Powerglide for 250 HP Engine (RPO ) except for the following differences

**HYDRAULIC CONTROLS**

Pressure Range (Min. and Max. psi @ idle)

- Drive -----
- Low -----
- Reverse -----
- Neutral and Park -----

**ACCELERATOR PEDAL CONTROL  
(OUTPUT SHAFT RPM)**

	<u>Upshift</u>	<u>Downshift</u>
90 hp engine		
Closed throttle -----		
Throttle at detent -----		
Full throttle -----		
120 hp engine		
Closed throttle -----		
Throttle at detent -----		
Full throttle -----		

**CONVERTER ASSEMBLY**

Pump	
Construction -----	Cooling shroud welded to pump housing
Size (nominal, inches) -----	11
Stall torque ratio -----	2.50:1

**HIGH CLUTCH**

Drive Plate	
Number	
90 hp engine -----	2
120 hp engine -----	3

**Driven Plate**

Number	
90 hp engine -----	3
120 hp engine -----	4

**PLANETARY GEAR UNIT**

Low -----	1.82:1
Reverse -----	1.82:1

**REVERSE CLUTCH**

Drive Plate	
Number	
90 hp engine -----	2
120 hp engine -----	3
Reaction Plate	
Number	
90 hp engine -----	3
120 hp engine -----	4

**TORQUE MULTIPLICATION**

Maximum Overall Ratio -----	4.55:1
Low and Reverse -----	4.55:1 to 1.82:1

**OIL COOLER**

Description -----	None, air cooled unit; cooling shroud welded to pump dissipates heat through windows in case
-------------------	--

**LUBRICANT**

Capacity (pts.)	
Dry -----	15
Refill -----	3



# 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.

<b>MANUFACTURER</b> Chevrolet Motor Division General Motors Corporation	<b>CAR NAME</b> Chevy II	
<b>MAILING ADDRESS</b> Chevrolet Engineering Center Box 7346 North End Station, Detroit 2, Mich.	<b>MODEL YEAR</b> 1963	<b>ISSUED:</b> 10/1/62 <b>REVISED (•)</b>

**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.

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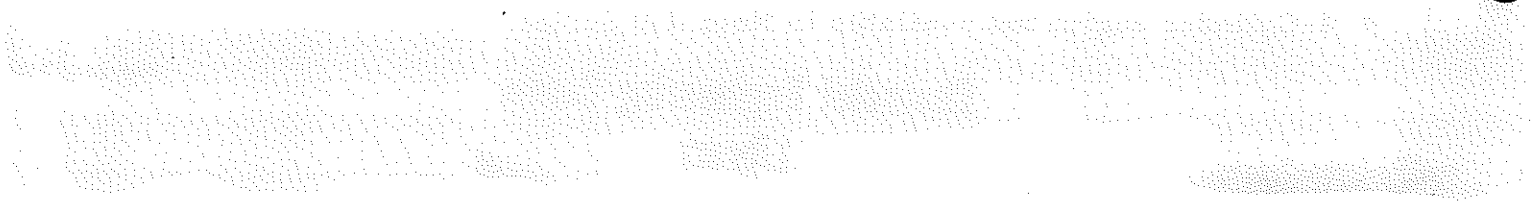
### BODY—TYPES AND STYLE NAMES—

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

	153 Cubic Inch 4-Cylinder		194 Cubic Inch 6-Cylinder	
Chevy II 100 Series	111		211	2-Door Sedan, 6-Passenger
	169		269	4-Door Sedan, 6-Passenger
	135		235	4-Door Station Wagon, 2-Seat
Chevy II 300 Series	311		411	2-Door Sedan, 6-Passenger
	369		469	4-Door Sedan, 6-Passenger
	345		445	4-Door Station Wagon, 3-Seat
Chevy II Nova 400 Series	*		2-Seat	4-Door Station Wagon, 6-Passenger
	*		437	2-Door Sport Coupe, 5-Passenger
	*		449	4-Door Sedan, 6-Passenger
	*		467	2-Door Convertible, 5-Passenger

\* 4-Cylinder engine not available in Nova 400 Series.

1





# AMA Specifications — Passenger Car

MAKE OF CAR Chevrolet MODEL YEAR 1963 DATE ISSUED 10/1/62 REVISED(\*)

## GENERAL SPECIFICATIONS

(All dimensions in inches unless otherwise indicated)

MODEL	Chevy II	Additional Information Page No.:	SEDANS	COUPES	CONVERTIBLE	WAGON
Wheelbase (L101)		23	110.0			
Tread	Front (W101)	22	56.8			
	Rear (W102)	22	56.3			
Maximum Overall Dimensions	Length (L103)	23	183.0			
	Width (W103)	22	70.8			
	Height (H101)	24	55.0	54.0	54.5	55.0
Transmission— (Specify trade name - opt., not available)	Manual	15	3-Speed Synchromesh, Std.			
	Overdrive	16	Not available with Chevy II.			
	Automatic	16	Powerglide, Optional			
Axle ratio	Manual	17	153 cu. in. Sta. Wagons, 3.55:1 Sedans and Coupes, 3.08:1; 194 cu. in. Sta. Wagons, 3.36:1			
	Overdrive	17	-----			
	Automatic	17	153 cu. in. Sta. Wagons, 3.55:1 Sedans and Coupes, 3.08:1; 194 cu. in. Sta. Wagons, 3.36:1			
Tire size		18	Sedans and Coupes, 6.00 x 13 Others, 6.50 x 13			
Engine	Type, no. cyl., valve arr.	2	4 and 6-Cylinder In-Line OHV			
	Fuel system (Carb., other)	8	Carburetor			
	Bore and stroke	2	3.875 x 3.25 (4-Cyl.)	3.563 x 3.25 (6-Cyl.)		
	Piston displ., cu.in.	2	153 (4-Cyl.)	194 (6-Cyl.)		
	Std. compression ratio	2	8.5			
	Max. bhp at engine rpm	2	90 @ 4000 (4-Cyl.)	120 @ 4400 (6-Cyl.)		
	Max. torque at rpm	2	152 @ 2400 (4-Cyl.)	177 @ 2400 (6-Cyl.)		

# AMA Specifications—Passenger Car

MAKE OF CAR Chevrolet MODEL YEAR 1963 DATE ISSUED 10/1/62 REVISED (e)

MODEL Chevy II 100-300 200-400

## ENGINE—GENERAL

		4-Cyl.	6-Cyl.
Type, no. cyls., valve arr.		In-Line 4, OHV	In-Line 6, OHV
Bore and stroke (nominal)		3.875 x 3.25	3.563 x 3.25
Piston displacement, c.u. in.		153	194
Bore spacing (C/L to C/L)		4.4	
No. system (front to rear)	L. Bank	1-2-3-4 (In-Line)	1-2-3-4-5-6 (In-Line)
	R. Bank		
Firing order		1-3-4-2	1-5-3-6-2-4
Compras. ratio (nominal)		8.5:1	
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	Two	One
Engine installation angle		3° 51'	
Taxable horsepower	<u>Dia. 2 x No. Cyl.</u> 2.5	24.0	30.5
Published max. bhp* @ eng. RPM		90 @ 4000	120 @ 4400
Published max. torque* (lb. ft. @ RPM)		152 @ 2400	177 @ 2400
Recommended fuel regular - premium		Regular	
Idle speed (spec. neutral or drive)	Manual	500 (Neutral)	
	Automatic	500 (In drive)	

## ENGINE—PISTONS

		Cast aluminum alloy	
Material		Cast aluminum alloy	
Description and finish		Flat notched head Slipper skirt	Flat head Slipper skirt
Weight (piston only) oz.		20.40	17.60
Clearance (limits)	Top land	.035 - .044	.033 - .044
	Skirt	Top	.0006 - .0010 (A)
		Bottom	
Ring groove depth	No. 1 ring	.2153 - .2218	.1960 - .2025
	No. 2 ring	.2153 - .2218	.1960 - .2025
	No. 3 ring	.2093 - .2158	.1985 - .2050
	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.

# AMA Specifications – Passenger Car

MAKE OF CAR Chevrolet MODEL YEAR 1963 DATE ISSUED 10/1/62 REVISED(\*)

### POWER TEAMS

(Indicate whether standard or optional)

MODEL AVAILABILITY	ENGINE					TRANSMISSION	AXLE RATIO (Std. first) (A)	
	Displ. cu. in.	Carburetor	Compr. Ratio	BHP @ RPM	Torque @ RPM		Std.	Opt.
100 - 300	153 (Std.)	1 Bbl. Down- draft	8.5:1	90 @ 4000	152 @ 2400	3-Speed Sedans Station Wagon  Powerglide * Sedans Station Wagon	3.08:1 3.55:1  3.08:1 3.55:1	3.55:1  3.36:1
200 - 400	194 (Std.)	1 Bbl. Down- draft	8.5:1	120 @ 4400	177 @ 2400	3-Speed Sedans & Coupes Station Wagon  Powerglide * Sedans & Coupes Station Wagon	3.08:1 3.36:1  3.08:1 3.36:1	3.36:1

\* - Optional

(A) - Positraction options in 3.08:1; 3.36:1; 3.55:1.

# AMA Specifications – Passenger Car

MAKE OF CAR **Chevrolet** MODEL YEAR **1963** DATE ISSUED **10/1/62** REVISED **(6)**

MODEL **Chevy II** **100 - 300** **200 - 400**

## ENGINE—RINGS

**4-Cyl.**

**6-Cyl.**

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.	Cast alloy iron; inside bevel Upper - Flash chrome plating coating O.D. Lower - Wear resistant coating
	Width	Upper: .0770 - .0780 Lower
	Gap	.010 - .020
Oil expanders	Description - material, type, coating, etc.	Multi-piece - (2 rails and one spacer expander) Spacer-expander - steel Rails - stainless steel, chrome plated O.D.
	Width	.150 - .156
	Gap	.015 - .055
		In oil ring

## 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	None
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	
Length (center to center)	5.70	
Bearing	Material & Type	Extra-life steel backed babbitt
	Overall length	.807
	Clearance (limits)	.0007 - .0027
	End play	.008 - .014

# AMA Specifications—Passenger Car

MAKE OF CAR Chevrolet MODEL YEAR 1963 DATE ISSUED 7/27/62 REVISED (\*)

MODEL Chevy II 100 - 300 200 - 400

<b>ENGINE—CRANKSHAFT</b>		<u>4-Cyl.</u>	<u>6-Cyl.</u>	
Material		Forged steel		
Vibration damper type		None	Rubber mounted inertia damper	
End thrust taken by bearing (No.)		5	7	
Crankshaft end play		.002 - .006		
Main bearing	Material & type	Extra life steel backed babbitt - removable		
	Clearance	.0008 - .0034		
	Journal dia. and bearing overall length	No. 1	2.3009 x .752	2.3009 x .752
		No. 2	2.3009 x .752	2.3009 x .752
		No. 3	2.3009 x .752	2.3009 x .752
		No. 4	2.3009 x .752	2.3009 x .752
		No. 5	2.3004 x .760	2.3009 x .752
		No. 6	None	2.3009 x .752
No. 7		None	2.3004 x .760	
Dir. & amt. cyl. offset		None		
Crankpin journal diameter		1.999 - 2.000		

<b>ENGINE—CAMSHAFT</b>				
Location		Above and to right of crankshaft		
Material		Cast alloy iron		
Bearings	Material	Extra life steel backed babbitt		
	Number	3	4	
Type of Drive	Gear or chain		Gear	
	Crankshaft gear or sprocket material		Steel	
	Camshaft gear or sprocket material		Bakelite and fabric composition with steel hub	
	Timing chain	No. of links	None	
		Width	None	
Pitch		None		

<b>ENGINE—VALVE SYSTEM</b>			
Hydraulic lifters (Std, opt, NA)		Standard	
Valve rotator, type (intake, exhaust)		None	
Rocker ratio		1.75:1	
Operating tappet clearance (Indicate hot or cold)	Intake	Zero	
	Exhaust	Zero	
Timing marks on flywheel, damper, other		Crankshaft Pulley	Harmonic Balancer

(Continued)

# AMA Specifications—Passenger Car

MAKE OF CAR Chevrolet MODEL YEAR 1963 DATE ISSUED 10/1/62 REVISED (\*)

MODEL Chevy II 100 - 300 200 - 400

## ENGINE—VALVE SYSTEM (cont.) 4-Cyl.

6-Cyl.

Timing	Intake	Opens (°BTC)	33° 30'	34°
		Closes (°ABC)	86° 30'	86°
		Duration - deg.	300°	300°
	Exhaust	Opens (°BBC)	73°	68°
		Closes (°ATC)	47°	52°
		Duration - deg.	300°	300°
*	Valve opening overlap		80° 30'	86°

Intake	Material		Carbon steel	
	Overall length		4.902 - 4.922	
	Actual overall head dia.		1.715 - 1.725	
	Angle of seat & face		46° and 45°	
	Seat insert material		None	
	Stem diameter		.3404 - .3417	
	Stem to guide clearance		.0010 - .0033	
	Lift (@ zero lash)		.3973 (Theoretical)	.3350 (Theoretical)
	Outer spring press. and length	Valve closed (lb. @ in.)	84-92 @ 1.66	
		Valve open (lb. @ in.)	166-176 @ 1.33	
	Inner spring press. and length	Valve closed (lb. @ in.)	Spring Damper	None
		Valve open (lb. @ in.)	Spring Damper	None

Exhaust	Material		High Alloy steel	
	Overall length		4.913 - 4.933	
	Actual overall head dia.		1.495 - 1.505	
	Angle of seat & face		46° and 45°	
	Seat insert material		None	
	Stem diameter		None	
	Stem to guide clearance		.0010 - .0027	
	Lift (@ zero lash)		.3973 (Theoretical)	.3350 (Theoretical)
	Outer spring press. and length	Valve closed (lb. @ in.)	84-92 @ 1.66	
		Valve open (lb. @ in.)	166-176 @ 1.33	
	Inner spring press. and length	Valve closed (lb. @ in.)	Spring Damper	None
		Valve open (lb. @ in.)	Spring Damper	None

## 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	Connecting rod bearing throw-off

\* Including cam ramps

(Continued)

# AMA Specifications – Passenger Car

MAKE OF CAR Chevrolet MODEL YEAR 1963 DATE ISSUED 10-1-62 REVISED (e)

MODEL Chevy II 100 - 300 200 - 400

## ENGINE—LUBRICATION SYSTEM (cont.)

	4-Cyl.	6-Cyl.
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	
Capacity of crankcase, less filter-refill (qt.)	3.5	4
Oil grade recommended (SAE viscosity and temperature range)	32° F. and above - SAE 20W, SAE 20, or SAE 10-W-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)	Single
Muffler No. & type (reverse flow, straight thru, separate resonator)	Reverse flow
Exhaust pipe dia. (O.D.)	---
Branch wall thickness	2.00 x .064
Main wall thickness	1.875 x .062-.076
Tail pipe diameter (O.D. & wall thickness)	

## ENGINE—CRANKCASE VENTILATION SYSTEM

	Standard	Optional	
Type (ventilates to atmos., induction system, other)			Ventilates to Induction system
Control unit	Make and model		AC 5649995
	Location		Top rear of rocker cover
	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
	Flame arrestor (screen, check valve, other)		Check Valve





# AMA Specifications – Passenger Car

MAKE OF CAR Chevrolet MODEL YEAR 1963 DATE ISSUED 10/1/62 REVISED(\*)

MODEL Chevy II 100 - 300 200 - 400

## ENGINE—COOLING SYSTEM

4-Cyl.

6-Cyl.

Type system (pressure, pressure vented, atmospheric, other)		Pressure	
Radiator cap relief valve pressure		13 psi + 1 psi	
Circulation thermostat	Type (choke, bypass)	Choke	
	Starts to open at (°F)	177° - 183°	
Water pump	Type (centrifugal, other)	Centrifugal	
	GPM @ 1000 pump rpm	65 GPM @ 4000 RPM	70 GPM @ 4400 RPM
	Number of pumps	One	
	Drive (V-belt, other)	V-Belt	
Bearing type		Permanently lubricated double row ball	
By-pass recirculation type (internal, external)		Internal	
Radiator core type (cellular, tube and fin, other)		Tube on center	
Cooling system capacity	With heater (qt.) *	9.0	12.0
	Without heater (qt.)	8.5	11.5
	Opt. equipment-specify (qt.)	9.0	12.0
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
		Inside diameter	1.75
	Upper	Number and type (molded, straight)	One, molded
		Inside diameter	1.28
	By-pass	Number and type (molded, straight)	None
		Inside diameter	None
Fan	Number of blades & Spacing		4, staggered
	Diameter		16.00 <span style="margin-left: 100px;">17.62</span>
	Ratio-fan to crankshaft rev.		.949:1
	Fan cutout type		None
	Bearing type		Double row ball
*Drive belts (indicate belt used by letter)	Fan		A
	Generator		A
	Water Pump		A
	Power Steering		B
	Air Conditioning		C

* Drive Belt Dimensions	A	B	C
Angle of V	37° - 44°	37° - 44°	37° - 44°
Nominal length (SAE)	41.50	50.50	40.00
Width	.380 + .005	.380 + .005	.380 + .005

\* - Heater standard equipment on all Chevy II models.

# AMA Specifications – Passenger Car

MAKE OF CAR Chevrolet MODEL YEAR 1963 DATE ISSUED 10/1/62 REVISED(\*)

MODEL Chevy II 100 - 300 200 - 400

## ELECTRICAL—SUPPLY SYSTEM

4-Cyl.

6-Cyl.

Battery	Make and Model	Delco 1980554		
	Voltage Rtg. & Total Plates	12 Volts - 54 plates		
	SAE Designation & Amp Hr. Rtg	44 Amps. Hr. @ 20 Hr. rate		
	Location	Right side front engine compartment		
	Terminal grounded	Negative		
Generator	Make	Delco-Remy		
	Model	#1100630		
	Type	Diode rectified		
	Ratio—Gen. to Cr/s rev.	2.30:1		
	Gen. cut-in (hot)—engine rpm	500 RPM		
Regulator	Make	Delco-Remy		
	Model	#1119512		
	Type	Vibrator		
	Cutout relay	Closing voltage @ generator rpm	None	
		Reverse current to open		
	Regulated	Voltage	10.6	
		Current	None	
	Voltage test conditions	Temperature	Operating	
Load		3 - 8 Amps.		
Other		None		

## ELECTRICAL—STARTING SYSTEM

Starting motor	Make	Delco-Remy		
	Model	#1107259		
	Rotation (drive and 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	<p><b>SYNCHROMESH</b> - Place gearshift in neutral - depress clutch to floor.</p> <p><b>POWERGLIDE</b> - Place control lever in N or P position.</p> <p><b>INITIAL START</b> - Depress accelerator pedal to floor, (pull hand choke knob* fully out) and release pedal. Turn ignition to <b>START</b> and release as soon as engine starts.</p>		

(Continued)

\* 4-Cylinder models only

# AMA Specifications – Passenger Car

<b>MAKE OF CAR</b> Chevrolet	<b>MODEL YEAR</b> 1963	<b>DATE ISSUED</b> 10/1/62 <b>REVISED</b> (*)
<b>MODEL</b> Chevy II	100 - 300 4-Cyl.	200 - 400 6-Cyl.

## 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		.4100 - .4220	

## ELECTRICAL—IGNITION SYSTEM

Coil	Make		Delco-Remy	
	Model		#1115165	#1115166
	Amps	Engine stopped	4.0	
Engine idling		1.8		
Distributor	Make		Delco-Remy	
	Model		#1110268	#1110267
	Cent'fgal adv. in crankshaft degrees @ engine rpm (nominal)	Start (rpm)	600	
		Intermediate points deg. @ rpm		
		Max deg. @ rpm	28° @ 3700 RPM	26° @ 2300 RPM
	Vacuum adv. in crankshaft degrees @ in. Hg. (nominal)	Start (in Hg)	6	
		Intermediate points, deg @ in Hg		
		Max. deg. in. Hg.	23 @ 12	
	Breaker gap (in.)		.019	
	Cam angle (deg.)		31° - 34°	
Breaker arm tension (oz.)		19-23 oz		
Timing	Crankshaft deg. @ rpm.		4° + 1° BTC @ 450-500	8° + 1° BTC @ 450-500
	Mark location		Crankshaft Pulley	Harmonic Balancer
	Cylinder numbering system (see page 2)		Front to rear 1-2-3-4	Front to rear 1-2-3-4-5-6
	Firing order (see page 2)		1-3-4-2	1-5-3-6-2-4
Spark Plug	Make and model		AC 46N (Long Reach)	
	Thread (mm)		14	
	Tightening torque (lb. ft.)		25	
	Gap		.033-.040	
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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# AMA Specifications – Passenger Car

MAKE OF CAR Chevrolet MODEL YEAR 1963 DATE ISSUED 10-1-62 REVISED (e)

MODEL Chevy II 1-2-3-400

## ELECTRICAL—INSTRUMENTS AND SWITCHES

Speedometer	Make	AC
	Trip odometer (yes, no)	No
Charge indicator—type		Tell-Tale Lamp
Temperature indicator—type		Tell-Tale Lamp
Oil pressure indicator—type		Tell-Tale Lamp
Fuel indicator—type		Gauge, Electric
Other		Parking Brake Alarm Flasher (a)
Ignition switch	Identify positions in order and circuits controlled	1st position CCW from vertical - Lock Vertical - Off (unlocked) 1st position CW from vertical - On (ignition, batt., accessories) 2nd position CW from - Start, spring return to on (ignition, batt., solenoid)
	Provision for illumination	None
	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, license lamps 2nd notch - Same except headlamps instead of parking lamps CW Rotation of knob - Dim panel lamp to off CCW Rotation of knob - Brighten panel lamps; full CCW Rotation, Turn on dome lamp or panel courtesy lamps
Other light switches	Locations and lamps controlled	Toe panel - Headlamp dimmer Glove comp. - Glove comp. lamp(b) Steering column - Turn signals At brake pedal - Stop lamps Steer. mast jacket - Back-up lamps(b) Hinge pillars - Courtesy and dome lamps(c) At lamp - Underhood(a) At lamp - Luggage com. (a) Parking brake lever - Parking brake alarm(a)
Other switches	Locations and devices controlled	Instr. panel - Heater blower, A/C controls(a), Radio (a), W/S wipers Steer. mast jacket - Transmission Neu. Saf. Sw. (a) Below instru. panel, left side of steer. column - Hydraulic folding top (a) Rear of engine block at right side - Oil pressure Voltage regulator - Generator charge Thermostat housing - Temperature indicator Left Qtr. panel, - rear tailgate exterior instru. panel Tailgate window control (d)
Windshield wiper	Make	Delco
	Type	Electric, single speed
	Vacuum booster provision	None
	Washer provision	Pushbutton (a)
Horn	Type	Vibrator
	Number used	2
	Amp draw (each)	8.00-11.0 (@ 12. V

- (a) Optional equipment
- (b) Standard on Nova Models only
- (c) Courtesy standard on model 467 only
- (d) Standard on model 3-445 only; where optional, only two switches - instrument panel and tailgate exterior.

# AMA Specifications – Passenger Car

MAKE OF CAR Chevrolet MODEL YEAR 1963 DATE ISSUED 10-1-62 REVISED (\*)

MODEL Chevy II 1-2-3-400

## ELECTRICAL—LAMP BULBS

Give quantity used and trade number, e.g., Headlamp 2-5400 S, dual headlight 2-4001, 2-4002. Indicate accessories which are not standard equipment by an asterisk following the numbers.

Headlamps & arrangement		2-6012
Headlamp beam indicator		1-53
Parking		2-1034 (4 CP Filament)
Tail		2-1034 (4 CP Filament)
Stop		2-1034 (32 CP Filament)
Direction signal	Front	2-1034 (32 CP Filament)
	Rear	2-1034 (32 CP filament)
Indicator		2-57
License plate		1-67
*Instrument cluster		4-1816
Ignition lock		None
Back up		2-1073 (b)
Dome		1-211
Clock		1-57*
Radio		1-1893*
Glove compartment		1-57 (b)
* Also generator indicator, 1-57; oil pressure indicator, 1-57; temp. indicator, 1-57		
Courtesy		2-89 (a)
Luggage compt		1-93 *
Park. brk. flasher		1-257 *
Powerglide quadrant		1-53 *
Spot lamp, portable		1-4416 *
Underhood		1-93 *

- (a) Standard on 467 model only
- (b) Standard on Nova models only

# AMA Specifications – Passenger Car

**MAKE OF CAR** Chevrolet      **MODEL YEAR** 1963      **DATE ISSUED** 10/1/62      **REVISED** (e)  
**MODEL** Chevy II      100-200-300-400

## ELECTRICAL—FUSE & CIRCUIT BREAKER DATA

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

Headlamp	15 C. B. (a)	A/C Circuit SAE-20
Headlamp beam indicator	(a)	A/C blower motor SAE-20
Parking lamp	(a)	Hydraulic folding
Tail lamp	AGC-15 (b)	top motor - 40 C. B.
Stop lamp	(b)	
Direction indicator	Interrupter	
License plate lamp	(b)	
* Instrument lamp	AGC-3 (d)	
Ignition lamp	None	
Back up lamp	AGC-10 (c)	
Dome lamp	(b)	
Clock	(b)	
Clock lamp		
Radio	AGC-2, 5	
Glove compartment lamp	(b)	
* Instrument cluster generator indicator, temp. indicator, oil press. indicator, Powerglide quadrant, heater (and A/C) controls		
Underhood lamp		SAE-9
W/S wiper (single speed)		SAE-20
Park. brake alarm flasher		(c)
Heater blower motor		AGC-10
Courtesy		(b)
Luggage comp.		(b)
Direction lamps		Interrupter
W/S wiper (two-speed)		SAE 20 and 14 C. B.

## ELECTRICAL—LOCATION OF OUTSIDE LAMPS

Height above ground to center of bulb	Tail	Lowest	26.0
		Highest	26.0
	Stop		26.0
	Backup		24.5
	License, rear		18.0
	Directional	Front	21.0
		Rear	26.0
	Headlamp	Inside	26.5
		Outside*	26.5
	Distance from C/L of car to center of bulb	Tail	Inside
Outside			28.4
Stop		28.4	
Backup		28.4	
License, rear		On centerline	
Directional		Front	26.7
		Rear	28.4
Headlamp		Inside	28.5
		Outside*	28.5

\* If single headlamps are used enter here.

# AMA Specifications – Passenger Car

MAKE OF CAR Chevrolet MODEL YEAR 1963 DATE ISSUED 10/1/62 REVISED <sup>(e)</sup>

MODEL Chevy II 1-2-3-400

## DRIVE UNITS—CLUTCH (Manual Transmission) Heavy Duty available optionally

Make & type		Chevrolet, Single Disk, Dry Plate
Type pressure plate springs		Diaphragm
Effective plate pressure (lb.)		1250 (a)
No. of clutch driven discs		1 with 2 facings
Clutch facing	Material	Woven Asbestos (b)
	Outside & inside dia.	8.00 & 6.00 for 153 in <sup>3</sup> ; 9.12 & 6.12 for 194 in <sup>3</sup> (c)
	Total eff. area (sq.in.)	43.9 for 153 in <sup>3</sup> ; 71.8 for 194 in <sup>3</sup> (d)
	Thickness	.135 ea.
	Engagement cushioning method	Flat Steel Springs
Release bearing	Type & method of lubrication	Single Row Ball, prepacked, sealed
Torsional damping	Methods: springs, friction material	Coil Springs in Clutch driven plate

## DRIVE UNITS—TRANSMISSIONS

Manual (std. or opt.)	Std.
Manual with overdrive (std. or opt.)	Not available
Automatic (std. or opt.)	Optional

## DRIVE UNITS—MANUAL TRANSMISSION

Number of forward speeds		3	
Transmission ratios	In first	2.94:1	
	In second	1.68:1	
	In third	1.0:1	
	In fourth	---	
	In reverse	3.34:1	
Synchronous meshing, specify gears		2nd and 3rd	
Shift lever location		Steering Column	
Lubricant	Capacity (pt.)	2	
	Type recommended	Military MIL-L-2105-B	
	SAE viscosity number	Summer	--
		Winter	--
		Extreme cold	--

- (a) 1900-2200 for Heavy Duty Clutch
- (b) Woven front, molded rear facing for Heavy Duty Clutch
- (c) 10.0 & 6.0 for Heavy Duty Clutch for both 153 and 194 in.<sup>3</sup> engines
- (d) 100.5 for Heavy Duty Clutch

# AMA Specifications – Passenger Car

**MAKE OF CAR** Chevrolet      **MODEL YEAR** 1963      **DATE ISSUED** 10/1/62      **REVISED** (•)  
**MODEL** Chevy II      1-2-3-400

## DRIVE UNITS—MANUAL TRANSMISSION WITH OVERDRIVE

Not available

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		
Lu- bri- cant	Capacity (pt.) (Overdrive only)		
	Separate filler (yes, no)		
	Type recommended		
	SAE vis- cosity 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	
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 and R, 1.82:1	
Max. upshift speeds—drive range	59 MPH	
Max. kickdown speeds—drive range	55 MPH	
Torque converter	Number of elements	3
	Max. ratio at stall	2.50:1
	Type of cooling (air, water)	Air
Lubricant	Capacity—refill (pt.)	3
	Type recommended	A suffix A
Special transmission features		

## DRIVE UNITS—PROPELLER SHAFT

Number used	1	
Type (exposed, torque tube)	Exposed	
Outer diameter x length* x wall thickness	Manual transmission	153 cu. in.      194 cu. in. 3.50 x 52.1 x .065      2.75 x 52.1 x .065
	Overdrive transmission	-----
	Automatic transmission	Same as "Manual"

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





# AMA Specifications – Passenger Car

**MAKE OF CAR** Chevrolet      **MODEL YEAR** 1963      **DATE ISSUED** 10/1/62      **REVISED** <sup>(\*)</sup>

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**MODEL** Chevy II      1-2-3-400

## DRIVE UNITS—WHEELS

Type & material		Short Spoke Disk, Steel
Rim (size and flange type)	Std.	Sedans, 13 x 4 J; Others, 13 x 5.5 J
	Opt.	13 x 5.5 J
		14 x 5 J
Attachment	Type (bolt or stud)	Stud
	Circle diameter	4.50
	Number and size	4 Hex Nuts, 7/16-20 UNF-2B

## DRIVE UNITS—TIRES Rayon, Tubeless, B/Wall, 2 ply construction unless otherwise indicated.

Standard (List option below)	Size & ply	Sedans, 6.00 x 13-4 pr; Others, 6.50 x 13-4 pr
	Type - Nylon, etc.	See above.
Rev/mile at 50 mph.		6.00 x 13-4 pr, 892; 6.50 x 13-4 pr
Inflation press.(cold)	Front	24 psi
	Rear	24 psi except wagons 28 psi
Optional tires - size and ply		6.00 x 13-4 pr, W/Wall, Highway; 6.50 x 13-4 pr, Highway; 6.50 x 13-4 pr, W/Wall, Highway; 7.00 x 13-4 pr, W/Wall, Highway; 7.00 x 13-4 pr, Highway; 6.50 x 14-4 pr, Highway; 6.50 x 14-4 pr, W/Wall, Highway.

## BRAKES—SERVICE

		Regular Production	Metallic Brakes
Type (duo-servo, disc, balanced, etc.)		Duo-Servo, 4-Wheel Hydraulic	
Self adjusting (std., opt., N.A.)		Std.	
Hydraulic system type (single, dual, etc.)		Single	
Power brake make & type (remote, integral, etc.)		Bendix, Delco-Moraine, Vacuum power Unit assists master cylinder; integral	
Effective area (sq. in.)*		145.0	102.3
Gross lining area (sq. in.)**		145.0	102.3
Swept drum area (sq. in.)***		226.2	
Percent brake effectiveness—front		56.7	
Drum	Diameter	Front	9.0
		Rear	9.0
	Type and material	Composite; Cast Iron Alloy Rim; Steel Web	
Wheel cylinder bore	Front	1.00 (a)	1.00 (a)
	Rear	1.00 (a)	1.00 (a)
Master cylinder bore		1.0 (a)	.875 (a)
Available pedal travel		6.4	
Line pressure at 100 lb. pedal load		830	
Shoe clearance adjustment		Self-adjusting	

\* 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.

(Continued)

**(a) With Power Brakes also**

# AMA Specifications—Passenger Car

MAKE OF CAR Chevrolet MODEL YEAR 1963 DATE ISSUED 10/1/62 REVISED (•)

MODEL Chevy II 1-2-3-400

BRAKES—SERVICE (cont.)				Regular Production	Metallic	
Brake lining	Bonded or riveted			Bonded	Welded	
	Front Shoe	Material		Molded Asbestos		
		Size (length x width x thickness)	Front wheel	8.62 x 2.25 x .16		1.64 x 1.12 x .175
			Rear wheel	8.62 x 1.75 x .16		1.64 x .87 x .175
		Segments per shoe		1		6
	Rear Shoe	Material		Molded Asbestos		
		Size (length x width x thickness)	Front wheel	9.40 x 2.25 x .16		1.64 x 1.12 x .295
			Rear wheel	9.40 x 1.75 x .16		1.64 x .87 x .295
Segments per shoe		1		10		

### BRAKES—PARKING

Type of control		Pawl-type lever with "L" handle for apply and release	
Location of control		Right of Steering column under instrument panel.	
Operates on		Rear Wheels	
If separate from service brakes	Type (internal or external)	Not separate	
	Drum diameter		
	Lining size (length x width x thickness)		

### FRAME or UNITIZED CONSTRUCTION

Type and description Unitized front end and body proper rigidly bolted together.  
Frame members incorporated into front end and body.

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

Provision for car leveling		Front Stabilizer bar on Station Wagons	
Provision for brake dip control		Mounting angle of front upper control arms.	
Provision for acc. squat control		None	
Special provisions for car jacking		None	
Shock absorber front & rear	Type	Direct, Double-acting, Hydraulic	
	Make	Delco Products	
	Piston dia.	1.00	
Other special features		Mono-Plate rear springs	

### SUSPENSION—FRONT

Type and description Independent, wheels spherically-jointed to upper and lower control arms. Unit front end-secured coil spring and shock absorber (inside coil spring) attached atop upper control arms. Tension strut rod attached to lower control arm. Front end weight on upper spherical joints.

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

(Continued)

# AMA Specifications – Passenger Cars

MAKE OF CAR Chevrolet MODEL YEAR 1963 DATE ISSUED 10/1/62 REVISED (e)

MODEL Chevy II 1-2-3-400

## SUSPENSION FRONT (cont.)

Spring	Type		Coil
	Material		Steel Alloy
	Size (coil design height & I.D.; bar length x dia.)		9.20 x 3.800 106.61 x .562
	Spring rate (lb. per in.)		250
	Rate at wheel (lb. per in.)		
Design load (lb. @ design height)			1065@9.20 for 153 in <sup>3</sup> engine; 1170@9.20 for 194 in <sup>3</sup> engine
Stabilizer	Type (link, linkless, frameless)		Link
	Material & bar diameter		Steel, .625

## STEERING

Mechanical (std., opt., NA)			Std.
Power (std., opt., NA)			Optional
Wheel diameter			16.24
Turning diameter	Outside front	Wall to wall (l. & r.)	39.5
		Curb to curb (l. & r.)	38.4
	Inside rear	Wall to wall (l. & r.)	23.5
		Curb to curb (l. & r.)	23.8
Outside wheel angle with inside wheel at 20°			
Mechanical	Gear	Type	Semi-Reversible, Recirculating Ball
		Make	Saginaw
		Ratios	Gear 20:1 Overall 25.4:1
	No. wheel turns		4.50 Lock to Lock
Power	Type (coaxial, linkage, etc.)		Pump-operated Hydraulic Cylinder in linkage
	Make		Saginaw
	Trade name		None
	Gear	Type	Semi-Reversible, Recirculating Ball
		Ratios	Gear 20:1 Overall 25.4:1
		Pump driven by	
	Number wheel turns		4.50 Lock to Lock
Linkage	Type		Parallelogram with Center Link
	Location (front or rear of wheels, other)		Rear of Wheels
	Drag link (trans. or longit.)		None
	Tie rods (one or two)		Two

(Continued)

# AMA Specifications – Passenger Car

MAKE OF CAR Chevrolet MODEL YEAR 1963 DATE ISSUED 10-1-62 REVISED (•)

MODEL Chevy II 1-2-3-400

## STEERING (cont)

Steering Axis	Inclination at camber (deg.)		7°
	Bearings (type)	Upper	<u>Spherical Joint with sintered iron bearing</u>
		Lower	<u>Spherical Joint with sintered iron Brg. and phenolic seat</u>
	Thrust	<u>None</u>	
Wheel alignment (range and preferred)	Caster (deg.)		(+) 1° ± 30' (curb)
	Camber (deg.)		(+) 1° ± 30' (curb)
	Toe-in (outside tread-inches)		.12 to .18 (per wheel, curb)
Steering spindle & joint type			<u>Knuckle with integral brake cyl. mounting pad, detach. steer. arm.</u>
Wheel spindle	Diameter	Inner bearing	1.0618 - 1.0623
		Outer bearing	.6868 - .6873
	Thread size		11/16-20 NEF - 3 (Modified)
	Bearing type		<u>Taper Roller</u>

## SUSPENSION—REAR

Type and description			<u>Hotchkiss with two single leaf springs</u>	
Drive and torq. taken through (see page 17)			<u>Leaf springs</u>	
Spring	Type		<u>Single leaf</u>	
	Material		<u>Chrome carbon steel</u>	
	Size (length x width, cent design height and +. Dr. bar length & dia.)		62.50 x 2.25 (@ rear axle)	
	Spring rate (lb. per in.)		95	
	Rate at wheel (lb. per in.)			
	Design load (lb. at design height)		650 @ .29 + camber	
	Mounting insulation type			<u>Rubber bushed at shackle and hanger</u>
	If leaf	No. of leaves		<u>One</u>
		Inserts	Type and size	-----
			Material	-----
Shackle (comp. or tens.)		<u>Compression</u>		
Stabilizer	Type (link, linkless, frameless)		<u>None</u>	
	Material			
Track bar type				

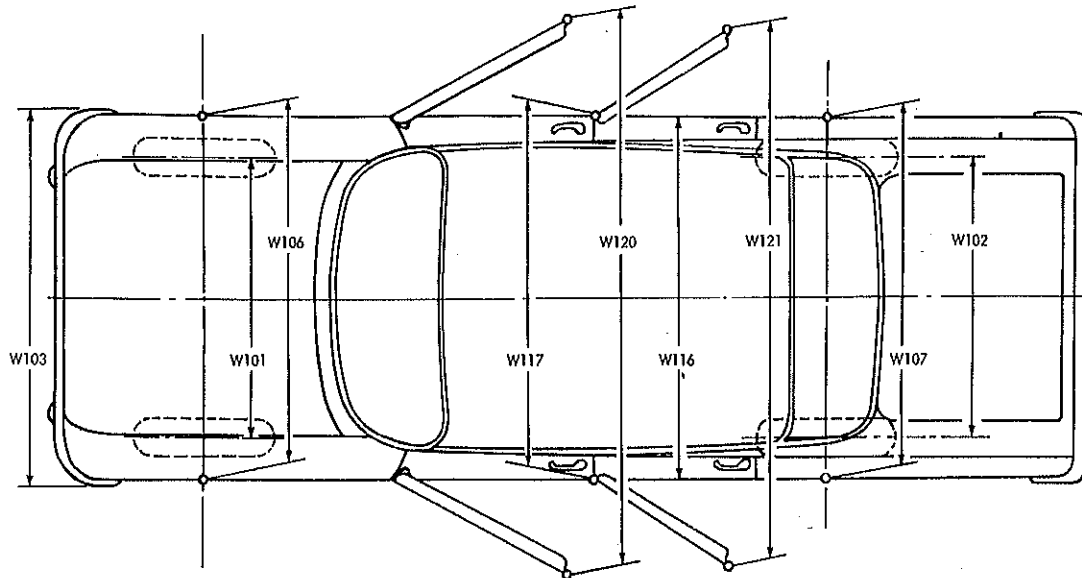
MAKE OF CAR Chevrolet MODEL YEAR 1963 DATE ISSUED 10-1-62 REVISED (\*)

## CAR AND BODY DIMENSIONS—GENERAL

NOTE: Included in the dimension definitions listed on pages 34-36 are those which have been adopted by SAE. These are indicated by a number following the type of dimension, e.g., L3. Additional dimensions have been added by the AMA Specifications Review Committee. These are shown by an additional letter, e.g., H67a. The symbol "a" has been added as a suffix to denote a dimension adopted by the AMA and submitted to the SAE for approval. 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 Torso Line is a line parallel to the small of manikin's back and extending through the H Point.

## EXTERIOR WIDTH DIMENSIONS

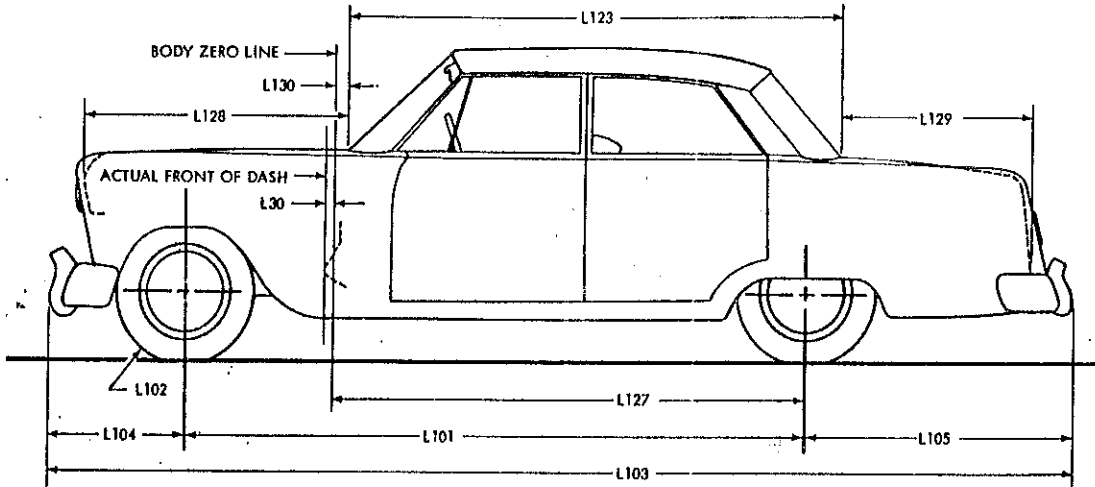


MODEL	Chevy II	Ref. No.	SEDANS	COUPES	CONVERTIBLE	WAGON
Tread - front		W101			56.8	56.3
Tread - rear		W102			56.3	55.8
Maximum overall car width		W103			70.8	
Maximum overall body width		W116			69.5	
Maximum body width at #2 pillar		W117			69.0	
Front fender overall width		W106			70.0	
Rear fender overall width		W107			69.5	
Maximum overall car width - front doors open		W120a	134.0		151.5	134.0
Maximum overall car width - rear doors open		W121a	131.0			131.0

# AMA Specifications – Passenger Car

MAKE OF CAR Chevrolet MODEL YEAR 1963 DATE ISSUED 10/1/62 REVISED(•)

## EXTERIOR LENGTH DIMENSIONS

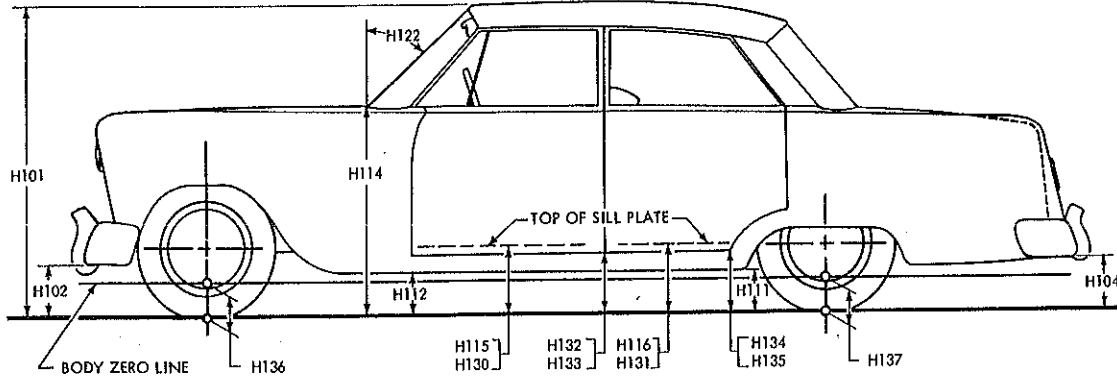


MODEL	Chevy II	Ref. No.	SEDANS	COUPES	CONVERTIBLE	WAGON
Body zero line to actual front of dash	L30			- . 8		
Wheelbase	L101			110. 0		
Overhang - front	L104			27. 0		
Overhang - rear	L105			46. 0		50. 4
Overall length	L103			183. 0		187. 4
Hood length at car centerline	L128a			47. 4		
Body upper structure length at car centerline	L123		93. 0		94. 0	123. 0
Deck length at car centerline	L129a		34. 5		33. 5	---
Body zero line to centerline of rear wheels	L127			94. 5		
Body zero line to windshield cowlf point	L130a			10. 4		
Tire size	L102		(Refer to Page 18)			

# AMA Specifications— Passenger Car

MAKE OF CAR Chevrolet MODEL YEAR 1963 DATE ISSUED 10-1-62 REVISED <sup>(6)</sup>

## EXTERIOR HEIGHT DIMENSIONS



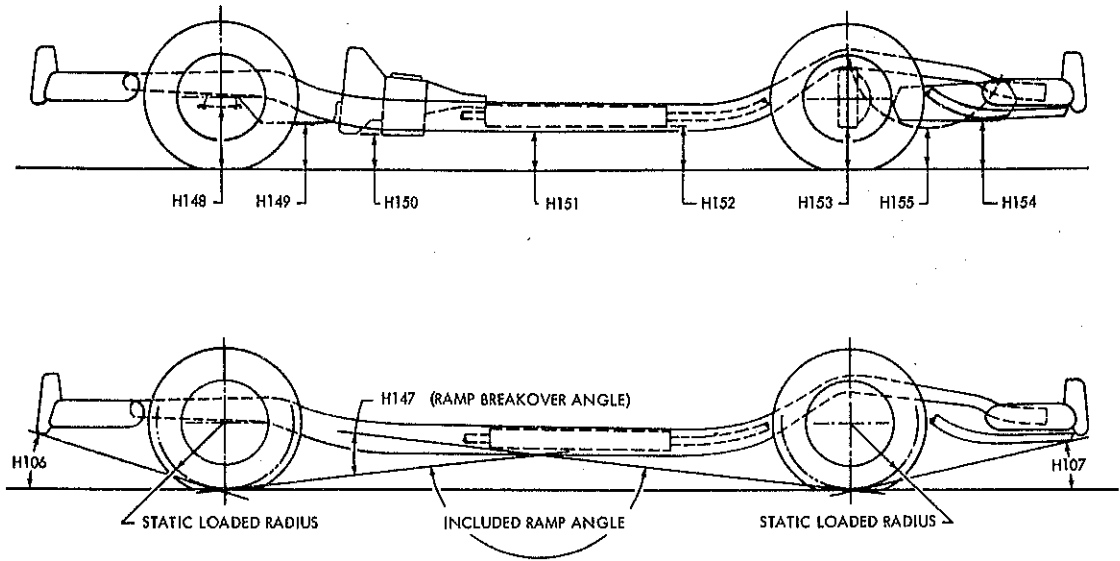
MODEL	Chevy II	Ref. No.	SEDANS	COUPES	CONVERTIBLE	WAGON	
Overall height		H101	55.0	54.0	54.5	55.0	
Hood at rear to ground		H114	37.5				
Rocker panel to ground - front		H112a	8.0				
Rocker panel to ground - rear		H111	7.5				
Step height - front (design load)		H115	13.0				
Step height - rear (design load)		H116	13.0				
Step height - front (curb load)		H130	14.5				
Step height - rear (curb load)		H131	14.5				
Bottom of door to ground, open - front		H132	11.5	11.0	11.0	11.5	
Bottom of door to ground, closed - front		H133	11.0				
Bottom of door to ground, open - rear		H134	10.5	---	---	10.5	
Bottom of door to ground, closed - rear		H135	11.0	---	---	11.0	
Front bumper to ground		H102	13.0				13.5
Rear bumper to ground		H104	12.5				10.5
Windshield slope angle		H122	48°				
Body zero to ground - front		H136a	5.0				
Body zero to ground - rear		H137a	5.0				



# AMA Specifications—Passenger Car

MAKE OF CAR Chevrolet MODEL YEAR 1963 DATE ISSUED 10-1-62 REVISED(°)

## GROUND CLEARANCE DIMENSIONS

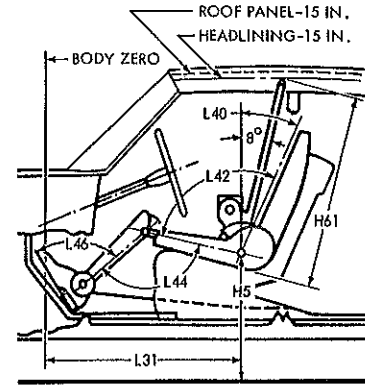
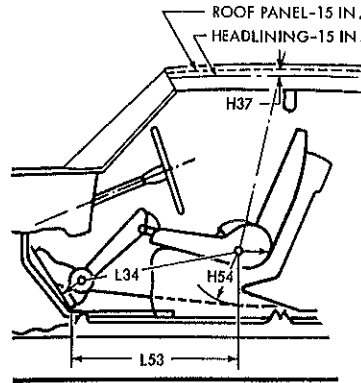
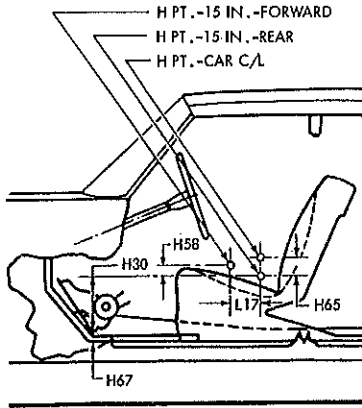


MODEL	Chevy II	Ref. No.	SEDANS	COUPES	CONVERTIBLE	WAGON
Angle of approach		H106		32°		33°
Angle of departure		H107		17°		13°
Ramp breakover angle		H147		12°		
Front suspension to ground		H148		7.5		8.0
Oil pan to ground		H149		6.5		
Flywheel housing to ground		H150		6.0		
Frame structure to ground		H151		---		
Exhaust system to ground		H152		6.0		
Rear axle differential to ground		H153		6.0		
Fuel tank to ground		H154		8.0		
Spare tire well to ground		H155		---		9.0
Minimum running ground clearance		H156		6.0		

# AMA Specifications—Passenger Car

MAKE OF CAR Chevrolet MODEL YEAR 1963 DATE ISSUED 10-1-62 REVISED (a)

## FRONT COMPARTMENT DIMENSIONS

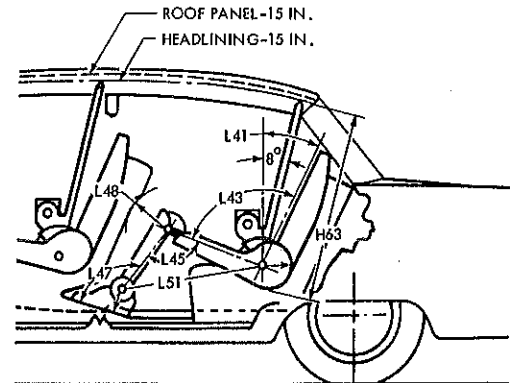
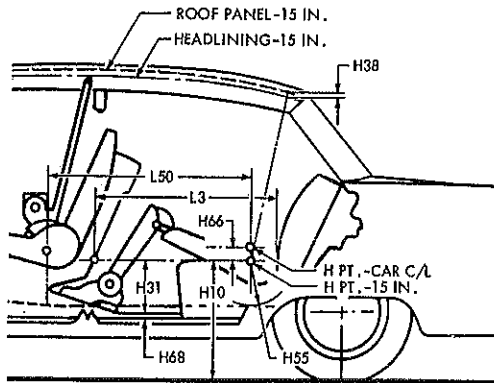


MODEL	Chevy II	Ref. No.	SEDANS	COUPES	CONVERTIBLE	WAGON
H Point to body zero line		L31a	42.0			
H Point to ground		H5a	19.5			
Effective head room		H61a	39.0	38.0	39.0	
Headlining to roof height		H37	.5			
Maximum effective leg room - accelerator		L34a	40.5			40.0
H Point to heel point		H30a	10.0			
Depressed floor covering thickness		H67a				
Back angle		L40a	25°			
Hip angle		L42a	103°			102°
Knee angle		L44a	141°	139°		140°
Foot angle		L46a	106°			107°
H Point differential, side to center		H65a	.5			
H Point to tunnel		H54a	3.0			
H Point to accelerator floor point		L53a	32.5			
H Point travel		L17a	4.0			
H Point rise		H58a	.5			

# AMA Specifications – Passenger Car

MAKE OF CAR Chevrolet MODEL YEAR 1963 DATE ISSUED 10-1-62 REVISED( )

## REAR COMPARTMENT DIMENSIONS

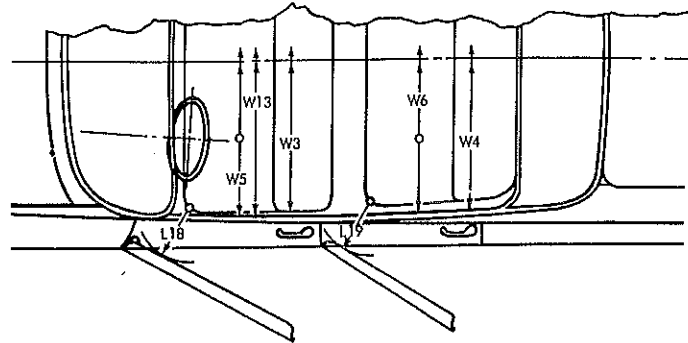
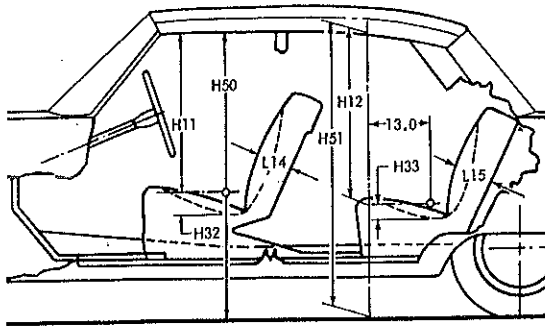


MODEL	Chevy II	Ref. No.	SEDANS	COUPES	CONVERTIBLE	WAGON
H Point couple distance		L50a	34.5			
H Point to ground		H10a	20.0			
Effective head room		H63a	38.0	37.0	37.5	38.5
Headlining to roof height		H38	.6		.6	
Minimum effective leg room		L51a	36.5	34.5		37.5
H Point to heel point		H31a	11.0	10.5		11.0
Depressed floor covering thickness		H68a				
Minimum knee room		L48a	4.0	3.0		5.0
Rear compartment room		L3	28.0	27.0	25.5	29.0
Back angle		L41a	28°	27°	19°	22°
Hip angle		L43a	91°	88°	79°	94°
Knee angle		L45a	97°	91°	90°	103°
Foot angle		L47a	120°	116°	115°	122°
H Point differential, side to center		H66a	.5	1.0	.5	.5
H Point to tunnel		H55a	2.5			

# AMA Specifications – Passenger Car

MAKE OF CAR Chevrolet MODEL YEAR 1963 DATE ISSUED 10-1-62 REVISED(\*)

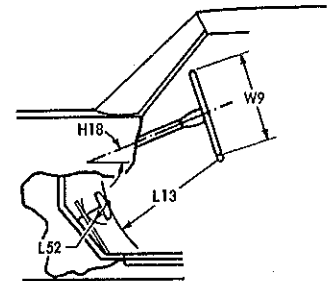
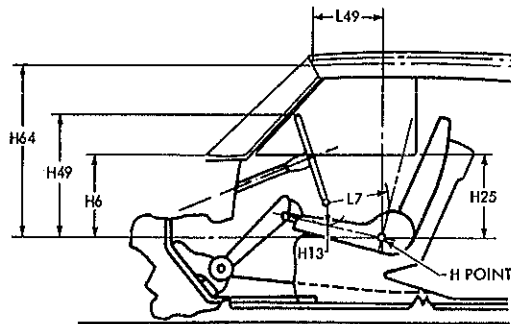
## SEAT AND ENTRANCE DIMENSIONS



MODEL	Chevy II	Ref. No.	SEDANS	COUPES	CONVERTIBLE	WAGON
Shoulder room - front		W3a			55.5	
Hip room - front		W5a			59.0	
Seat width - front		W16a			53.0	
Upper body opening to ground - front		H50a	50.0	49.0		50.0
Entrance height - front		H11a	31.0	29.5		31.0
Entrance foot clearance - front		L18		15.0		
Seat cushion deflection - front		H32a		4.0		
Seat back thickness - front		L14		6.0		
Shoulder room - rear		W4a	55.5	54.5	53.5	55.5
Hip room - rear		W6a	59.0	58.5	47.0	59.0
Upper body opening to ground - rear		H51a	50.0	-----	-----	50.0
Entrance height - rear		H12a	29.0	-----	-----	30.0
Entrance foot clearance - rear		L19		12.5		
Seat cushion deflection - rear		H33a	4.5	4.0		3.0
Seat back thickness - rear		L15	6.0	7.0		5.5

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## VISION AND CONTROL DIMENSIONS



MODEL	Chevy II	Ref. No.	SEDANS	COUPES	CONVERTIBLE	WAGON
H Point to windshield bottom DLO		H6a	19.5			
H Point to windshield upper DLO		H64a	32.0	30.0		32.0
H Point to windshield upper DLO		L49a	12.0	15.5	15.0	14.0
Belt height - front		H25a	17.5			
Steering wheel center to centerline of car		W7	14.5			
Steering wheel maximum outside diameter		W9	16.5			
Steering column angle - horizontal		H18	26°			
H Point to top of steering wheel		H49a	4.0			
Steering wheel torso clearance		L7a	11.5			
Steering wheel thigh clearance		H13a	5.5	5.0		5.5
Brake pedal knee clearance		L13	24.0			
Brake pedal to accelerator		L52a	3.5			
Tumble-home		W122a				

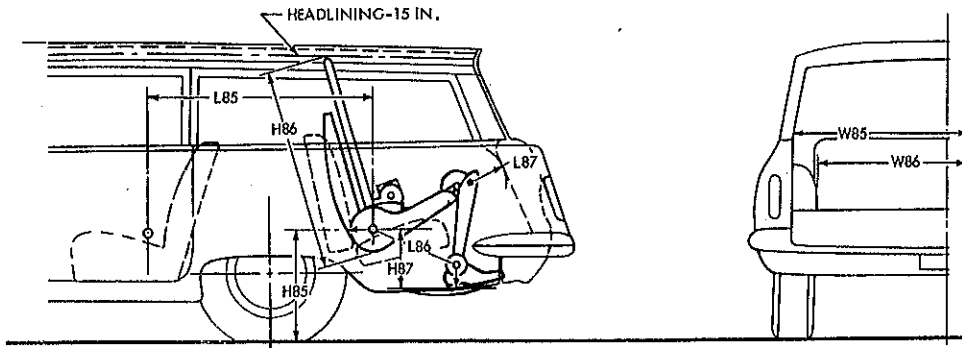
# AMA Specifications – Passenger Car

MAKE OF CAR Chevrolet MODEL YEAR 1963 DATE ISSUED 10-1-62 REVISED(\*) \_\_\_\_\_

## LUGGAGE COMPARTMENT

MODEL	Chevy II	Ref. No.	SEDANS	COUPES	CONVERTIBLE	WAGON
Usable luggage capacity (See instructions)			13.3			
Liftover height *		H301a	21.0			
Position of spare tire storage			Horizontal on Trunk Floor			Vertical, Rr. Qtr.
Method of holding lid open			Torsion Bars counterbalanced			

## THIRD SEAT DIMENSIONS



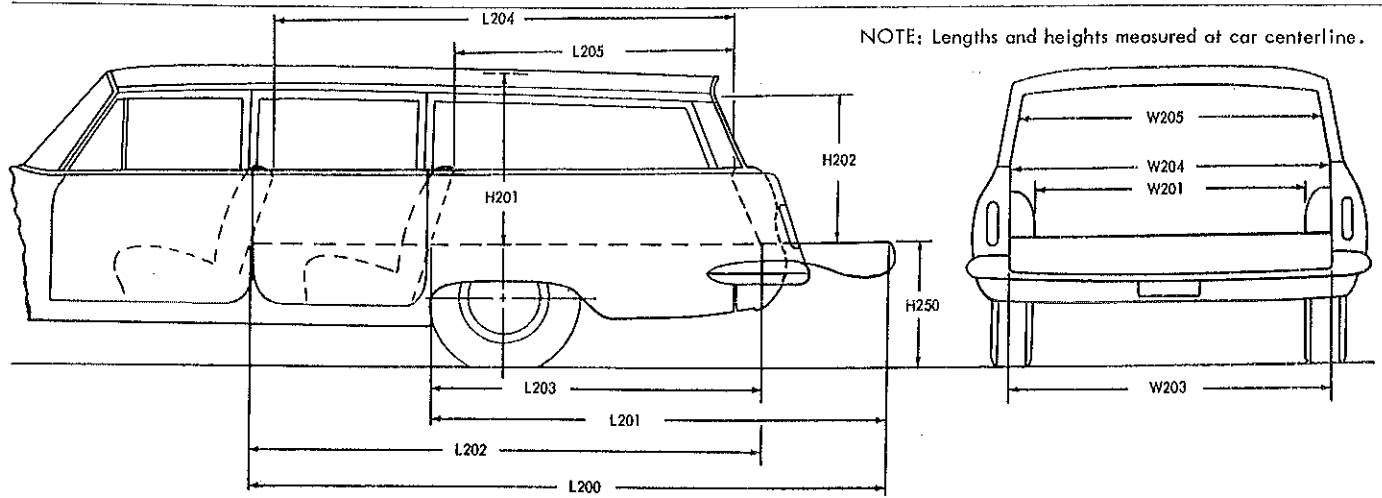
MODEL	Chevy II	Ref. No.	345 - 445
Seat facing direction			Rearward
Shoulder room		W85a	54.0
Hip room		W86a	47.5
H Point couple distance		L85a	33.0
H Point to ground		H85a	21.5
Effective head room		H86a	36.5
Effective leg room		L86a	31.5
H Point to heel point		H87a	12.0
Knee room		L87a	7.5
Back angle		L88a	22°
Hip angle		L89a	82°
Knee angle		L90a	76°
Foot angle		L91a	105°

\* Vertical dimension from luggage compartment lower opening to ground.

# AMA Specifications—Passenger Car

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## STATION WAGON—CARGO SPACE DIMENSIONS



MODEL	Chevy II	Ref. No.	2-Seat	3-Seat
	Floor length from back of front seat at floor level to end of lowered tail gate or floor	L200	108.5	
	Floor length from back of second seat at floor level to end of lowered tail gate or floor	L201	74.5	
	Floor length from back of front seat at floor level to inside of closed tail gate	L202	86.0	
	Floor length from back of second seat at floor level to inside of closed tail gate	L203	52.5	
	Minimum horizontal distance from top rear of front seat back to inside of tail gate at belt	L204	73.0	
	Minimum horizontal distance from top rear of second seat back to inside of tail gate at belt	L205	37.5	
	Maximum width of cargo space at floor - specify location	W200a	57.0	
	Minimum distance between wheel houses at floor level	W201	43.0	
	Rear end opening width at floor	W203	47.5	
	Rear end opening width at belt	W204	47.0	
	Maximum width of rear opening above belt	W205	47.0	
	Maximum height - floor covering to headlining at centerline of rear axle	H201	32.5	
	Maximum height of rear opening - tail and lift gates open	H202	28.5	
	Platform height from ground to top of tail gate floor covering at rear most edge of tail gate - curb weight	H250	21.5	
	Rear end closure (e.g., one piece door, hinged left - sliding glass, drop tail gate)		<b>Hinged tailgate torsion rod counterbalanced manual retractable rear window (a)</b>	
	Cargo volume index (cu. ft.) W4 x L204 x H201 1728		76.2	

(a) Electrically operated on 345-445.

# AMA Specifications – Passenger Car

MAKE OF CAR Chevrolet MODEL YEAR 1963 DATE ISSUED 10-1-62 REVISED <sup>(a)</sup>

MODEL Chevy II 100-200-300-400

## BODY—MISCELLANEOUS INFORMATION

Drs. hinged (front, rear)	Front doors	Front
	Rear doors	Front
Type of finish (lacquer, enamel, other)		Acrylic Lacquer
Hood hinge location (front, rear)		Rear
Hood counterbalanced (yes, no)		Yes
Hood release control (internal, external)		External
Vehicle (Serial) No. Location		Plate above lower hinge on L.H. front hinge pillar
Engine No. Location		Right side of cylinder block to rear of distributor
Theft protection - type		Shielded ignition lock terminals key removable in "lock" or "on" position.
Vent window control method (crank, friction pivot)	Front	Friction pivot
	Rear	None
Seat cushion type	Front	Polyurethane foam with zigzag spring
	Rear	Cotton - jute with zigzag springs (a)
Seat back type	Front	Cotton - zigzag springs
	Rear	Cotton - zigzag springs
Windshield type (single curved, compound curved, other)		One-piece, curved straight element
Rear window type (flat, curved, one piece, three piece)		One-piece, curved
Side glass type (curved, flat)		Flat
Side glass exposed surface area		1279.0
Windshield glass exposed surface area		1007.5
Backlight glass exposed surface area		1073.5
Total glass exposed surface area		3360.0 (b)

(a) Polyurethane foam on 435-437-467

(b) 4-Door Sedan





## DIMENSION DEFINITIONS

- W3a SHOULDER ROOM - FRONT. The minimum lateral dimension between the door garnish moldings or nearest interference. Measured at H Point station.
- W4a SHOULDER ROOM - REAR. Measured in the same manner as W3a.
- W5a HIP ROOM - FRONT. The lateral dimension through H Point to trimmed surfaces.
- W6a HIP ROOM - REAR. Measured in the same manner as W5a.
- 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.
- W16a SEAT WIDTH - FRONT. The maximum trimmed width of front seat cushion.
- W85a SHOULDER ROOM - THIRD SEAT. Measured in the same manner as W3a.
- W86a HIP ROOM - THIRD SEAT. Measured in the same manner as W5a.
- 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.
- W120a MAXIMUM OVERALL CAR WIDTH, FRONT DOORS OPEN. Measured with front doors in maximum hold-open position.
- W121a MAXIMUM OVERALL CAR WIDTH, REAR DOORS OPEN. Measured in same manner as W120a.
- W122a 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.
- L7a 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.
- L17a 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.
- L31a H POINT TO BODY ZERO LINE - FRONT. Horizontal dimension.
- L34a 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.
- L40a BACK ANGLE - FRONT. The angle between a vertical line through the H Point and the Torso Line.
- L41a BACK ANGLE - REAR. Measured in the same manner as L40a.
- L42a HIP ANGLE - FRONT. The angle between Torso Line and a line extending from knee pivot center to H Point.
- L43a HIP ANGLE - REAR. Measured in the same manner as L42a.
- L44a 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.
- L45a KNEE ANGLE - REAR. Measured in the same manner as L44a.
- L46a 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 mankin bare foot.
- L47a FOOT ANGLE - REAR. Measured in the same manner as L46a.
- L48a MINIMUM KNEE ROOM - REAR. The minimum dimension from the knee pivot center to the back of front seat back.
- L49a 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 H64a) with body upper structure.

## DIMENSION DEFINITIONS (cont.)

- L50a H POINT COUPLE DISTANCE. The horizontal dimension from the front seat H Point to the rear seat H Point.
- L51a 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.
- L52a BRAKE PEDAL TO ACCELERATOR. The minimum dimension from center of brake pedal face to accelerator. Measured in the side view.
- L53a H POINT TO ACCELERATOR FLOOR POINT. The horizontal dimension from intersection of accelerator and depressed floor covering to the H Point.
- L85a H POINT COUPLE DISTANCE – THIRD SEAT. The horizontal dimension from the second seat H Point to the third seat H Point.
- L86a EFFECTIVE LEG ROOM – THIRD SEAT. Measured in the same manner as L51a. With rear-facing third seat, foot is positioned in foot well or to nearest interference with rear end or rear closure.
- L87a KNEE ROOM – THIRD SEAT. Measured in the same manner as L48a. With rear-facing third seat, dimension is measured to rear closure.
- L88a BACK ANGLE – THIRD SEAT. Measured in the same manner as L40a.
- L89a HIP ANGLE – THIRD SEAT. Measured in the same manner as L42a.
- L90a KNEE ANGLE – THIRD SEAT. Measured in the same manner as L44a.
- L91a FOOT ANGLE – THIRD SEAT. Measured in the same manner as L46a.
- 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.
- L128a 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.
- L129a 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.
- L130a 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.
- H5a H POINT TO GROUND – FRONT. Vertical dimension.
- H6a H POINT TO WINDSHIELD BOTTOM DLO. Vertical dimension.
- H10a H POINT TO GROUND – REAR. Vertical dimension.
- H11a ENTRANCE HEIGHT – FRONT. The vertical dimension from H Point to upper trimmed body opening.
- H12a 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.
- H13a 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.
- H25a BELT HEIGHT – FRONT. The vertical dimension from H Point to bottom of side window DLO.
- H30a H POINT TO HEEL POINT – FRONT. The vertical dimension from the H Point to the manikin accelerator heel point on the depressed floor covering.
- H31a H POINT TO HEEL POINT – REAR. The vertical dimension from the H Point to the manikin heel point on the depressed floor covering.
- H32a 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.
- H33a SEAT CUSHION DEFLECTION – REAR. Measured in the same manner as H32a.
- 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.
- H49a H POINT TO TOP OF STEERING WHEEL. The vertical dimension from the H Point to top of steering wheel, in straight-ahead position.
- H50a 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.

## DIMENSION DEFINITIONS (cont.)

- H51a 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.
- H54a H POINT TO TUNNEL - FRONT. The minimum dimension from the H Point, at car centerline, to top of tunnel.
- H55a H POINT TO TUNNEL - REAR. Measured in the same manner as H54a.
- H58a H POINT RISE. The vertical dimension between the H Point in the most forward and rearward seat positions.
- H61a 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.
- H63a EFFECTIVE HEAD ROOM - REAR. Measured in the same manner as H61a.
- H64a H POINT TO WINDSHIELD UPPER DLO. Vertical dimension from H Point to highest horizontal line of vision through windshield at 15 inch section.
- H65a H POINT DIFFERENTIAL, SIDE TO CENTER - FRONT. The vertical dimension from side occupant H Point to center occupant H Point.
- H66a H POINT DIFFERENTIAL, SIDE TO CENTER - REAR. Measured in the same manner as H65a.
- H67a DEPRESSED FLOOR COVERING THICKNESS - FRONT. The vertical dimension from manikin accelerator heel point normally to underbody sheet metal immediately below heel point.
- H68a DEPRESSED FLOOR COVERING THICKNESS - REAR. Measured same as H67a.
- H85a H POINT TO GROUND - THIRD SEAT. Vertical dimension.
- H86a EFFECTIVE HEAD ROOM - THIRD SEAT. Measured in the same manner as H61a.
- H87a H POINT TO HEEL POINT - THIRD SEAT. Measured in the same manner as H31a.
- 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. Minimum angle between ground and a line tangent to arc of front tire static loaded radius and touching the limiting point of interference on front bumper, bumper guard, or gravel deflector.
- H107 ANGLE OF DEPARTURE. Minimum angle between ground and a line tangent to arc of rear tire static loaded radius and touching the limiting point of interference on rear bumper, bumper guard, gravel deflector, tail pipe, fender or other interfering structure.
- H111 ROCKER PANEL TO GROUND - REAR. The vertical dimension from ground to bottom of rocker panel, excluding flanges. Measured at front of rear wheel opening.
- H112a 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 in same manner 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.
- H136a BODY ZERO TO GROUND - FRONT. A vertical dimension measured at front wheel centerline.
- H137a 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 measured 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.

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1. The first part of the document  
 2. discusses the general principles  
 3. of the proposed system.  
 4. It is intended to provide a  
 5. clear and concise overview  
 6. of the key components and  
 7. objectives of the project.  
 8. The second part of the document  
 9. details the specific implementation  
 10. of the system, including the  
 11. hardware and software requirements.  
 12. This section also covers the  
 13. testing and evaluation process,  
 14. as well as the expected results  
 15. and conclusions of the study.  
 16. Finally, the third part of the  
 17. document provides a summary of  
 18. the findings and recommendations  
 19. for future work. It also  
 20. includes a list of references  
 21. and an appendix containing  
 22. additional data and figures.  
 23. The document is intended to  
 24. serve as a comprehensive  
 25. resource for anyone interested  
 26. in the development and  
 27. implementation of this system.  
 28. It is hoped that this document  
 29. will provide valuable insights  
 30. and information to the  
 31. research community and  
 32. practitioners alike.

