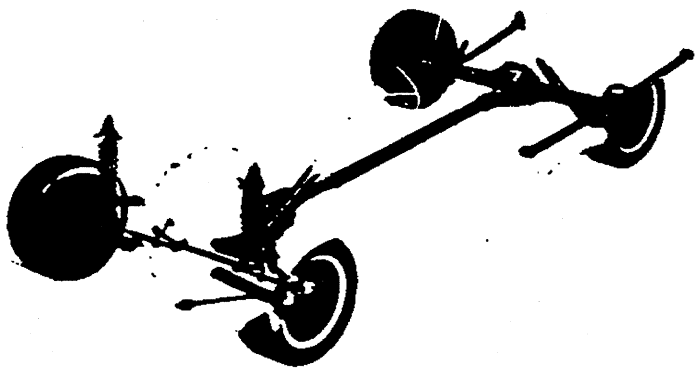
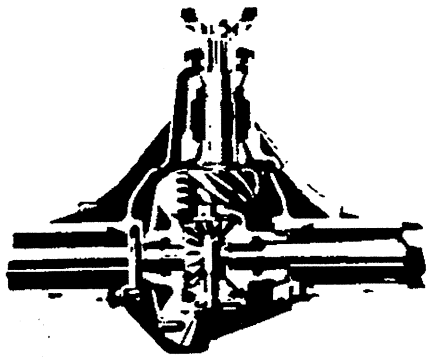
273|NOVA-64

CHASSIS





FRONT SUSPENSION

GENERAL
- Description ---------- Independent, SLA type with coil spring and concentric shock absorber, and spherically-jointed steering knuckle, for each wheel. Front wheel alignment achieved with cam-bolt for lower control arm pivot.
- ● Wheel travel, from design attitude
  - Jounce ---------- 4.04
  - Rebound ---------- 4.40
  - Wheel to spring ratio ---------- 1.56

CONTROL ARMS
- Description
  - Upper ----- Stamped A frame rubber-bushed at pivot.
  - Lower ---------- Stamped, reinforced U-shaped piece, rubber-bushed at pivot.
- Bushings
  - Type ---------- Pre-loaded, steel-encased rubber

STEERING KNUCKLE
- Description -------- Forged steel with integral cylinder mounting, and detachable steering knuckle arm.
- ● Spindle
  - Diameter
    - At inner bearing ---------- 1.2492-1.2498
    - At outer bearing ---------- .7491-.7497
  - Thread size ---------- 3/4-20 NEF-3 (modified)

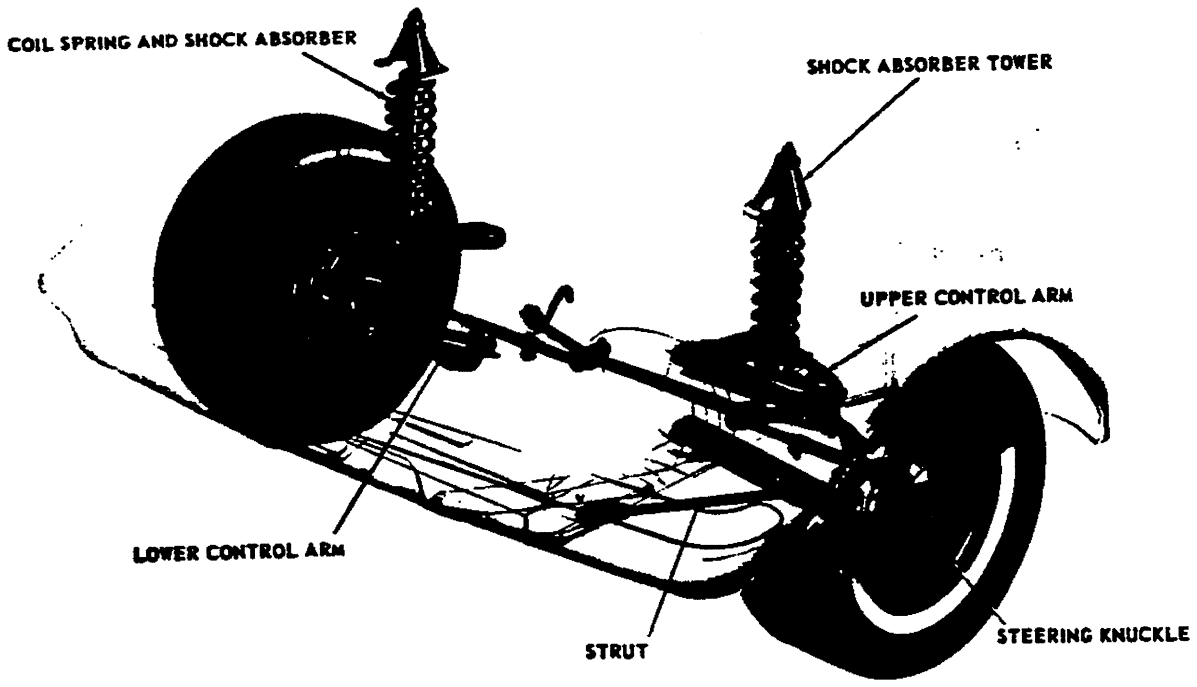
WHEEL BEARINGS
- Type ---------- Taper roller
- Quantity ---------- Two per spindle

SPHERICAL JOINTS
- Type ---------- Ball studs, lower self-adjusting for wear
- Quantity ---------- Two per steering knuckle
- Bearing surfaces
  - Material
    - Upper ---------- Teflon-cotton composition
    - Lower ---------- Sintered iron
- Seals
  - Description
    - Upper ---------- Neoprene with nylon insert
    - Lower ---------- Neoprene with nylon insert
- Lubrication
  - Upper and lower -------- High pressure grease fitting

SHOCK ABSORBERS
- Type ---------- Direct, double acting, hydraulic
- Secured (through coil spring) to -------- Lower control arm and front suspension crossmember
- Piston dia and travel (unassembled) ----- 1.00; 6.00
- Piston rod plating ---------- Chrome

STABILIZER BAR
- Type ---------- Link
- Material ---------- Heat-treated steel
- Diameter ---------- .687
- Bushing material -------- Natural or synthetic rubber
- Application ---------- Station wagons

● FRONT WHEEL ALIGNMENT
- Design
  - Caster (degrees) ---------- P1-1/2 to P2-1/2
  - Camber (degrees) ---------- P1/4 to P1-1/4
  - Toe-in, total ---------- 0 to 1/8
- Curb
  - Caster (degrees) ---------- P1/2 to P1-1/2
  - Camber (degrees) ---------- 0 to P1
  - Toe-in, total ---------- 1/4 to 3/8
- Steering axis inclination (degrees) -------- 6-3/4 to 7-3/4

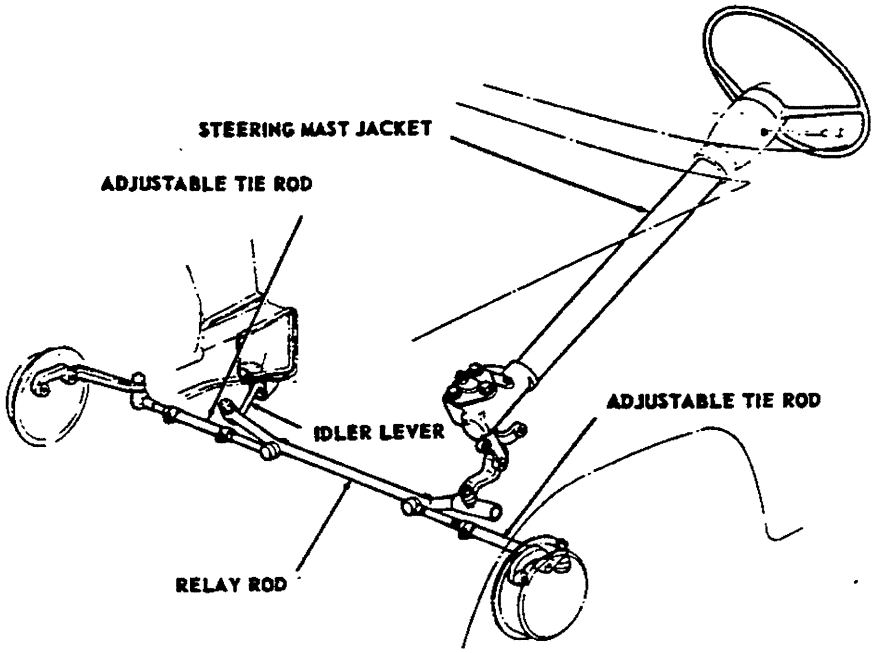


FRONT SPRINGS ●

ENGINE	Regular production L-4 and L-6		Part number and reference
TRANSMISSION	3-Speed	Automatic	
111,169, 437,447	A		
211,411 269,469 235,435	B		
[redacted]			
ENGINE RPO 0-	L-61	L-32	
TRANSMISSION	3-Speed Automatic	3-Speed 4-Speed Automatic	3792036-A 3792039-B 3792037-C
211,269 235,435 411,469	[redacted]	C	
ALL	Same as regular production L-4 and L-6		

	Type	Material	Cut-off length	Number of coils (active, total)	Wire diameter	Outside diameter	Pitch diameter	Heights		Deflection rate between 7.70 and 10.70 (lb per inch)	
								Free	Working (inches @ lb)	@ Spring	@ Wheel (wheel rate)
A	Right	Steel alloy	106.61	6.30,7.74	.562	4.924	4.362	13.46	9.20@1065	250	103
B	hand	heat treated	106.61	6.30,7.74	.562	4.924	4.362	13.88	9.20@1170	250	103
C	helix	and drawn	106.61	6.30,7.74	.562	4.924	4.362	14.10	9.20@1225	250	103

STEERING



GENERAL

Description	Semi-reversible, recirculating ball nut steering gear. Manual steering standard; power optional with 120 HP engine.
Steering gear	
Gear ratio, manual and power	20:1
Overall ratio, manual and power	25.4:1
Turning characteristic	
Turning diameter (ft)	
Outside front	
Wall to wall, right and left	39.5
Curb to curb, right and left	38.4
Inside rear	
Wall to wall, right and left	23.5
Curb to curb, right and left	23.8
Number of wheel turns, lock to lock	
Manual and power	4.50
Outside wheel angle with inside wheel @ 20°	18.5
Steering shaft	
Construction	One piece
Diameter	.75
Steering wheel	
Type	Two-spoke, deep dished
Diameter	16.24
Linkage	
Type	Parallelogram with center line
Location	Rear of wheels
Number of tie rods	2
Lubrication points	One at each end of each tie rod

POWER STEERING, RPO O-N40

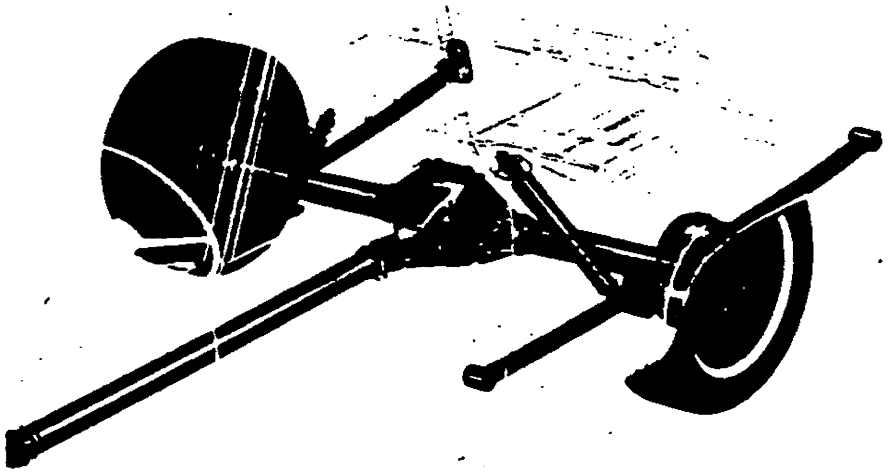
Description	Hydraulic; pump powered cylinder in linkage.
Drive	
Type	V-belt from crankshaft
Pump pulley	
PD	5.60
V angle (degrees)	36
Width @ PD	.38
Crankshaft pulley	
PD	6.64
V angle (degrees)	36
Width @ PD	.38
Belt	
Pitch line length	50.5
Lubrication points	Two; fitting at cylinder piston rod ball stud, and at valve adapter

DRIVELINE

PROPELLER SHAFT

Type	Exposed, unsupported
Quantity	1
Construction	Welded steel tubing incorporating yoke at each end
Tube	
OD	
90 HP	3.50
120 HP	2.75
Length	48.72
Wall thickness	.065
Length between axes of yoke bores	52.1

REAR SUSPENSION



GENERAL

Description — Hotchkiss; integral rear beam supported by two semi-elyptical single leaf springs and two angularly mounted shock absorbers. Drive and torque taken through springs.

● Wheel travel, from design attitude

Jounce	4.00
Rebound	5.38
Wheel to spring ratio	1:1

SHOCK ABSORBERS

Type	Direct, double acting, hydraulic
Secured between	Underside of kickup and anchor plate at spring axle attachment
Piston diameter and travel (unassembled)	1.00; 7.50

● REAR SPRINGS

For all power team combinations

3792618

Model application	111,211,169,269,411,469
Type	Semi-elyptical, single leaf
Material	Chrome carbon steel
Length flat, between eye center	62.50
Width @ centerline of axle	2.25
Eye diameters	
Front	1.997-2.007
Rear	1.590-1.600
Design load @ ℄ of axle, lb @ + camber	650 @ .29
Deflection rate, lb per inch	
@ Spring	95
@ Wheel (wheel rate)	114

3792597

Model application	235,435

Same as 3792618 except as follows

Design load @ ℄ of axle, lb @ + camber	855 @ .01
Deflection rate, lb per inch	
@ Spring	130
@ Wheel (wheel rate)	141

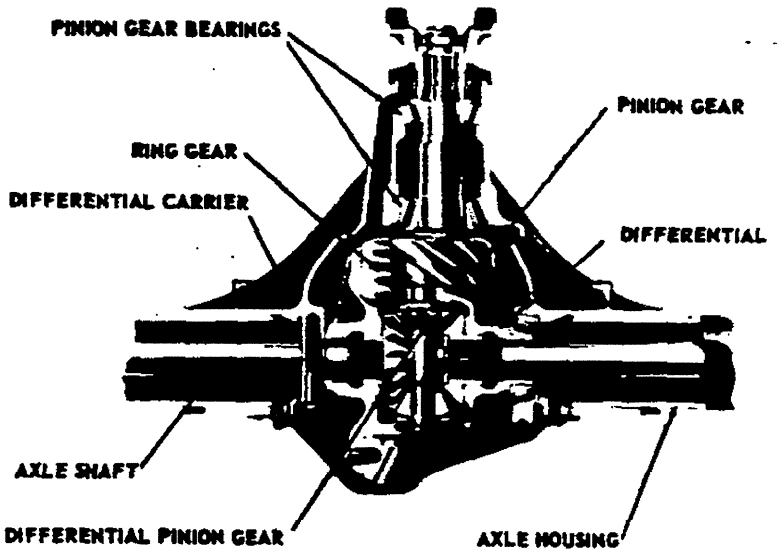
3792830

Model application	437, 447

Same as 3792618 except as follows

Design load @ ℄ of axle, lb @ + camber	550 @ .29

REAR AXLE



GENERAL

Type ---------- Semi-floating; integral rear beam consisting of cast iron differential carrier and cover, and pressed-in axle housings.

Lubricant

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

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

● Filler plug -------- 5/8 sq.hd., 3/4 - 14 PTF SAE short

Regular production ratios

Sedans ---------- 3.08:1

Station wagons

90 HP ---------- 3.55:1

120 HP ---------- 3.36:1

Differential carrier

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

Offset ---------- 1.5

Hypoid gear PD ---------- 8.125

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

Cover assemblage ---------- Bolted

DIFFERENTIAL

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

Adjustment ---------- Shim

AXLE

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

Wheel bearings

Type ---------- Single row cylindrical ball

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

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

HYPOID AND PINION GEAR TOOTH COMBINATIONS

3.08:1		
Hypoid gear	----------	37
Pinion gear	----------	12
3.36:1		
Hypoid gear	----------	37
Pinion gear	----------	11
3.55:1		
Hypoid gear	----------	32
Pinion gear	----------	9

POSITRACTION DIFFERENTIAL, RPO G80
(for availability, see POWER TRAINS)

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

SERVICE BRAKES, Regular Production

General
- Type ---------- Duo servo, 4-wheel hydraulic, reverse self-adjusting
- Line pressure, psi, at 100 lb pedal load ---------- 815
- Braking ratios
  - Pedal ---------- 6.40
  - Hydraulic ---------- 3.78
  - Overall ---------- 24.19
- Distribution of braking effort (theoretical, percent)
  - Front wheels ---------- 59.4

Brake drum
- Construction ---------- Composite, web cast into rim
- Material
  - Web ---------- HR steel
  - Rim ---------- Cast iron alloy
- Web thickness
  - Front and rear ---------- .094-.114
- ● Swept drum area, sq. inches ---------- 268.6
- Diameter, front and rear ---------- 9.5

Brake lining
- Material ---------- Full molded asbestos composition
- Length
  - Primary shoe, front and rear ---------- 8.96
  - Secondary shoe
    - Front ---------- 9.75
    - Rear ---------- 9.75
- Width
  - Front ---------- 2.50
  - Rear ---------- 2.00
- Thickness, minimum @ centerline
  - Primary ---------- .17
  - Secondary ---------- .20
- Method of attachment ---------- Bonded
- Total effective area, sq. in. ---------- 168.3
- Gross lining area, sq. in. ---------- 168.3

Master cylinder
- Location ----- Engine compartment, left side of dash
- Piston diameter ---------- 1.00
- Piston travel (with available pedal travel) ---------- 1.00

Wheel cylinders
- Location
  - Front ---------- Steering knuckle
  - Rear ---------- On backing plate
- Piston diameter
  - Front ---------- 1.06
  - Rear ---------- .875

Foot pedal
- Type ---------- Pendent
- Travel ---------- 6.4

PARKING BRAKE
- Type ---------- Mechanical pull rods and cables operate two rear service brakes
- Total effective area, sq. inches ---------- 74.8
- Control ---------- Apply and release by pawl-type brake lever mounted horizontally to right of steering column. Gripped with L-handle which when turned releases brake.

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

SERVICE BRAKES, METALLIC, RPO O-J65

Same as service brake, regular production, except as follows

General
- Line pressure, psi, @ 100 lb pedal load ---------- 1064
- Braking ratios
  - Pedal ---------- 6.40
  - Hydraulic ---------- 4.94
  - Overall ---------- 31.62

Brake lining
- Material ---------- Sintered iron segments
- Size
  - Front wheel segments
    - Primary ---------- 1.64 x 1.25 x .175
    - Secondary ---------- 1.64 x 1.25 x .295
  - Rear wheel segments
    - Primary ---------- 1.64 x 1.00 x .175
    - Secondary ---------- 1.64 x 1.00 x .295
- Segments per shoe, front and rear
  - Primary ---------- 6
  - Secondary ---------- 10
- Method of attachment ---------- Welded
- Total effective area, sq. inches ---------- 118.1

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

POWER BRAKES, RPO O-J50

General
- Type ---------- Vacuum power unit added to assist master cylinder

Braking ratios
- With regular production linings
  - Pedal ---------- 3.58
  - Hydraulic ---------- 3.78
  - Overall ---------- 13.53
- With metallic linings
  - Pedal ---------- 3.58
  - Hydraulic ---------- 4.94
  - Overall ---------- 17.69

Master cylinder
- Piston diameter
  - With regular production linings ---------- 1.00
  - With metallic linings ---------- .875
- Piston travel (with available pedal travel) ---------- 1.15

Foot pedal
- Travel ---------- 4.12

WHEEL, Regular Production
- Type ---------- Short spoke spider
- Attachment to hub ------ 5 hex nuts, 7/16-20 UNF-2B, arranged on a 4.75 dia. bolt circle
- Rim size
  - 1,200, -11, -69 ----------13 x 4.0J
  - Wagons and Nova models ----------13 x 5.5J
  - Nova SS ----------14 x 5.0J
- Offset
  - 13 x 4.0J ---------- 0.75
  - 13 x 5.5J and 14 x 5.0J ---------- 1.00

TIRES, Regular Production
- Type ---------- Rayon, tubeless, blackwall
- Construction ---------- 2 ply
- Size
  - 1,200, -11, -69 ----------6.00 x 13 - 4PR
  - Wagon and Nova models ----------6.50 x 13 - 4PR
  - Nova SS ----------6.50 x 14 - 4PR
- Specifications
  - 6.00 x 13 - 4PR
    - Loaded rolling radius ---------- 11.3
    - Loaded rev/mi ----------892
    - Capacity (lb @ psi)---------- 725 @ 24
  - 6.50 x 13 - 4PR
    - Loaded rolling radius ---------- 11.7
    - Loaded rev/mi ----------864
    - Capacity (lb @ psi)---------- 835 @ 24
  - 6.50 x 14 - 4PR
    - Loaded rolling radius ---------- 12.4
    - Loaded rev/mi ----------815
    - Capacity (lb @ psi) ---------- 880 @ 24
- Recommended inflation, psi, cold
  - 6.00 x 13 - 4PR, front and rear ----------24
  - 6.50 x 13 - 4PR
    - Except wagons, front and rear ---------- 24
    - Wagons ---------- 24 front, 28 rear
  - 6.50 x 14 - 4PR, front and rear----------22

TIRE AND WHEEL, RPO O-P66

Wheel, 14 x 5.0 J

Same as 14 x 5.0J WHEEL, Regular Production

Tire, 6.50 x 14-4PR

Same as 6.50 x 14 – 4 PR TIRE, Regular Production, except as follows:

Recommended inflation, psi, cold
- Except wagons, front and rear ----------22
- Wagons ---------- Front 24, rear 28

SPECIAL FRONT AND REAR SUSPENSION EQUIPMENT

RPO O-F40

FRONT SPRINGS

3792044
- Model application ---------- 111,169
- Type ---------- Right hand helix
- Material -------- Steel alloy, heat treated and drawn
- Cut-off length ---------- 107.28
- No. of coils (active, total) ---------- 6.30,7.74
- Wire diameter ---------- .590
- OD ---------- 4.980
- PD ---------- 4.390
- Height
  - Free ---------- 13.20
  - Working (inches @ lb) ---------- 9.20 @ 1200
- Deflection rate between 7.70 and 10.70, lb per inch
  - @ Spring ---------- 300
  - @ Wheel (wheel rate)

3792045

Same as 3792044 except as follows

- Model application ---------- 211,269,411,469,235,435
- Height
  - Free ---------- 13.47
  - Working (inches @ lb) ---------- 9.20 @ 1280

REAR SPRINGS

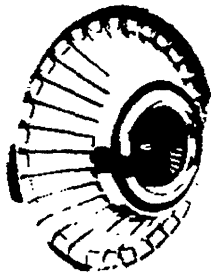
3792597
- Model application ---------- 111,169,211,269,411,469
- Type ---------- Semi-elypitcal, single leaf
- Material ---------- Chrome carbon steel
- Length flat, between eye centers ---------- 62.50
- Width @ centerline of axle ---------- 2.25
- Eye diameters
  - Front ---------- 1.997-2.007
  - Rear ---------- 1.590-1.600
- Design load @ C/L of axle, lb @ + camber -- 855 @ .01
- Deflection rate, lb per inch
  - @ Spring ---------- 130
  - @ Wheel (wheel rate) ---------- 141

3792598

Same as 3792597 except as follows

- Model application ---------- 235,435
- Design load @ C/L of axle, lb @ + camber -- 955 @ .00
- Deflection rate, lb per inch
  - @ Spring ---------- 165
  - @ Wheel (wheel rate) ----------

SHOCK ABSORBER - REAR
- Part number ---------- 3178183
- Model application ---------- 111,169,211,269,411,469



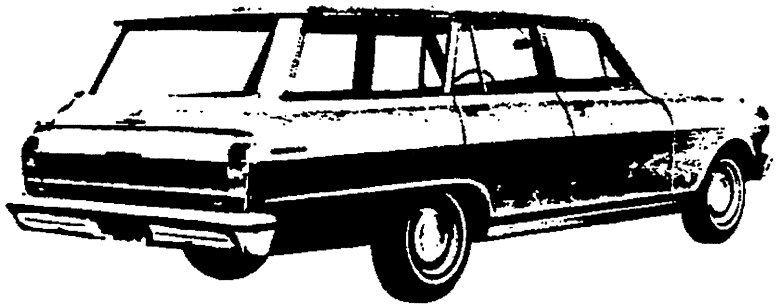
ACCESSORY WHEEL DISK

LAMPS	NO. REQUIRED	TRADE NO.	CANDLE POWER PER LAMP
Automatic trans. indicator dial	1	1445	1
Backup	2	1156	32
Cigarette lighter	1	1445	1
● Clock	1	1895	2
● Courtesy			
Instrument panel	2	631	6
Seat Separator	1	211	12
Direction signal indicators	2	1895	2
Dome	1	211	12
Generator indicator	1	1895	2
Glove compartment	1	1895	2
Headlamps	2	6012	High beam - 50W Low beam - 45W
Headlamps hi-beam indicator	1	1895	2
Instrument cluster	4	1816	3 ●
License plate	1	1155	4
● Luggage compartment	1	1003	15
Oil pressure indicator	1	1895	2
Parking			
Park	2	1157	4
Turn			32
Parking brake alarm	1	257	2
Radio	1	1893	2
Tail			
Tail,			4
Stop and	2	1157	32
Turn			32
Temperature indicator	1	1895	2
● Traffic hazard indicator	1	1445	1
● Underhood lamp	1	93	15

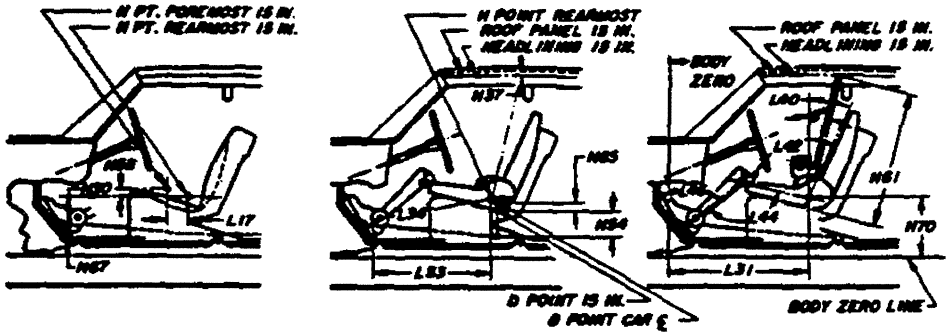
DEVICE PROTECTED	TYPE OF PROTECTION	LOCATION AND CIRCUIT *
Air conditioning	2 SAE 20 fuses	In line Fuse panel (f)
Auto. trans. indicator dial lamp	AGC 3 fuse	Fuse panel (c)
Backup lamps	AGC 10 fuse	Fuse panel (d)
Cigarette lighter	AGC 15 fuse	Fuse panel (b)
Cigarette lighter lamp	AGC 3 fuse	Fuse panel (c)
Clock	AGC 15 fuse	Fuse panel (b)
● Clock lamp	AGC 3 fuse	Fuse panel (c)
● Courtesy lamps		
Instrument panel	AGC 15 fuse	Fuse panel (b)
Seat separator	AGC 15 fuse	Fuse panel (b)
Defogging blower	AGC 5 fuse	Fuse panel (d)
Direction signal indicator lamps	AGC 3 fuse	Fuse panel (c)
Dome lamp	AGC 15 fuse	Fuse panel (b)
Glove compartment lamp	AGC 15 fuse	Fuse panel (b)
Headlamps	15 amp CB	Light switch (a)
Headlamps hi-beam indicator lamp	15 amp CB	Light switch (a)
Heater	AGC 10 fuse	Fuse panel (f)
Instrument cluster lamps	AGC 3 fuse	Fuse panel (b)
● Luggage compartment lamp	AGC 3 fuse	Fuse panel (c)
Parking lamps	15 amp CB	Light switch (a)
Parking brake alarm lamp	AGC 10 fuse	Fuse panel (d)
Radio and radio lamp	AGC 2 5 fuse	Fuse panel (e)
● Tachometer	- - -	- - -
Tail lamps	AGC 15 fuse	Fuse panel (b)
Tailgate motor	40 amp CB	Hinge pillar (h)
● Traffic hazard indicator lamp	AGC 15 fuse	Fuse panel (b)
● Underhood lamp	SAE 4 fuse	In line
W/S wiper, single-speed	SAE 20 fuse	Fuse panel (g)
W/S wiper, two-speed	SAE 20 fuse	Fuse panel (g)
	14 amp CB	Switch (i)

● *Letter suffix indicates same circuit.

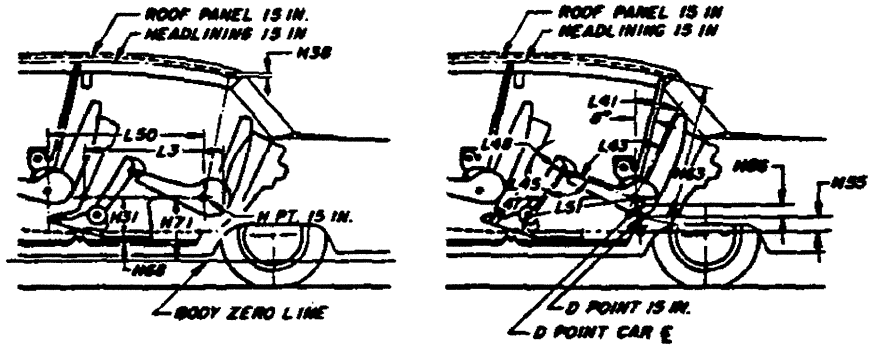
DIMENSIONS AND WEIGHTS



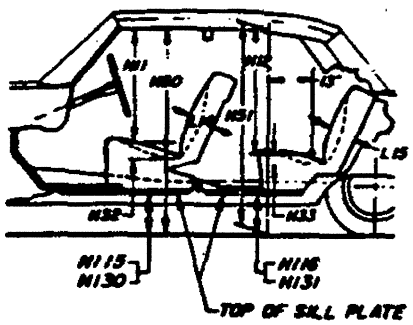
INTERIOR DIMENSIONS

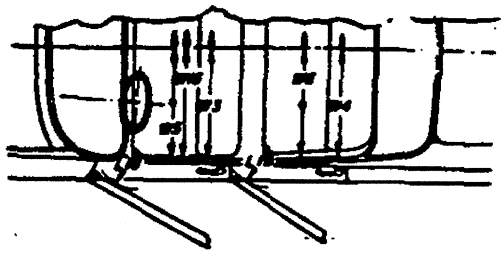


			MODELS			
			SEDANS		COUPES	STATION
	CODE	DESCRIPTION	2-Dr.	4-Dr.	437 447	WAGONS
FRONT COMPARTMENT	L31	Body O line to H point	42.3		43.0	42.3
	H5	H point to ground	19.3		19.5	19.9
	H61	Effective headroom	39.0		38.0 38.3	39.0
	H37	Headlining to roof height	.5			.7
	L34	Maximum effective leg room - accelerator	40.1		40.3 41.1	40.1
	H30	H point to heel point	9.0		9.4 9.2	9.5
	H67	Depressed floor covering thickness	.8			.5
	L40	Back angle	23.5°		26°	23.5°
	L42	Hip angle	92.0°		96.5°	92.5°
	L44	Knee angle	118.5°		123°	119.0°
	L46	Foot angle	81°		83.5°	80.5°
	H65	H point differential, side to center	.3		—	.6
	H54	H point to tunnel	2.3		—	3.0
	L53	H point to accelerator floor point	32.5		33.3	32.5
	L17	H point travel	4.0			
	H58	H point rise	.5		.7	.5



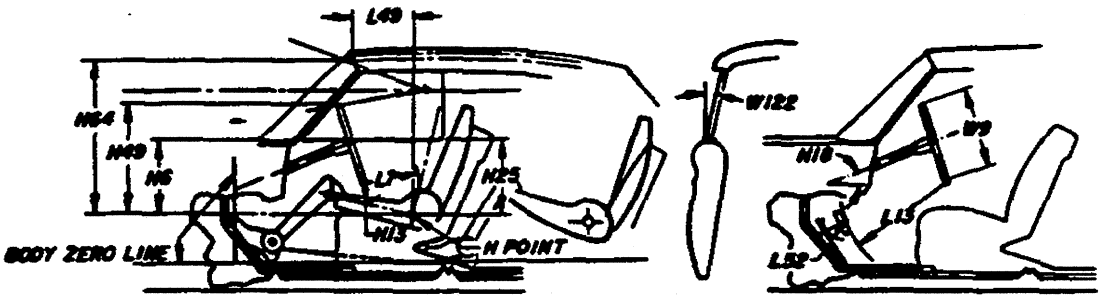
			SEDANS		COUPES	STATION
	CODE	DESCRIPTION	2-Dr.	4-Dr.	437 447	WAGONS
REAR COMPARTMENT	L50	H point couple distance	33.6		32.5 31.8	34.4
	H10	H point to ground	19.6		19.5	20.2
	H63	Effective headroom	37.6		36.6	37.9
	H38	Headlining to roof height	.6		.7	
	L51	Minimum effective legroom	36.1		34.9 34.8	37.1
	H31	H point to heel point	11.0		10.8	11.3
	H68	Depressed floor covering thickness	.4			
	L48	Minimum knee room	4.2		3.3 1.4	4.9
	L3	Rear compartment room	28.0		26.9 25.3	28.8
	L41	Back angle	26°			28.5°
	L43	Hip angle	88°	89.5°	85.5°	94°
	L45	Knee angle	94.5°	99.0°	89°	103°
	L47	Foot angle	117°	119°	114.5°	122°
	H66	H point differential, side to center	.5			
	H55	H point to tunnel	2.1		2.3	1.4





SEAT AND ENTRANCE

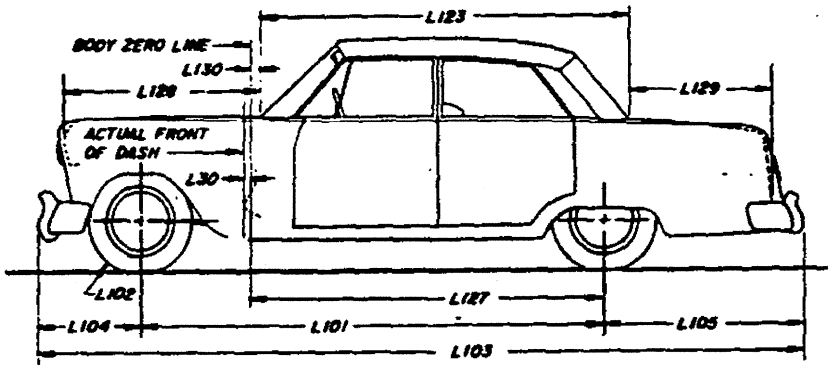
	CODE	DESCRIPTION	MODELS				
			SEDANS		COUPES		STATION WAGONS
			2-Dr.	4-Dr.	437	447	
FRONT	W1	Hat room	53.6				
	W3	Shoulder room	55.3				
	W5	Hip room	59.2				
	W16	Seat width	53.1			26.0	53.1
	H3	Seat chair height	11.5				11.7
	H50	Upper body opening to ground	50.2			49.1	50.4
	H11	Entrance height	31.0		29.6	29.7	31.0
	L18	Entrance - foot clearance	15.1			16.1	15.1
	H32	Seat cushion deflection	4.1		3.6	4.2	3.7
	L14	Thickest point of seat back at C/LO	5.9			6.4	5.9
	H26	Interior body height at car C/L	42.2				42.3
	H27	Interior body height at C/LO	44.4				44.3
REAR	W2	Hat room	50.5				50.6
	W4	Shoulder room	55.3		54.0		55.3
	W6	Hip room	58.9		58.2		58.9
	H8	Seat chair height	12.5				
	H51	Upper body opening to ground	–	49.9	–		50.2
	H12	Entrance height	–	28.9	–		30.2
	H69	Exit height	–	30.2	–		30.2
	H19	Entrance - foot clearance	–	12.0	–		12.2
	H33	Seat cushion deflection	4.0		3.8		3.2
	L15	Thickest point of seat back at C/LO	6.0		6.9		5.3
	H28	Interior body height at car C/L	40.6		39.6		41.5
	H29	Interior body height at C/LO	42.1		41.0		43.0



VISION AND CONTROL

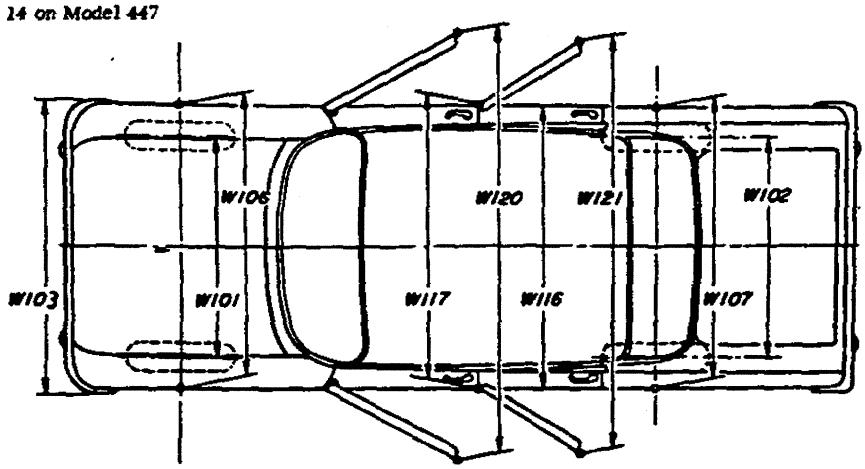
	CODE	DESCRIPTION	SEDANS		COUPES		STATION WAGONS
			2-Dr.	4-Dr.	437	447	
	H6	H point to windshield bottom DLO	19.9				19.7
	H64	H point to windshield upper DLO	32.0		30.4	30.6	32.0
	L49	H point to windshield upper DLO	14.0		15.5	16.4	14.0
	H25	Belt height - front	17.4				
	W7	Steering wheel center to C/L of car	14.4				
	W9	Steering wheel outside diameter	16.5				
	H18	Steering column angle - horizontal	26°				
	H49	H point to top of steering wheel	4.0				
	L7	Steering wheel torso clearance	11.8			12.6	11.8
	H13	Steering wheel thigh clearance	3.3			3.6	3.5
	L13	Brake pedal knee clearance	24.0				
	L52	Brake pedal to accelerator	3.4				
	W122	Tumble home	12.5				

EXTERIOR DIMENSIONS

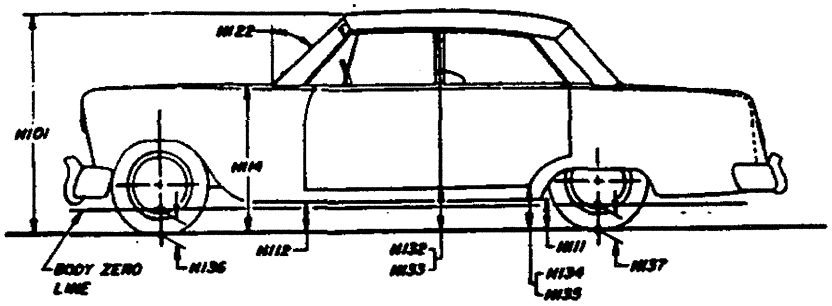


	CODE	DESCRIPTION	MODELS			
			SEDANS		COUPES	STATION WAGONS
			2-Dr.	4-Dr.		
LENGTHS	L30	Body O line to actual front of dash	.8			
	L101	Wheelbase	110.0			
	L104	Overhang, front	27.0			
	L105	Overhang, rear	45.9			50.6
	L103	Overall length	182.9			187.6
	L128	Hood length at centerline	47.4			
	L123	Body upper structure length at car C/L	94.7			123.8
	L129	Deck length at centerline	33.9			---
	L127	Body O line to C/L of rear wheels	94.5			
	L130	Body O line to windshield cowl point	10.4			
	L102	Tire size	6.00 x 13		6.50 x 13*	
		Overall length - less bumpers	180.5			184.0

* - 6.50 x 14 on Model 447

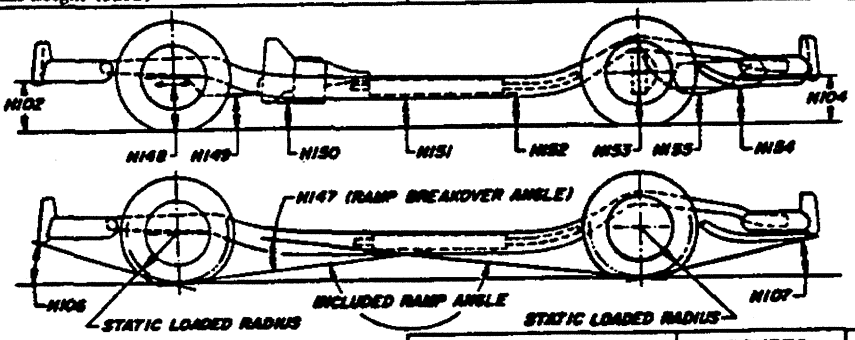


	CODE	DESCRIPTION	SEDANS		COUPES	STATION WAGONS
			2-Dr.	4-Dr.		
WIDTHS	W101	Tread - front	56.8			56.3
	W102	Tread - rear	56.3			55.8
	W103	Maximum overall width of car	70.8			
	W116	Maximum overall width of body	69.4			
	W117	Maximum body width at #2 pillar	---	69.3		
	W106	Front fender overall width	68.5			
	W107	Rear fender overall width	69.4			
	W120	Maximum overall width, front doors open	151.5	134.0	151.5	134.0
	W121	Maximum overall width, rear doors open	---	131.2	---	131.2



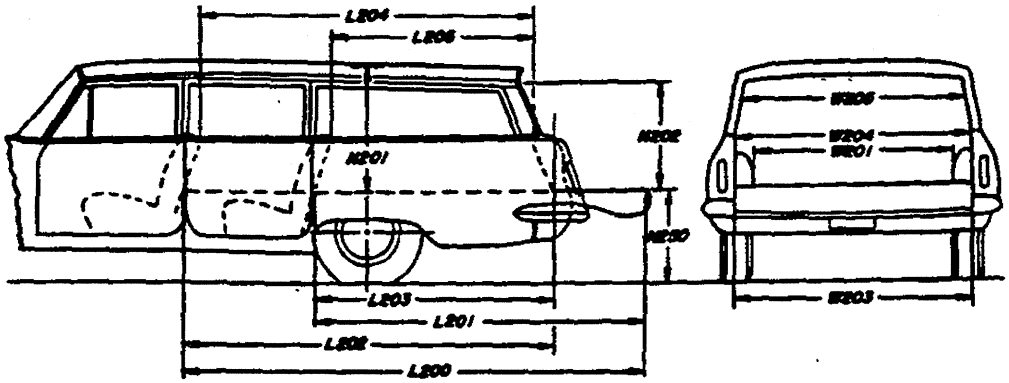
			MODELS			
			SEDANS		COUPES	STATION WAGONS
	CODE	DESCRIPTION	2-Dr.	4-Dr.		
HEIGHTS	H101	Overall height (design)	55.0		54.0*	55.1
	H114	Hood at rear to ground	37.4			37.5
	H112	Rocker panel to ground - front	8.0			
	H111	Rocker panel to ground - rear	7.6	7.5		7.4
	H115	Step height - front (design)	12.8			12.4
	H116	Step height - rear (design)	---	12.6	---	12.7
	H130	Step height - front (curb)	13.7			13.6
	H131	Step height - rear (curb)	---	14.5	---	14.5
	H132	Bottom of door to ground, open - front	11.3			
	H133	Bottom of door to ground, closed - front	11.0			
	H134	Bottom of door to ground, open - rear	---	10.7	---	10.7
	H135	Bottom of door to ground, closed - rear	---	10.8	---	10.8
	H102	Front bumper to ground	13.1			13.2
	H104	Rear bumper to ground	12.8	12.7	12.8	10.3
	H122	Windshield slope angle	48°			
	H136	Body O line to ground - front	5.0			
	H137	Body O line to ground - rear	5.0			
	H125	Headlamp to ground	26.0			
	H126	Taillamp to ground	26.0			
	H158	Roof thickness	4.7			
	H159	DLO height	13.7			
	H160	Body thickness	29.0			
	H301	Lift over height	21.0			---
		Overall height (curb)	56.5		55.5**	56.5

* - 54.5 on 447
** - 56.0 on Model 447



			SEDANS		COUPES	STATION WAGONS
	CODE	DESCRIPTION	2-Dr.	4-Dr.		
CLEARANCES	H106	Angle of approach	32.1°			32.7°
	H107	Angle of departure	16.3°			14.8°
	H147	Ramp breakover angle	12.2°			
	H148	Front suspension to ground	5.2			5.8
	H149	Oil pan to ground	6.3			6.5
	H150	Flywheel housing to ground	5.8			5.9
	H151	Frame to ground	7.8			7.9
	H152	Exhaust system to ground	5.6			5.7
	H153	Rear axle to ground	5.5			5.9
	H154	Fuel tank to ground	7.9			7.8
	H155	Tire well to ground	---			9.0
	H156	Minimum ground clearance	5.2			5.8

STATION WAGON CARGO AND SEDAN TRUNK SPACE



CARGO DIMENSIONS

CODE	DESCRIPTION	MODELS 235-435
L200	Maximum cargo length - front seat	108.3
L201	Maximum cargo length - second seat	74.7
L202	Cargo length at floor - front seat	86.0
L203	Cargo length at floor - second seat	52.4
L204	Cargo length at belt - front seat	73.2
L205	Cargo length at belt - second seat	37.6
L206	Cargo length at roof - front seat	65.2
L207	Cargo length at roof - second seat	29.6
W200	Cargo width - front	57.3
W201	Cargo width - wheelhouse	42.8
W203	Rear opening width at floor	47.3
W204	Opening width at belt	47.0
W205	Maximum rear opening width above belt	47.0
H201	Maximum cargo height	32.6
H202	Rear opening height	29.0
H250	Tailgate to ground height	21.6

CARGO CAPACITIES CU FT

235 435	4-Door 2-Seat Wagon	Rear seat folded	76.2
		Rear seat erect	39.2

TRUNK CAPACITIES CU FT

Model	Overall	Standard Luggage
Sedans	25.5	13.3

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	1135	2455	1315	1260	2575	1505	1675	3180
111P		1330	1135	2465	1330	1265	2595	1515	1675	3190
211	2-Door Sedan 6-Cylinder	1415	1125	2540	1420	1250	2670	1610	1660	3270
211P		1430	1125	2555	1435	1250	2685	1620	1665	3285
235	4-Door Station Wagon 6-Cylinder	1385	1455	2840	1390	1580	2970	1600	2120	3720
235P		1400	1455	2855	1405	1580	2985	1610	2120	3730
169	4-Door Sedan 4-Cylinder	1340	1155	2495	1335	1280	2615	1525	1690	3215
169P		1355	1155	2510	1350	1280	2630	1540	1695	3235
269	4-Door Sedan 6-Cylinder	1440	1140	2580	1440	1270	2710	1630	1680	3310
269P		1450	1145	2595	1455	1270	2725	1645	1680	3325

NOVA SERIES

411	2-Door Sedan 6-Cylinder	1425	1135	2560	1430	1255	2685	1620	1670	3290
411P		1440	1135	2575	1445	1260	2705	1630	1670	3300
435	4-Door Station Wagon 6-Cylinder *	1395	1465	2860	1400	1585	2985	1610	2130	3740
435P		1410	1465	2875	1410	1590	3000	1620	2130	3750
437	2-Door Sport Coupe 6-Cylinder	1465	1195	2660	1465	1320	2785	1655	1730	3385
437P		1475	1200	2675	1475	1325	2800	1665	1735	3400
469	4-Door Sedan 6-Cylinder	1450	1145	2595	1450	1275	2725	1640	1685	3325
469P		1460	1150	2610	1465	1275	2740	1650	1690	3340

NOVA SUPER SPORT

447	2-Door Sport Coupe 6-Cylinder	1480	1210	2690	1480	1330	2810	1670	1740	3410
447P		1500	1220	2720	1500	1335	2835	1690	1745	3435

P - Powerglide
* - 3-Seat

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 18 pounds to the 4-cylinder models, 24 pounds to the 6-cylinder models.

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

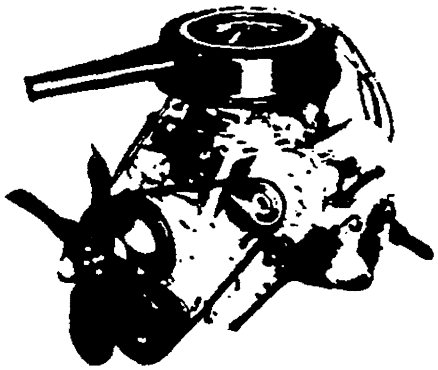
Example:
Model 269 (4-passengers) - 2710 + 600 = 3310

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

Example:
Model 169 - 2615 + 600 = 3215

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

POWER TRAINS



POWER TEAM COMBINATIONS

ENGINE	EQUIPMENT	TRANSMISSION	AXLE RATIOS* GENERAL PURPOSE STANDARD	AXLE RATIOS* SPECIAL PURPOSE OR MOUNTAIN
153 CUBIC INCH L-4 SUPER-THRIFT 153 90 HORSEPOWER	SINGLE BARREL CARBURETOR HYDRAULIC LIFTERS	SEDANS 3-SPEED POWERGLIDE	 3.08:1 3.08:1	 3.55:1
194 CUBIC INCH L-6 HI-THRIFT 194 120 HORSEPOWER	SINGLE BARREL CARBURETOR HYDRAULIC LIFTERS	SEDANS 3-SPEED POWERGLIDE STATION WAGONS 3-SPEED & POWERGLIDE	 3.08:1 3.08:1 3.36:1	 3.36:1
230 CUBIC INCH L-6 TURBO-THRIFT 230 155 HORSEPOWER RPO L61	LARGE SINGLE BARREL CARBURETOR SPECIAL CAM HYDRAULIC LIFTERS	SEDANS 3-SPEED POWERGLIDE STATION WAGONS 3-SPEED & POWERGLIDE	 3.08:1 3.08:1 3.36:1	 3.36:1
283 CUBIC INCH V-8 TURBO-FIRE 283 195 HORSEPOWER RPO L32	2-BARREL CARBURETOR HYDRAULIC LIFTERS	ALL MODELS 3-SPEED 4-SPEED POWERGLIDE	 3.08:1 3.08:1 3.08:1	 3.36:1 3.55:1

* – POSITRACTION AXLE RATIOS AVAILABLE IN COMBINATIONS SHOWN.

MULTIPLICATION FACTORS

WITH MANUAL TRANSMISSIONS

ENGINE	CARBU-RETION	TRANS-MISSION	TOTAL GEAR REDUCTION* 1st	2nd	3rd	4th	Rev	AXLE RATIO	MAXIMUM AXLE TORQUE LOW GEAR (LB-FT)#
90 HP Super-Thrift Four-Cyl	Single Barrel	3-Speed	9.06	5.17	3.08		9.06	3.08:1	1039
120 HP Hi-Thrift Six-Cyl	Single Barrel	3-Speed	9.06	5.17	3.08		9.06	3.08:1	1193
155 HP Turbo-Thrift Six-Cyl	Single Barrel	3-Speed	9.06	5.17	3.08		9.06	3.08:1	
195 HP Turbo-Fire V-8	2-Barrel	3-Speed 4-Speed	7.95 7.88	4.56 5.88	3.08 4.56	3.08	7.95 8.13	3.08:1 3.08:1	1655 1642

WITH AUTOMATIC TRANSMISSIONS

ENGINE	TRANSMISSION	SELECTOR POSITION	TOTAL TORQUE MULTIPLICATION*	AXLE RATIO
90 HP Super-Thrift Four-Cylinder	Powerglide	Drive Low & Reverse	13.46:1 - 3.08:1 13.46:1 - 5.61:1	3.08:1
120 HP Hi-Thrift Six-Cylinder	Powerglide	Drive Low & Reverse	13.46:1 - 3.08:1 13.46:1 - 5.61:1	3.08:1
155 HP Turbo-Thrift Six-Cylinder	Powerglide	Drive Low & Reverse	13.46:1 - 3.08:1 13.46:1 - 5.61:1	3.08:1
195 HP Turbo-Fire V-8	Powerglide	Drive Low & Reverse	11.77:1 - 3.08:1 11.77:1 - 5.61:1	3.08:1

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

GENERAL DATA

		Synchromesh	Powerglide
Piston Displacement (Cu In)		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	80 @ 4000 RPM
Torque	Gross	152 @ 2400 RPM
	Net	135 @ 2000 RPM

ENGINE SPEED AND PISTON TRAVEL

Transmission		Sedans	
		3-Speed	Powerglide
Rear Axle Ratio		3.08:1	
Tire Size		6.00 x 13-4PR	
Crankshaft Revolutions per Mile		2747.3	
Crankshaft RPM 1 MPH	Low	134.6	83.3
	Second	76.9	
	Third (N/V factor)	45.8	45.8 (direct)
	Reverse	134.6	83.3
Piston Travel (ft/mile)		1488.0	

VEHICLE PERFORMANCE FACTORS

(Model 169)

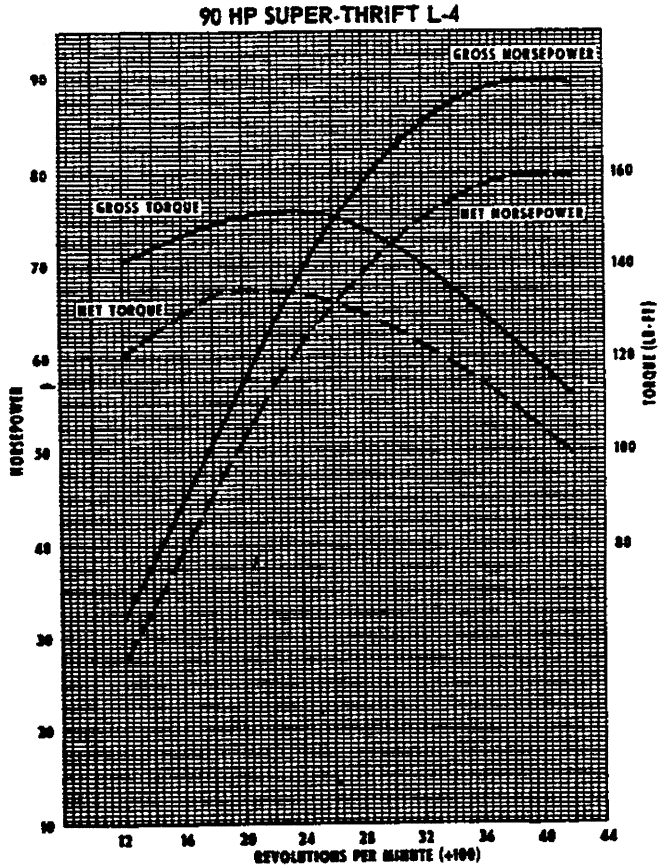
Transmission	3-Speed	Powerglide *
Performance Weight (pounds)	3215	3231
Pounds per Gross Horsepower	35.70	35.90
Pounds per Cu. In. Displacement	21.01	21.12
Gross Horsepower per Cu. In. Displacement	.588	
Power Displacement (Cu. Ft./mile)	121.63	
Displacement Factor (Cu. Ft./ton mile)	75.66	75.29

* - Data computed assuming zero slippage in torque converter.

GLOSSARY

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

90 HP SUPER-THRIFT L-4



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

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

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

PRINCIPAL COMPONENTS

CYLINDER BLOCK
- Material ---------- Cast alloy iron
- Bore Diameter ---------- 3.8745 - 3.8775
- No. of Bulkheads ---------- 5
- Water Jacket ---------- Full length
- Cylinder Numbering Arrangement
  - *Front to Rear* ---------- 1-2-3-4
- Bore Spacing (℄ to ℄) ---------- 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 ---------- 3 Port, Center downtake
- Outlet Diameter (Nominal) ---------- 2.00

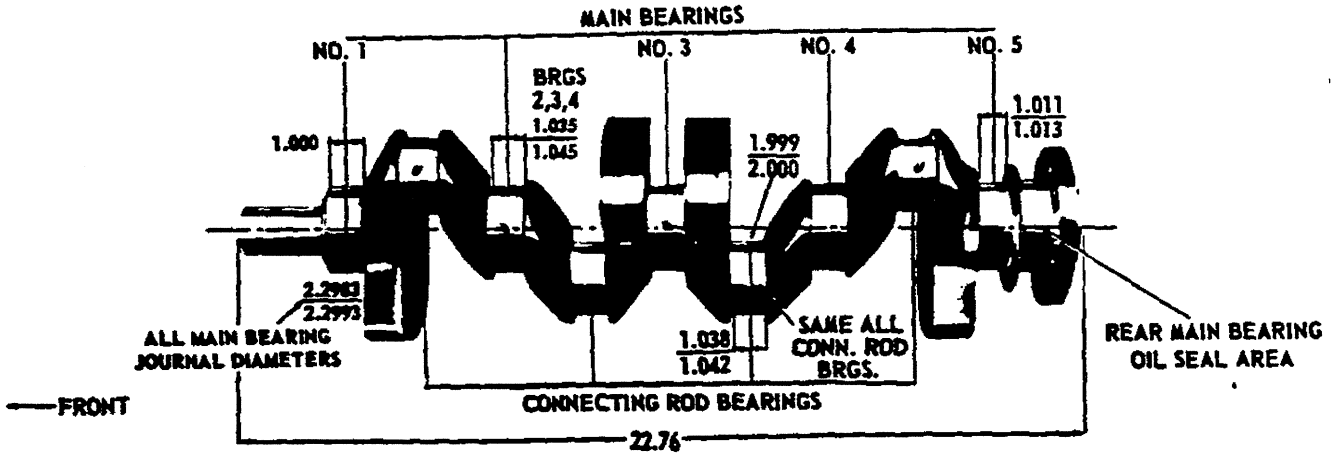
CRANKSHAFT
- Material ---------- High strength forged steel or nodular iron casting
- End Play ---------- .002 - .006
- Counter Weights ---------- 4
- Crank Arm Length ---------- 1.625
- Vibration Damper ---------- None
- Timing Gear & Tooth Type ---------- Steel, Helical cut
- Pulley Pitch Diameter ---------- 6.64

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

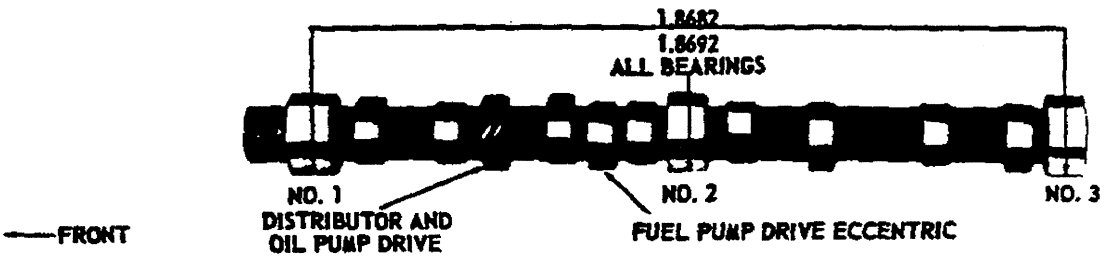
Dimensions / Bearings	Theoretical Inner Dia.	Effective Length	Projected Area
1-4	2.3004	.752	1.7299
5	2.3004	.760	1.7483

CAMSHAFT
- Material ---------- Cast alloy iron
- Drive ---------- Gear; Bakelite and fabric composition with steel hub
- Lobe Lift
  - Inlet ---------- .2270
  - Exhaust ---------- .2270
- Bearings
  - Number ---------- 3
  - Material ---------- Extra-life steel backed babbitt

CRANKSHAFT AND BEARINGS



CAMSHAFT AND BEARINGS



PRINCIPAL COMPONENTS – Continued

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

VALVE SPRINGS
- Diameter (I.D.) ---------- .880
- Installed Length (in. @ Lb)
  - Valves Closed ---------- 1.66 @ 78-86
  - Valves Open ---------- 1.26 @ 170-180
- Free Length ---------- 2.08
- Valve Spring Dampers ---------- Steel, 4 Coils

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

VALVE LIFT
- Inlet ---------- .3973
- Exhaust ---------- .3973

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

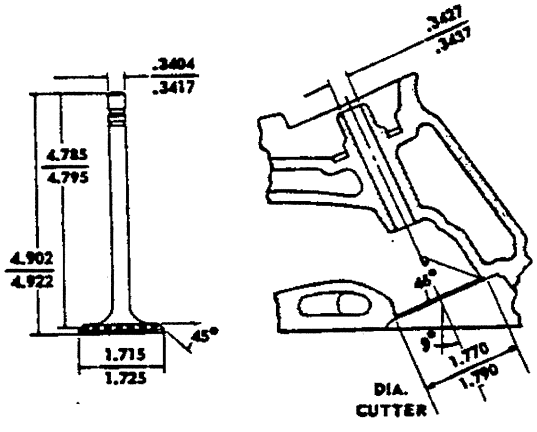
VALVE TIMING

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

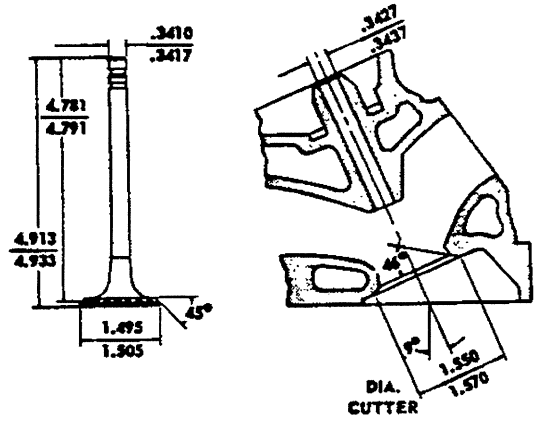
PISTONS
- Material ---------- Cast aluminum alloy
- Head Type ---------- Flat notched
- Skirt Type ---------- Slipper
- Top Land Clearance ---------- .035 - .044
- Skirt Clearance ---------- .0005 - .0011
- Compression Ring Groove Depth ---------- .2153 - .2218
- Oil Ring Groove Depth ---------- .2093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

COMPRESSION 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 - .194
- Gap ---------- .010 - .020

INLET VALVE



EXHAUST VALVE



PRINCIPAL COMPONENTS – Continued

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

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

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

CONNECTING RODS
- Material ---------- Drop forged steel
- Length (Center to Center) ---------- 5.70

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

FUEL SYSTEM

FUEL TANK
- Capacity ---------- 16
- Location ------ Attached to underbody behind rear axle
- Filler Location -------- High in left rear quarter panel

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

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

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

CARBURETOR
- Make ---------- Carter
- Type --------- Single barrel, triple venturi, downdraft
- SAE Flange Size ---------- 1.50
- Throttle Bore ---------- 1.6875
- Venturi Diameter ---------- 1.3125

EXHAUST and VENTILATION SYSTEM

GENERAL
- Type ---------- Single

MUFFLERS
- Type ---------- Oval, reverse flow
- Construction ---------- Heads and body joined by rolled lock seam construction
- Shell ---------- .036 sheet steel aluminum coating
- Wrap ---------- .030 indented asbestos sheet
- Cover ---------- .018 sheet steel aluminum coating
- Heads ---------- .048 sheet steel aluminum coating
- Baffles ---------- 4; .036 sheet steel aluminum coating
- Length, Body ---------- 17.00
- Width (I.D.) ---------- 5.00
- Height (I.D.) ---------- 9.25

EXHAUST PIPE
- Dimensions (O.D.) ---------- 2.00
- Wall Thickness ---------- .057-.071

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

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

LUBRICATION SYSTEM

GENERAL
- Type ---------- Controlled full pressure
  - Main Bearings ---------- Pressure
  - Connecting Rods ---------- Pressure
  - Piston Pins ---------- Splash
  - Cylinder Wall ---- Main & Conn. rod bearing 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
- 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
- Type of Drain Plug ---------- Screw, 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
- Type ---------- 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
- Type ---------- Pellet
- Begins to Open @ ---------- 177-183 degrees F
- Fully Opened @ ---------- 212 degrees 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 ---------- 63 GPM @ 4400 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" ----------38° - 42°
- Pitch Line ---------- 41.00
- Width ---------- .375

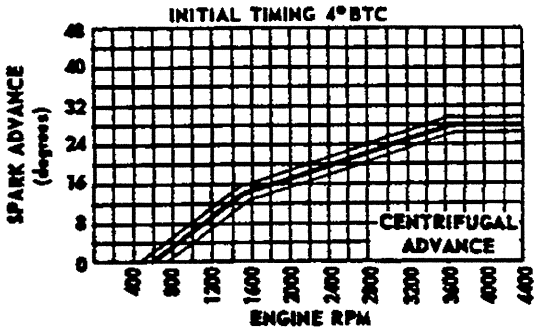
DRAIN LOCATIONS
- Radiator ---------- Bottom center
  - Type ---------- Petcock
- Engine Block ---------- Left rear side
  - Type ---------- Plug

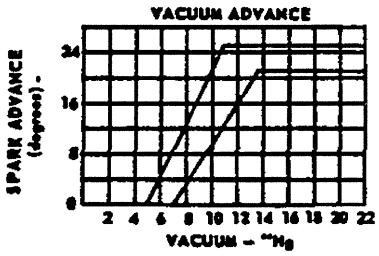
ELECTRICAL SYSTEM

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 ---------- 2.70
  - Ratio (Gen to Engine Speed) ---------- 2.46:1
- REGULATOR
  - Make ---------- Delco-Remy
  - Type ---------- Two unit, Vibrator
  - Voltage Regulator
    - Voltage ---------- 13.8-14.8 @ 85° F
  - Field Relay (Combination light & field relay)
    - Closing Voltage ---------- 1-3 Volts @ 80° F
  - Location ---------- Left side front engine compartment

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

IGNITION SYSTEM
- COIL
  - Make ---------- Delco-Remy
  - Type ---------- 12 Volt
  - Amperes Drawn
    - Engine stopped ---------- 4.0
    - Engine idling ---------- 1.8
- DISTRIBUTOR
  - Make ---------- Delco-Remy
  - Type ---------- Single breaker
  - Cam Angle ---------- 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 ---------- AC46N (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 RPM
	Net	95 @ 4000 RPM
Torque	Gross	177 @ 2400 RPM
	Net	155 @ 2000 RPM

ENGINE SPEED AND PISTON TRAVEL

Transmission		Sedans		Station Wagon	
		3 Speed	Powerglide	3 Speed	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		81.3	
	Third (N/V factor)	45.8	45.8 (direct)	48.4	48.4 (direct)
	Reverse	134.6	83.3	142.2	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)

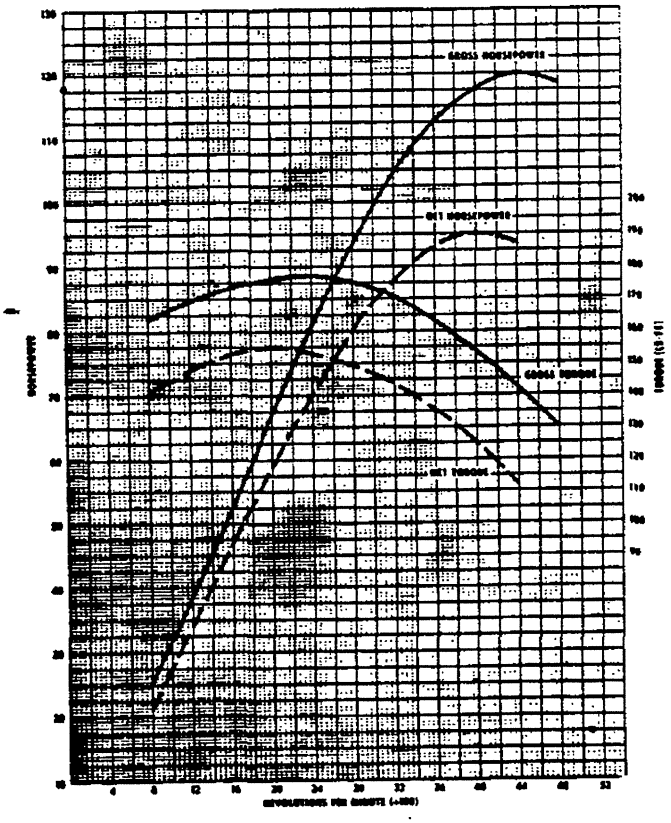
Transmission	3-Speed	Powerglide *
Performance Weight (pounds)	3307	3323
Pounds per Gross Horsepower	27.56	27.69
Pounds per Cu. In. Displacement	17.05	17.13
Gross Horsepower per Cu. In. Displacement	.618	
Power Displacement (Cu. Ft./mile)	154.22	
Displacement Factor (Cu. Ft./ton mile)	93.47	92.90

* - Data computed assuming zero slippage in torque converter.

GLOSSARY

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

120 HP HI-THRIFT L-6



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

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

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

PRINCIPAL COMPONENTS

CYLINDER BLOCK
- Material ---------- Cast alloy iron
- Bore Diameter ---------- 3.562-3.563
- 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 ---------- 4 Port, center downtake
- Outlet Diameter (nominal) ---------- 2.00

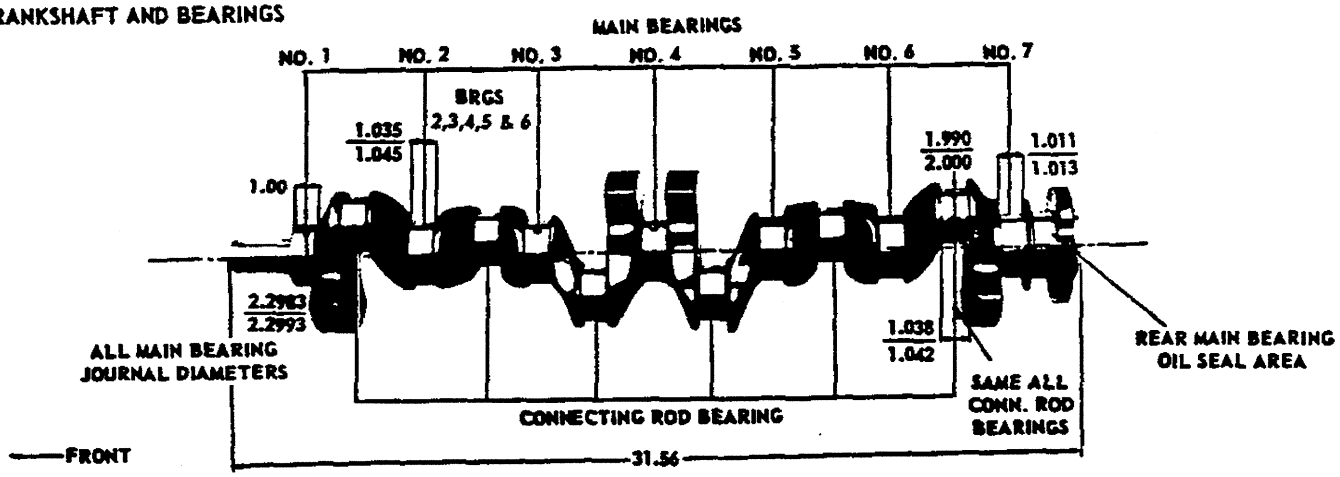
CRANKSHAFT
- Material ---------- Nodular iron casting
- End Play ---------- .002-.006
- Counter Weights ---------- 4
- Crank Arm Length ---------- 1.625
- Vibration Damper ---------- Rubber mounted inertia
- Timing Gear & Tooth Type ---------- Steel, Helical cut
- Pulley Pitch Diameter ---------- 6.64

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

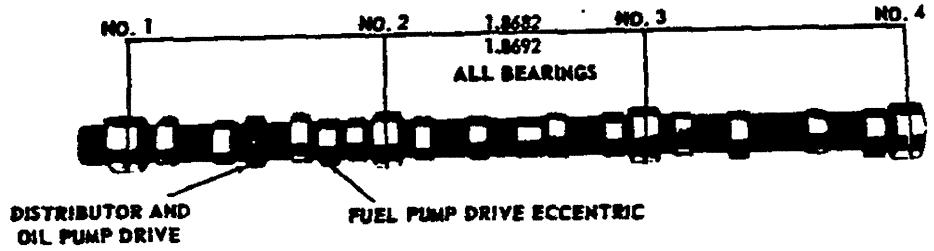
Bearing	Theoretical Inner Dia.	Effective Length	Projected Area
1-6	2.3004	.752	1.7299
7	2.3004	.760	1.7483

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

CRANKSHAFT AND BEARINGS



CAMSHAFT AND BEARINGS



PRINCIPAL COMPONENTS – Continued

VALVE TRAIN

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

VALVE SPRINGS

Diameter (I.D.)	.880
Installed Length (in. @ lb.)	
Valves closed	1.66 @ 84-92
Valves open	1.33 @ 166-176
Free Length	2.03
Valve Spring Dampers	None

VALVES

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

VALVE LIFT

Inlet	.3350
Exhaust	.3350

VALVE TRAIN LASH

Inlet	Zero
Exhaust	Zero

VALVE TIMING

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

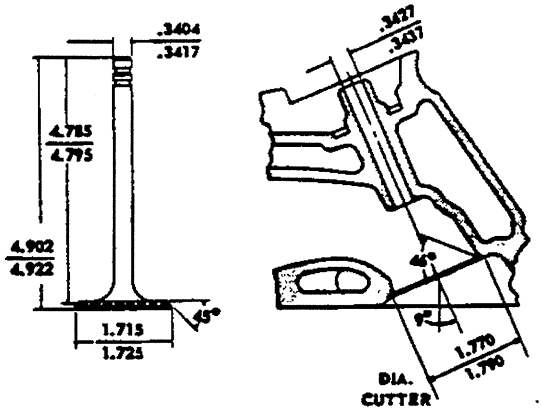
PISTON

Material	Cast aluminum alloy
Head Type	Flat
Skirt Type	Slipper
Top Land Clearance	.033-.044
Skirt Clearance	.0005-.0011
Compression Ring Groove Depth	.1960-.2025
Oil Ring Groove Depth	.1985-.2025
Pin Bore Offset	.055-.065
Compression Height	1.799-1.801

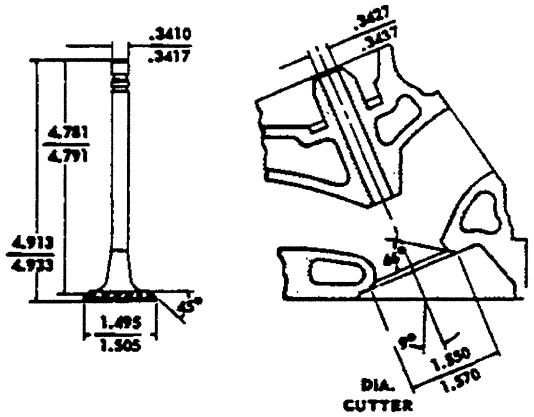
COMPRESSION RINGS - UPPER

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



PRINCIPAL COMPONENTS – Continued

COMPRESSION RINGS - LOWER
- Material ---------- Cast alloy iron
- Inside Bevel ---------- Top edge 30 degrees to piston vertical axis
- Ring Face ---------- Tapered
- Coating ---------- Wear resistant
- Width ---------- .0770-.0780
- Wall Thickness ---------- .168-.178
- Gap ---------- .010-.020

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

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

CONNECTING RODS
- Material ---------- Drop forged steel
- Length (Center to Center) ---------- 5.70

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

FUEL SYSTEM

FUEL TANK
- Capacity ---------- 16
- Location ------ Attached to underbody behind rear axle
- Filler Location ------- High in left rear quarter panel

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

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

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

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

EXHAUST and VENTILATION SYSTEM

GENERAL
- Type ---------- Single

MUFFLERS
- Type ---------- Oval, reverse flow
- Construction ---------- Heads and body joined by rolled lock seam construction
- Shell ---------- .036 sheet steel aluminum coating
- Wrap ---------- .030 indented asbestos sheet
- Cover ---------- .018 sheet steel aluminum coating
- Heads ---------- .048 sheet steel aluminum coating
- Baffles --------- 4; .036 sheet steel aluminum coating
- Length, Body ---------- 17.00
- Width (I.D.) ---------- 5.00
- Height (I.D.) ---------- 9.25

EXHAUST PIPE
- Dimensions (O.D.) ---------- 2.00
- Wall Thickness ---------- .057-.071

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

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

LUBRICATION SYSTEM

GENERAL
- Type ---------- Controlled full pressure
- Main Bearings ---------- Pressure
- Connecting Rods ---------- Pressure
- Piston Pins ---------- Splash
- Cylinder Wall --- Main & Conn. rod bearing 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 ---------- 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
- Type ------ Full flow, removable throw-away canister
- Location ---------- Right side front of engine
- 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
- Type of Drain Plug ---------- Screw, 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) ---------- 11.5

RADIATOR
- Type ---------- 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.) ---------- 325

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

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

WATER PUMP
- Type ---------- Centrifugal
- Capacity ---------- 58 GPM @ 4400 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" ----------38° - 42°
- Pitch Line ---------- 39.00
- 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 ---------- 2.70
Ratio (Gen to Engine Speed) ---------- 2.46:1

REGULATOR

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

STARTING SYSTEM

STARTING MOTOR

Make ---------- Delco-Remy
Rotation (drive end view) ---------- Clockwise
Test Conditions ---- Engine at operating temperature
No Load Test
Amps ---------- 49-76
Volts ---------- 10.6
RPM ---------- 6200-9400

Motor Drive
Engagement ---------- Solenoid
Pinion meshes at ---------- Rear
Pinion tooth no. ---------- 9
Flywheel tooth no. ---------- 153
Mounting ---------- Bolted to cylinder block flange

IGNITION SYSTEM

COIL

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

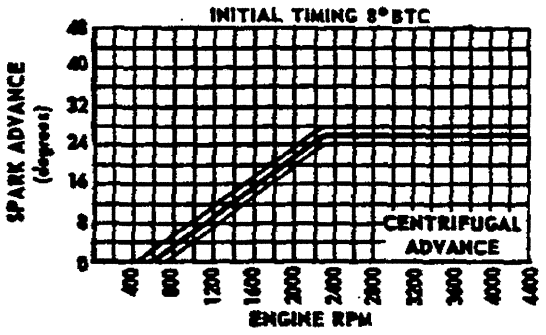
DISTRIBUTOR

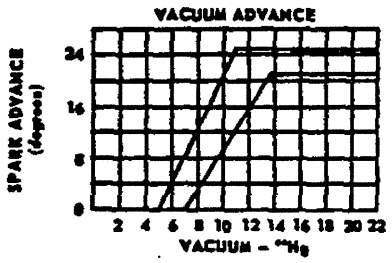
Make ---------- Delco-Remy
Type ---------- Single breaker
Cam Angle ---------- 31°-34°
Breaker Gap ---------- .019 (new)
Breaker Arm Tension ---------- 19-23 oz
Centrifugal Advance Begins (RPM) ---------- 600
● Max Degrees @ RPM ---------- 26° @ 2300
Vacuum Advance Begins (In Hg) ---------- 6
● Max Degrees @ In Hg ---------- 21 @ 14.5
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 PLUGS

Make ---------- AC46N (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





GENERAL DATA

Piston Displacement (Cu In)		Synchromesh	Powerglide
		230	
Type		Valve-in-head	
Number Cylinders		6	
Bore and Stroke (nominal)		3.875 x 3.25	
Compression Ratio		8.5:1	
Taxable (SAE) Horsepower		36.0	
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	32.67	
	Top of air cleaner to bottom of oil pan	26.67	
	Oil filter to air cleaner (width)	28.37	

ADVERTISED ENGINE RATINGS

Engine		Turbo-Thrift 230
Carburetor		Large Single Barrel
Brake Horsepower	Gross	155 @ 4400 RPM
Torque (Lb-Ft)	Gross	215 @ 2000 RPM

ENGINE SPEED AND PISTON TRAVEL

Transmission		Sedans		Station Wagon	
		3 Speed	Powerglide	3 Speed	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		81.3	
	Third (N/V factor)	45.8	45.8 (direct)	45.8	45.8 (direct)
	Reverse	134.6	83.3	142.2	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)

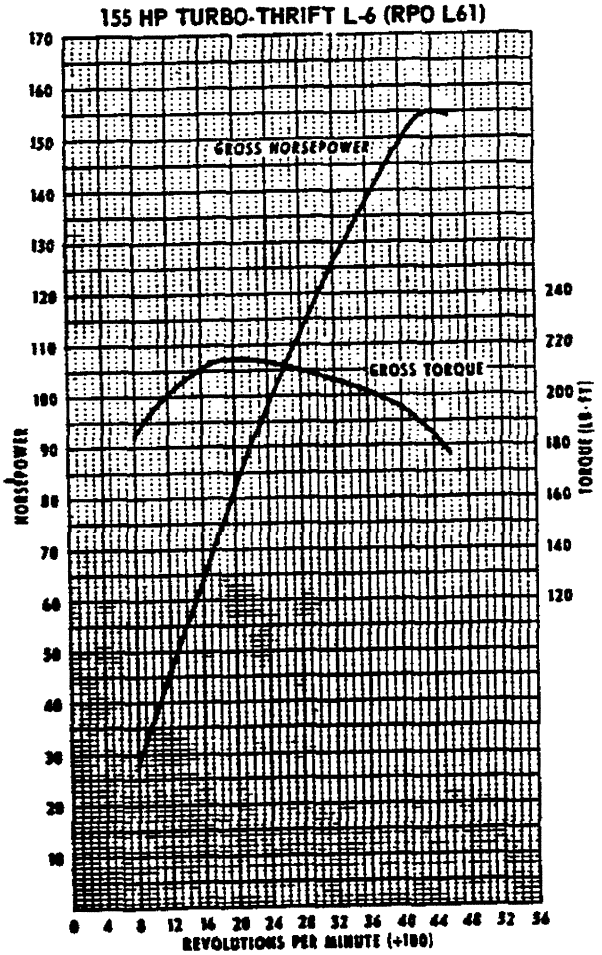
Transmission	3-Speed	Powerglide *
Performance Weight (pounds)	3319	3335
Pounds per Gross Horsepower	21.41	21.52
Pounds per Cu. In. Displacement	14.43	14.50
Gross Horsepower per Cu. In. Displacement	.674	
Power Displacement (Cu. Ft./mile)	182.84	
Displacement Factor (Cu. Ft./ton mile)	110.17	109.65

* - 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	$\frac{\text{Power Displacement}}{\text{Performance Wt (tons)}}$

155 HP TURBO-THRIFT L-6 (RPO L61)



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

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

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

SAME AS CHEVROLET
230 CU. IN. L-6 ENGINE
EXCEPT FOR FOLLOWING DIFFERENCES

PRINCIPAL COMPONENTS

CAMSHAFT
Lobe Lift (Inlet & Exhaust) ---------- .2327

VALVE SPRINGS
Installed Length (In. @ Lb.)
Valves Closed ---------- 1.66 @ 78-86
Valves Open ---------- 1.26 @ 170-180
Free Length ---------- 2.08
Valve Spring Damper ---------- Steel; 4 Coils

VALVE LIFT
Inlet and Exhuast ---------- .4072

VALVE TIMING	Excluding Ramps	Including Ramps
Inlet Valve		
Opens - BTC	37°	49°
Closes - ABC	77°	95°
Duration	294°	324°
Exhaust Valve		
Opens - BBC	83°	95°
Closes - ATC	31°	49°
Duration	294°	324°

● FUEL SYSTEM

FUEL TANK
Capacity (Gals.) ---------- 16
Location ------ Attached to underbody behind rear axle
Filler Location -------- High in left rear quarter panel

EXHAUST and VENTILATION SYSTEM

MUFFLER
Shell ---------- .036 sheet steel; aluminum coating
Wrap ---------- .030 indented asbestos sheet
Cover ---------- .018 sheet steel, aluminum coating
Heads ---------- .048 sheet steel, aluminum coating
Baffles --------- 4; .036 sheet steel, aluminum coating
Length, Body ---------- 17.00
Width (I.D.) ---------- 5.00
Height (I.D.) ---------- 9.25

COOLING SYSTEM

GENERAL
Capacity with Heater ---------- 11.5 Qts.

RADIATOR
Core Constant and Thickness
Distance between fins ---------- .20

RADIATOR, HEAVY DUTY (RPO-V01)
Core Constant and Thickness
Distance between fins ---------- .16
Thickness of core ---------- 1.26
Frontal Area (Sq. In.) ---------- 3.57

ELECTRICAL SYSTEM

IGNITION SYSTEM
Distributor
Centrifugal Advance Begins (RPM) ---------- 600
Maximum Degrees @ RPM ------- 32 degrees @ 4400

283 CUBIC INCH V-8 ENGINE

GENERAL DATA

		Synchromesh	4-Speed	Powerglide
Piston Displacement (Cu In)		283		
Number Cylinders		8		
Bore and Stroke (nominal)		3.875 x 3.00		
Compression Ratio		9.25:1		
Taxable (SAE) Horsepower		48		
Firing Order		1-8-4-3-6-5-7-2		
Idling Speed (RPM)		500 in neutral		475 in drive
Compression Press. (PSI) @ Cranking Speed, Engine Hot		150		
Lubrication		Full Pressure		
Power Plant Mounting		Two front, combination compression & shear type; one rear, full shear type		
Measurements	Fan to rear of engine block	30.14		
	Top air cleaner to bottom oil pan			
	Exhaust manifold to generator (width)	28.92		

ADVERTISED ENGINE RATINGS

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

ENGINE SPEED AND PISTON TRAVEL

Transmission		3-Speed	4-Speed	Powerglide
Rear Axle Ratio		3.08:1		
Tire Size		6.50 x 14-4PR		
Crankshaft Revolutions per Mile		2510.2		
Crankshaft RPM @ 1 MPH	Low	107.9	107.1	76.1
	Second	61.9	79.9	[illegible]
	Third	41.8	61.9	[illegible]
	Fourth	[illegible]	41.8	41.8 (direct)
	Reverse	107.9	110.4	76.1
Piston Travel (ft/mile)		1255.0		

VEHICLE PERFORMANCE FACTORS

(Model 269)

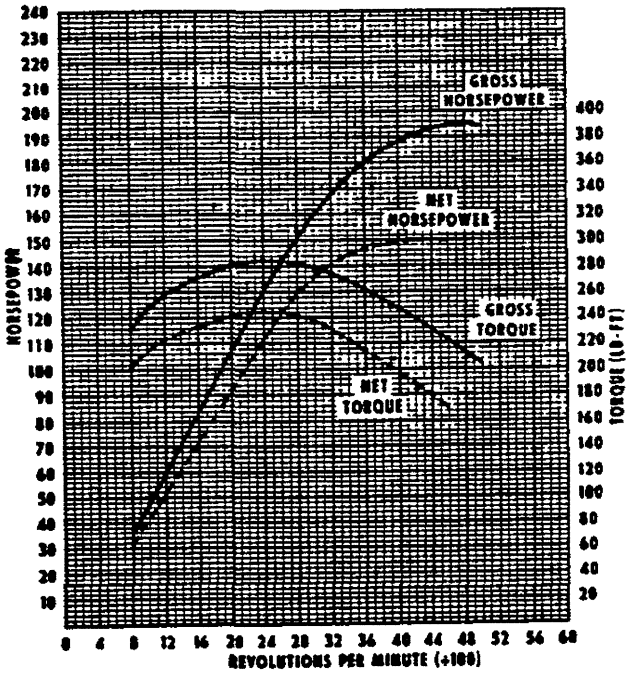
Transmission	3-Speed	4-Speed	Powerglide *
Performance Weight (pounds)	3468	3482	3476
Pounds per Gross Horsepower	17.78	17.86	17.83
Pounds per Cu. In. Displacement	12.25	12.30	17.63
Gross Horsepower per Cu. In. Displacement	.689	.689	.689
Power Displacement (Cu. Ft./mile)	205.55	205.55	205.55
Displacement Factor (Cu. Ft./ton mile)	118.54	118.07	118.27

* - 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	$\frac{\text{Power Displacement}}{\text{Performance Wt (tons)}}$

195 HP TURBO-FIRE V-8 (RPO L32)



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

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

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

SAME AS CHEVROLET
283 CU. IN. V-8 ENGINE
EXCEPT FOR FOLLOWING DIFFERENCES

FUEL SYSTEM

FUEL TANK
- Capacity (Gals) ---------- 16
- Fuel Tank Location ---------- Attached to underbody behind rear axle
- Filler Location ---------- High in left rear quarter panel

EXHAUST and VENTILATION SYSTEM

MUFFLERS
- Shell ---------- .036 sheet steel, aluminum coating
- Cover ---------- .018 sheet steel, aluminum coating
- Wrap ---------- .030 inch asbestos sheet
- Heads ---------- .048 sheet steel, aluminum coating
- Baffles ---------- 4; .036 sheet steel, aluminum coating
- Length, Body ---------- 17.00
- Width (I.D.) ---------- 5.00
- Height (I.D.) ---------- 9.25

COOLING SYSTEM

RADIATOR
- Core Constant and Thickness
  - Distance between fins ---------- .18
  - Thickness at Core ---------- 1.75

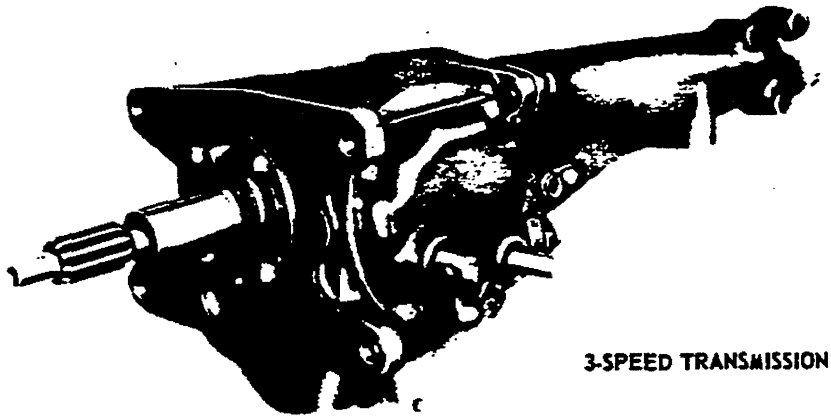
RADIATOR HEAVY DUTY
- Core Constant and Thickness
  - Distance between fins ---------- .18
  - Frontal Area (Sq. In.) ---------- 357

BELT, CRANKSHAFT, FAN AND GENERATOR
- Pitch Line ---------- 53.50

DRAIN LOCATIONS
- Radiator ---------- Bottom center

ENGINE	Name		Super-Thrift 153		Hi-Thrift 194		Turbo-Thrift 230	Turbo-Fire 283	
	Horsepower		90		120		155	195	
	Displacement, inches³		153		194		230	283	
TRANSMISSION			3-speed		3-speed		3-speed	3-speed	4-speed
Clutch identification			Regular production	Heavy duty	Regular production	Heavy duty	Regular production ●	Regular production	
CLUTCH ASSEMBLY			Single dry disc						(a)
Type									
Clutch cover & pressure plate assembly	Effective plate load, lb.		1250-1450	1900-2200	1250-1450	1900-2200	1700-1950	1700-1950	2100-2300
	Type of drive		Steel straps						
	Pressure plate	Material	Cast iron						(b)
		OD	9.28	10.14	9.28	10.14			10.48
	Clutch spring	Type	Circular plate diaphragm						(c)
		Material	Spring steel, heat treated						
	Attachment to flywheel		6 Bolts: 5/16-18 thread, 13/16 long				6 Bolts: 3/8-16 thread, 1.00 long		
Driven plate assembly	Type		Single disc with two friction surfaces						
	Cushions		Flat spring steel between friction rings						
	Dampers		4-springs	6 springs				12 springs	10 springs
	Friction rings	OD	8.00	10.00	9.12	10.00	9.12	10.00	10.40
		ID	6.00	6.00	6.12	6.00	6.12	6.50	6.50
		Total area (sq. inches)	44.0	100.5	71.8	100.5	71.8	90.7	103.5
		Material	Woven asbestos (d)						(e)
Flywheel assembly	Flywheel	Material	Cast iron alloy						
		OD	12.54						
	Ring gear	Material	HR steel heat treated						
		No. of teeth	153						
		Width	.4110-.4220				.4010-.4130		
		PD	12.75						
		Attachment	Shrink fit						
Bearings	Release	Type	Single row ball						
		Lubrication	Packed with high temperature, high viscosity grease						
	Pilot	Type	Sintered powdered bronze bushing						
		Lubrication	Oil impregnated						
Controls	Clutch fork		Drop forged steel, pivot mounted on ball						
	Pedal mounting		Pendent, from brace on dash						
	Lubrication		Crossover shaft						
Clutch housing	Material		Aluminum alloy						

(a) Single dry disc, centrifugal
(b) Nodular iron
(c) Circular plate diaphragm, bent finger design
(d) Woven front and molded rear ring for heavy duty clutch
(e) Premium woven asbestos



3-SPEED TRANSMISSION

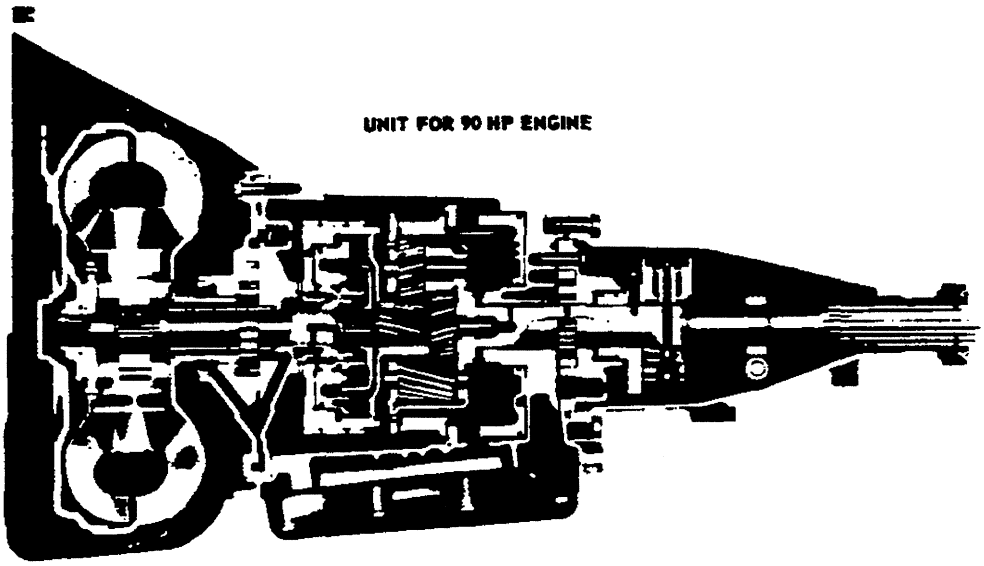
3-SPEED TRANSMISSION

4-SPEED TRANSMISSION – RPO 0-M20

ENGINE	Name		Super-Thrift 153	Hi-Thrift 194	Turbo-Thrift 230	Turbo-Fire 283
	Horsepower		90	120	155	195
	Displacement, cu.in.		153	194	230	283
TRANSMISSION TYPE			3-speed			4-speed
Case			Cast iron			Aluminum
Gear-shift	Type		Remote			
	Location		Steering column			Floor
	Control		Lever through linkage			
Gears	Type		Helical			
	Material		Forged steel, heat treated			
	Synchronization		2nd and 3rd			*All forward gears*
	Constant mesh gears		2nd			All forward gears
	Sliding gears		1st and reverse			*Reverse*
	Ratio	First	2.94		2.58	2.56
		Second	1.68		1.48	1.91
		Third	1.00		1.00	1.48
		Fourth	--		--	1.00
		Reverse	2.94		2.58	2.64
Lubri-cant	Type		Meeting military specification MIL-L-2105-B			
	Capacity (pts)		2.0			2.5
Exten-sion	Material		*Aluminum*	Cast iron		Aluminum
	Oil seal		Steel encased double seal of spring loaded synthetic rubber or felt			

AUTOMATIC TRANSMISSION

ENGINE	Name			Super-Thrift 153	Hi-Thrift 194	Turbo-Thrift 230	Turbo-Fire 283
	Horsepower			90	120	155	195
	Displacement, cubic inches			153	194	230	283
AUTOMATIC TRANSMISSION							
General Data	Type			Automatic hydraulic torque converter with planetary gear system for low and reverse			
	Selector lever	Location		Steering column except; Super Sport floor mounted			
		Operation		Actuates manual valve in hydraulic control system			
		Quadrant position		P-R-N-D-L			
	Parking lock	Type		Pawl and gear (on planetary)			
		Operation		Applied by selector lever through spring loaded linkage			
	Method of cooling			Air			Water
	Flywheel assembly			Steel stamping with welded on ring gear			
Hydraulic controls	Manual valve type			Spool			
	Pressure regulator valve type			Spool			
	Pressure range, psi @ idle	Drive and neutral	Minimum	49		49	
			Maximum	53		53	
		Low and park	Minimum	107		127	
			Maximum	115		136	
		Reverse	Minimum	88		82	
			Maximum	94		88	
Converter assembly	Type			Three element			
	Pump			Inner and outer sheet steel shells separated by sheet steel vanes. Outer shell pump housing which is welded to converter housing			
	Turbine			Inner and outer shells separated by sheet steel vanes. Assembly supported in converter cover. Operation independent of cover and pump housing.			
	Stator			Aluminum air foil supported on a stationary sleeve by an over-running clutch of cam and roller design.			
	Stall torque ratio			2.40:1		2.10:1	
	Diameter (nominal)			11.00			11.75
Case	Material			Aluminum (one piece)			
Output shaft RPM (and vehicle spd MPH)	N/V			45.3		40.8	40.8
	Upshift		Closed throttle	650 (14)		650 (16)	650 (16)
			Throttle at detent	1900 (42)		1900 (47)	2080 (51)
			Full throttle	2205 (49)		2205 (54)	2400 (59)
	Downshift		Closed throttle	605 (13)		605 (15)	605 (15)
			Throttle at detent	1210 (27)		1165 (29)	830 (20)
			Full throttle	2065 (46)		2065 (51)	2280 (56)



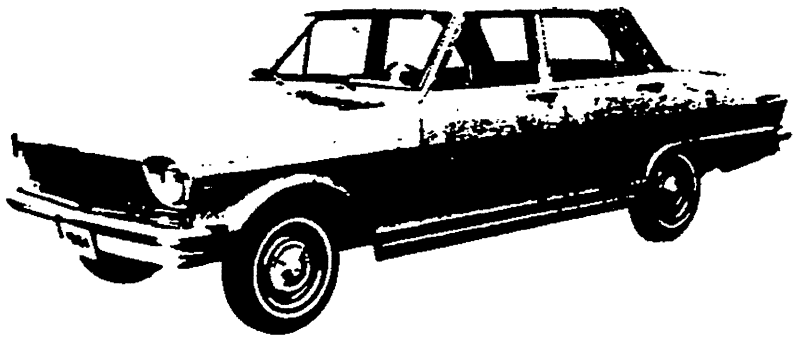
UNIT FOR 90 HP ENGINE

Continued page 26

AUTOMATIC TRANSMISSION – CONTINUED

ENGINE	Name		Super-Thrift 153	Hi-Thrift 194	Turbo-Thrift 230	Turbo-Fire 283
	Horsepower		90	120	155	195
	Displacement, Cubic inches		153	194	230	283
AUTOMATIC TRANSMISSION						
High clutch	Type		Multi-disk			
	Drive plates	Description	Waved steel with bonded organic facings			
		Number	3			4
	Driven plates	Description	Flat steel			
		Number	4			5
Reverse clutch	Type		Multi-disk			
	Drive plates	Description	Flat steel with bonded organic facings			
		Number	4			5
	Reaction plates	Description	Flat steel			
		Number	4			5
Torque multi-plication	Maximum overall ratio		4.37:1		3.82:1	
	Low and reverse		4.37:1 to 1.82:1		3.82:1 to 1.82:1	
Lubri-cant	Type		A, suffix A			
	Capacity (pts)	Dry	15			18
		Refill	3			
Gover-nor	Type		Centrifugal			
	Operation		Regulates pump oil pressure to automatic shift control valve body			
	Drive		Output shaft			
	Location		In extension			
Oil pumps	Type		Internal-external gear			
	Number		Two, front and rear			
	Function		To supply pressure			
	Front pump	Drive	Converter pump			
		Function	Supply main system pressure at low vehicle speeds			
	Rear pump	Drive	Output shaft			
		Function	Supply main system pressure at high vehicle speeds and during push starts			

CHEVROLET
CUSTOMER ASSISTANCE CENTER



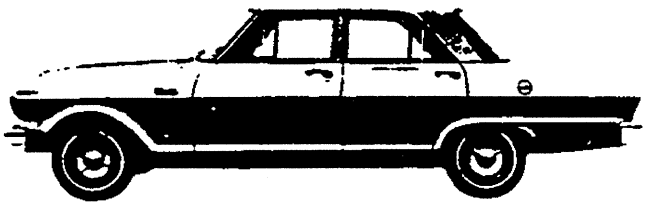
MODEL IDENTIFICATION

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

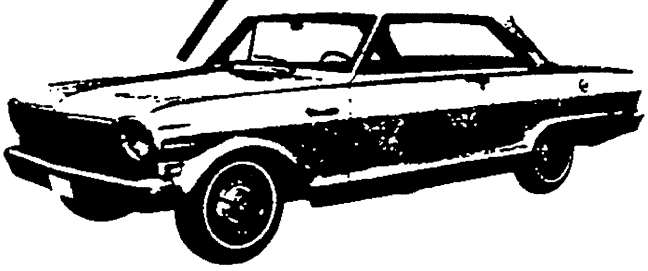
100 SERIES

NOVA SERIES

MODEL 411 2-DOOR SEDAN, 6-PASSENGER
MODEL 435 4-DOOR STATION WAGON, 2-SEAT
MODEL 437 4-DOOR SPORT COUPE, 5-PASSENGER
MODEL 469 4-DOOR SEDAN, 6-PASSENGER



NOVA SUPER SPORT



● MODEL 447 2-DOOR SPORT COUPE, 4-PASSENGER

SERIAL NUMBERS AND IDENTIFICATION

ONLY BASIC DESIGNATIONS SHOWN

VEHICLE SERIAL NUMBER

4-Cylinder Example:

Model Year	Model	Assembly Plant	Unit Number
1964		(Willow Run)	(25th unit)
4	0169	W	100025

Thus: The 25th model built at Willow Run would be serial number 40169W100025

6-Cylinder Example:

Model Year	Model	Assembly Plant	Unit Number
1964		(Willow Run)	(26th unit)
4	0269	W	100026

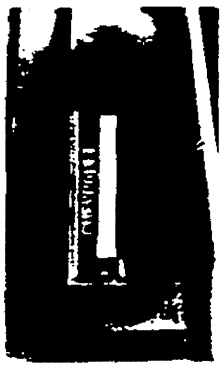
Thus: The 26th model built at Willow Run would be serial number 40269W100026

ASSEMBLY PLANTS

N-Norwood W-Willow Run

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: December, 12; 10th day of December, 10

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

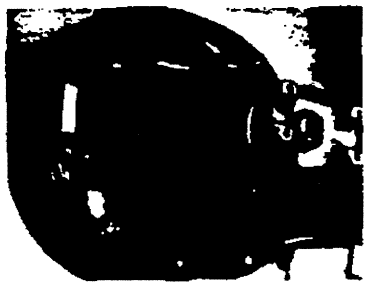
REAR AXLE IDENTIFICATION

Example: DA 0212

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

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

* - 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	Nova & Nova SS
		Roof drip gutter	All
		Front door key locks	Nova & Nova SS
	Anodized Aluminum	Body rear cove	All
		Headlight bezels	
		Parking light bezels	
		Taillight bezels	
		Radiator grille and nameplate	
		Parking light bezel extension	Nova & Nova SS
		Body side	Nova
		Body peak molding	Nova SS
		Rear quarter lower	Nova & Nova SS
		Rocker sill	All
	Chrome Plated Metal	Front and rear bumpers	All
		Hood emblem	
		Door handles	
		Ventipane channel	
		Ventipane frame	Sport Coupes
		Series nameplates	All
		Deck lid or tailgate emblem and nameplate	
		Hub caps	100 & Nova
		Engine identification emblem	All 6-cyl. & V8's
		Hood center	Nova & Nova SS
		Tailgate window control	All station wagons
Manual tailgate windows			All station wagons
Dual single speed electric windshield wipers			All
Backup lamps			Nova & Nova SS
Wheel disks			Nova SS
Rear cove silver paint			

ITEM		MODELS
Instrument Panel	Instrument cluster bezel (bright)	All
	Radio hole cover plate (paint fill on Nova & Nova SS)	
	Ash tray	
	Manual interior light switch in headlamp switch	
	Glove box door lock	
	Glove box door nameplate	Nova & Nova SS
	Glove box lamp	
	Instrument panel trim molding	
	Bright metal control knobs, bright bezels	
	Black plastic control knobs, bright bezels	100
	Cigarette lighter	Nova & Nova SS
	Choke control knob, black plastic	4-cylinder models
Steering Wheel	Deep hub, dual solid spokes, horn button	100
	Deep hub, dual solid spokes, horn ring two-tone type	Nova & Nova SS
Dome lamp		All
Automatic interior light switch, front doors		Nova & Nova SS
Front door armrests		All
Rear door or quarter armrests, with ashtrays		Nova & Nova SS
Friction type front ventipanes		All
Door locking knobs, rear only		4-Door models
Door and window control handles - single arm		100
Door and window control handles - dual arm		Nova & Nova SS
Folding rear seat		All station wagons
Dual sunshades, bright supports		All
Coat hooks		
Rear view mirror back and support, painted		100
Rear view mirror back and support, bright		Nova & Nova SS
Seat adjuster knob, black plastic		All
Door sill plates, aluminum		
Deluxe heater		Nova SS
Bucket front seats		All
Seat belts		

REGULAR PRODUCTION OPTIONS

GROUP	ITEM		NUMBER	MODELS
Engine	Battery, heavy-duty		T60	All
	Engine, 230 L-6 high performance		L61	2-400
	283 cubic inch V-8	4-barrel carburetor RPO L77	L32	
	Clutch, heavy-duty		M01	All
	Fan, thermodulated		K02	2-400
	Generators	Delcotron, 12-42 ampere	K79	All
		Delcotron, 5-55 ampere	K77	
		Delcotron, 23-62 ampere	K81	
	Radiator, heavy-duty		V01	
	Ventilation, engine positive closed (Type B)		K24	
Transmission	Powerglide		M35	
	Powerglide, oil cooled		M55	2-400
	Four-speed		M20	
Chassis	Axle, rear	3.36:1 ratio	G76	200-400 exc. Wgns.
		3.55:1 ratio	G96	All
		3.08:1, 3.36:1 ratios, limited slip	G80	
		3.55:1 ratio, limited slip		
	Brakes	Metallic	J65	
		Power	J50	200-400
	Disks, wheel		P01	All
	Disks, wheel (simulated wire)		P02	
	Driven gear and fitting, speedometer		Z12	
	Shock absorber, rear air lift		G66	
	Special front and rear suspension		F40	
	Steering, power		N40	200-400
	Tires	6.00 x 13-4 pr., whitewall, rayon	P50	2-, 4-door Sedans
		6.50 x 13-4 pr., blackwall, rayon	P52	
		6.50 x 13-4 pr., whitewall, rayon	P53	All
		6.50 x 14-4 pr., blackwall, rayon	P66	
		6.50 x 14-4 pr., whitewall, rayon	P67	
		7.00 x 13-4 pr., blackwall, rayon	P55	Station Wagons
		7.00 x 13-4 pr., whitewall, rayon	P54	
Body	Air conditioning, all weather		C60	200-400
	Arm rests, rear		D10	100-200
	Belt unit, custom deluxe seat (retractor type)		A49	All
	Belt unit, seat (delete)		A62	
	Bumper guard, rear		V32	All exc. Wgns.
	Comfort and Convenience Equipment	Back-up lamps; inside prismatic mirror, outside mirror, 2-speed w/s wipers and washers, glove box light *	Z01-Z13	All
	Glass tinted		A01	
	Grille guard, front		V20	
	Less heater		C48	
	Pad, instrument panel		B70	
	Radio	Manual	U60	
		Push-button	U63	
		Push-button and auxiliary rear speaker	Z02	
	Roof luggage carrier		V55	Station Wagons
	Second seat, split		A66	
	Tailgate window, power		A33	
	Tachometer		U16	200-400
	Taxicab equipment		B02	169, 269
	Washers, windshield		C14	All
	Windshield glass, tinted		A02	

* - Back-up lamps and glove box light regular production equipment for Nova models. Remote control outside rear view mirror in Z13.

ITEM	MODELS
Alarm - Parking brake	All
Antenna - Front fender radio	All except Wagons
Antenna - Rear fender radio	
Antenna - Rear fender dummy radio	
Belt - Custom Deluxe	All
Brake - Vacuum power	
Cap - Gasoline tank filler locking	
Carrier - Roof luggage	Station Wagons
Clock - Instrument panel	All
Conditioning - Air (Deluxe)	
Cover - Front and rear seat cushion	Front-All; Rear-All exc. Wagons
Container - Litter	All
Deflector - Rain	
Defogging Unit - Rear window	4-Door models
Cover - Wheel trim	All
Cover - Wheel, simulated wire	
Dispenser - Tissue	
Frame - License plate	
Guard - Bumper rear	All except Wagons
Guard - Door edge	All
Guard - Radiator grille	
Guard - Body rear splash	Station Wagons
Hitch - Trailer	All
Lamp - Back up	All except Nova
Lamp - Courtesy	All
Lamp - Luggage compartment	All except Wagons
Lamp - Portable spot	All
Lamp - Glove compartment	All except Nova
Lamp - Underhood	All
Lamp - Ash tray	
Lighter - Cigarette	100-200
Lock - Rear door safety	All 4-Door models
Mat - Front and rear, full width	All
Mat - Front and rear, Deluxe	
Mirror - Outside rear view	
Mirror - Inside prismatic	
Mirror - Visor vanity	
Mirror - Remote control outside	
Radio - Manual	
Radio - Push button	
Release - Rear compartment lid vacuum	All except Wagons
Screen - Radiator insect	All
Speaker - Radio auxiliary	
Switch - Traffic hazard flasher	
Tool Kit	
Washer - Windshield push button	
Warning lamp, rear door	4-Door models

TAXI-CAB EQUIPMENT-RPO B02

MODEL APPLICATION:

4-Door Sedan - 169, 269

BODY EQUIPMENT

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

FLOORS
- Covering
  - Front and Rear ---------- Waterproof asphalt impregnated paper felt (.125 minimum thickness)
  - 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
- Type ---------- Heavy-duty front and rear coil springs and shock absorbers

BATTERY ---------- Heavy-duty 61 amp hour, 11 plate

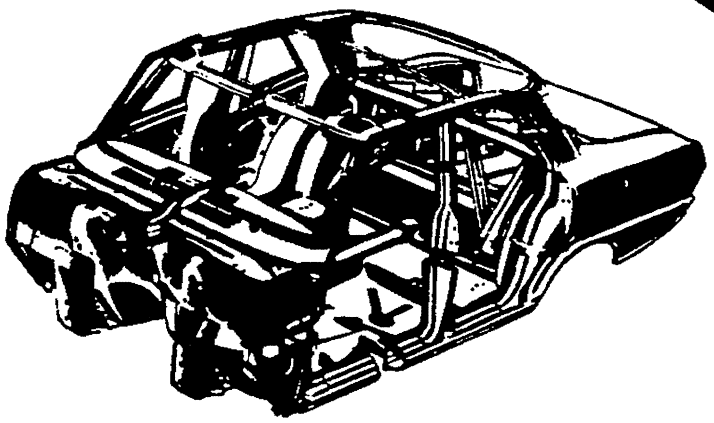
REAR AXLE (3.36:1)

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 ---------- AC46
- Clutch ---------- 10" heavy-duty
- Transmission (Powerglide) ---------- Incorporates 3-plate heavy-duty clutch with high temperature oil seals and water cooling.
- Radiator ---------- Heavy-duty with built-in-oil cooler for Powerglide models
- Alternator ---------- 9-37 amp

BODY



EXTERIOR PAINT PROCESS

NINE STEP FINISHING PROCESS

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

CHEVY II 100 SERIES

EXTERIOR			INTERIOR TRIM COLORS AND RPO NUMBERS		
			Fawn	Aqua	Red
			Models 211-69		
			760	752	776
			Model 235		
RPO	Color	Sales Name	761	754	777
900	Black	Tuxedo Black	X	X	X
905	Med. Green	Meadow Green	X		
908	Dk. Green	Bahama Green	X		
912	Med. Blue	Silver Blue	X		
916	Dk. Blue	Daytona Blue	X		
918	Med. Aqua	Azure Aqua		X	
919	Dk. Aqua	Lagoon Aqua		X	
920	Med. Fawn	Almond Fawn	X		
922	Med. Red	Ember Red	X		X
932	Lt. Saddle	Saddle Tan	X		
936	White	Ermine White	X	X	X
938	Beige	Desert Beige	X		X
940	Silver	Satin Silver		X	X
943	Yellow	Goldwood Yellow			
948	Maroon	Palomar Red	X		X
Two-Tone (Upper/Lower)					
952	Dark Green/Medium Green		X		
954	White/Medium Green		X		
959	White/Medium Blue		X		
960	Dark Blue/Medium Blue		X		
965	White/Dark Aqua			X	
971	Beige/Light Saddle		X		
975	Beige/Medium Red		X		X
982	Dark Blue/Silver		X		
988	Medium Aqua/White			X	
993	Beige/Maroon		X		
995	Silver/Maroon				X

EXTERIOR – INTERIOR COLOR COMBINATIONS – Cont'd.

CHEVY II NOVA SERIES

EXTERIOR			INTERIOR TRIM COLORS AND RPO NUMBERS				
			Fawn	Aqua	Red	Blue	Saddle
			Models 411-37-69				
			768	745	791	734	701
			Model 435				
RPO	Color	Sales Name	769	747	793	736	703
900	Black	Tuxedo Black	X	X	X	X	X
905	Med. Green	Meadow Green	X				
908	Dk. Green	Bahama Green	X				(a)
912	Med. Blue	Silver Blue				X	
916	Dk. Blue	Daytona Blue				X	
918	Med. Aqua	Azure Aqua		X			
919	Dk. Aqua	Lagoon Aqua		X			
920	Med. Fawn	Almond Fawn	X				X
922	Med. Red	Ember Red	X		X		
932	Lt. Saddle	Saddle Tan	X				X
936	White	Ermine White	X	X	X	X	X
938	Beige	Desert Beige	X		X		X
940	Silver	Satin Silver		X	X	X	
943	Yellow	Goldwood Yellow					
948	Maroon	Palomar Red	X		X		
Two-Tone (Upper/Lower)							
952	Dark Green/Medium Green		X				
954	White/Medium Green		X				
959	White/Medium Blue					X	
960	Dark Blue/Medium Blue					X	
965	White/Dark Aqua			X			
971	Beige/Light Saddle		X				X
975	Beige/Medium Red		X		X		
982	Dark Blue/Silver					X	
988	Medium Aqua/White			X			
993	Beige/Maroon		X				
995	Silver/Maroon				X		

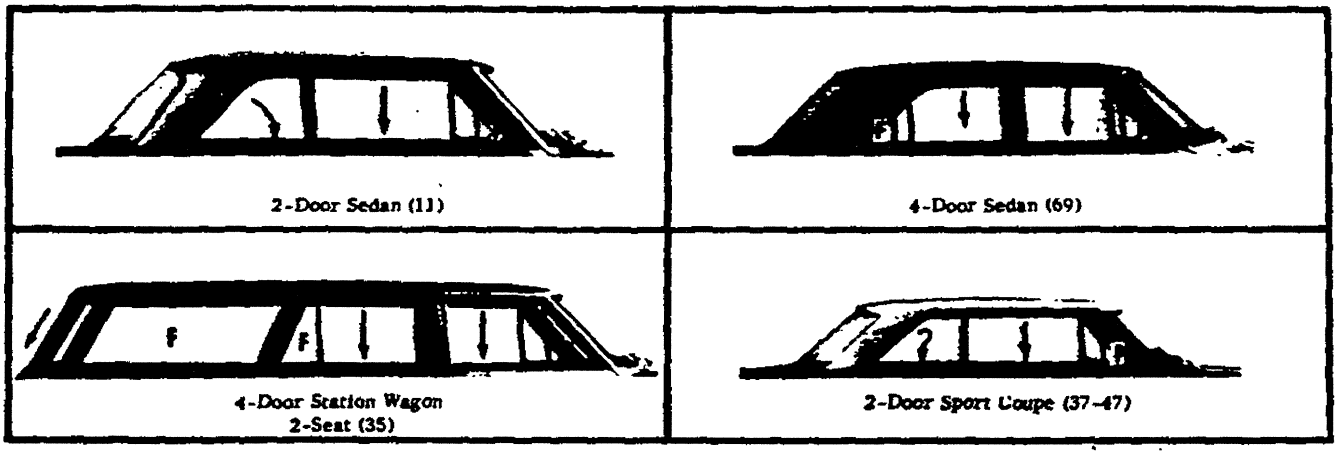
(a) Model 435 only.

CHEVY II 400 SERIES
SUPER SPORT

EXTERIOR			INTERIOR TRIM COLORS AND RPO NUMBERS					
			Fawn	Aqua	Red	Blue	Saddle	Black
			Model 447					
RPO	Color	Sales Name	718	722	773	733	702	713
900	Black	Tuxedo Black	X	X	X	X	X	X
905	Med. Green	Meadow Green	X					X
908	Dk. Green	Bahama Green	X				X	
912	Med. Blue	Silver Blue				X		X
916	Dk. Blue	Daytona Blue				X		
918	Med. Aqua	Azure Aqua		X				X
919	Dk. Aqua	Lagoon Aqua		X				
920	Med. Fawn	Almond Fawn	X				X	X
922	Med. Red	Ember Red	X		X			X
932	Lt. Saddle	Saddle Tan	X				X	
936	White	Ermine White	X	X	X	X	X	X
938	Beige	Desert Beige	X		X		X	X
940	Silver	Satin Silver		X	X	X		X
943	Yellow	Goldwood Yellow						X
948	Maroon	Palomar Red	X		X			X
Two-Tone (Upper/Lower)								
952	Dark Green/Medium Green		X					X
954	White/Medium Green		X					X
959	White/Medium Blue					X		
960	Dark Blue/Medium Blue					X		
965	White/Dark Aqua			X				
971	Beige/Light Saddle		X				X	
975	Beige/Medium Red		X		X			
982	Dark Blue/Silver					X		
988	Medium Aqua/White			X				
993	Beige/Maroon		X					
995	Silver/Maroon				X			X

BODY GLASS

WINDOW ACTION



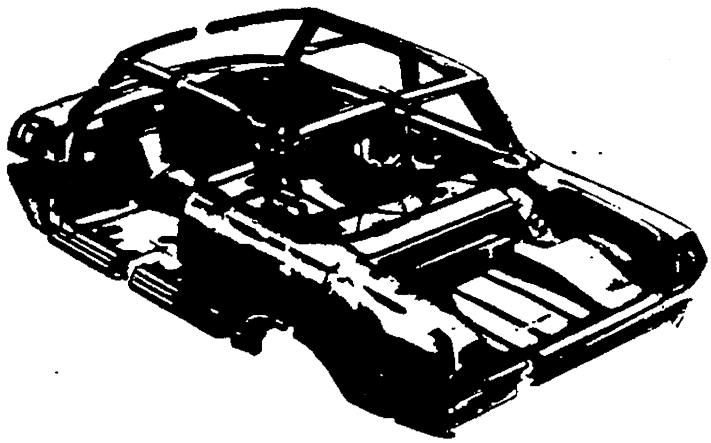
2-Door Sedan (11) | 4-Door Sedan (69)

4-Door Station Wagon 2-Seat (35) | 2-Door Sport Coupe (37-47)

P - Pivoting-friction type
F - Fixed glass
↻ - Rotating
? - Monkey action

BODY GLASS TYPE AND VISIBILITY AREA

Location		MODELS			
		11	69	37-47	35
Windshield		Laminated Safety Plate			
		1007.5			
Front door	Ventipane	Safety Solid Plate			
		97.5			
	Window	Safety Solid Plate			
		839.0	536.0	744.0	536.0
Rear door	Ventipane		Safety Solid Plate		Safety Solid Plate
			79.5		152.0
	Window		Safety Solid Plate		Safety Solid Plate
			566.0		591.5
Rear quarter	Window	Safety Solid Plate		Safety Solid Plate	
		435.0		408.5	
	Rear side			Safety Solid Plate	Safety Solid Plate
					1067.5
Back window		Safety Solid Plate			
		1073.5		1117.0	698.5
Total DLO area		3452.5	3360.0	3265.0	4150.5



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 torsion 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 cushion ----------100-200, 3/4 poly foam; Nova, 1-3/4 poly foam; Super Sport, formed foam rubber

Rear seat cushion ----------100-200, jute and cotton; Nova and Nova Super Sport, 1" poly foam

WINDSHIELD WIPERS

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

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

SPARE TIRE AND TOOLS

Location ---------- Sedans, horizontal-right forward side of trunk floor; Station wagon, upright-right - rear quarter panel well. Tools consist of bumper jack and socket end type "L" wrench stored beneath tire.

CHAPTER THREE

Pocket Edition Super Sports by Chevy II 1962–1965

Four distinct and individual makes were marketed under the Chevrolet bow-tie emblem in 1962. These were the regular Chevrolet passenger car, the Corvair rear-engined compact, the Corvette two-passenger sports car and the new 'senior compact,' Chevy II.

The Chevy II, built on a 110-inch wheelbase, was in many ways the junior Chevrolet that the always 'different' Corvair could never hope to be. Subject of much speculation about its final form, rumors of the H-35 (Chevy II's pre-production code name) were widespread during 1961. When it made its debut as a 1962 car model, it offered the first four-cylinder Chevrolet engine since 1928, in addition to an optional 194-cubic-inch six. The 153-cubic-inch four was a lively engine that found little immediate acceptance, although it did spawn a small industry providing speed parts for its adaptation to lightweight circle-track burners. (The 153 would later provide a base for developing GM's 1977 four-cylinder sub-compact engines.)

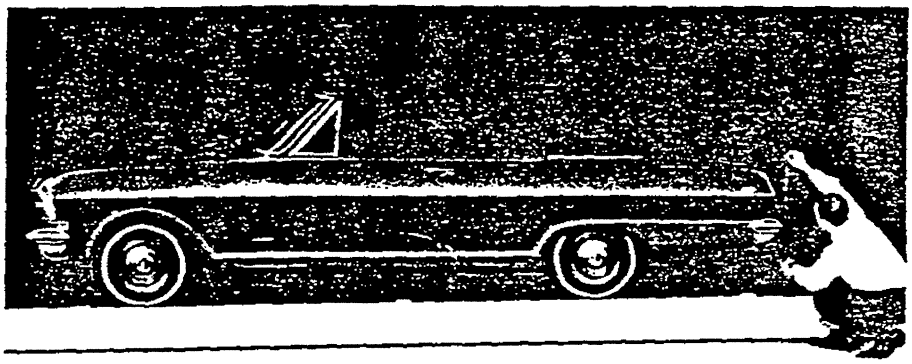
Three Chevy II series were offered for 1962, with the top models in the Nova 400 line, consisting of a Sport Coupe (hardtop), Convertible and Station Wagon. The 153-four wasn't offered in this line. Nova 400's were nicely trimmed with their version of Chevrolet's ribbed rocker panel moldings and other bright trim. All 1962 Novas used thirteen-inch wheels. Sport Coupes and Convertibles used 6.50x13 tires; no other size was offered optionally.

Technically, Chevy II's major claim to fame was its then-unique single-leaf rear springs. The *Finger-Tip Facts* book for 1962 tersely explained: "Rear Hotchkiss-type rear suspension with Mono-Plate single-leaf rear springs. Single-leaf design eliminates inherent harshness found in multi-leaf springs, and contributes to a smoother, quieter, more cushioned ride."

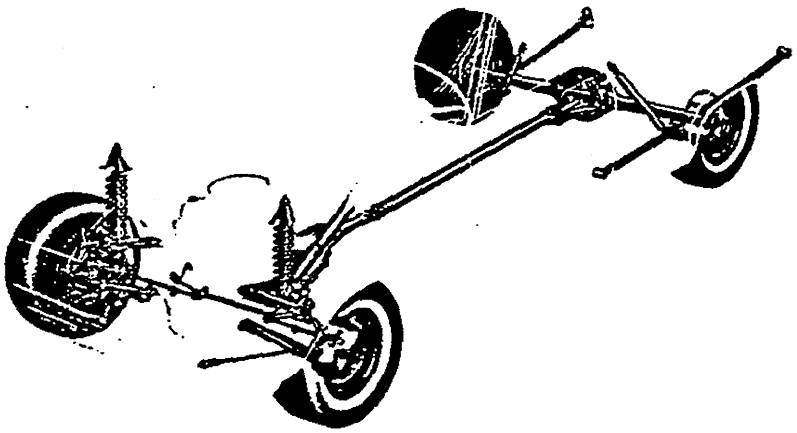
Chevy II used a fully unitized Fisher body with bolt-on front fender skins for easy replacement.

No Super Sport equipment option was offered for the 1962 Chevy II, but the customer could order front bucket seats on Nova 400 two-door models. Heavy-duty springs, shocks and sintered metallic brake linings were offered also. These, along with the 3.36:1 rear axle with Positraction that could be specified for three-speed-equipped cars, could approximate

H-35 Convertible as it was proposed on December 1, 1960. Production Chevy II Nova convertible was nearly identical.



Chevy II was a fairly conventional car, its main innovative claim was Monoplate rear springs. Front suspension used independent high-mounted coil spring spherical joint design.



the larger Super Sports' handling in some respects, but brute acceleration was certainly lacking.

Hot-rodding, hobby of thousands of ingenious Americans, was an especially growing sport in the early 1960's. Chevrolet's light and high-revving V-8's became the heart of many hot rod specials. The new Chevy II was quickly spotted as a lightweight berth for the Chevy small-block V-8's. Chevrolet had been thinking along the same lines.

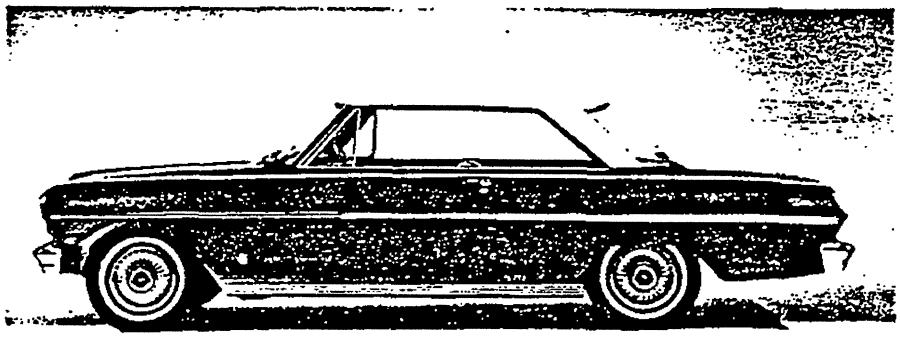
An engineer from Chevrolet Product Promotion Engineering told the author that the Chevy II was ". . . originally released on paper with a V-8. All the engineering work was done and the design existed. There was some corporate marketing decision that said 'thou shalt not build them in production with eights in '62.' I can only guess at the reason for that—probably because the BOP's [Buick-Olds-Pontiac] with their versions of the same car, had that 215 aluminum V-8 and the smallest V-8 we had was the 283, which although it was iron would run the ass off a 215."

Chevrolet's parts department quietly made the parts needed for conversion of the Chevy II to V-8 power available during mid-1962. Later in the year, part numbers appeared for 283 and 327 blocks specifically machined for Chevy II installation. These special blocks had modified oil filter housings (two inches higher) for a one-inch-shorter throw-away filter cartridge to give extra room for linkage on the left side of the V-8. Special exhaust manifolds, with outlet flanges turned thirty degrees to the rear, were also fitted. Other part numbers were listed for Chevy II V-8 oil pans, air cleaners, fuel pumps and lines; all designed to help shoehorn the small-block V-8 into the Chevy II's engine compartment. By the end of the year, special suspension parts, spindles and linkages were listed, too. The tiny 6.50x13 tires on 5½-inch rims continued to be the only available rolling stock for Chevy II's, however, by the parts book.

All 1962 Chevy II V-8's, then, were field conversions by dealers or individuals. The cost of having, say, a 300-hp 327 conversion executed could run as high as seventy-five percent of the list price of the whole $2,264 base-priced Nova 400 Sport Coupe. Few conversions were made at that rate.

Ray Brock wrote an article in *Hot Rod* illustrating the Chevy II's potential with small-block V-8 power. His test car was a Nova two-door carrying a 360-hp fuel-injected Corvette 327 which had been installed by Bill Thomas, who was just then developing his reputation for such

By March 1962 the decision to add a Super Sport to the Nova line for 1963 had been made. Prototype used different hub caps than production version.



handiwork by doing special high-performance work for Los Angeles-area Chevrolet dealers.

Using many of the available conversion parts, plus some of his own fabrications, Thomas dropped the Corvette engine into the Nova, backing it with a 2.20:1 low four-speed and 3.08 Positraction rear axle. This, Brock discovered, created a real screamer. The Nova shot to 60 mph, from rest, in 5.2 seconds; more than two seconds faster than a similarly equipped Corvette. The tiny thirteen-inch tires and Nova's single-leaf springs made for some touchy clutch work in bringing the car off the line without useless wheel hop and spin.

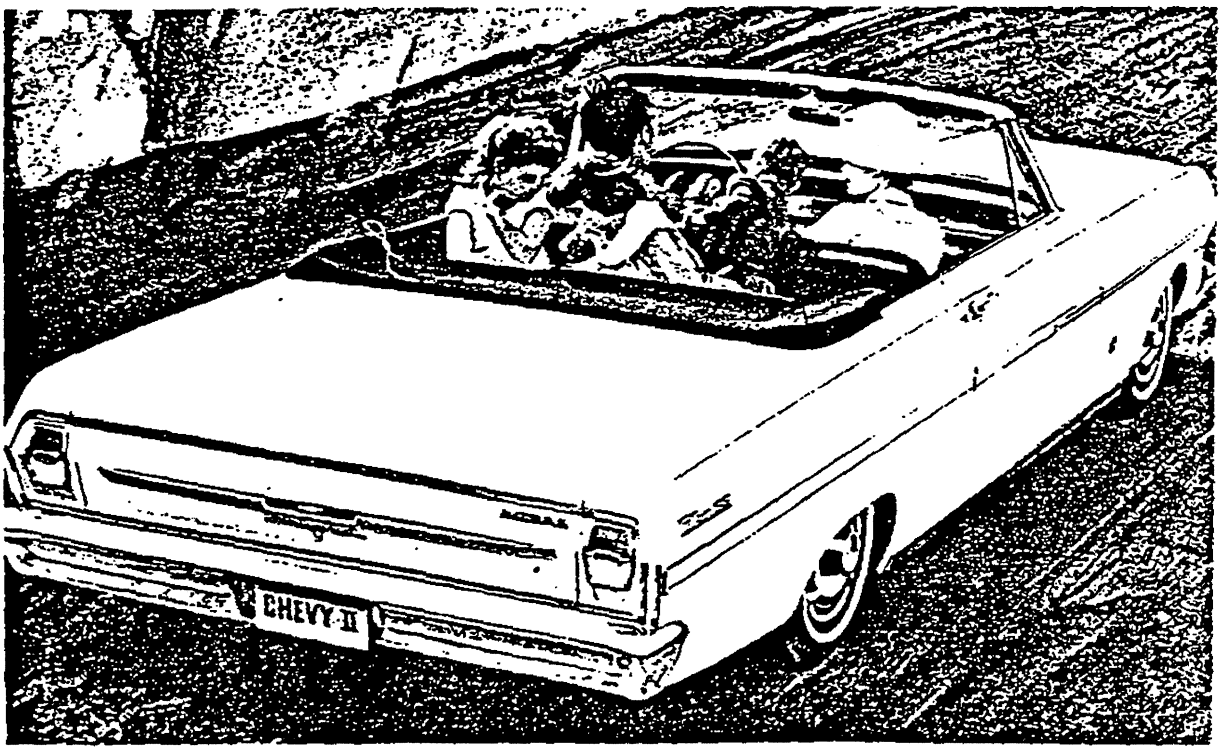
Following a run through nearby canyons, Brock commented, "With some chassis preparations and a good driver behind the wheel, the V8-Two could be quite the Grand Touring sedan." (Brock's prophecy would be born out by a Chevy II V-8 victory in Canada's 1964 Shell 4000 Rally.)

Chevrolet did authorize dealers to install the 360-hp fuel-injected Corvette engine in 1962 Novas for FX drag racing purposes. Don Nicholson campaigned one at the 1962 Winternationals.

Chevrolet enthusiasts were alerted to watch for assembly-line production of Novas with V-8's in 1963, but it was not to happen, just yet.

Novas for 1963 were very slightly restyled, with a bolder grille making the major appearance change. The big news for the year was the addition of Super Sport equipment (RPO Z03) to the Nova's option list. It was an instant success. By the end of the year 42,432 Super Sport kits had been installed on Nova Sport Coupes (out of the 87,415 total production) and Convertibles (which numbered 24,823 in Nova and Nova SS versions for the year). This represented more than thirty-seven percent of total production for the two body styles. Sport Coupe production increased by an incredible sixty-

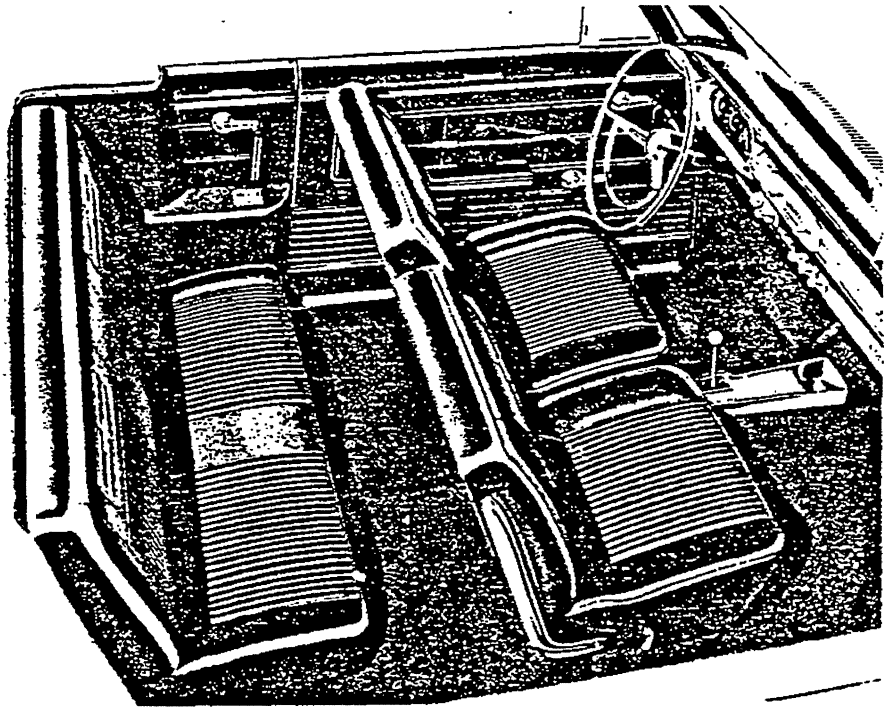
1963 was only year for Chevy II Nova SS Convertible.



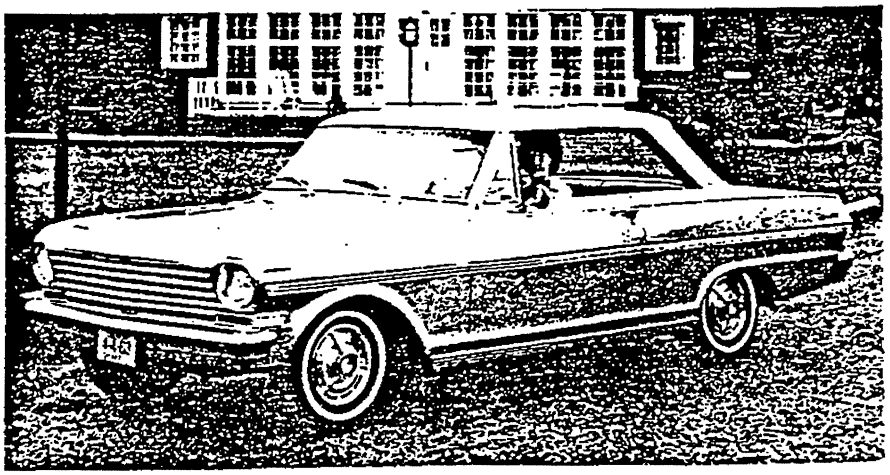
seven percent for the year compared to 1962, while Convertibles were built in only a marginally larger number, about 1,000 units more.

Super Sport equipment for the Nova 400 cost the same as for the larger Impala: $161. The package itself had some variations, of course. Most notably, the Nova SS carried a four-gauge (oil-amp-temp-fuel) instrument cluster in place of warning lights in the right opening of the instrument housing. Additional instrument panel features were a bright peak-molding

Bucket seats were standard on 1963 Nova SS. Since four-speed wasn't offered, only Powerglides had floor shift plate. Standard three-speeds had column shifts.



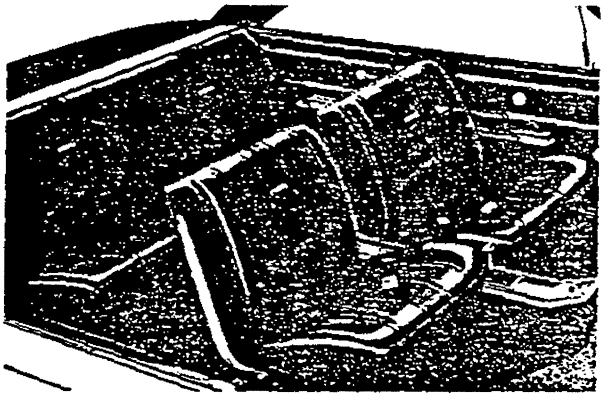
Nova SS Sport Coupe for 1963 shared Impala SS wheel covers. Six-cylinder was only power plant choice.



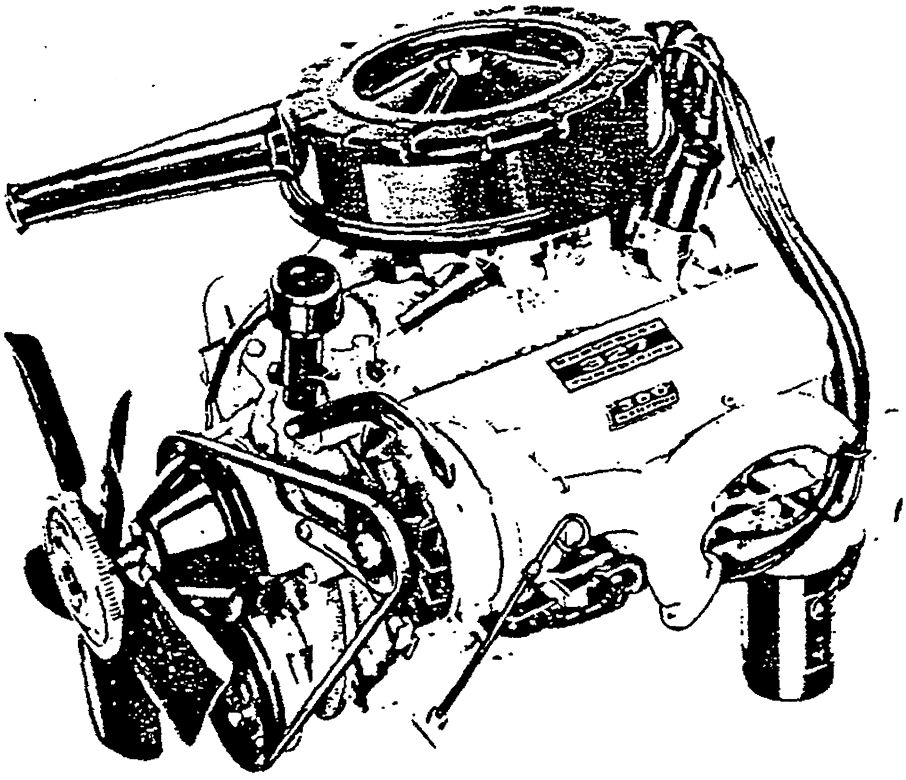
crossing the panel horizontally, with a Nova SS emblem on the lower right. An electric clock was standard. A Deluxe steering wheel, with an SS center cap, was also part of the deal. It was color-keyed to the car's all-vinyl interior, except on cars with black, red or saddle interiors. Black vinyl was reserved for SS use only. Individual front bucket seats and bright metal outside hinge moldings were included with SS equipment.

Nova Super Sports equipped with Powerglide used a "decorative floor-mounted range selector trim plate," to house the transmission shifter. A light at the rear of the semi-console provided rear-compartment floor lighting when doors were opened.

1965 Nova SS interior was nicely appointed.

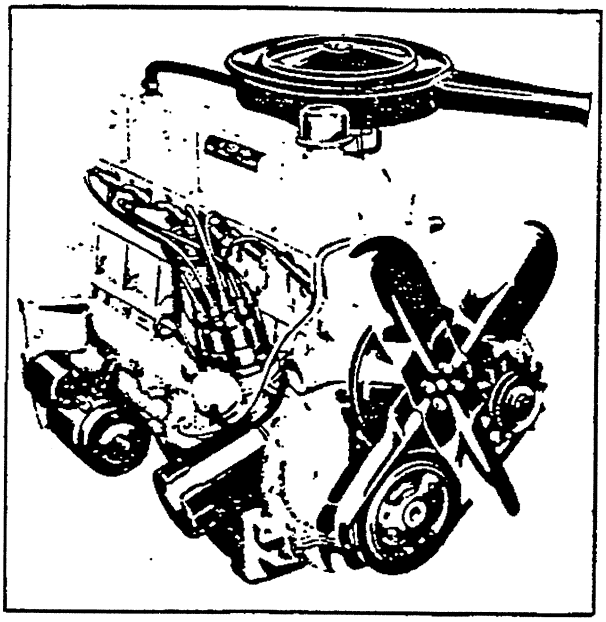


Top production engine for 1965 Chevy II was 300-hp 327. Special headers, block and other parts were used for Chevy II installation.



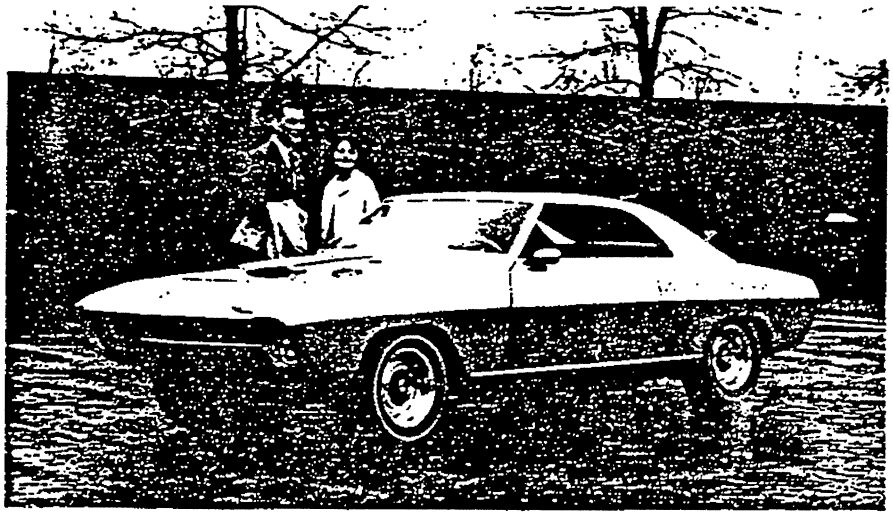
Exterior Super Sport identification was achieved by filling the Nova 400's full-length side trim strip with silver from mid-door to the rear. Special body peak moldings capped fenders and doors. The rear cove was painted silver, and a Nova SS badge bar was mounted therein. Nova SS emblems were placed on each rear fender as well. Wheel covers were borrowed from the 1963 Impala SS and were fitted to wheels with the "required additional equipment" 6.50x14 tires.

Most of the big Impala's appearance and comfort options were echoed on the Nova 400's option list. Nova also shared the new self-adjusting brake system with the larger Chevrolet. Many lubrication points on the Chevy II required attention only every 6,000 miles this year, due to the use of Teflon bushings and other advances that would soon be adopted industry-wide.



194-cubic-inch six was standard 1964 Nova engine.

Super Nova was shown at April 1964 New York Auto Show. Styling suggested 1966-67 Nova, but car was used to develop Camaro as well.



Campbell-Ewald, Chevrolet's advertising agency, announced 1964 Nova SS with this ad in enthusiast magazines during April and May 1964.

A 283-CU.-IN. V8 NEVER FOUND A HAPPIER HOME—We slung a big 195-hp 283-cubic-inch V8* into the Chevy II Nova Sport Coupe and now you'd think it was born that way.

This is the same Chevy II that spent a couple of happy years building up a following as one of the most wholesome things since brown bread. The one down-to-earth American car you wouldn't mind bringing home to mother or showing off to your friends. And the last car in the world you'd ever accuse of being pretentious. In short, a regular darb.

Now, with that V8 up front, Chevy II spends most of its time doing impressions of performance types. Give it a 4-speed all-synchro shift* and it's very close to being just that. After all, it started out with certain advantages: taut suspension, trim size, no-nonsense construction.

Is this any way for a nice, quiet, sturdy, sensible, unpretentious car like Chevy II to behave? Strangely enough, yes. Despite its new vigor, it's still a nice, quiet, sturdy, sensible, unpretentious car. With sharper teeth. Grrr. **CHEVY II NOVA** CHEVROLET

Chevrolet Division of General Motors, Detroit, Michigan

*Optional at extra cost

Although it was a pretty attractive package, the Nova Super Sport was still lacking in the power ratings. All 1963 factory-built Nova Super Sports had the same 120-hp 194-cubic-inch six introduced for 1962. This year, however, positive crankcase ventilation was added. There were plenty of heavy-duty options otherwise, including Positraction, front and rear springs, shock absorbers, clutches and sintered metallic brake linings of a new type.

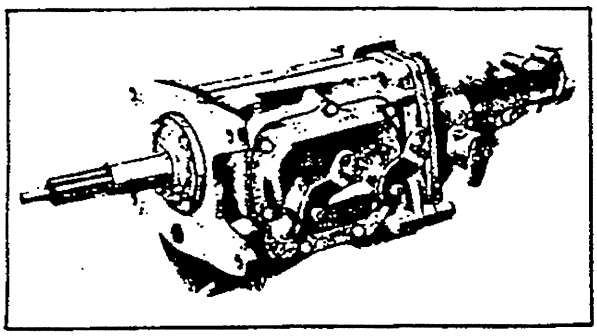
A four-speed gearbox was not offered, though. Nova customers had to choose between the standard 'three-on-the-tree' manual or Powerglide. Both used a 3.08:1 axle as standard, with 3.36:1 cogs being listed for optional installation with the three-speed manual.

A few knowledgeable Chevrolet enthusiasts, equipped with large bank accounts, continued to build Chevy II 283 and 327 V-8's using parts purchased over-the-counter at their Chevrolet dealers. The total cost of a conversion, including kit and labor, could be $1,500 or more. It was prohibitive, to say the least. Most of the conversions that were done were for FX drag racing purposes. Finally, in 1964, the V-8 would become readily available in Chevy II's. But, there would still be perplexing news for Nova enthusiasts as the year opened.

Pity the poor Nova customer at the time of the 1964 model's introduction. He'd been waiting two years for V-8 power and it was finally available to all who chose to check the space on the order blank for RPO L32, the 195-hp 283 Turbo-Fire V-8. Best of all, it only cost him $108. But, there was astonishing bad news, too. The Nova Sport Coupe and Convertible and their Super Sport kits had been dropped from production!

Chevrolet management must have seen too many Chevy II sedans on the streets of Detroit in the hands of spinster-school-teacher types to understand that the car did have a performance-orientated, youthful following. But, happily, they heard the howls of protests from customers and dealers; by mid-year the Nova Super Sport Coupe (Model 0437), returned, along with a new Nova Super Sport Coupe (Model 0447). The convertible was gone forever, though, even as convertible production in some compact lines neared record highs (compact convertibles would account for nearly fifty percent of all soft top production for 1963).

External identification of a 1964 Nova SS was created by stripping off the regular Nova's body-side belt moldings and adding thin body peak moldings similar to the new Chevelle's along the upper edges. This produced a fresh, clean new look on the three-year-old body. At the rear, the cove area was painted silver. A Nova SS badge bar was affixed to the upper right corner of the cove. Bold Nova SS emblems went onto front fenders just ahead of the door for 1964. Wheel covers were of the 1963 Nova/Impala SS design, making an encore, and 6.50x14 tires were a required added-cost option again.



Nova could be ordered with a four-speed for first time in 1964. Backing the new 283 V-8, it was the M20 box with 2.56:1 low gear.

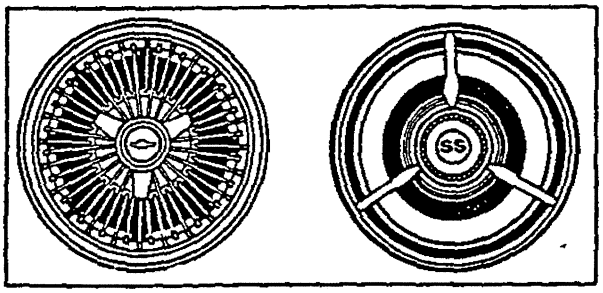
All Chevy II buyers benefited by the addition of the V-8, as larger brakes and stronger suspension components were fitted to all. Nova models were not sold with the tiny 153-cubic-inch four used for lesser Chevy II models. The standard Nova engine was once again the 194-cubic-inch 120-hp six. The 155-hp 230 six was a seldom chosen option. As in Chevelle installations, the 230 had chrome garnishes.

Inside, Nova Super Sports featured what had become traditional Super Sport appointments: individual front bucket seats, floor console for Powerglide or four-speed (offered with the 283 V-8 this year) transmissions, and all-vinyl upholstering. Gauges were included on SS cars.

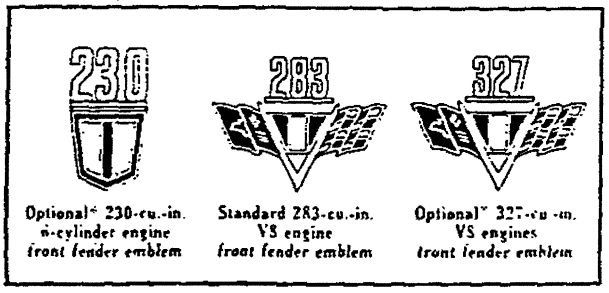
Chevrolet cataloged fourteen solid colors for the Nova SS, along with eleven two-tone combinations. These were the same as larger Chevrolets, with the exception of Goldenwood yellow which was not listed at the beginning of the year. This color was reserved for hardtops in the larger lines; possibly it was extended to the Nova Super Sport as well when it made its debut mid-year, although no confirmation of this has been made.

A Canadian Chevrolet dealer, Maurice 'Moe' Carter, used a Nova V-8 two-door sedan to show that Ray Brock's 1962 prediction that a V-8 Chevy

Nova SS had cleaner version of Impala SS hub cap (right). Accessory wire wheel covers could be ordered at extra cost (left). Early cars may have used left-over 1964 Impala SS covers, as shown on car below.



1965 Nova SS engine identification (l. to r.), 230 six-cylinder, 283 and 327 V-8's.

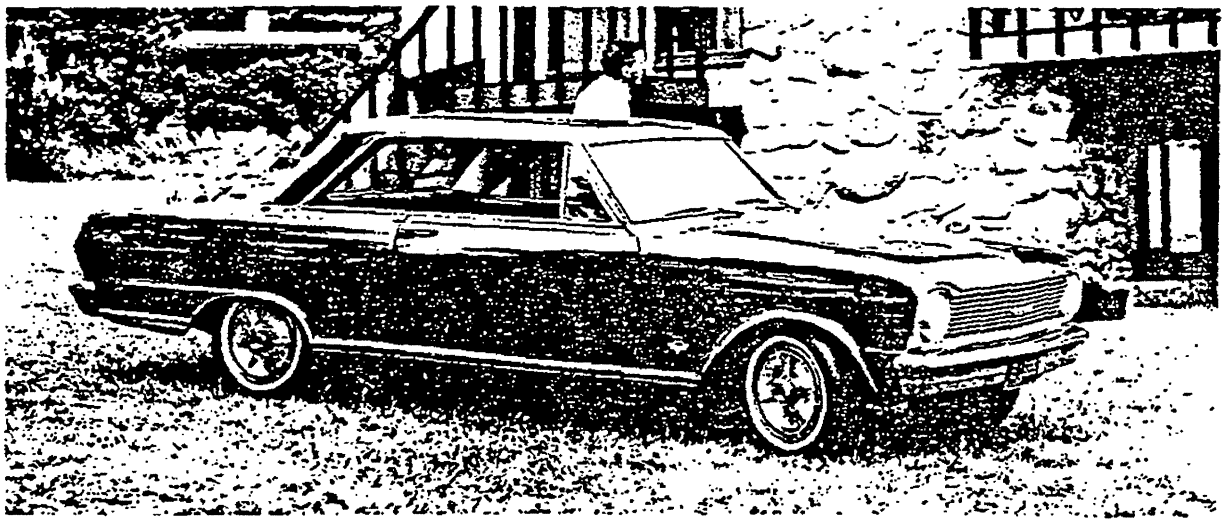


Optional* 230-cu.-in. 6-cylinder engine front fender emblem

Standard 283-cu.-in. V8 engine front fender emblem

Optional* 327-cu.-in. V8 engines front fender emblem

Nova SS for 1965 used full wheel covers, on standard 14-inch rims. 1965 had cleanest styling yet on original H-35 body.



II could be a GT-class performer was right on. Carter and Ian Worth, working as a driver/navigator team, pushed their Nova V-8 4,044 miles in six days to win their class in the really rough 1964 Shell 4000 Rally. They also placed second over-all in the event, which crossed Canada from west to east that April. Class 4, which found the Carter/Worth team victorious, was for cars of 244.16 cubic inches and larger. The Nova team bested eleven finishing cars, leaving nine DNF's in their wake.

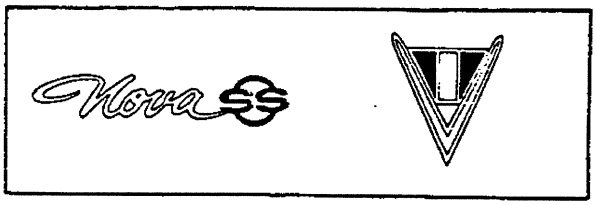
The Shell Rally Nova was equipped with most factory heavy-duty parts, including four-speed, heavy-duty clutch, 3.36:1 Positraction rear axle and 7.00x14 tires on six-inch rims. Other modifications were minor, except for the addition of armor plate protection for the oil pan and gas tank with its reserve backup tank used for '400 miles to the fill-up' cruising. Although the rally was mostly run by time and distance regulations, there were five 'speed' sections included where the cars could cut loose and cover ground as rapidly as conditions permitted.

Chevrolet announced the Nova victory with a screened black-on-orange matte-paper folder telling of the Shell 4000 and Nova's success there. On the last fold a small photo of the 1964 Nova Super Sport Coupe was included, making this one of the very few items of 1964 Chevrolet literature to include the Nova SS Coupe.

The late introduction of the Nova Sport Coupe models cut deeply into sales, as did the hot-selling new Chevelle Super Sports. Still, 30,827 1964 Nova two-door hardtops were built of which 10,576, or thirty-five percent, were Nova Super Sports.

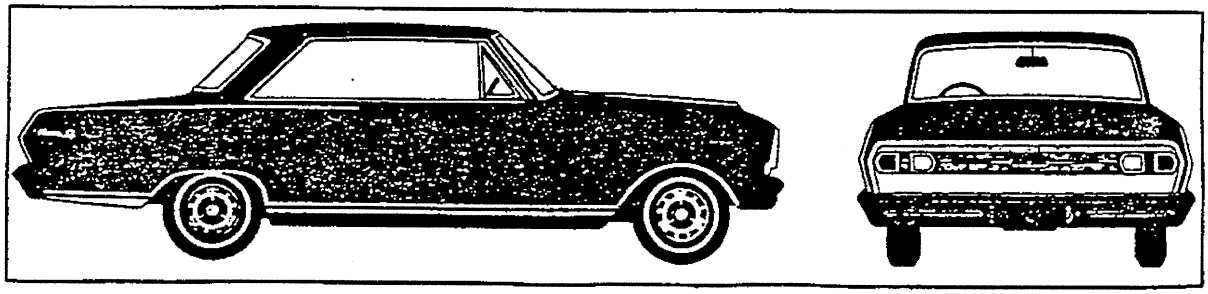
Nova Super Sport Coupes were offered right from the beginning of 1965, but sales remained sluggish as the slightly higher priced Chevelle SS (about $100 separated list prices of V-8 Chevelle and Nova Sport Coupe models) grabbed the attention of American car buyers. By the end of 1965's model run, 28,380 Nova Sport Coupes would be built, including 9,100 Nova Super Sports representing thirty-two percent of 1965 Sport Coupe production.

Chevrolet listed two Super Sport models for the 1965 Nova, the six-cylinder Sport Coupe, model 11737, and its V-8 equivalent, model 11837. They were mildly facelifted with new color-accented, bright lower-body moldings in conjunction with wheelhouse and rear fender lower moldings.



1965 Nova SS rear quarter emblem (left). 1964 engine insignia for 283 V-8 (right).

Showroom Album's silhouette of the 1965 Nova SS illustrates clean design. Rear cove was refreshingly new, too.



The Nova SS emblem moved to the rear fenders this year, and the previous rear SS badge bar was moved up out of the cove area on the right. Body crown moldings were abbreviated for 1965, beginning at the door opening and extending to the rear where they turned down. The chrome hood windsplit running down the hood center, used on 1964 Novas and Nova Super Sports, continued only on the SS for 1965 as standard equipment. The cove area was redesigned at the rear to use a ribbed filler containing taillights and the Chevrolet emblem, with silver paint filling the balance of the area below.

Unique SS full wheel covers apparently reached production sometime after the beginning of 1965 assemblies; some early Super Sports may have used the flat-faced 1964 Impala SS fourteen-inch covers. Tires were 6.95x14 on five-inch rims on Nova SS cars with V-8 power.

Under the hood the big news was the availability of the 327-cubic-inch Chevrolet V-8 for Chevy II. It was offered in the familiar 250- and 300-hp (RPO L30 and L74 production was just 324 and 319 respectively) tunes. The standard V-8 continued as the 195-hp 283, while the four-barrel, dual-exhaust 220-hp version of this famed Chevrolet engine was added to the Nova option list mid-year. The 140-hp 230 six-cylinder continued as an option for six-cylinder models (without its chrome dress-up kit, however), with the 194-cubic-inch 120-hp six remaining the standard Nova and Nova SS engine. (The 153-cubic-inch four remained in production for Chevy II 100-series sedans; reportedly only 367 were built with the tiny power plant in 1965.)

Three-speed manual gearboxes with 3.08 axles were standard in six-cylinder and base V-8 Novas, with 3.36:1 gears optional. The 327 V-8's used a stronger standard three-speed, with 3.07 gears (unless the optional 3.31 "special purpose or mountain" gear set was specified). All V-8's could be ordered with a new 4.56:1 low M-20 type four-speed and 2,014 were. Powerglide automatic transmission was offered with any engine choice, and Positraction was available for any rear axle specified.

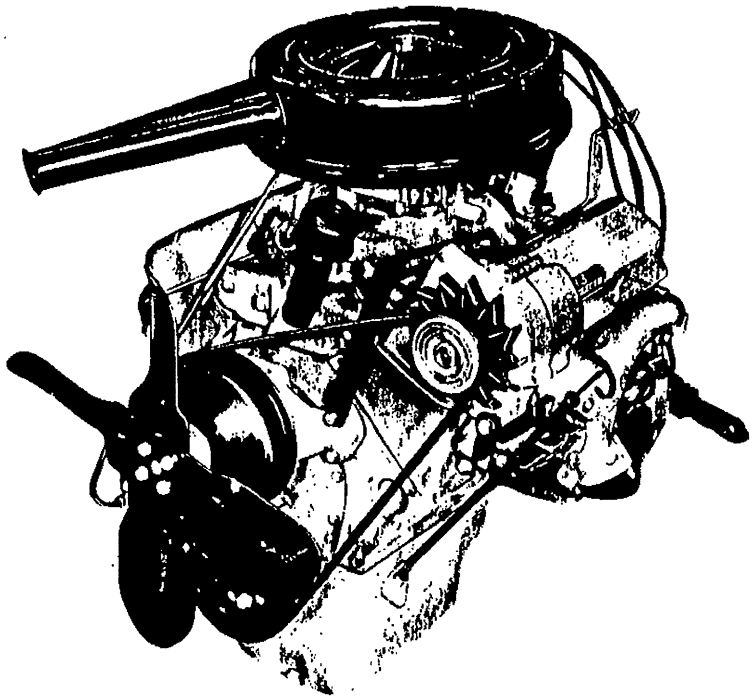
At mid-year Chevrolet discontinued the 3.31:1 option for the 327 and made a 2.73:1 gear set standard with 250-hp 327's. At the same time, the new fully synchronized optional M13 three-speed manual gearbox was extended to Chevy II buyers ordering the 327 V-8. Then, shortly after the February 1965 revisions, yet another transmission choice, RPO M15, was announced. This was the M13 box with a different, 2.84:1 low gear, set of internal ratios.

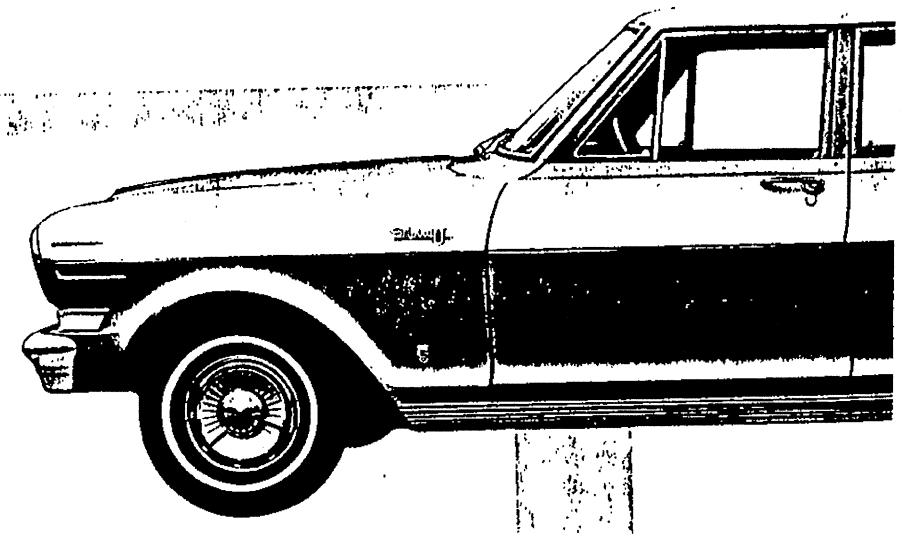
Heavy-duty 1965 Nova SS options not already mentioned included dual exhausts for the 250-hp 327 V-8, sintered metallic brake linings, special front and rear suspension components and a tachometer for V-8 models.

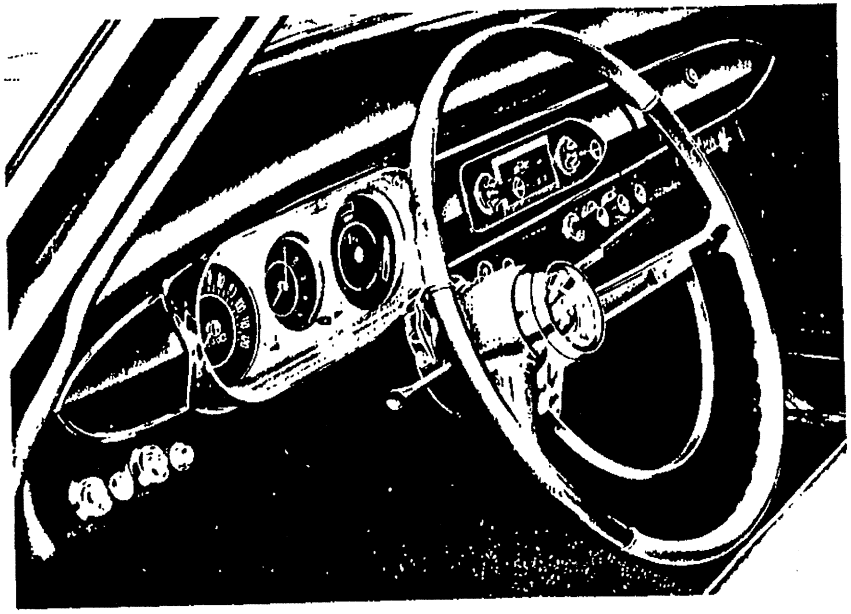
All 1965 Chevy II's were distinguished by a new, cleaner front end ensemble with bumper-mounted parking/turn-signal lamps.

The first-series Nova Super Sports are rather rare today, with the V-8 models being especially sought-after by today's collectors, along with the one-year (1963) six-cylinder Nova Super Sport Convertible.

Nova SS script moved back to rear quarter panel on the 1965 Nova SS, after spending 1964 on the front fenders.



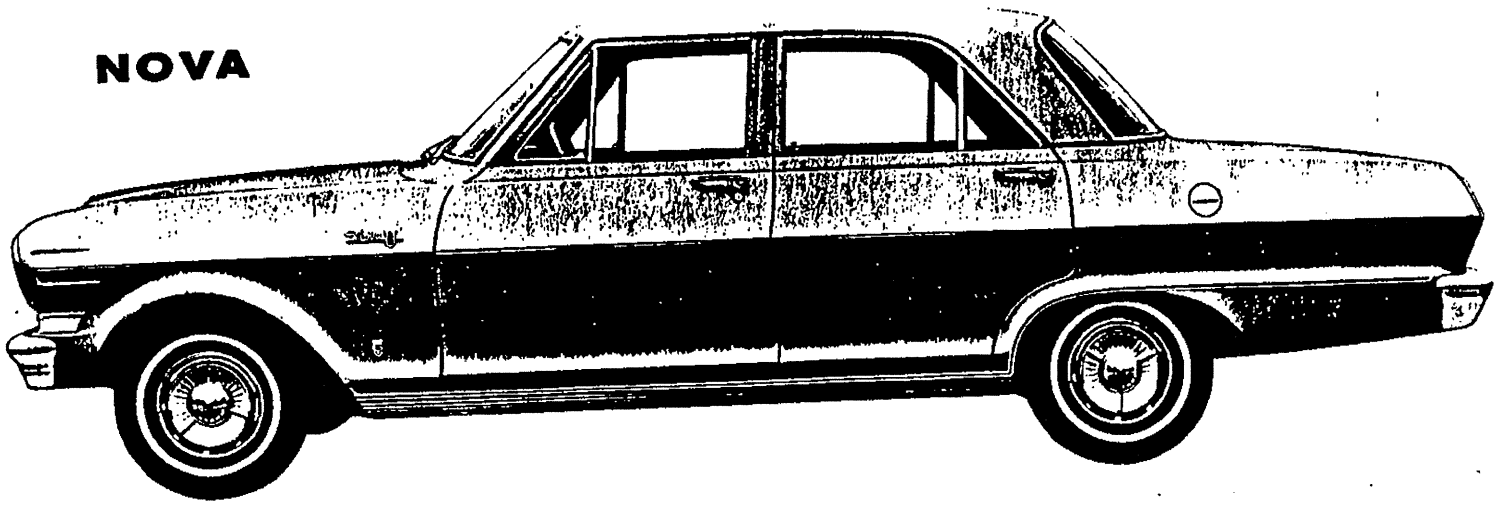


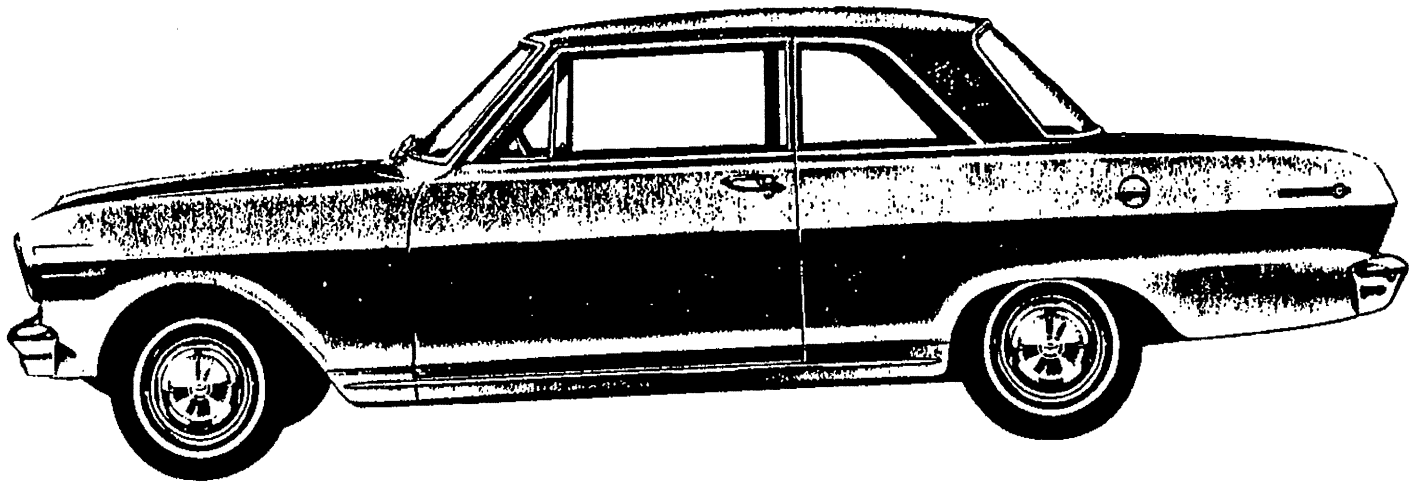


SERIES AND MODELS

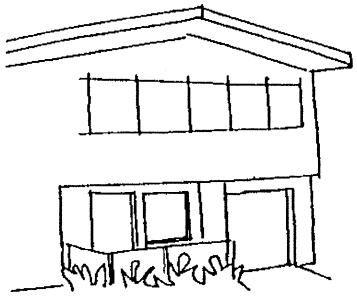
	2-Door Sedan	4-Door Sedan	4-Door Station Wagon 2-Seat
NOVA	411	469	435
CHEVY II 100	1-211	1-269	235

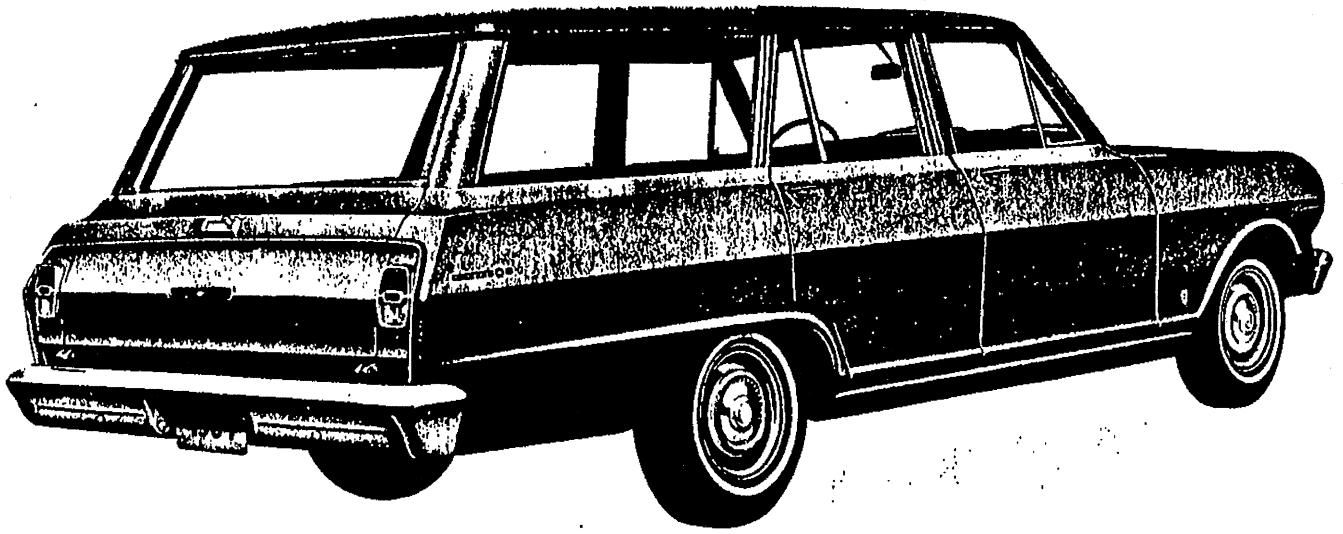
NOVA





CHEVY II 100



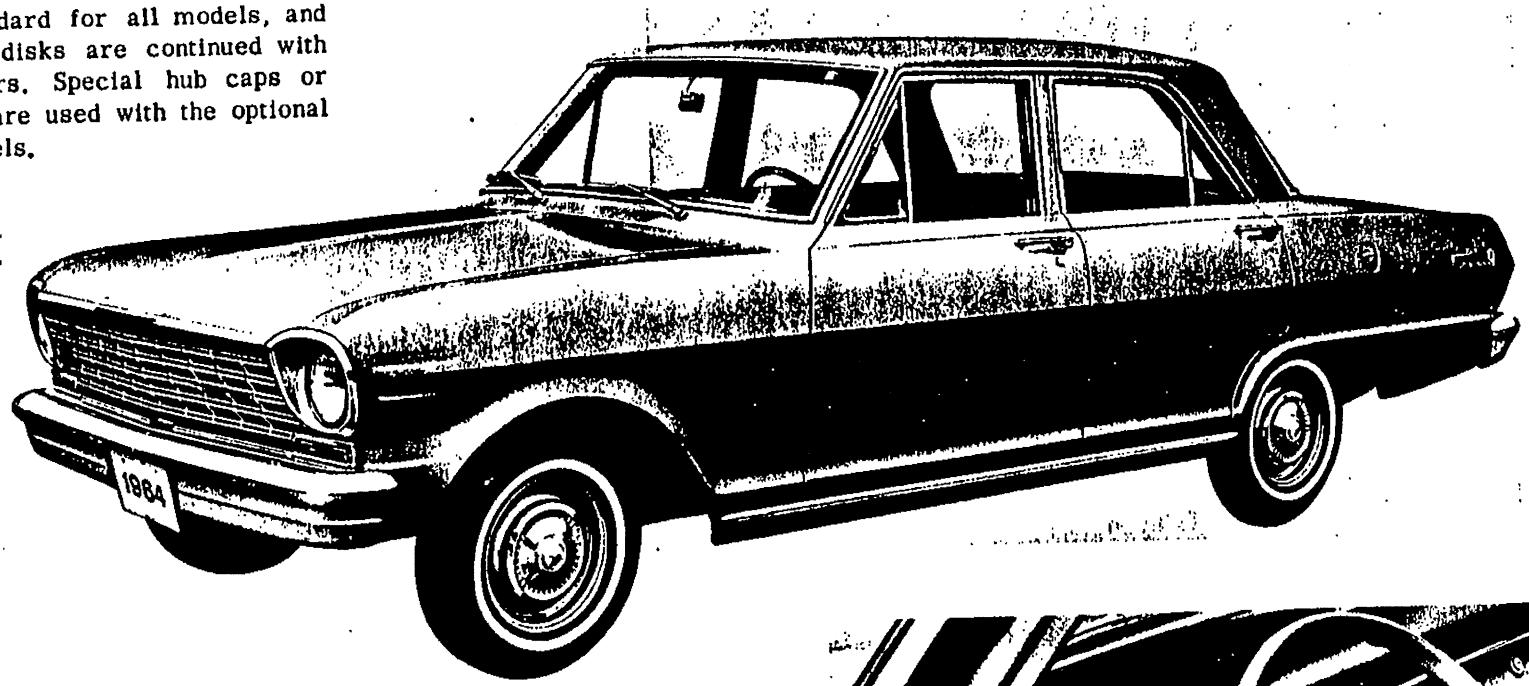


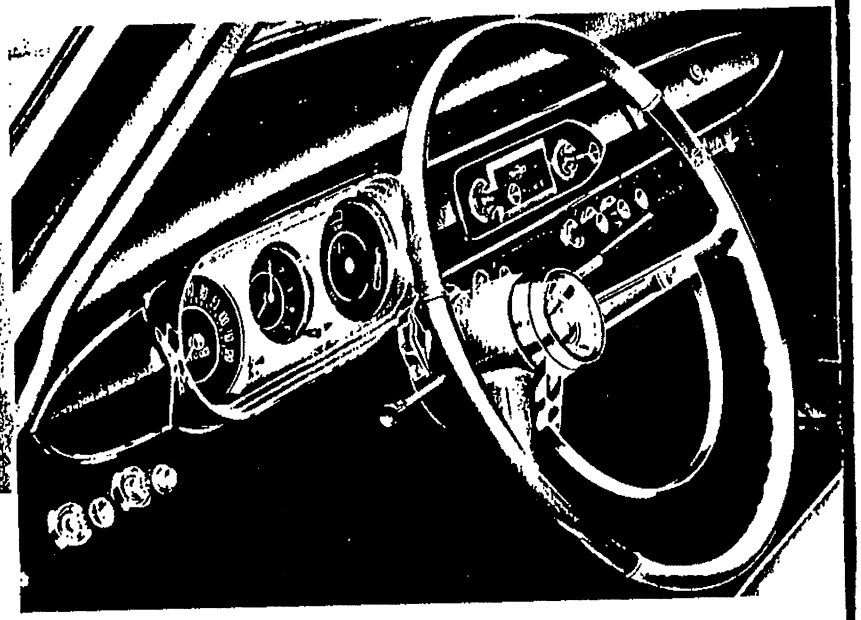
STYLING

Rear cove emblems are new, with Nova models distinguished by a broader, more massive emblem than used for the 100 Series. Other styling refinements for Nova models include new body and sill moldings, and a slender bright molding decorating the rear quarter lower area. The series name-plate is on the front fender for Nova models.

Refined radiator grille detail and new grille nameplate and hood emblem provide a fresh new look for all models. A slender body sill molding is added for the 100 Series.

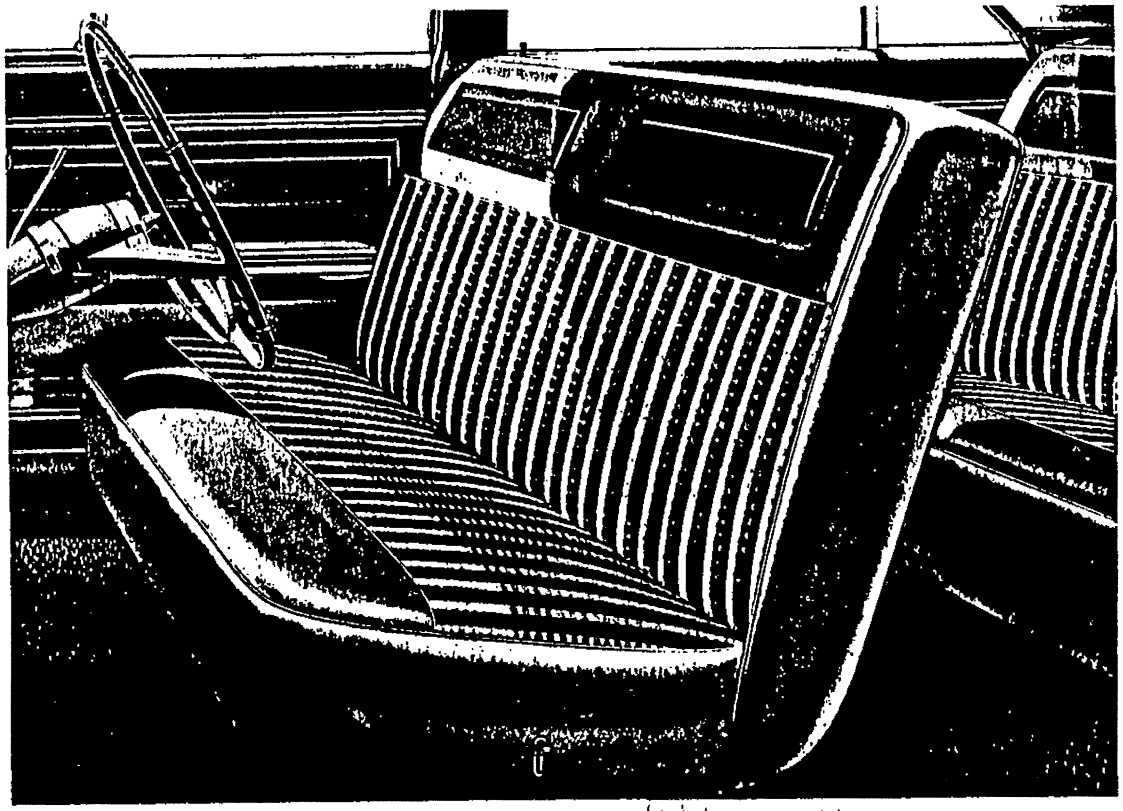
Hub caps, standard for all models, and accessory wheel disks are continued with new accent colors. Special hub caps or accessory disks are used with the optional fourteen inch wheels.





Nova interior appearance is enhanced by new bright moldings on the instrument panel. For all models, the instrument cluster face is painted silver.

INTERIORS



NOVA

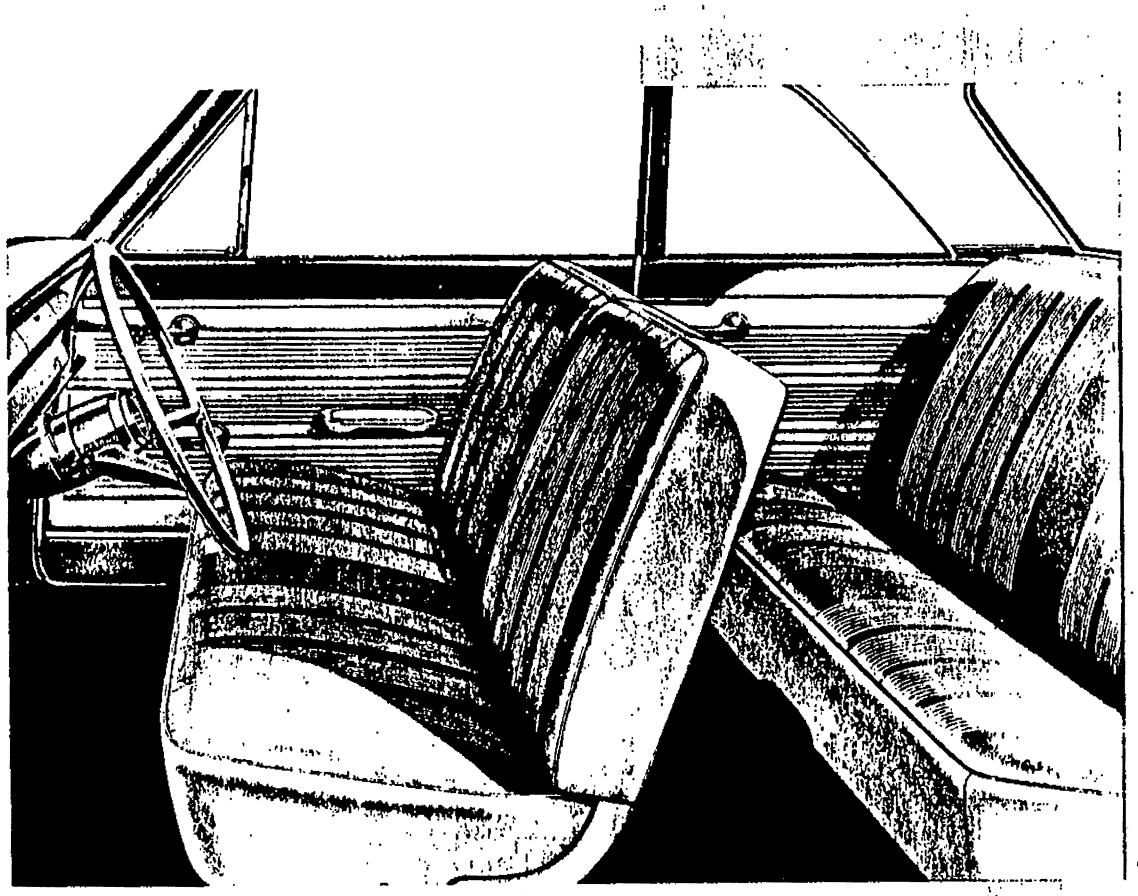
For Nova sedans, seat backrests and cushions feature pattern cloth with an attractive circle design. Pattern vinyl is substituted here in the Station Wagon. Backrest bolsters are decorated by inserts of textured vinyl. Facings are leather-grain vinyl.

Textured vinyl inserts also decorate the sidewall trim. A bright metal emblem is located on each front door. Front and rear armrests and deluxe hardware are again Nova features. Floor covering is deep-twist carpet. Five interior color choices are available.

CHEVY II 100

Pattern cloth, with a vertical stripe design, covers the sedan seat cushions and backrests. Solid color areas in the cloth simulate center bolsters. Vinyl, with a similar design, is substituted in the Station Wagon. Facings are vinyl.

Sidewall trim is simply styled with embossed horizontally ribbed areas. Floor mats are black rubber. Three interior colors are offered for this economy series.



CHASSIS AND BODY

The range of performance levels available for Chevy II models is more than doubled by the availability of nine power team combinations in place of the four previously offered. In addition to continuing the Super-Thrift 153 and Hi-Thrift 194 engines, the new 155 horsepower Turbo-Thrift 230, 6-cylinder and 195 horsepower Turbo-Fire, V-8 engines are available for Chevy II models. Three-speed and Powerglide transmissions are available for all engines, while the 4-speed is used only with the Turbo-Fire 283 V-8 engine. As described in the section on the full sized passenger car, the 3-speed manual and Powerglide automatic transmissions feature improved durability and quieter operation. The 4-speed transmission is the new Chevrolet-built unit.

Body panels and front end sheet metal carry forward the design of the previous year. Chassis and body improvements include larger brakes, longer life lamp bulbs, new compact horns, and flat front seat belt anchors.

The Super-Thrift 153, 4-cylinder and Hi-Thrift 194, 6-cylinder engines feature improved exhaust manifold heat valves, new air cleaner covers and sturdier generator mountings as described for the Turbo-Thrift 230 used with the full size Chevrolets.

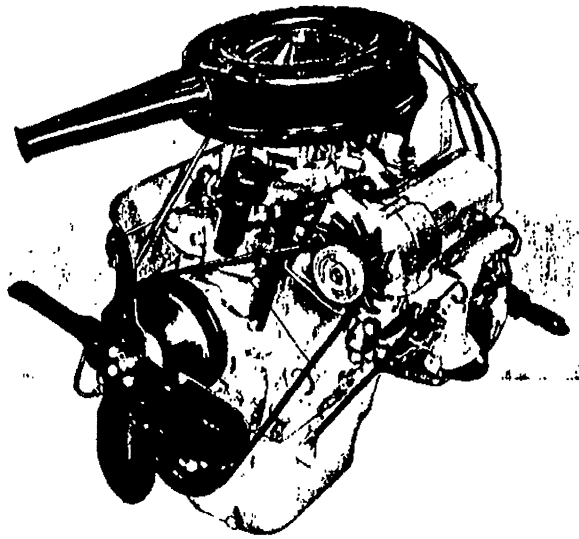
The optional 155 horsepower Turbo-Thrift 230, 6-cylinder and 195 horsepower Turbo-Fire 283, V-8 engines provide features and advantages as described for the new Chevelle models. Revisions for these two engines, necessary to conform with the Chevy II chassis, include forward locations for oil pan drop-section, oil pump pipe and screen. Because of these changes the oil dip stick gauge is moved forward for both engines. Exhaust manifolds for the Turbo-Fire 283 remain the ram's horn type; however, outlets are slanted rearward to provide front suspension crossmember clearance.

Die-cast aluminum clutch housings feature greater strength through the use of thicker reinforcing ribs for all engines.

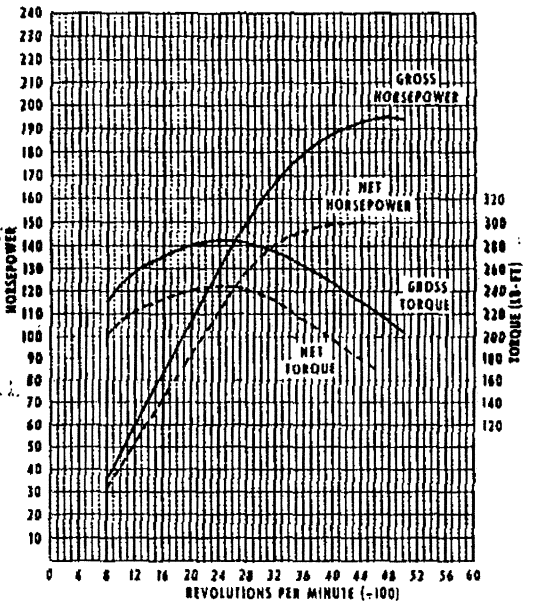
The Chevy II propeller shaft is continued

	COMPRESSION RATIO	EQUIPMENT	TRANSMISSION	STANDARD AXLE RATIO
Super-Thrift 153 90 Horsepower 153 Cubic Inch 4-Cylinder	8.5-to-1	1-Barrel Carburetor	3-Speed Powerglide	3.08
Hi-Thrift 194 120 Horsepower 194 Cubic Inch 6-Cylinder	8.5-to-1	1-Barrel Carburetor	3-Speed Powerglide	3.08 *
Turbo-Thrift 230 155 Horsepower 230 Cubic Inch 6-Cylinder	8.5-to-1	Large 1-Barrel Carburetor	3-Speed Powerglide	3.08 *
Turbo-Fire 283 195 Horsepower 283 Cubic Inch V-8	9.25-to-1	2-Barrel Carburetor	3-Speed 4-Speed Powerglide	3.08 *

* - 3.36 for station wagons



OPTIONAL TURBO-FIRE 283 V-8



except for the new 27-tooth Corporation standardized mainshaft spline. As in the regular passenger car, universal joints are sealed to eliminate the need for periodic servicing. The new Salisbury-type rear axle differs from the Chevelle rear axle only in external carrier design and frame mounting brackets.

Larger diameter, wider brakes improve the Chevy II's braking effectiveness and contribute to longer lining life. The new brake diameter is 9.5 inches, an increase of 0.5 inch over 1963, while lining width is 0.25 inch greater. The increases give a total effective lining of 172.7 square inches, a gain of over 19 percent. The self-adjusting feature is retained, adapted to the new brake size.

Almost all lamp bulbs, including headlamps, have greatly increased burning characteristics, resulting from increases in filament thicknesses. Life expectancy varies with the application.

Compact horn size not only permits better placement in the space allotted, but enables better positioning of the horn for the elimination of mud splash and dust entry.

Front seat belt anchors are changed from the eyebolt type to a flat plate with a "floor hugging" vinyl boot, for improved rear seat passenger foot comfort.

New accessories include a remote control outside rear view mirror and a trailer hitch for light-duty hauling. The new mirror is door-mounted and adjusted through two cables that are connected to a knob on the door inner panel. The new hitch is rated at 2000 pounds with a tongue load capacity of 150 pounds.

AMA-402

AMA Specifications – Passenger Car

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

MANUFACTURER Chevrolet Motor Division General Motors Corporation		CAR NAME Chevy II	153 cu. in. 4-cylinder 194 cu. in. 6-cylinder
MAILING ADDRESS Chevrolet Engineering Center Box 7346, N. End Station, Detroit 2, Mich.		MODEL YEAR 1964	ISSUED: 9-23-63 REVISED (•) 1-27-64

NOTES:

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

TABLE OF CONTENTS

BODY—TYPES AND STYLE NAMES—

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

	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
	*	235	4-Door Station Wagon, 2-Seat
Chevy II Nova Series	*	435	4-Door Station Wagon, 2-Seat
	*	469	4-Door Sedan, 6-Passenger
	*	411	2-Door Sedan, 6-Passenger
	*	437	2-Door Sport Coupe, 5-Pass.
Chevy II Nova Super Sport	*	447	2-Door Sport Coupe, 4-Pass.

* - 4-Cylinder engine not available.

Form Rev. 5-63

AMA Specifications – Passenger Car

1-27-6

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

MODEL 1-400 | All Models Unless Indicated Otherwise

STEERING (cont.)

Steering Axis	Inclination at camber (deg.)		6-3/4 to 7-3/4
	Bearings (type)	Upper	Ball stud with sintered iron bearing
		Lower	Ball stud with sintered iron bearing & phenolic seat
		Thrust	None
Wheel alignment (range and preferred)	Caster (deg.)		P 1/2 to P 1-1/2 (curb)
	Camber (deg.)		O to P 1 (curb)
	Toe-in (outside tread-inches)		/: to :/8 total (curb)
Steering spindle & joint type			Forging with pad for mounting brake cylinder, spherical
Wheel spindle	Diameter	Inner bearing	
		Outer bearing	
	Thread size		/: -20 NEF - 3 (Modified)
	Bearing type		Taper Roller

SUSPENSION—REAR

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

AMA Specifications—Passenger Car

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

	153 cu. in. 4-cyl.	194 cu. in. 6-cyl.	230 cu. in. 6-cyl.	283 cu. in. V-8
MODEL	100	200-400		

ENGINE—GENERAL

Type, no. cyls., valve arr.		In-line 4-OHV	In-line 6 OHV		90° V-8 OHV
Bore and stroke (nominal)		3.875 x 3.25	3.563 x 3.25	3.875 x 3.25	3.875 x 3.00
Piston displacement, cu. in.		153	194	230	283
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)		1-3-5-7
	R. Bank				2-4-6-8
Firing order		1-3-4-2	1-5-3-6-2-4		1-8-4-3-6-5-7-2
Compres. ratio (nominal)		8.5:1			9.25:1
Cylinder Head Material		Cast alloy iron			
Cylinder Block Material		Cast alloy iron			
Cylinder Sleeve-Wet, dry, none		None			
Number of mounting points	Front	Two			
	Rear		One		
Engine installation angle		3.51'			5° 11'
Taxable horsepower $\frac{Dia.^2 \times No. Cyl.}{2.5}$		24.0	30.5	36.0	48.0
Published max. bhp* @ eng. RPM		90 @ 4000	120 @ 4400	155 @ 4400	195 @ 4800
Published max. torque* (lb. ft. @ RPM)		152 @ 2400	177 @ 2400	215 @ 2000	285 @ 2400
Recommended fuel regular - premium		Regular			
Idle speed (spec. neutral or drive)	Manual	500 in Neutral			
	Automatic	500 in Drive			475 in Drive

ENGINE—PISTONS

Material		Cast Aluminum Alloy			
Description and finish		Flat, notched head slipper skirt	Flat head slipper skirt	Flat, notched head slipper skirt	
Weight (piston only) oz.		20.40	17.60	20.40	20.30
Clearance (limits)	Top land	.035-.044	.033-.044	.035-.044	
	Skirt Top	.0005-.0011(a)	.0005-.0011(b)	.0005-.0011(a)	
	Skirt Bottom				
Ring groove depth	No. 1 ring	.2153-.2218	.1960-.2025	.2153-.2218	
	No. 2 ring	.2153-.2218	.1960-.2025	.2153-.2218	
	No. 3 ring	.2093-.2158	.1985-.2050	.2093-.2158	
	No. 4 ring				

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

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

(b) - Measured at 2.20" from top of piston.

AMA Specifications – Passenger Car

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

POWER TEAMS
(Indicate whether standard or optional)

MODEL AVAILABILITY	ENGINE					TRANSMISSION	AXLE RATIO (A) (Std. first)	
	Displ. cu. in.	Carburetor	Compr. Ratio	BHP @ RPM	Torque @ RPM		Gen'l Purpose Std.	Spc'l Purpos or Mt.
100	153 (Std)	1 Bbl Down draft	8.5:1	90 @ 4000	152 @ 2400	Sedans & Coupe 3-Speed	3.08:1	3.55:1
						Powerglide *	3.08:1	---
200 & 400	194 (Std)	1 Bbl Down draft	8.5:1	120 @ 4400	177 @ 2400	Sedans & Coupe 3-Speed	3.08:1	3.[illegible]
						Powerglide *	3.08:1	---
						Station Wagon 3 Spd & P/Gld *	3.36:1	---
	230 (Opt)	1 Bbl Down draft	8.5:1	155 @ 4400	215 @ 2000	Sedans & Coupe 3-Speed	3.08:1	3.36:1
						Powerglide *	3.08:1	
						Station Wagons 3 Spd & P/Gld *	3.36:1	----
	283 (Opt)	2 Bbl Down draft	9.25:1	195 @ 4800	285 @ 2400	3-Speed	3.08:1	3.36:1
						4-Speed *	3.08:1	---
						Powerglide *	3.08:1	---

(A) - Positraction options available in 3.08:1, 3.36:1, 3.55:1
* - Optional

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AMA Specifications – Passenger Car

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MODEL	153 cu. in. 4-cyl.	194 cu. in. 6-cyl.	230 cu. in. 6-cyl.	283 cu. in. V-8
	100	200-400		

ENGINE—RINGS

Function (top to bottom)	No. 1, oil or comp.	Compression
	No. 2, oil or comp.	Compression
	No. 3, oil or comp.	Oil Control
	No. 4, oil or comp.	None
Compression	Description – material, type, coating, etc.	Cast alloy iron; inside bevel Upper - Flash chrome plating coating O. D. Lower - Wear resistant coating
	Width	Upper: .0775-.0780; Lower: .0770-.0780
	Gap	.010-.020
Oil	Description – material, type, coating, etc.	Multi-piece-(2 rails and one spacer expander) Spacer expander-steel Rails - stainless steel, chrome plated O. D.
	Width	.1840-.1880 (assembled)
	Gap	.015-.055
Expanders		In oil ring assembly

ENGINE—PISTON PINS

Material			Chromium steel
Length			2.990-3.010
Diameter			.9270-.9273
Type	Locked in rod, in piston, floating, etc.		Locked in rod
	Bushing	In rod or piston	None
		Material	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	20.00
Length (center to center)		5.699-5.701	
Bearing	Material & Type	Steel backed babbitt or Copper lead alloy	
	Overall length	.807	
	Clearance (limits)	.0007-.0027	
	End play	.008-.014	.009-.013

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MAKE OF CAR CHEVY II MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (•) 1-27-

			153 cu. in. 4-cyl.	194 cu. in. 6-cyl.	230 cu. in. 6-cyl.	283 cu. in. V-
MODEL			100	200-400		
ENGINE—CRANKSHAFT						
Material			Forged steel(a)	Cast Nodular Iron		Forged steel
Vibration damper type			None	Rubber mounted inertia damper		None
End thrust taken by bearing (No.)			5	7		5
Crankshaft end play			.002-.006			
Main bearing	Material & type		Copper lead alloy or Steel backed babbitt			
	Clearance		.0003-.0029			
	Journal dia. and bearing overall length	No. 1	2.3004 x .752			
		No. 2	2.3004 x .752			
		No. 3	2.3004 x .752			
		No. 4	2.3004 x .752			
		No. 5	2.3004 x .760	2.3004 x .752		2.3004 x 1.17
		No. 6	None	2.3004 x .752		None
		No. 7	None	2.3004 x .760		None
	Dir. & amt. cyl. offset		None			
Crankpin journal diameter			1.999-2.000			
ENGINE—CAMSHAFT						In block
Location			Above and to right of Crk/Shft			above crk/sh
Material			Cast alloy iron			
Bearings	Material		Steel backed babbitt			
	Number		3	4		5
Type of Drive	Gear or chain		Gear			Chain
	Crankshaft gear or sprocket material		Steel			Steel Sprocket
	Camshaft gear or sprocket material		Bakelite and fabric composition with steel hub			Cast alloy Iron
	Timing chain	No. of links	None			46
		Width	None			.875
		Pitch	None			500
ENGINE—VALVE SYSTEM						
Hydraulic lifters (Std, opt, NA)			Standard			
Valve rotator, type (intake, exhaust)			None			
Rocker ratio			1.75:1			1.5:1
Operating tappet clearance (indicate hot or cold)		Intake	Zero			
		Exhaust	Zero			
Timing marks on flywheel, damper, other			Crankshaft Pulley	Harmonic Balancer		Cranksha Pulley H

(a) - Cast Noduiar Iron optional

(Continued)

AMA Specifications—Passenger Car

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MODEL	153 cu. in. 4-cyl.	194 cu. in. 6-cyl.	230 cu. in. 6-cyl.	283 cu. in. V-8
	100	200-400		

ENGINE—VALVE SYSTEM (cont.)

Timing *	Intake	Opens (°BTC)	33° 30'	34°	49°	32° 30'
		Closes (°ABC)	86° 30'	86°	95°	87° 30'
		Duration - deg.	300°	300°	324°	300°
	Exhaust	Opens (°BBC)	73°	68°	95°	74° 30'
		Closes (°ATC)	47°	52°	49°	45° 30'
		Duration - deg.	300°	300°	324°	300°
	Valve opening overlap		80° 30'	86°	98°	78°

Intake	Material		Carbon steel			
	Overall length		4.902-4.922			
	Actual overall head dia.		1.715-1.725			
	Angle of seat & face		46° (seat) 45° (face)			
	Seat insert material		None			
	Stem diameter		.3404-.3417			
	Stem to guide clearance		.0010-.0033			
	Lift (@ zero lash)		.3973	.3350	.4072	.3987
	Outer spring press. and length	Valve closed (lb. @ in.)	78-86 @ 1.66	84-92 @ 1.66	78-86 @ 1.66	
		Valve open (lb. @ in.)	170-180 @ 1.26	166-176 @ 1.33	170-180 @ 1.26	
	Inner spring press. and length	Valve closed (lb. @ in.)	Spring Damper	None	Spring Damper	
		Valve open (lb. @ in.)	Spring Damper	None	Spring Damper	

Exhaust	Material		High alloy steel - (a)			
	Overall length		4.913-4.933			
	Actual overall head dia.		1.495-1.505			
	Angle of seat & face		46° (seat) 45° (face)			
	Seat insert material		None			
	Stem diameter		.3410-.3417			
	Stem to guide clearance		.0010-.0027			
	Lift (@ zero lash)		.3973	.3350	.4072	.3987
	Outer spring press. and length	Valve closed (lb. @ in.)	78-86 @ 1.66	84-92 @ 1.66	78-86 @ 1.66	
		Valve open (lb. @ in.)	170-180 @ 1.26	166-176 @ 1.33	170-180 @ 1.26	
	Inner spring press. and length	Valve closed (lb. @ in.)	Spring Damper	None	Spring Damper	
		Valve open (lb. @ in.)	Spring Damper	None	Spring Damper	

ENGINE—LUBRICATION SYSTEM

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

* - Including Ramps

(Continued)

(a) - Face & head aluminized on 283 cu. in.

AMA Specifications – Passenger Car

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MODEL	153 cu. in. 4-cyl.	194 cu. in. 6-cyl.	230 cu. in. 6-cyl.	283 cu. in. V-
	100	200-400		

ENGINE—LUBRICATION SYSTEM (cont.)

Oil pump type	Gear		
Normal oil pressure (lb. @ engine rpm)	30-45 PSI @ 1500 RPM		
Oil pressure sending unit (elect. or mech.)	Electric		
Type oil intake (floating, stationary)	Stationery		
Oil filter system (full flow, partial, other)	Full-flow		
Filter replacement (element, complete)	Complete		Element
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 10W-30 0° F and above - SAE 10W, or SAE 10W-30 Below 0° F - SAE 5W or SAE 5W-20		
Engine Service Requirement (MM, MS, etc.)	MS or DG		

ENGINE—EXHAUST SYSTEM

Type (single, single with cross-over, dual, other)	Single		Single with crossover
Muffler No. & type (reverse flow, straight thru, separate resonator)	Reverse flow		
Exhaust pipe dia. (O.D. & wall thickness) Branch			2.00x.067-.0
Exhaust pipe dia. (O.D. & wall thickness) Main	2.00 x .057-.071		
Tail pipe diameter (O.D. & wall thickness)	1.875 x .062-.076		

ENGINE—CRANKCASE VENTILATION SYSTEM

Type (ventilates to atmos., induction system, other)	Standard	Ventilates to Induction system		
	Optional			
Control unit	Make and model			
	Location	Top rear of rocker cover		Rear of cart
	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 CHEVY II MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (•) 1-27-64

	153 cu. in. 4-cyl.	194 cu. in. 6-cyl.	230 cu. in. 6-cyl.	283 cu. in. V-8
MODEL	100	200-400		

ENGINE—FUEL SYSTEM

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

Induction type: Carburetor, fuel injection, supercharger.		Carburetor		
Fuel Tank	Capacity (gals.)	16		
	Filler location	In left rear quarter panel		
Fuel Pump	Type (elec. or mech.)	Mechanical		
	Location	Right side front of engine		
	Pressure range	• 3.50-4.50 PSI		5.25-6.50 PSI
Vacuum booster (std., optional, none)		None		
Fuel Filter	Type	Metal mesh strainer in gasoline tank		
	Location	and sintered bronze filter in carburetor inlet		
Carburetor	Choke type	Manual	Automatic	
	Intake manifold heat control (exhaust or water)	Exhaust		
	Air clnr. type: Standard	Oil-wetted Polyurethane		Paper elemer
	Air clnr. type: Optional			

CARBURETOR SUPPLEMENTARY INFORMATION

Model Usage	Engine Displ.	Transmission	Carburetor Make	Carburetor Model	No. Used and Type	Barrel Size
100 (4 Cyl)	153	3-Speed Powerglide	Carter Carter	#3792945 #3793019	One; Single-barrel downdraft	1.6875
200-400 (6 Cyl)	194	3-Speed Powerglide	Rochester Rochester	#7023105 #7023108	One; Single-barrel downdraft	1.560
•	230 Opt	3-Speed Powerglide	Rochester Rochester	#7023003 #7023000	One; Single-barrel downdraft	1.56
200-400 (V-8) •	283 Opt	3-Speed 4-Speed Powerglide	Rochester Rochester	#7024101 #7024100	One; Two barrel downdraft	1.44

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GENERAL SPECIFICATIONS

(All dimensions in inches unless otherwise indicated)

MODEL		Additional Information Page No.:	SEDANS	COUPES	WAGONS	
Wheelbase (L101)		23	110.0			
Tread	Front (W101)	22	56.8		56.3	
	Rear (W102)	22	56 3		55.8	
Maximum Overall Dimensions	Length (L103)	23	182.9		187.6	
	Width (W103)	22	70.8			
	Height (H101)	24	55.0	54 0*	55.1	
Transmission—(Specify trade name - opt., not available)	Manual	15	Synchromesh; 3-Speed Standard; 4-Speed optional with V-8 engine			
	Overdrive	16	Not offered			
	Automatic	16	Powerglide optional			
Axle ratio	Manual	17	3.08:1 except L6 Station Wagons, 3.36:1			
	Overdrive	17	Not offered			
	Automatic	17	Same as manual			
Tire size		18	(a)			
Engine	Type, no. cyl., valve arr.	2	153 cu. in. 4 cyl. OHV	194 cu. in. 6 cyl. OHV	230 cu. in.	283 cu. in. V-8 OHV
	Fuel system (Carb., other)	8	Carburetor			
	Bore and stroke	2	3.875 x 3.25	3.563 x 3.25	3.875 x 3.25	3.875 x 3.0
	Piston displ., cu.in.	2	153	194	230	283
	Std. compression ratio	2	8.5:1			9.25:1
	Max. bhp at engine rpm	2	90 @ 4000	120 @ 4400	155 @ 4400	195 @ 4800
	Max. torque at rpm	2	152 @ 2400	177 @ 2400	215 @ 2000	285 @ 2400

* - 54 5 on Model 447

(a) 2 and 400 Series with optional V-8 [illegible] and Nova SS - 6 50 x 14.
Balance 1 and 200 Sedans - 6.00 x 13; Wagons and Nova models - 6 50 x 13

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	153 cu. in. 4-cyl.	194 cu. in. 6-cyl.	230 cu. in. 6-cyl.	283 cu. in. V-8
MODEL	100	200-400		

ELECTRICAL—SUPPLY SYSTEM

Battery	Make and Model		Delco #1983504
	Voltage Rtg. & Total Plates		12 Volts - 54 Plates
	SAE Designation & Amp Hr. Rtg		44 Amp. Hr. @ 20 Hr. rate
	Location		Right side front engine compartment
	Terminal grounded		Negative
Generator	Make		Delco-Remy
	Model		#1100670
	Type		Diode rectified
	Ratio—Gen. to Cr/s rev.		2.46:1
	Gen. cut-in (hot)—engine rpm		
Regulator	Make		Delco-Remy
	Model		#1119515
	Type		Vibrator
	Cutout relay — Closing voltage @ generator rpm		
	Cutout relay — Reverse current to open		
	Regulated — Voltage		13.8-14.8 @ 85°F
	Regulated — Current		None
	Voltage test conditions — Temperature		Operating
	Voltage test conditions — Load		3-8 Amps
	Voltage test conditions — Other		None

ELECTRICAL—STARTING SYSTEM

Starting motor	Make		Delco-Remy	
	Model		#1107259	#1107303
	Rotation (drive end view)		Clockwise	
	Engine cranking speed			
	Test conditions		Engine at operating temperature	
	Lock test — Amps			
	Lock test — Volts			
	Lock test — Torque (lb. ft.)			
	No load test — Amps		49-76	
	No load test — Volts		10.6	
	No load test — RPM (min.)		6200-9400	
Motor control	Switch (solenoid, manual)		Solenoid	
	Starting procedure		Synchromesh - Place gearshift in neutral-depress clutch to floor Powerglide - Place control lever in N or P position. Initial Start - Depress accelerator pedal to floor (pull hand choke knob * fully out) and release pedal. Turn ignition to Start and release as soon as engine start	

(Continued)

* - 4-cylinder model only.

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	153 cu. in. 4-cyl.	194 cu. in. 6-cyl.	230 cu. in. 6-cyl.	283 cu. in. V
MODEL	100	200-400		

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		.4010-.4130

ELECTRICAL—IGNITION SYSTEM

Coil	Make		Delco-Remy			
	Model		#1115184			#1115115
	Amps	Engine stopped	4.0			
		Engine idling	1.8			
Distributor	Make		Delco-Remy			
	Model		#1110292	#1110293	#1110321	#1111015
	Cent'fgal adv. in crankshaft degrees @ engine rpm (nominal)	Start (rpm)	600			800
		Intermediate points deg. @ rpm				
		Max deg. @ rpm	28 @ 3700	26 @ 2300	32 @ 4400	30 @ 4000
	Vacuum adv. in crankshaft degrees @ in. Hg. (nominal)	Start (in Hg)	6			8
		Intermediate points, deg @ in Hg				
		Max. deg. in. Hg.	● 23 @ 12	● 21 @ 14.5		15 @ 15.5
	Breaker gap (in.)		.019			
	Cam angle (deg.)		31° - 34°			28° - 32°
	Breaker arm tension (oz.)		19-23 oz.			
Timing	Crankshaft deg. @ rpm.		4° Btc@450-500	8° Btc@450-500	4° Btc@450-500	4° Btc@550
	Mark location		Crk/shft Pulley	Harmonic Balancer		Crk/shft Pul
	Cylinder numbering system (see page 2)		Front to Rear 1-2-3-4	Front to Rear 1-2-3-4-5-6		Lft. bank 1-3- Rt. bank 2-4-
	Firing order (see page 2)		1-3-4-2	1-5-3-6-2-4		1-8-4-3-6-5-7-2
Spark Plug	Make and model		AC46N (Long Reach)			AC45
	Thread (mm)		14			
	Tightening torque (lb. ft.)		25			
	Gap		.033-.038			
Cable	Conductor type		Linen core impregnated with electrical conducting material			
	Insulation type		Rubber with neoprene jacket			
	Spark plug protector		Neoprene			

ELECTRICAL—SUPPRESSION

Locations & type	Non-metallic High Tension Ignition Cables

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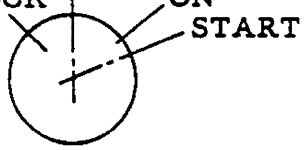
MODEL 1-400 | All Models Except as Indicated

ELECTRICAL—INSTRUMENTS AND SWITCHES

Speedometer	Make	AC
	Trip odometer (yes, no)	No
Charge indicator—type		Except 447 (Nova SS), Tell-Tale Lamp; 447, Gage ●
Temperature indicator—type		Except 447 (Nova SS), Tell-Tale Lamp; 447, Gage ●
Oil pressure indicator—type		Except 447 (Nova SS), Tell-Tale Lamp; 447, Gage ●
Fuel indicator—type		Gage
Other		Parking Brake Alarm, Clock, Cigarette Lighter, Tachometer
Ignition switch	Identify positions in order and circuits controlled	 Lock - Off, Locked Off - Off, Unlocked On - On (Ignition, Battery, Accessories) Start - Starter (Spring Return to On)
	Provision for illumination	None
	Location	Instrument Panel to Right of Steering Column
Main lighting switch	Identify positions and lamps controlled	IN - OFF. 1st out position - Instru. Panel, Park., Tail, License Lamp 2nd out position - same as "1st" except "Headlamps" instead of "Pa CW rotation of knob - panel lamps dim to off. CCW rotation of knob brighten panel lamps; full CCW rotation, turn on dome and panel courtesy lamps.
Other light switches	Locations and lamps controlled	Toe panel - Headlamp dimmer. Glove compartment - Glove comp. lamp. Steering column - Turn signals. At brake pedal - Stop lamp Steer. mast jacket - Back-up lamps (@). Hinge pillars - Courtesy and dome lamps. Parking brake lever - Parking brake alarm.
Other switches	Locations and devices controlled	Instru. panel - Heater blower, A/C controls, radio, windshield wipers and washer. Steer. mast jacket - Transmission Neu.Saf. Sw. Instrument panel and tailgate - Tailgate window control.
Windshield wiper	Make	Delco
	Type	Electric; Single-Speed
	Vacuum booster provision	None
	Washer provision	With 2-speed W/S wiper
Horn	Type	Vibrator
	Number used	Two ●
	Amp draw (each)	8.00-11.0 @ 12.5V

Optional Equipment: Clock exc. 447 (Nova SS); Glove comp. lamp exc. Nova and Nova SS models; Door jam switches for dome lamps exc. Nova and Nova SS models; Courtesy lamps; Back-up lamps exc. Nova and Nova SS models; Parking brake alarm; Tachometer with V-8 engines; Tailgate window control on 2 & 400 wagons only; Radio; Automatic transmission; Two-speed windshield wiper (includes washer); Windshield washer (for single speed); Cigarette lighter except Nova and Nova SS.

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(@)-At transmission on Model 447 with automatic, and on all 4-speed applications.

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MODEL 1-400 All Models unless otherwise indicated

ELECTRICAL—LAMP BULBS

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

Headlamps & arrangement		2-6012	
Headlamp beam indicator		1-1895	
Parking		2-1157	
Tail		2-1157	
Stop		2-1157	
Direction signal	Front	2-1157	
	Rear	2-1157	
	Indicator	2-1895	
License Plate		1-1155	
Oil pressure indicator		Except Nova SS (447), 1-1895; 447 Gage by "Instru." Lamps	
Charge indicator		Except Nova SS (447), 1-1895; 447 Gage by "Instru." Lamps	
Instrument		4-1816	
Clock		"Instrument" Lamps (a)	Optional
Radio		1-1893	Optional

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

Ignition lock	Not offered	
Back up	2-1156(b)	
Dome	1-211	Reg. Prod.
Glove compartment	1-1895(b)	
Prkg. brake signal	1-257	Optional
Luggage compartment (Except Wagons)	1-1003	Optional
Underhood	1-93	Optional
Courtesy (Instru. Panel)	2-631 (Optional). Seat Separator. 1-211(c)	
Map	Not offered	
Auto Trans. Indicator Dial (Exc. Nova SS, 447)	1-1445	Optional
Cig. Lighter Lamp	1-1445 (d)	
Tachometer	"Instrument" Lamps	Optional
Traffic Hazard Indicator	1-1445	Optional

(a) Optional except 447 (Nova SS), on 2 and 400 (including Nova SS) with tachometer, clock illuminated with 1-1895.
(b) Optional except 400 (including Nova SS).
(c) Available on 447 (Nova SS) with automatic transmission.
(d) Optional except 400 (including Nova SS) lamp included when provided optionally.

Regular Production Bulbs Continued

Temp. Indicator	Except Nova SS (447) 1-1895; 447, Gage by "Instru." Lamps.
Fuel Gage	"Instrument" Lamps

MAKE OF CAR CHEVY II MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (e) 7-

MODEL 1-400 All Models unless otherwise indicated

ELECTRICAL—FUSE & CIRCUIT BREAKER DATA

Fuses in fuse panel unless otherwise indicated

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

Headlamp	(a) - - - 15 C. B.	(d) Park. Brake Alarm Lamp
Headlamp beam indicator	(a)	(b) Traffic Hazard Indicator
Parking lamp	(a)	(c) Luggage compt. Lamp
Tail lamp	(b) - - - AGC 15	(In Line)--SAE 4 Underhood Lamp
Stop lamp	(b)	(b) Seat Separator
Direction indicator	(c) - - - AGC 3	Tachometer
License plate lamp	(b)	
Instrument lamp	(c)	
Ignition lamp	- -	
Back up lamp	(d) - - - AGC 10	
Dome lamp	(b)	
Clock	(b)	
Clock lamp	(c)	
Radio	(e) - - - AGC 2.5	
Glove compartment lamp	(b)	
Heater	(f) - - - AGC 10	
W/S Wiper(Single Speed)	(g) - - - SAE 20	
Cigar. Lighter	(b)	
Tailgate Motor	40 C. B.	
W/S Wiper (Two Speed)	(g) and 14 C. B.	
Air conditioning	Replace "(f)" with SAE 20; also SAE 20 in line	
Auto. Trans. Indicator Dial Lamp	(c)	
Defogging Unit	Replace "(d)" with AGC 5	
Courtesy Lamps(Instru. Panel)	(b)	
Cig. Lighter Lamp	(c)	

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	---
		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	---
		Outside*	28.5

* If single headlamps are used enter here.

AMA Specifications – Passenger Car

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MODEL 1-400 — All Models unless Otherwise Indicated

DRIVE UNITS—CLUTCH (Manual Transmission)

Heavy Duty available optionally w/Reg. Prod. Engines and optional L-6.

Make & type		All, except optional V-8 with 4-speed - Chevrolet, Single Dry Disk (a)
Type pressure plate springs		All except optional V-8 with 4-speed - Diaphragm (b)
Effective plate pressure (lb.)		Regular Production Engines - 1250-1450 (c)
No. of clutch driven discs		1 with 2 facings
Clutch facing	Material	Woven Asbestos (d)
	Outside & inside dia.	8.00 & 6.00 for L-4; 9.12 & 6.12 for L-6's (e)
	Total eff. area (sq.in.)	L-4 - 44.0; L-6's - 71.8; HD-100.5; opt. V-8 with 3-spd - 90.7(f)
	Thickness	.135 each
	Engagement cushioning method	Flat Spring Steel between Friction Facings
Release bearing	Type & method of lubrication	Single Row Ball, Packed and Sealed
Torsional damping	Methods: springs, friction material	Coil Springs

DRIVE UNITS—TRANSMISSIONS

Manual (std. or opt.)	3-Spd Standard; 4-Speed Optional with Optional V-8 Engine
Manual with overdrive (std. or opt.)	Not offered
Automatic (std. or opt.)	Optional

DRIVE UNITS—MANUAL TRANSMISSION

			3-Speed, L-4, L-6's	3-Speed, V-8	4-Speed, V-8
Number of forward speeds					
Transmission ratios	In first		2.94	2.58	2.56
	In second		1.68	1.48	1.91
	In third		1.00	1.00	1.48
	In fourth		---	---	1.0
	In reverse		2.94	2.58	2.64
Synchronous meshing, specify gears			2nd & 3rd		All forward gears
Shift lever location			Steering column		Floor
Lubricant	Capacity (pt.)		2		2.5
	Type recommended		Meeting Military Specification MIL-L-2105-B		
	SAE viscosity number	Summer	SAE 80		
		Winter	SAE 80		
		Extreme cold	SAE 80		

(a) Optional V-8 with 4-Speed - Same except centrifugal.

(b) Optional V-8 with 4-Speed - Diaphragm, bent finger design.

(c) Regular Production and Optional L-6 engines with HD clutch - 1900-2200. Optional L-6 and V-8 with 3-speed - 1700-1950. Optional V-8 with 4-speed - 2100-2300.

(d) Heavy Duty Clutch - Woven front, molded rear facings; optional V-8 with 4-speed Premium Woven Asbestos.

(e) Heavy Duty Clutch - 10.0 & 6.0. Optional V-8 with 3-speed - 10.0 & 6.5; with 4-speed - 10.4 & 6.0.

(f) Optional V-8 with 4-speed - 103.5.

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MAKE OF CAR CHEVY II **MODEL YEAR** 1964 **DATE ISSUED** 9-23-63 **REVISED** —

MODEL 1-400 | All Models unless Otherwise Indicated

DRIVE UNITS—MANUAL TRANSMISSION WITH OVERDRIVE

For transmission data see manual transmission section

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

DRIVE UNITS—AUTOMATIC TRANSMISSION

Trade name		Powerglide
Type describe		Torque Converter with Planetary Gears
Method of Selection (Lever, Push Button or other)		Lever on floor for 447
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		L [illegible] & Reg. Prod. L [illegible] 9 Op. L [illegible] 4 Op. [illegible] 8, [illegible] 9
Max. kickdown speeds—drive range		L [illegible] & Reg. Prod. L [illegible] Op. L [illegible] 1 Op. [illegible] 8 [illegible]
Torque convertor	Number of elements	3
	Max. ratio at stall	Reg. Prod. L-4 and L-6 - 2.40, Optional L-6 and V-8 - 2.10
	Type of cooling (air, water)	L-4 and L-6's - Air; V-8 - Water
Lubricant	Capacity—refill (pt.)	3
	Type recommended	Type A, suffix A
Special transmission features		

DRIVE UNITS—PROPELLER SHAFT

Number used		1
Type (exposed, torque tube)		Exposed, unsupported
Outer diameter x length* x wall thickness	Manual transmission	L-4 - 3.50 x 52.1 x .065; L-6's with 3-speed, & optional V-8 w/3-speed and 4-speed - 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.

(Continued)

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

MODEL 1-400 All Models unless Indicated Otherwise

DRIVE UNITS—PROPELLER SHAFT (cont.)

Intermediate bearing	Type (plain, anti-friction)		None
	Lubrication (fitting, prepack)		None
Universal joints	Make		Chevrolet
	Number used		2
	Type (ball and trunnion, cross, other)		Cross
	Bearing	Type (plain, anti-friction)	Anti-Friction
		Lubric. (fitting, prepack)	Prepack
Drive taken through (torque tube or arms, springs)			Leaf Springs
Torque taken through (torque tube or arms, springs)			Leaf Springs

DRIVE UNITS—REAR AXLE

Description (see instructions)			Reg. Prod. -Semi-floating; integral rear beam consisting of cas iron diff. carrier with pressed-in tubular rear axle housings.
Limited Slip differential, type			Regular Production with Dual Disk Clutches
Drive Pinion Offset			1.5
No. of differential pinions			2
Gear ratios (Std. equip.)	Manual transmission		3.08:1 Except L-6 Station Wagons, 3.36:1
	Overdrive transmission		Not offered
	Automatic transmission		Same as Manual
Ring gear O.D. (std. ratio)			8.125
Pinion adjustment (shim, other)			Shim
Pinion bearing adj. (shim, other)			None
Wheel bearing type			Single row cylindrical roller
Lubricant	Capacity (pt.)		3.5
	Type recommended		Meeting Military Specification MIL-L-2105-B
	SAE viscosity number	Summer	SAE 80
		Winter	SAE 80
		Extreme cold	SAE 80

REAR AXLE RATIO TOOTH COMBINATIONS

(See page 3 for axle ratio usage)

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

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MAKE OF CAR CHEVY II MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED (•) 1-27-64

MODEL 1-400 | All Models Unless Otherwise Indicated

DRIVE UNITS—WHEELS

Type & material		Short Spoke Disk, Steel
Rim (size and flange type)	Std.	Reg. Prod. 100 & 200 Sedans, 13x4J; Balance, 13x5.5J (a) •
	Opt.	13x5.5J 14x5J
Attachment	Type (bolt or stud)	Stud
	Circle diameter	4.75
	Number and size	5 Hex Nuts, 7/16-20 UNF-2B

DRIVE UNITS—TIRES - Tubeless Unless Indicated Otherwise

Standard (List option below)	Size & ply	Reg. Prod. 100 & 200 Sedans, 6.00 x 13-4PR; Bal., 6.50x13-4PR (b)
	Type - Nylon, etc.	Blackwall, Rayon
Rev/mile at 50 mph.		6.00 x 13-4PR - 892; 6.50 x 13-4PR - 864; 6.50 x 14-4PR - 815
Inflation press.(cold)	Front	All exc. sedans, coupe and Nova SS (447) with 6.50 x 14-24 (c) •
	Rear	Wagons-28; balance-24 exc. sedans, coupe & Nova SS(447) with 6.50x14
Optional tires - size and ply		6.00x13-4PR, Hyway, Rayon, Whtwall, 6.50x13-4PR, Hyway, Rayon, Blackwl; 6.50x13-4PR, Hyway, Rayon, Whtwall. 6.50x14-4PR, Hyway, Rayon, Blackwl; 6.50x14-4PR, Hyway, Rayon, Whitewall. 7.00x13-4PR Hyway, Rayon, Whtwall; 7.00x13-4PR, Hyway, Rayon, Blackwall.

BRAKES—SERVICE		Regular Production	Metallic Brakes
Type (duo-servo, disc, balanced, etc.)		Duo-Servo, 4-Wheel Hydraulic, Reverse self-adjusting	
Self adjusting (std., opt., N.A.)		Standard	
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.)*		170.8	118.1 •
Gross lining area (sq. in.)**		170.8	118.1 •
Swept drum area (sq. in.)***		228.6	
Percent brake effectiveness—front		59.5	
Drum	Diameter Front	9.5	
	Diameter Rear	9.5	
	Type and material	Composite, Cast Iron Rim; Steel Web	
Wheel cylinder bore	Front	1.06	
	Rear	.875	
Master cylinder bore		1.0	.875
Available pedal travel		6.4	
Line pressure at 100 lb. pedal load		815	1064
Shoe clearance adjustment		Self-adjusting	

(Continued)

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

(a) 200 & 400 Models with optional V-8 engine, & Nova SS(447), 14 x 5J. •
(b) 200 & 400 Models with optional V-8 engine, & Nova SS(447), 6.50 x 14-4PR. •
(c) Sedans, coupe, and Nova SS (447) with 6.50 x 14-22. •
(d) Sedans, coupe, and Nova SS (447) with 6.50 x 14-22. •

AMA Specifications–Passenger Car

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MODEL 1-400

All Models Unless Indicated Otherwise

BRAKES—SERVICE (cont.)

				Regular Production	Metallic
Brake lining	Bonded or riveted			Bonded	Welded
	Front Shoe	Material		Molded Asbestos	Sintered Iron
		Size (length x width x thickness)	Front wheel	8.96 x 2.50 x .1[illegible]	1.64 x 1.25 x .175
			Rear wheel	8.96 x 2.00 x .1[illegible]	1.64 x 1.00 x .1[illegible]75
		Segments per shoe		1	6
	Rear Shoe	Material		Molded Asbestos	Sintered Iron
		Size (length x width x thickness)	Front wheel	10.24 x 2.50 x .20	1.64 x 1.25 x .295
			Rear wheel	9.75 x 2.00 x .20	1.64 x 1.00 x .295
		Segments per shoe		1	10

BRAKES—PARKING

Type of control		Pulley cable linkage; "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)	--
	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 Stn. Wgns. & models with V-8 engines.
Provision for brake dip control		Mounting angle of front upper control arms.
Provision for acc. squat control		None
Special provisions for car jacking		
Shock absorber front & rear	Type	Direct, Double-acting, Hydraulic
	Make	Declo Products
	Piston dia.	1.00
Other special features		Single leaf rear springs

SUSPENSION—FRONT

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

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

(Continued)

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MODEL 1-400 — All Models Except Indicated Otherwise

SUSPENSION FRONT (cont.)

Spring	Type	Coil	
	Material	Steel alloy	
	Size (coil design height & I.D.; bar length x dia.	L4: 9.20 & 3.800; 106.61 x .562	L6: 9.20 & 3.800; 106.61 x .562
	Spring rate (lb. per in.)	250	250
	Rate at wheel (lb. per in.)	103	103
	Design load (lb. @ design height)	1065 @ 9.20	1170 @ 9.20
Stabilizer	Type (link, linkless, frameless)	Link	
	Material & bar diameter	Steel, .625	

STEERING

Manual (std., opt., NA)				Standard
Power (std., opt., NA)				Optional with L6's and Optional V8
Adjustable steering wheel (tilt, swing, other)		Type and description		Not offered
		(std., opt., NA)		---
Wheel diameter		Manual		16.24
		Power		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°				18.69°
Manual	Gear	Type		Semi-Reversible, Recirculating Ball Nut
		Make		Saginaw
		Ratios	Gear	20:1
			Overall	25.4:1
	No. wheel turns			4.50 lock to lock
Power	Type (coaxial, linkage, etc.)			Linkage with hydraulic cylinder
	Make			Saginaw
	Gear	Type		Same as manual
		Ratios	Gear	20:1
			Overall	25.4:1
	Pump driven by			Crankshaft pulley
	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)			2

(Continued)

AMA Specifications – Passenger Car

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

	153 cu. in. 4-cyl.	194 cu. in. 6-cyl.	230 cu. in. 6-cyl.	283 cu. in. V
MODEL	100	200-400		

ENGINE—COOLING SYSTEM

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	63 @ 4400	58 @ 4400	60 @ 4400	53 @ 420
	Number of pumps	One			
	Drive (V-belt, other)	V-Belt			
	Bearing type	Permanently lubricated double roll 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	11.5		17
	Without heater (qt.)	8.0	10.5		16
	Opt. equipment-specify (qt.)	9.0	12.0		18
Water jackets full length of cylinder (yes, no)		Yes			
Water all around cylinder (yes, no)		Yes			
Radiator hose	Lower — Number and type (molded, straight)	One, molded			
	Lower — Inside diameter	1.75			
	Upper — Number and type (molded, straight)	One, molded			
	Upper — Inside diameter	1.28		1.50	
	By-pass — Number and type (molded, straight)	None			
	By-pass — Inside diameter	None			
Fan	Number of blades & Spacing	4, Staggered			
	Diameter	16.00	17.62		
	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	B		F
	Generator	A	B		F
	Water Pump	A	B		F
	Power Steering	-	C		G
	Air Conditioning	-	D	E	H

* Drive Belt Dimensions	A	B	C	D	E	F	G	H
Angle of V	38° - 42°							
Nominal length (SAE)	41.00	39.00	49.50	54.75	54.75	53.50	35.00	52.
Width	.380 ± .005							

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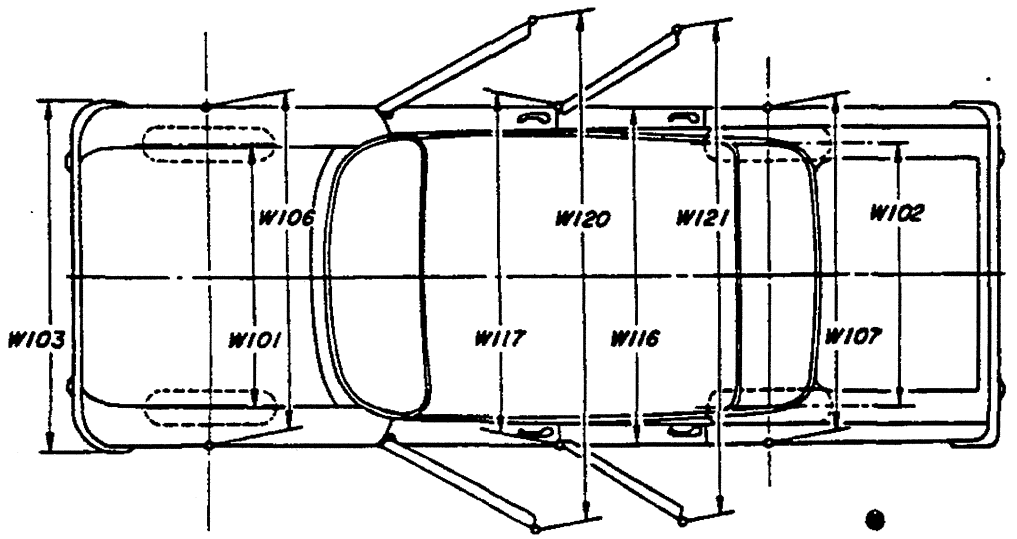
CAR AND BODY DIMENSIONS—GENERAL

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

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

EXTERIOR WIDTH DIMENSIONS



MODEL	Ref. No.	SEDANS 2-DR	SEDANS 4-DR	COUPES	WAGONS
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	69.4			
Maximum body width at #2 pillar	W117	69.3			
Front fender overall width	W106	68.5			
Rear fender overall width	W107	69.4			
Maximum overall car width - front doors open	W120	151.3	134.0	151.5	134.0
Maximum overall car width - rear doors open	W121	--	131.2	---	131.0

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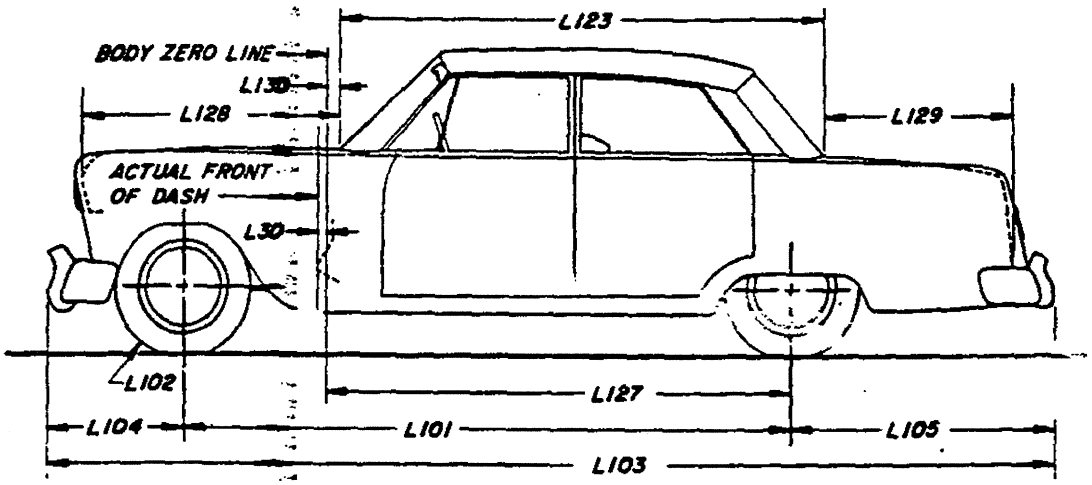
EXTERIOR LENGTH DIMENSIONS



MODEL	Ref. No.	SEDANS	COUPES	WAGONS
Body zero line to actual front of dash	L30		- .8	
Wheelbase	L101		110.0	
Overhang – front	L104		27.0	
Overhang – rear	L105	45.9		50.6
Overall length	L103	182.9		187.6
Hood length at car centerline	L128		47.4	
Body upper structure length at car centerline	L123	94.7		123.8
Deck length at car centerline	L129	33.9		-
Body zero line to centerline of rear wheels	L127		94.5	
Body zero line to windshield cowl point	L130		10.4	
Tire size	L102		(Refer to Page 18)	

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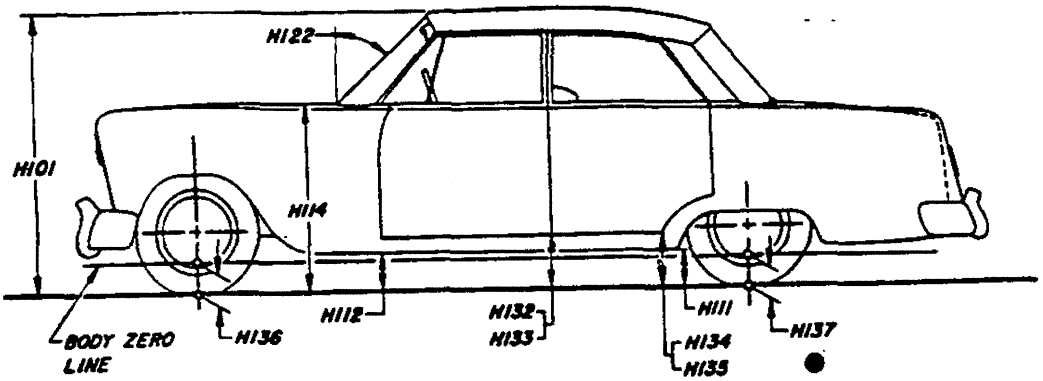
EXTERIOR HEIGHT DIMENSIONS



MODEL	Ref. No.	SEDANS		COUPES	WAGONS
		2-Dr.	4-Dr.		
Overall height	H101	55.0		*54.0	55.1
Hood at rear to ground	H114	37.4			37.5
Rocker panel to ground – front	H112	8.0			
Rocker panel to ground – rear	H111	7.6	7.5		7.4
Bottom of door to ground, open – front	H132	11.3			
Bottom of door to ground, closed – front	H133	11.0			
Bottom of door to ground, open – rear	H134	--	10.7	--	10.7
Bottom of door to ground, closed – rear	H135	--	10.8	--	10.8
Windshield slope angle	H122	48°			
Body zero to ground – front	H136	5.0			
Body zero to ground – rear	H137	5.0			

* - 54.5 on Model 447.

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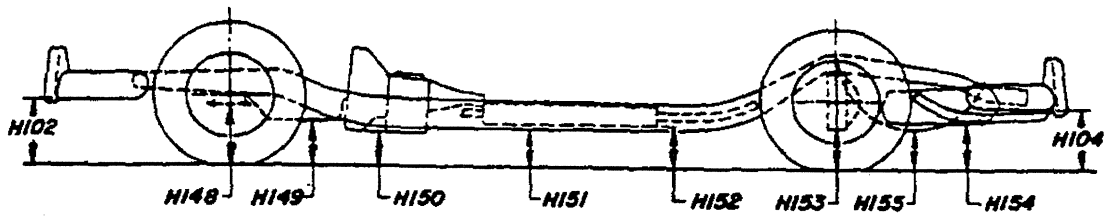
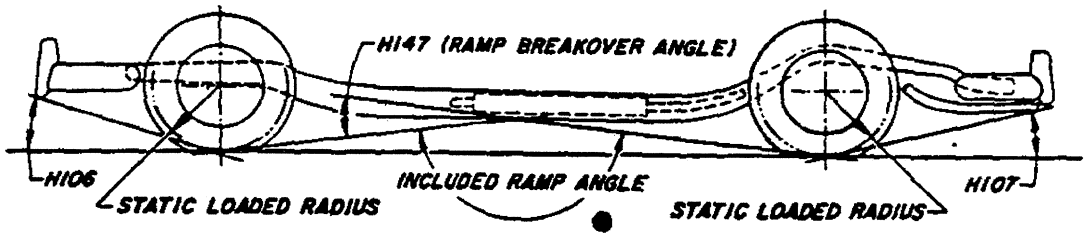
GROUND CLEARANCE DIMENSIONS





MODEL	Ref. No.	SEDANS	COUPES	WAGONS
Front bumper to ground	H102	13.1		13.2
Rear bumper to ground	H104	12.7		10.3
Angle of approach	H106	32.1°		32.7°
Angle of departure	H107	16.3°		14.8°
Ramp breakover angle	H147	12.2°		
Front suspension to ground	H148	5.2		5.8
Oil pan to ground	H149	6.3		6.5
Flywheel housing to ground	H150	5.8		5.9
Frame structure to ground	H151	7.8		7.9
Exhaust system to ground	H152	5.6		5.7
Rear axle differential to ground	H153	5.5		5.9
Fuel tank to ground	H154	7.9		7.8
Spare tire well to ground	H155	—		9.0
Minimum running ground clearance	H156	5.2		5.8

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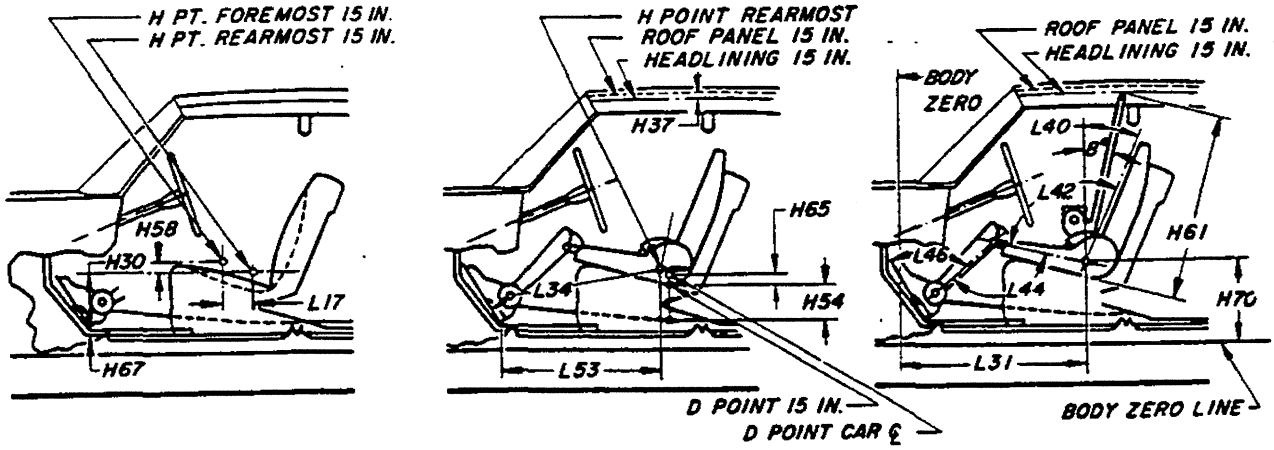
FRONT COMPARTMENT DIMENSIONS



MODEL	Ref. No.	SEDANS	COUPES		WAGONS
			BENCH	BUCKET	
H Point to body zero line	L31	42.3		43.0	42.3
H Point to body zero line - front	H70	NA			
Effective head room	H61	39.0	38.0	38.3	39.0
Headlining to roof height	H37	.5			.7
Maximum effective leg room - *accelerator*	L34	40.1	40.3	41.1	40.1
H Point to heel point	H30	9.0	9.4	9.2	9.5
Depressed floor covering thickness	H67	.8			.5
Back angle	L40	23.5°		26°	23.5°
Hip angle	L42	92°		96.5°	92.5°
Knee angle	L44	118.5°		123°	119°
Foot angle	L46	81°		83.5°	80.5°
D Point differential, side to center	H65	.3		---	.6
D Point to tunnel	H54	2.3		---	3.0
H Point to accelerator floor point	L53	32.5		33.3	32.5
H Point travel	L17	4.0			
H Point rise	H58	.5		.7	.5

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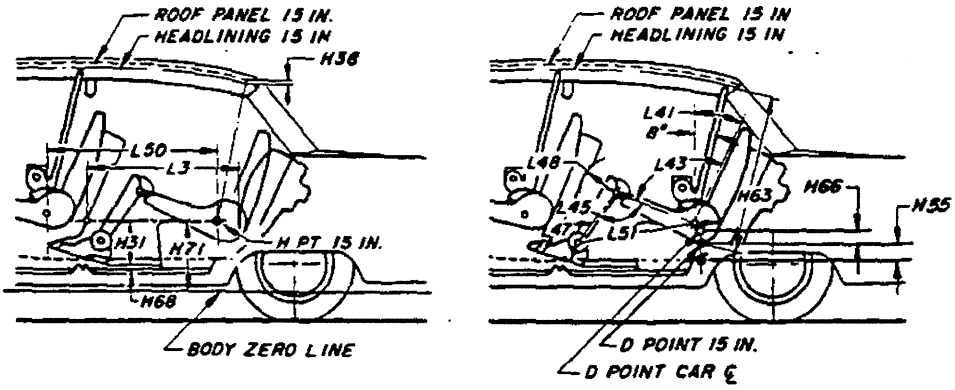
REAR COMPARTMENT DIMENSIONS



MODEL	Ref. No.	SEDANS		COUPES		WAGONS
		2-DR.	4-DR.	BENCH	BUCKET	
H Point couple distance	L50	33.6		32.5	31.8	34.4
H Point to body zero line - rear	H71	NA				
Effective head room	H63	37.6		36.6		37.9
Headlining to roof height	H38	.6		.7		
Minimum effective leg room	L51	36.1		34.9	34.8	37.1
H Point to heel point	H31	11.0		10.8		11.3
Depressed floor covering thickness	H68	.4				
Minimum knee room	L48	4.2		3.3	1.4	4.9
Rear compartment room	L3	28.0		26.9	25.3	28.8
Back angle	L41	26°				28.5°
Hip angle	L43	88°	89.5°	85.5°		94°
Knee angle	L45	94.5°	99°	89°		103°
Foot angle	L47	117°	119°	114.5°		122°
D Point differential, side to center	H66	.5				
D Point to tunnel	H55	2.1		2.3		1.4

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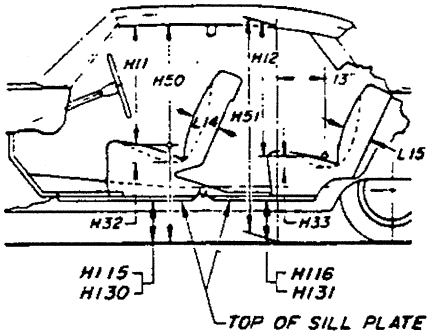
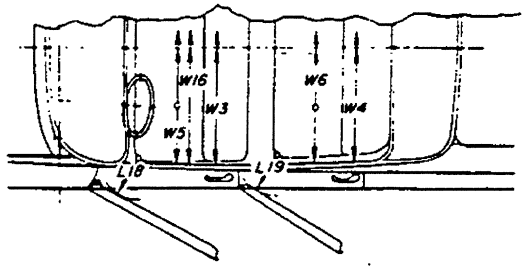
MAKE OF CAR CHEVY II **MODEL YEAR** 1964 **DATE ISSUED** 9-23-63 **REVISED** 1-27-64

SEAT AND ENTRANCE DIMENSIONS





	Ref. No.	SEDANS	COUPES BENCH	COUPES BUCKET	WAGONS
Shoulder room – front	W3	55.3			
Hip room – front	W5	59.2			
Seat width – front	W16	53.1		26.0	53.1
Upper body opening to ground – front	H50	50.2	49.1		50.4
Entrance height – front	H11	31.0	29.6	29.7	31.0
Step height – front (design load)	H115	12.8		13.3	12.4
Step height – front (curb load)	H130	13.7		14.2	13.6
Entrance foot clearance – front	L18	15.1		16.1	15.1
Seat cushion deflection – front	H32	4.1	3.6	4.2	3.7
Seat back thickness – front	L14	5.9		6.4	5.9
Shoulder room – rear	W4	55.3	54.0		55.3
Hip room – ream	W6	58.9	58.2		58.9
Upper body opening to ground – rear	H51	50.0	---		50.2
Entrance height – rear	H12	28.9	--		30.2
Step height – rear (design load)	H116	12.6	--		12.7
Step height – rear (curb load)	H131	14.5	--		14.5
Entrance foot clearance – rear	L19	12.0	--		12.2
Seat cushion deflection – rear	H33	4.0	3.8		3.2
Seat back thickness – rear	L15	6.0	6.9		5.3

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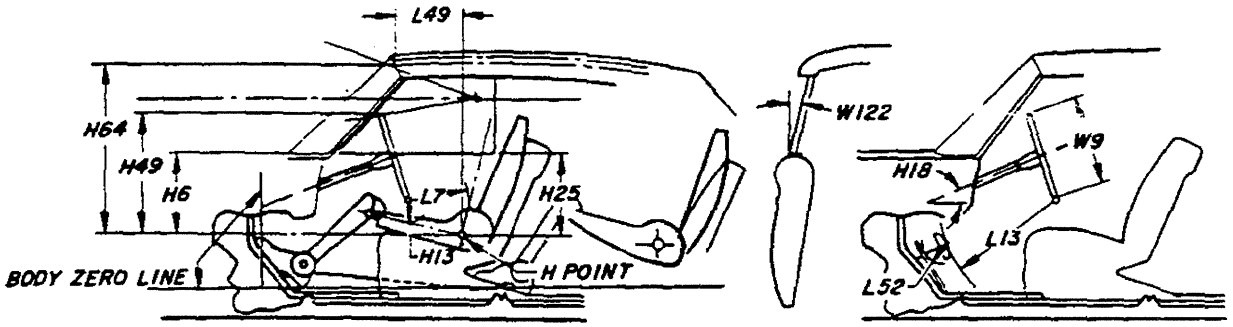
VISION AND CONTROL DIMENSIONS



MODEL	Ref. No.	SEDANS	COUPES		WAGONS
			BENCH	BUCKET	
H Point to windshield bottom DLO	H6	19.9	19.9	19.7	19.7
H Point to windshield upper DLO	H64	32.0	30.4	30.6	32.0
H Point to windshield upper DLO	L49	14.0	15.5	16.4	14.0
Belt height – front	H25	17.4			
Steering wheel center to centerline of car	W7	14.4			
Steering wheel maximum outside diameter	W9	16.5			
Steering column angle – horizontal	H18	26°			
H Point to top of steering wheel	H49	22.5			
Steering wheel torso clearance	L7	11.8		12.6	11.8
Steering wheel thigh clearance	H13	3.3		3.6	3.5
Brake pedal knee clearance	L13	24.0			
Brake pedal to accelerator	L52	3.4			
Tumble-home	W122	12.5°			

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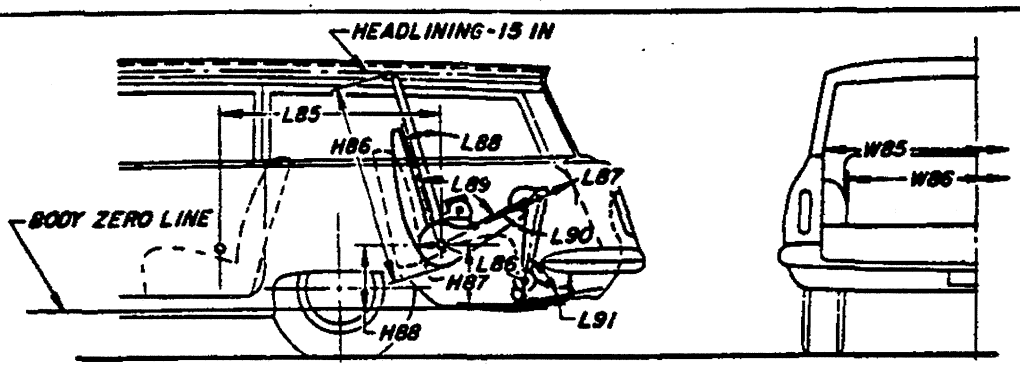
MAKE OF CAR CHEVY II MODEL YEAR 1964 DATE ISSUED 9-23-63 REVISED(e) _____

LUGGAGE COMPARTMENT

MODEL	Ref. No.	SEDANS COUPES	WAGONS
Usable luggage capacity (See instructions)		13.3	----
Liftover height	H195	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

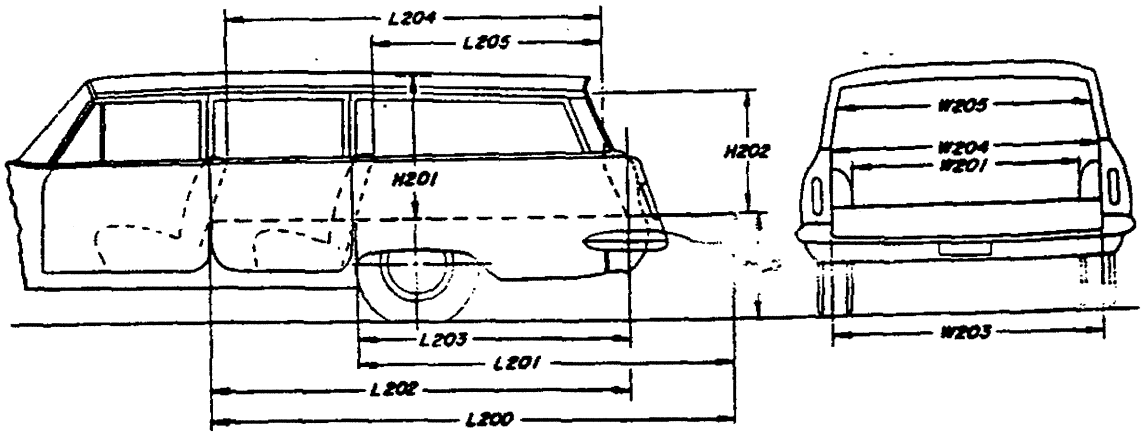


MODEL	Ref. No.	
Seat facing direction		
Shoulder room	W85	
Hip room	W86	
H Point couple distance	L85	
H Point to body zero line – third seat	H88	
Effective head room	H86	
Effective leg room	L86	NONE
H Point to heel point	H87	
Knee room	L87	
Back angle	L88	
Hip angle	L89	
Knee angle	L90	
Foot angle	L91	

AMA Specifications–Passenger Car

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

STATION WAGON—CARGO SPACE DIMENSIONS



MODEL	Ref. No.	235-435
Floor length from back of front seat at floor level to end of lowered tail gate or floor	L200	108.3
Floor length from back of second seat at floor level to end of lowered tail gate or floor	L201	74.7
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	52.4
Minimum horizontal distance from top rear of front seat back to inside of tail gate at belt	L204	73.2
Minimum horizontal distance from top rear of second seat back to inside of tail gate at belt	L205	37.6
Maximum width of cargo space at floor – specify location	W200	57.3
Minimum distance between wheel houses at floor level	W201	42.8
Rear end opening width at floor	W203	47.3
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	32.6
Maximum height of rear opening – tail and lift gates open	H202	29.0
Platform height from ground to top of tail gate floor covering at rear most edge of tail gate – curb weight	H250	21.6
Rear end closure (e.g., one piece door, hinged left – sliding glass, drop tail gate)		Hinged tailgate torsion rod counterbalanced manual retractable rear window
Cargo volume index (cu. ft.) $\frac{W4 \times L204 \times H201}{1728}$		76.2

AMA Specifications – Passenger Car

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

MODEL	Sedans		Coupes	Station Wagons
	2-Dr	4-Dr		

BODY—MISCELLANEOUS INFORMATION

Drs. hinged (front, rear)	Front door	Front			
	Rear door	Front			
Type of finish (lacquer, enamel, other)		Acrylic lacquer			
Hood counterbalanced (yes, no)		Yes			
Hood release control (internal, external)		External			
Vehicle (Serial) No. Location		Plate above lower hinge on LH 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	Formed wire and foam pad			
	Rear	Formed spring cotton - jute (a)			
	3rd seat				
Seat back type	Front	Formed wire - cotton			
	Rear	Formed wire - cotton			
	3rd seat				
Windshield glass type (i.e., single curved - laminated plate)		One piece curved, laminated			
Backlight glass type (i.e., compound curved - tempered plate, three piece)		One piece curved, safety solid			
Side glass type (i.e., curved - tempered plate)		Flat, safety solid			
Side glass exposed surface area		1371.5	1279.0	1250.0	2444.5
Windshield glass exposed surface area		1007.5			
Backlight glass exposed surface area		1073.5		1117.0	698.5
Total glass exposed surface area		3452.5	3360.0	3265.0	4150.5

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

Power windows	Side Windows	NA			
	Vent Windows	NA			
	Backlight or tailgate	Optional on wagons			
Power seats (specify type as well as availability)		NA			
Reclining front seat back		NA			
Front seat headrest		NA			
Radios (specify type as well as availability)		Manual, push button optional			
Rear seat speaker		Optional			
Power Antenna		NA			
Clock		Optional (Standard on 447)			
Air Conditioner (specify type and availability)		All weather, optional			

(a) - Nova and Nova Super Sport, foam pad.

AMA Specifications – Passenger Car

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

WEIGHTS

Model	CURB WEIGHT - POUNDS Front	Rear	Total	% PASS. WEIGHT DISTRIBUTION Pass. in Front Front	Pass. in Front Rear	Pass. in Rear Front	Pass. in Rear Rear	SHIPPING * WEIGHT
111 2-Door sedan			2575	29	71			2455
211 2-Door sedan			2670	29	71			2540
235 4-Door wagon			2970	28	72			2840
169 4-Door sedan			2615	29	71			2495
269 4-Door sedan			2710	29	71			2580
411 2-Door sedan			2685	29	71			2560
435 4-Door wagon			2985	28	72			2860
• 437 2-Door Sport Coupe			2780	36	64			2660
469 4-Door Sedan			2725	29	71			2595
• 447 2-Door Sport Coupe			2805	36	64			2675

Accessories & Equipment Differential Weights			Total	Remarks
Air conditioning			+80	
Brakes, power			+ 8	
Heater, deduct			-21	
Steering, power			+30	
Transmission, powerglide			+13	
• 283 Cubic Inch V-8			+143	
Radio, Manual			+ 6	
Radio, push button			+ 9	
Comfort and Convenience			+ 5	

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

Form Rev.

DIMENSION DEFINITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

L49 H POINT TO WINDSHIELD UPPER DLO. The horizontal dimension from H Point to the point of tangency of horizontal line of vision (described in dimension I164) with body upper structure.

DIMENSION DEFINITIONS (cont.)

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

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

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

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

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

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

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

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

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

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

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

L101 WHEELBASE.

L102 TIRE SIZE.

L103 OVERALL LENGTH. Include bumper guards if standard equipment.

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

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

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

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

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

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

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

H6 H POINT TO WINDSHIELD BOTTOM DLO. Vertical dimension.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

DIMENSION DEFINITIONS (cont.)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

H101 OVERALL HEIGHT. Measured with full design load.

H102 FRONT BUMPER TO GROUND. Minimum dimension

H104 REAR BUMPER TO GROUND. Minimum dimension.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

H153 REAR AXLE DIFFERENTIAL SYSTEM TO GROUND. Minimum clearance.

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

H155 SPARE TIRE WELL TO GROUND. Minimum clearance.

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

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

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