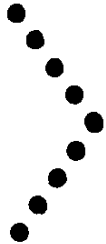


# GENERAL

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## LOAD CAPACITY CHART

Model	Wheel- base	Gross Vehicle Weight	G C W	Front Axle Capacity	Tires and Equipment			Recommended Tires		Minimum Mandatory Equipment for GVW Rating
					Front Spring Capacity	Rear Axle Capacity	Rear Spring Capacity	Front	Rear	
G1205	90	3600	---	2200	2000	2400	2400	6.50-13	6.50-13	
		4500			2200	2900	2900	7.00-13-6	7.00-13-6	RPO G50 Rear Springs
		5000**			2200	2900	2900	7.00-13-8	7.00-13-8	RPO F60 Front Springs, RPO G50 Rear Springs RPO H05 Rear Axle.

\*\* - RPO GVW Plate.

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## SERIAL NUMBERS AND IDENTIFICATION

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### Engines

#### 153" 4-CYLINDER

- FB - Base engine
- FC - Used with RPO M35
- FE - Used with RPO L91
- FG - Used with RPO L91 and Powerglide

#### 194" 6-CYLINDER

- GS - Used with RPO L21
- GU - Used with RPO L90
- KS - Used with RPO M35
- KU - Used with RPO L90 and Powerglide

### Rear Axles

- WU - Base Axle
- WV - Used with RPO H05
- WW - Used with RPO H04
- WX - Used with RPO G80 (3.55)
- WY - Used with RPO G80 (3.73)

## DEALER INSTALLED ACCESSORIES

Belt - Seat  
Cap - Gas Tank Filler Locking  
Clock - Instrument Panel  
Deflector - Rain  
Heater & Defroster  
Lamp - Direction Signal  
Spotlamp & Bracket  
Lamp Switch & Flasher - Traffic Hazard  
Lighter - Cigarette  
Mirror - O/S Rear View  
Mirror - O/S Rear View & Bracket (Jr. West Coast)  
Radio & Antenna  
Rest - Door Arm  
Sunshade - RH  
Washer - Windshield

## REGULAR PRODUCTION OPTIONS

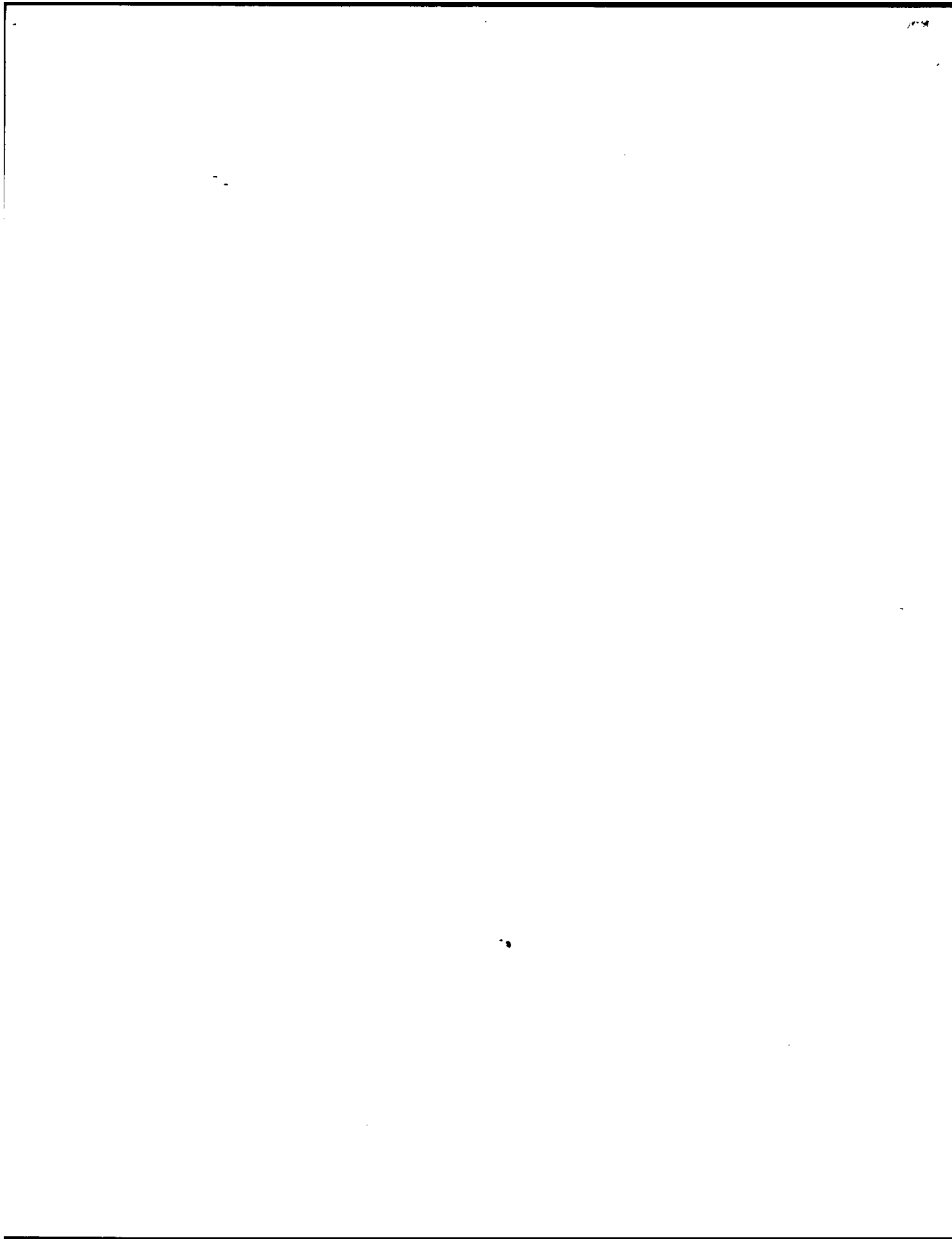
A 09	Laminated Glass Equipment
A 11	Tinted Glass Equipment
A 12	Rear Door Glass Equipment
A 13	Side Door Glass Equipment
A 57	Auxiliary Seat Equipment
B 78	Instrument Panel Compartment Door Equipment
C 14	2-Speed Windshield Wiper and Washer Equipment
C 42	Heater Equipment - Deluxe
D 29	Jr. West Coast Mirror Equipment
E 85	Body Side Door Equipment
F 59	Front Stabilizer Equipment
F 60	Heavy Duty Front Spring Equipment
G 50	Heavy Duty Rear Spring Equipment
G 80	Positraction Rear Axle Equipment
H 04	4.11 Rear Axle Equipment
H 05	3.73 Rear Axle Equipment
K 24	Closed Engine Positive Ventilation Equipment - Type B
K 48	Oil Bath Air Cleaner Equipment
K 67	H.D. Starting Motor Equipment
K 77	6-55 A/C Generator Equipment
K 79	12-42 A/C Generator Equipment
K 81	23-62 A/C Generator Equipment
L 21	194 L-6 Engine Equipment
M 35	Powerglide Transmission Equipment
T 60	Heavy Duty Battery Equipment
U 60	Manual Radio Equipment
U 42	Direction Signal Equipment - Class A
Z 12	Speedometer Driven Gear and Fitting Equipment
Z 60	Custom Equipment
Z 73	H.D. Equipment - 4850# GVW

## VEHICLE WEIGHT AND LOAD DISTRIBUTION

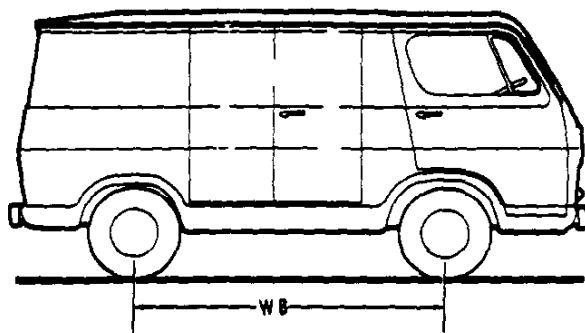
MODEL	WITH STANDARD EQUIPMENT						CUBIC CAPACITY (CU.FT.)	BODY & OR PAYLOAD	WITH MINIMUM EQUIPMENT FOR MAXIMUM GVW		LOAD LENGTH (IN.)
	SHIPPING*			CURB*					PAYLOAD DISTRIBUTION		
	FRONT	REAR	TOTAL	FRONT	REAR	TOTAL			% FRONT	% REAR	
G1205	1622	1123	2745	1615	1235	2850	211.2	2050	18	82	88.5

\* Estimated weight

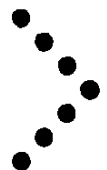




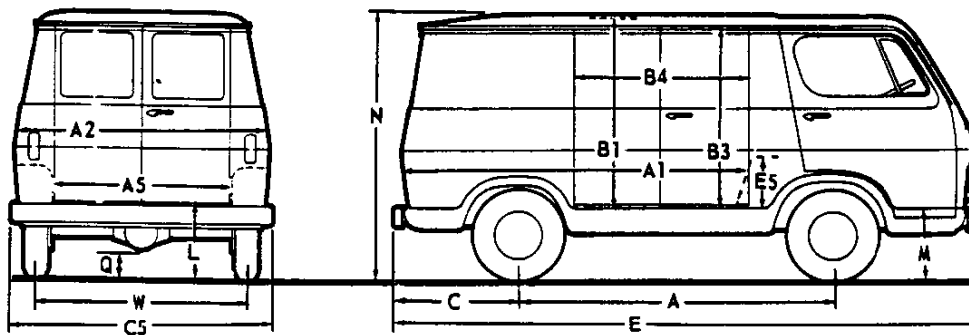
# VEHICLE DIMENSIONS



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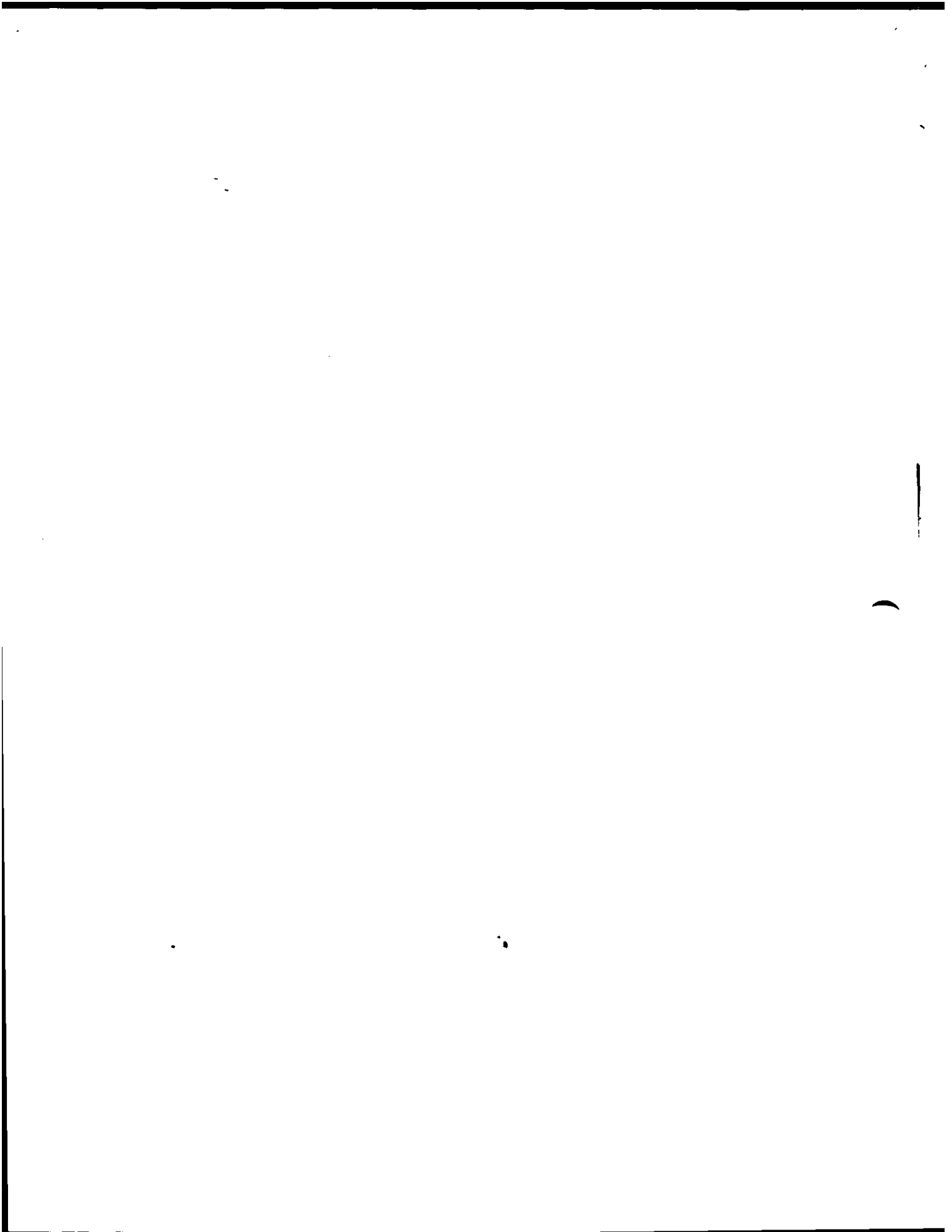


# DIMENSIONS

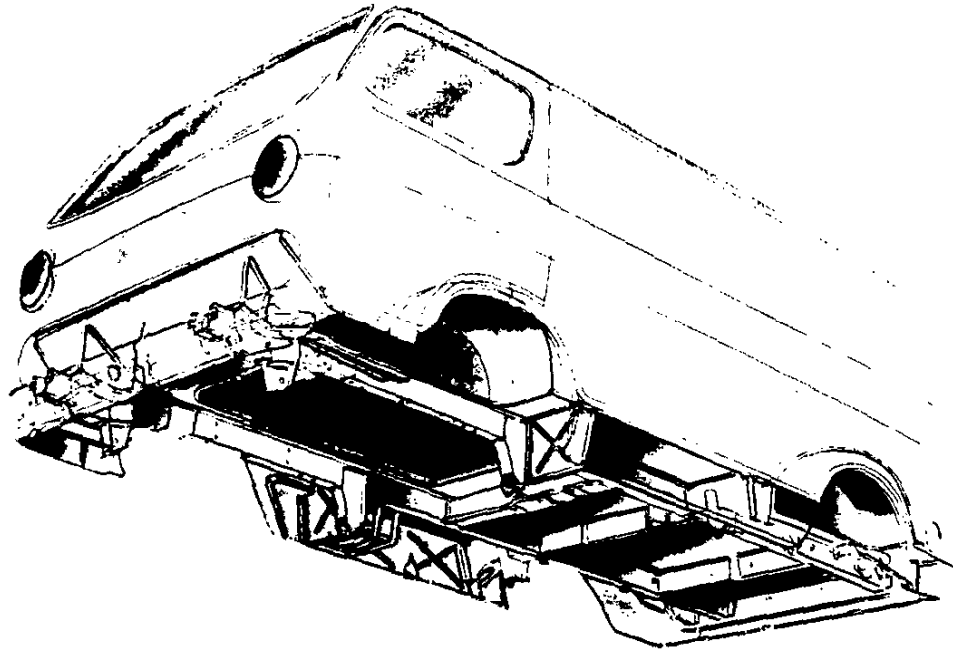


SIGN PANEL AREA	SIDE	21 X 100
	REAR	21 X 50

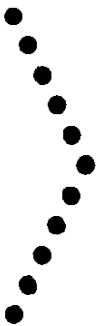
	Base GVW		3600
	Maximum GVW		4850
A	Wheelbase		90.00
A1	Load area inside length		88.50
A2	Load area inside width		67.75
A5	Distance between wheelhousings		50.00
B	Front overhang		40.00
B1	Floor to roof inside		54.25
B3	Side and rear door opening height		48.18
B4	Side and rear door opening width		49.72
B7	Door opening to front of wheelhouse		67.50
B9	Load space at header		83.50
C	Rear overhang		37.56
C3	Wheelhouse depth		31.50
C4	Wheelhouse height		10.50
C5	Across rear bumper		72.74
C7	Top of floor to bottom side of panel at side load door		10.25
C8	Top of floor to bottom of door - driver's compartment		5.75
D7	Bottom of steering wheel to top of floor		25.25
E	Overall length		167.56
E5	Top of floor to top of engine housing		19.50
L	Loading or frame height, Base GVW	Curb	22.05
		Loaded	21.66
L	Loading or frame height, Max. GVW	Curb	23.22
		Loaded	21.71
M	Step height, Base GVW	Curb	17.65
		Loaded	16.28
M	Step height, Maximum GVW	Curb	18.46
		Loaded	16.75
N	Overall height, Base GVW	Curb	77.28
		Loaded	76.40
N	Overall height, Maximum GVW	Curb	78.27
		Loaded	76.66
P	Ground clearance, Base GVW	Front	6.34
Q		Rear	6.00
P	Ground clearance, Max. GVW	Front	6.79
Q		Rear	6.39
V	Front tread		61.20
W	Rear tread		61.56
	Cubic capacity		211.20
	Tires, Base GVW	Front	6.50-13
		Rear	6.50-13
	Tires, Maximum GVW	Front	7.00-13
		Rear	7.00-13

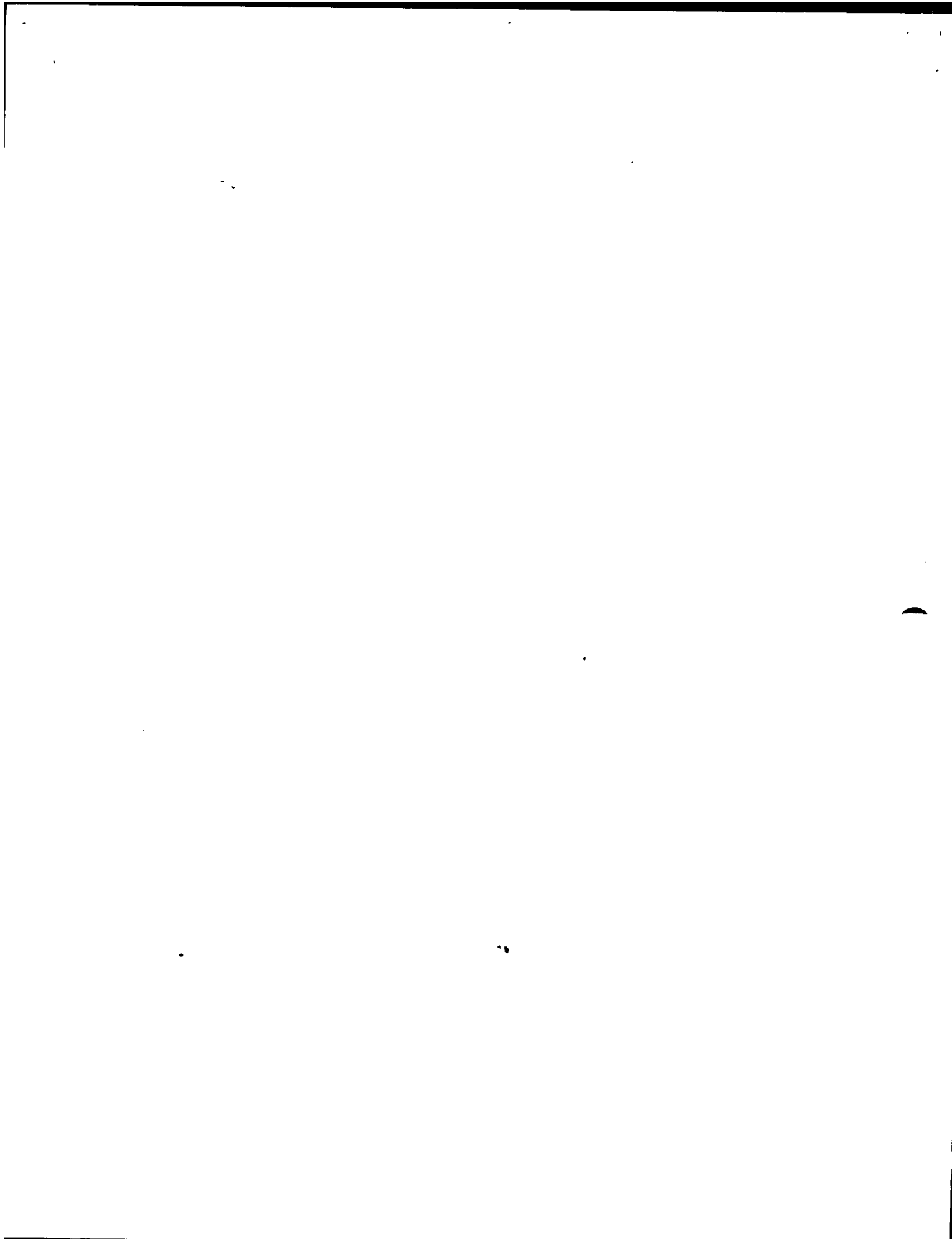


# BODY



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MISCELLANEOUS EQUIPMENT .....	7
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## APPEARANCE

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### Custom Equipment

#### RPO Z60

Breathable Seat Trim  
Right Hand Sunshade  
Cigar Lighter  
Chrome Hubcaps  
Glove Box Door  
Rear Window Glass  
Headlining-Load Compartment  
Additional Horn  
Coat Hooks  
Two Tone Steering Wheel  
with Horn Blowing Ring



# EXTERIOR COLOR COMBINATIONS

## Body Colors

COLOR	OPTION NUMBER
Blue, Dark	508
Blue, Light	507
Green, Dark	505
Green, Light	503
Gray	522
Orange	516
Black	500
Yellow	519
Red	514
Turquoise	510
Fawn	528
Gray Green	529
White	521
Off-White	526

## Trim Colors

ITEM	COLOR
Bumpers	Off-White *
Hub Caps	Off-White * #
Wheels	Black
Outside Rear View Mirror Arms	Body Color †
Outside Rear View Mirror Heads	Black †

- \* - White substituted for models painted White.
- # - Chrome on Custom Model.
- † - Off-White substituted for accessory units.

## INTERIORS

AREA		MATERIAL	COLOR
Exposed Body Metal, Driver's Compartment		Painted Metal	Medium Fawn
Front Floor Area		Embossed Rubber	Black
Engine Cover		Painted Metal	Medium Fawn
Sunshades	Standard L.H. Custom L. & R.H.	Composition Board	Medium Fawn
Armrests	Upper Lower	Leather Grain Vinyl Plastic	Med. Fawn or Red* White
Standard Seat	Coverings	Leather Grain Vinyl	Medium Fawn
	Facings Rear of Backrest		Light Fawn
Custom Seat	Coverings	Nylon Faced Pattern Cloth	Med. & Dark Fawn
	Facings & Backrest Bolsters Except Center Bolster	Leather Grain Vinyl	Med. Fawn or Red*
Steering Wheel	Standard Custom	Painted Hard Rubber	Off-White Off-White & Med. Fawn
Turn Signal Housing		Painted Metal	Off-White
Turn Signal & Gearshift Levers †		Polished Metal	Bright
Steering Column & Bracket Parking Brake		Painted Metal	Charcoal
Dome Lamp Air Vent & Gear Shift Knobs		Plastic	White Charcoal
Instrument Cluster Knobs RPO Cigar Lighter Knob		Polished Metal	Bright
RPO Inside Rear View Mirror			

\* - Red used with Gray, White or Red Exteriors, Custom Models Only.  
 † - Knob is Black Plastic.

## REGULAR PRODUCTION EQUIPMENT

### Exterior

14 Solid Exterior Colors  
Bumpers, Front and Rear (Painted)  
Emblem - Front  
Nameplate - Side  
Nameplate - Rear  
Hub Caps (Painted)  
Key Lock - Front Doors  
Key Lock - Rear Doors  
- Head (Single)  
Lights - Parking, Tail & Stop  
- Direction Signal (Front and Rear)  
Mirror, Outside Rear View L & RH  
Windshield Wipers, Electric  
Single Horn

### Interior

Ash Tray, Front Compartment  
Checks, Load Doors  
Dome Lamp, Front & Rear Compartments  
Floor Mat (Black Rubber)  
Seat - Single Driver - Fore & Aft Adjustable  
Seat - Vinyl Trim - Foam Padded Cushion  
Sunshade, Left Hand  
Trim Plate, Instrument Cluster  
Inside Spare Tire Carrier - Right Rear  
Arm Rests - Left  
Mechanical Jack & Lug Wrench  
Dash Panel Insulator  
Front Compartment Headlining

## EQUIPMENT-GENERAL

### BUMPERS

Type	Pressed steel
Thickness	0.111 inch
Overall height	4.00 in.
Overall width	72.24 in.
Finish, Std.	Painted
, RPO	Chrome-plated

### WINDSHIELD WIPERS

Make	Delco
Type	Single-speed *
Linkage type	Parallel acting
Wiper blades	16-inch, natural rubber
Blade travel	108.5 degrees, R.H.; 85.5 degrees, L.H.
Park position	1-1/2 inch above D.L.O.

\* - Two-speed wiper/washer combination available as RPO.

### HORN

Make	Delco
Type	Vibrator
Number	One

### TOOLS

Type	Screw type
Capacity	1700 lbs.
Raised height	12.12 in.
Lowered height	5.62 in.
Wheel nut wrench	L shaped socket type
Jack handle	Folding crank type

### GLASS TYPE AND VISIBILITY AREA

	TYPE	AREA
Windshield	Laminated safety plate	1314.05
Venti-panes	Solid safety sheet	182.58
Front Door Windows (both doors)	Solid safety sheet	802.36
Rear Windows (both doors) *	Solid safety sheet	690.38
Total		2989.37

\* - Optional equipment

## ELECTRICAL

### HEADLAMPS

Make and Type Location Sealed Beam Diameter Dimmed By High Beam Indicator	Guide, single sealed beam At extreme sides of front panel 7.04 Foot switch (raises and lowers beam) In Speedometer dial
---	---

### PARKING LIGHTS

Location Bulb Type	Below headlights - in outer edges of grill Dual filament, parking and turn signal
-----------------------	--

### TAIL AND STOP LAMPS

Make Type	Guide lamp Comb. tail, stop, directional signal unit
--------------	---

### REAR LICENSE LIGHTS

Type Location	Single On L.H. rear load door above license mounting
------------------	---

### INSTRUMENT PANEL LIGHTING

Fuel Gauge Speedometer Dial High Beam Indicator	White light Red (when lighted) "OIL" (black letters on red background).
Oil Pressure Indicator	Visible at low pressure
Generator	Tell-Tale (lights at low gen. charge)
Main Switch	Three-position pull type, with integral dome lamp switch and Rheostat to control instrument panel lighting

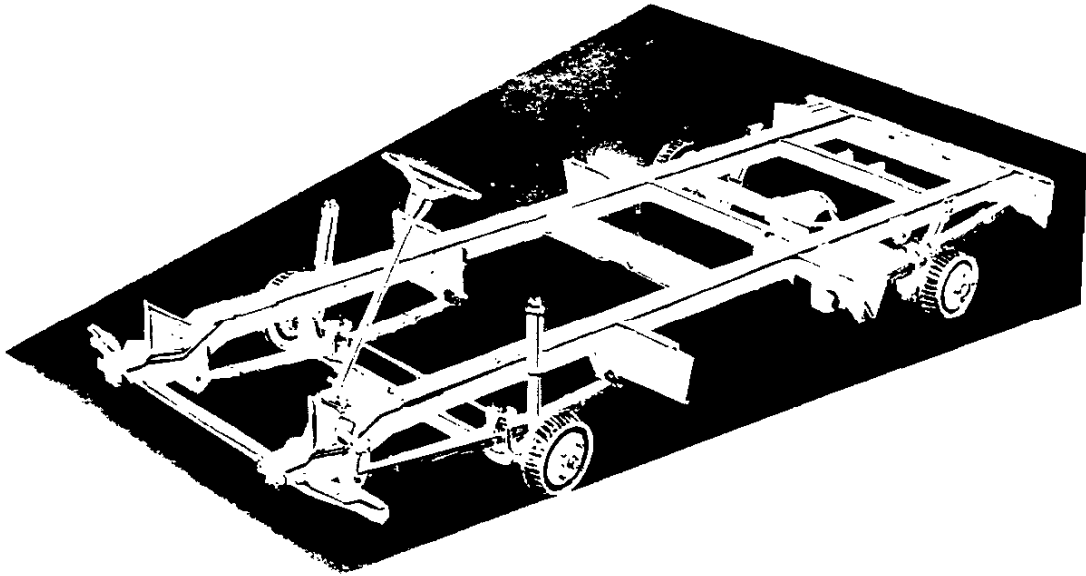
### DOME LIGHTS

Location	At center of roof panel, rear of front seats, and at center of roof panel, rear of load compartment
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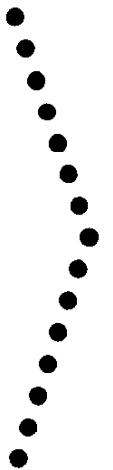
### DIRECTION SIGNAL

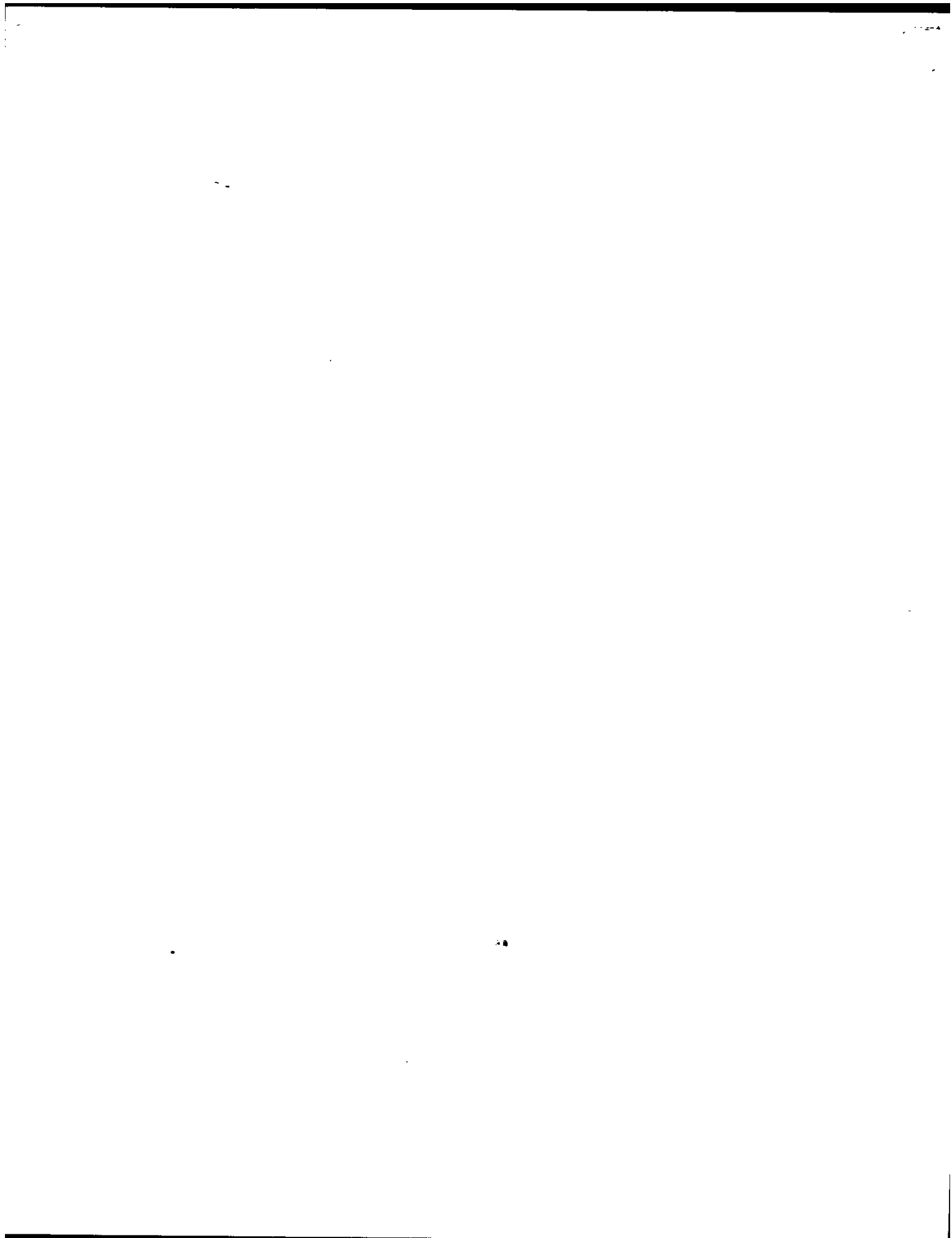
Make Type	Guide Lamp Flasher, front and rear, self-cancelling
Turn Indicators	Green lighted arrows at outer edge of instrument cluster face

# CHASSIS



FRONT SUSPENSION .....	3
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## FRONT SUSPENSION

RATED CAPACITY (LBS.)		2200
Make		Chevrolet
Type		Reverse Elliot (modified I-beam)
	Material	Drop forged AISI C1040
I-Beam Data	Distance between King Pin C/L's	54.36
	C/L of Wheel to Bottom of I-Beam @ Pad	5.21
	Section Modulus (in. <sup>3</sup> )	0.84
King Pin Data	Diameter	0.8170-0.8174
	Length	5.38
	Type	Delrin #500
Bushing	Length	1.280
	I.D.	0.8204-0.8174
	O.D.	1.04
	Thrust Bearing	Steel backed bronze, pressed into steering knuckle
Spindle	Inner	1.2493-1.2498
Diameter	Outer	0.7492-0.7497
Wheel	Number of Studs	Five
Attachment	Bolt Circle	4.75 in.
Wheel Bearings		Tapered single row roller

### Front Stabilizer

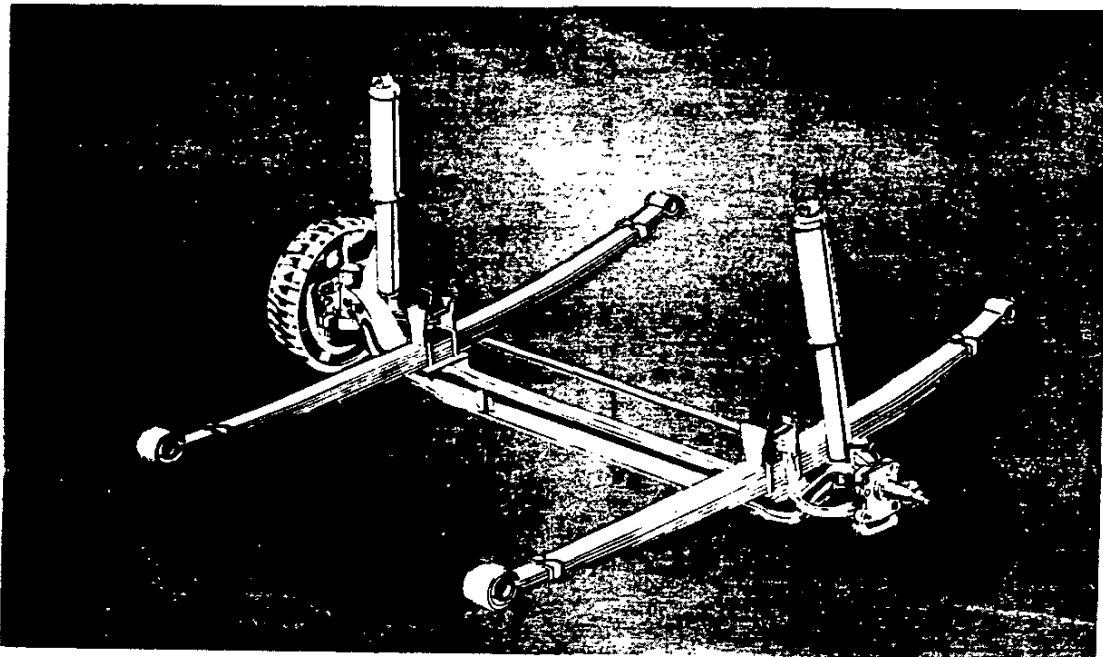
Type	Link
Material	C1070 Steel
Bar diameter	.865



# FRONT SUSPENSION-Cont'd.

## Front Springs

RATED CAPACITY (LBS) SPRUNG (EACH SPRING)	1000	1100
	1125	1225
SERIES APPLICATION	STANDARD	RPO (F60)
Type	Semi-elliptical, unsymmetrical leaves with anti-windup single stage	
Material	Chrome carbon steel	
Number of leaves	6	
Leave thickness	4 @ .262; 2 @ .237	2 @ .291; 3 @ .262; 1 @ .237
Total	1,322	1,605
Average clamped rate of deflection	176	208
Length and width	48 x 2	
Spring clips - type and positions	Clinch with rivet - two forward, one rear of I beam	
Spring bumpers	Hard rubber	
Spring hangers	Stamped hanger welded to frame	
Front	Rubber bushed shackle	
Rear		
I.D.	.564-.569	
Spring eye bushing	1.240-1.260	
O.D.		
Material	Rubber	



## SHOCK ABSORBER DATA

### Front

Make	Delco
Type	Direct acting hydraulic
Mounting location	Upper mounted to bracket in tire well Lower mounted with 1/2" bolts thru "I" beam
Piston diameter	1"
Piston travel	9.75"

### Rear

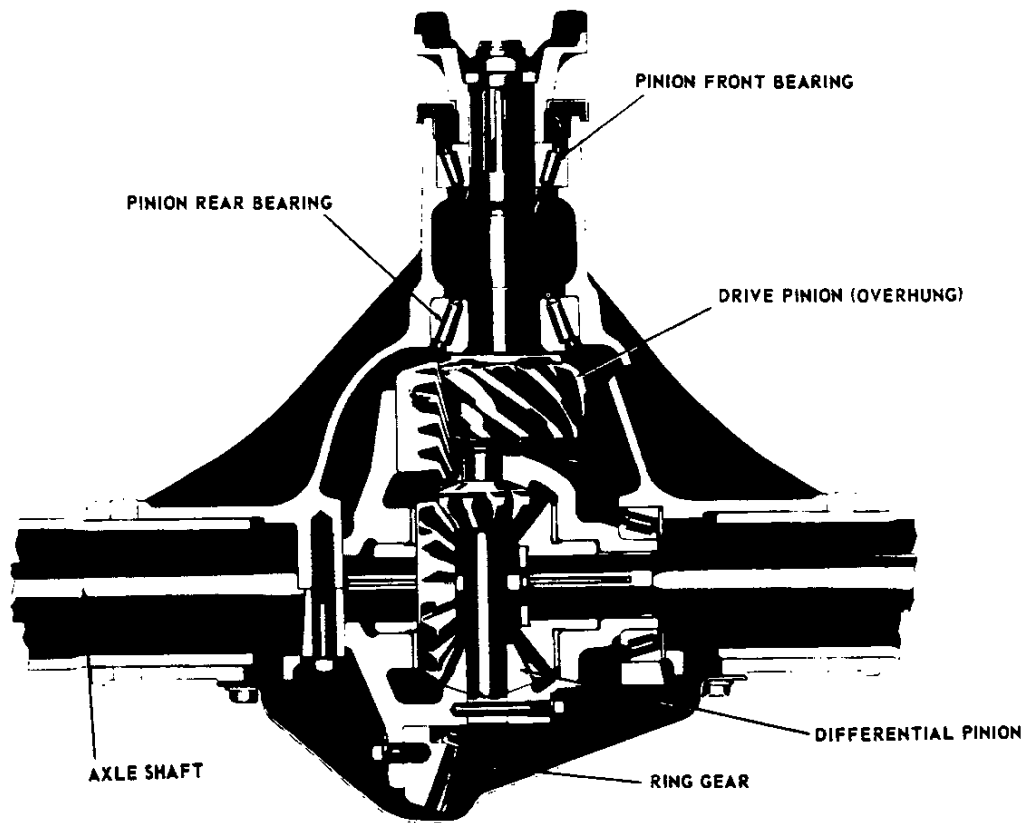
Make	Delco
Type	Direct acting
Mounting location	Upper mounted to frame rail Lower mounted to extension welded on axle shaft
Piston diameter	1"
Piston travel	7.25"

## REAR SUSPENSION

### Rear Axles

SERIES APPLICATION		STANDARD	RPO (H05)	RPO (H04)
Rated axle capacity (lbs)		2400 lbs	2900 lbs	
Ratio		3.36:1 *	3.73:1 *	4.11:1 *
Make		Chevrolet		
Type		Salisbury		
Brake size		9-1/2" x 2"	9-1/2" x 2-1/2"	
Wheel	Type	5 bolt		
Mounting	Bolt size	7/16		
	Bolt circle	4.75		
Housing	Type	Carrier & Tube		
	Construction	3-piece		
	Hsg. section OD & wall	3.0 x .22		
Ring and pinion gears	Type	Hypoid		
	Number of teeth	11	11	9
	Drive Driven	37	41	37
	Ring gear Pitch dia. Face	8.125	8.875	
		1.240	1.406	
Gear backlash		.005-.008		
Drive Pinion	Mounting Adjustment Thrust	Overhung Shims Against rear pinion bearing		
Differential type		2-pinion		
Axle Shaft	Type Material Hub attachment Minimum diameter	Integral shaft and drive flange Hot rolled carbon steel Bolted 1.08		
Lubricant capacity (pints)		3.5	4.5	
Max. gear reduction in low trans. gear	3-Speed trans.	9.88	10.97	12.08
	Powerglide trans.	14.68	16.30	17.96

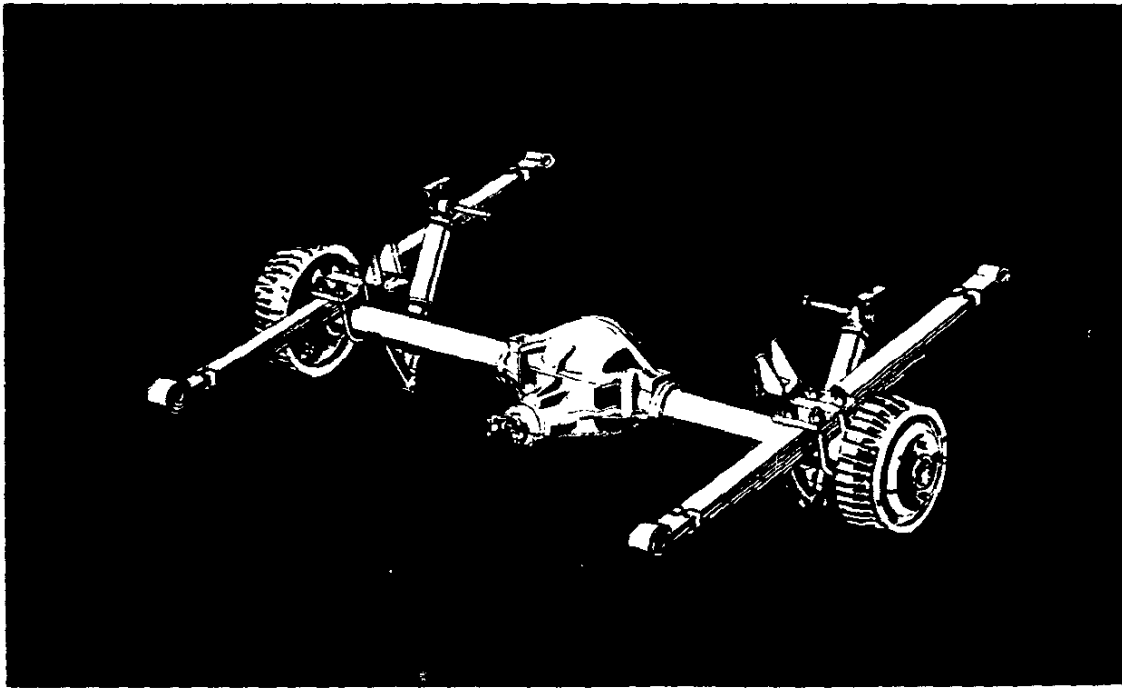
\* - Available with Positraction differential



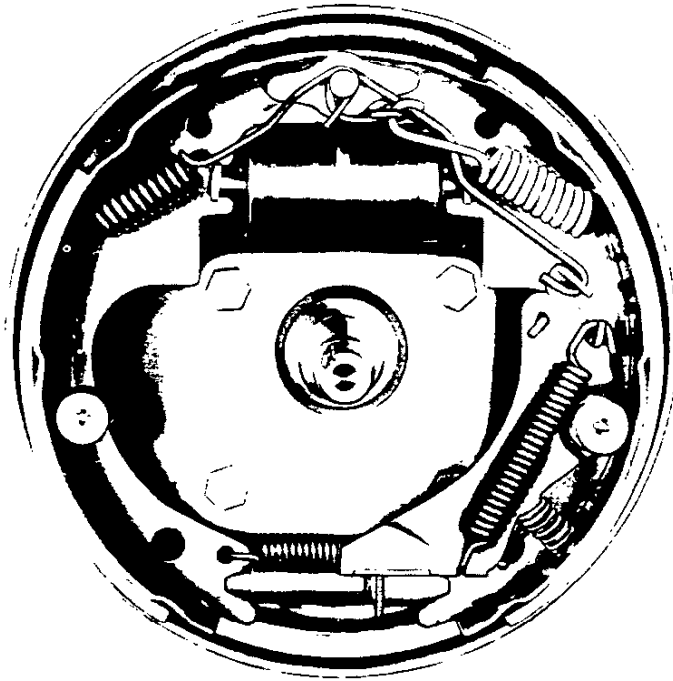
## REAR SUSPENSION-Cont'd.

### Rear Springs

RATED CAPACITY (LBS) (EACH SPRING)	SPRUNG GROUND	1000	1225
		1200	1450
SERIES APPLICATION		STANDARD	RPO (G50)
Type		Semi-elliptical single-stage	
Material		Chrome carbon steel	
Number of leaves		6	7
Leaf thickness		4 @ .291	4 @ .291
		2 @ .262	3 @ .262
Total thickness		1.688	1.950
Inches of camber at load (lbs.)			-1.34 @ 882 lbs.
Average clamped rate of deflection		258	315
Length & width		48 x 2	
Spring clip type	Clinch Bolt	Clinch with rivet	
Shackle end	Type	Rubber bushed	
	Location	Rear	
Fixed end	Location	Forward	
Attachment to axle		U-Bolt, spacer and plate	
U-Bolt diameter		1/2"	
Bumper		Rubber, knock down type mounted to frame rail	
Spring centers		47.1	

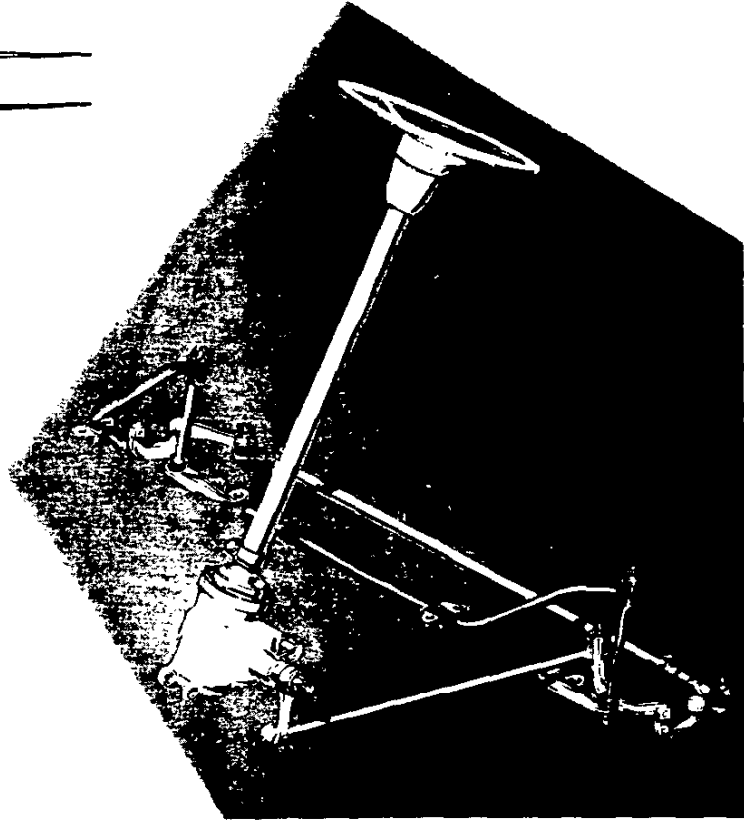


## BRAKES



Type			Duo-Servo, 4-wheel hydraulic, self-adjusting
	Type		Composite, web cast into rim
Drum	Material	Rim	Cast iron alloy
		Web	HR steel
	Diameter	Front	9.5
		Rear	9.5
	Effective area		228.6 sq. inches
Lining	Material		Full molded asbestos composition
	Width	Front	2.50
		Rear	2.00 (2.50 with 2900# rear axles)
	Facing	Primary Shoes	.17
	Thickness	Secondary Shoes	.20
	Attachment		Bonded
Master Cylinder	Effective area		168.3 (187.0 with 2900# rear axle)
	Piston diameter		1.00
	Location		Underbody, bracket mounted
Wheel Cylinder	Available piston travel		1.09
	Diameter	Front	1.06
		Rear	0.875
	Brake Distribution	Front	59.5%
	Rear	40.5%	
Brake Lever Ratios	Pedal		5.8:1
	Hydraulic		3.78
	Overall		21.924
Parking Brake	Type		Mechanical pull type, cables to rear service brakes
	Effective lining area		76.8 (96.0 with 2900# rear axle)
	Operation		Pull lever - bracket mounted to engine cover

## STEERING

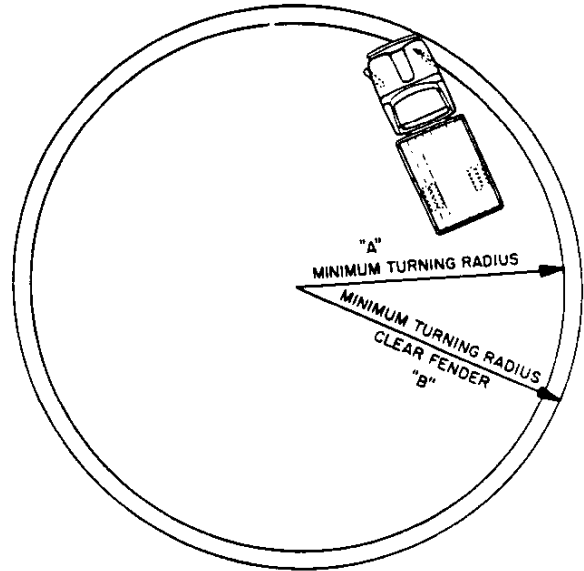


Make and Type		Saginaw recirculating ball
Ratio	Gear	20:1
	Overall	25:1
Mounting		Frame rail channel
Steering Shaft Type		Single
Pitman Shaft Bushing		Cast bronze
Pitman Shaft	Location	Straddle mounted in steering gear housing
	Diameter	.974
Linkage Type		Conventional
Steering Wheel	Type	2 spoke
	Diameter	17 inches
Anti-Friction Bearings	Type	Single row ball
	Part No.	566693

## Turning Radii Dimensions

"A" DIMENSION = Measured to the edge of the front tire at the outside of the circle. This indicates radius clearance required at curb height.

"B" DIMENSION = Measured to outer extremity of truck (front bumper or fender) indicating required wall-to-wall radius clearance.



SERIES	WHEEL-BASE	"A" (FEET)	"B" (FEET)
G10	90.00	16.27	17.68



## TIRES AND WHEELS

TIRE DESCRIPTION					WHEEL DESCRIPTION		
SIZE	AVAILABILITY	TYPE	CONSTRUCTION	CAPACITY	SIZE	OFFSET	ATTACHMENT
6.50-13-4PR	Base	Blackwall	Passenger	835# @ 28 psi	13 x 5.5J	1.0in.	Five Stud
6.50-13-4PR	RPO	Whitewall		835# @ 28 psi			
7.00-13-6PR	4350# GVW	Blackwall		1050# @ 36 psi			
7.00-13-6PR	4350# GVW	Whitewall		1050# @ 36 psi			
7.00-13-8PR	4850# GVW	Blackwall	Truck	1315# @ 60psi	14 x 5J		
7.00-14-6PR	RPO	Blackwall		1145# @ 45psi			
7.00-14-8PR	RPO	Blackwall		1365# @ 60 psi			

# POWER TRAINS

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HIGH THRIFT 194 6-CYLINDER ENGINE .....	5
CLUTCHES .....	14
TRANSMISSIONS .....	15

## POWER TEAM COMBINATIONS

### Power Team Combinations

ENGINE	CLUTCH	AXLE	TRANSMISSION	AVAILABILITY
High Torque 153 cu. in. L-4	9-1/8 inch	3.36:1	3-Speed Synchromesh	Standard
		3.36:1	Powerglide	Optional
		3.73:1	3-Speed Synchromesh	Optional
		3.73:1	Powerglide	Optional
		4.11:1	3-Speed Synchromesh	Optional
		4.11:1	Powerglide	Optional
High Torque 194 cu. in. L-6	10 inch	3.36:1	3-Speed Synchromesh	Standard
		3.36:1	Powerglide	Optional
		3.73:1	3-Speed Synchromesh	Optional
		3.73:1	Powerglide	Optional
		4.11:1	3-Speed Synchromesh	Optional
		4.11:1	Powerglide	Optional

### Multiplication Factors-Manual Transmissions

TRANSMISSION	ENGINE	AXLE	TOTAL GEAR REDUCTION*			
			1ST	2ND	3RD	REVERSE
3-Speed	L-6	3.36:1	9.88	5.64	3.36	9.88
		3.73:1	10.97	6.27	3.73	10.97
		4.11:1	12.08	6.90	4.11	12.08

### Multiplication Factors-Automatic Transmissions

TRANSMISSION	ENGINE	AXLE	TOTAL GEAR REDUCTION*	
			DRIVE	LOW AND REVERSE
Powerglide	L-6	3.36:1	8.06-3.36	14.68-6.12
		3.73:1	8.94-3.73	16.30-6.79
		4.11:1	9.86-4.11	17.96-7.48

## ENGINE SPEED

TRANSMISSION	ENGINE	AXLE RATIO	TIRE SIZE	ENGINE RPM AT 1 MPH			LOW RANGE MAX. CONV. RATIO	LOW RANGE 1:1 CONV. RATIO	DRIVE RANGE MAX. CONV. RATIO	DRIVE RANGE 1:1 CONV. RATIO		
				FIRST	SECOND	THIRD						
3-Speed Synchromesh	L-4 & L-6	3.36	6.50-13	138	79	47						
			7.00-13	135	77	46						
			7.00-14	131	75	45						
	3.73	6.50-13	154	88	52							
		7.00-13	150	85	51							
		7.00-14	145	83	49							
	4.11	6.50-13	169	97	58							
		7.00-13	165	94	56							
		7.00-14	160	91	54							
	Powerglide	L-4 & L-6	3.36	6.50-13	206	86					113	47
				7.00-13	200	83					110	46
				7.00-14	195	81					107	45
3.73		6.50-13	228	95	125	52						
		7.00-13	222	93	122	51						
		7.00-14	216	90	118	49						
4.11		6.50-13	251	105	138	58						
		7.00-13	245	102	134	56						
		7.00-14	238	99	131	54						

# 153 4-CYLINDER ENGINE 194 6-CYLINDER ENGINE

## HIGH TORQUE 153 PERFORMANCE

### BASIC SPECIFICATIONS

Engine Type .....	Valve-In-Head
Piston Displacement .....	153 Cu.In.
Bore and Stroke (nominal) .....	3-7/8 x 3-1/4
Compression Ratio .....	8.5:1
Taxable Horsepower (SAE) .....	24.0
Carburetor Type .....	1-Barrel
Idling Speed: RPM's	
Manual Transmission in Neutral .....	450-500
Automatic Transmission in Drive .....	450-500
Compression Pressure (engine hot) .....	140 PSI
Dry Weights:	
Engine and Clutch .....	359
With Transmission .....	424

### ENGINE IDENTIFICATION

Engine Color .....	Gray
Decalcomania Location .....	R.H. Side of Rocker Cover

### TEST PROCEDURES

These curves represent full-throttle performance as obtained from dynamometer test data corrected to barometric pressure of 29.92 mercury and 60°F dry air.

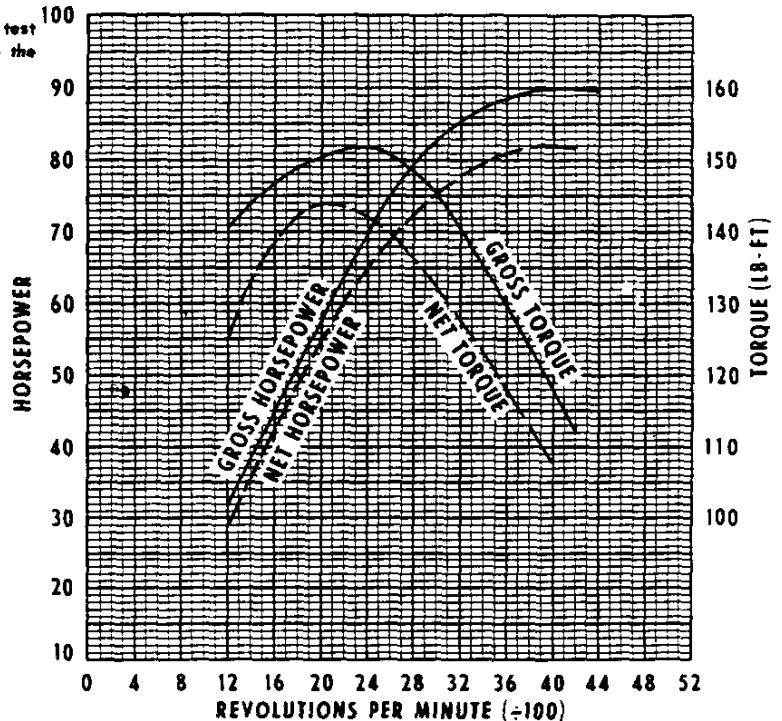
Gross horsepower and torque were obtained in a regular dynamometer test with the dynamometer exhaust system, no fan, Delcotron not charging, and optimum spark advance.

Net horsepower and torque were obtained from a dynamometer test simulating actual operating conditions when the engine is in the vehicle.

### HIGH TORQUE 153

Gross Horsepower .....	90 at 4000 RPM
Net Horsepower .....	82 at 4000 RPM
Gross Torque, ft. lbs. ....	152 at 2400 RPM
Net Torque, ft. lbs. ....	144 at 2000 RPM

<b>AVAILABILITY</b>	
STANDARD	RPO
G10	



## HIGH THRIFT 194

### BASIC SPECIFICATIONS

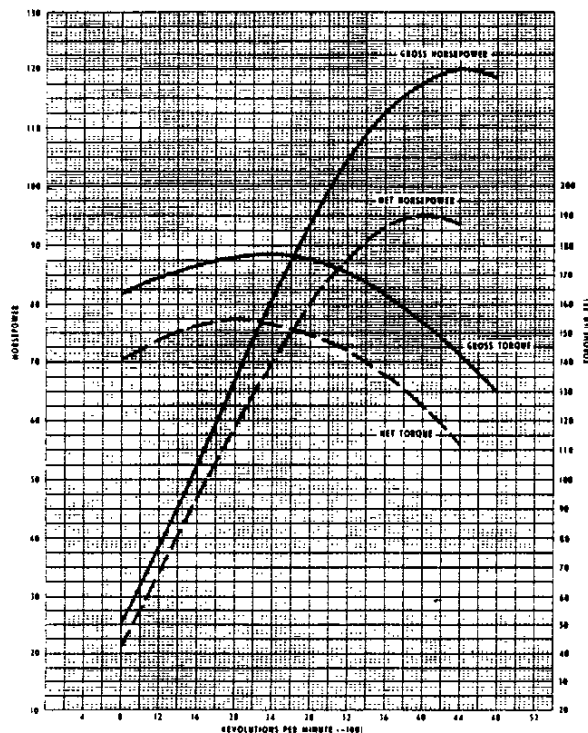
Engine Type .....	Valve-In-Head
Piston Displacement .....	194 Cu.In.
Bore and Stroke (nominal) .....	3-9/16 x 3-1/4
Compression Ratio .....	8.5:1
Taxable Horsepower (SAE) .....	30.5
Carburetor Type .....	1-Barrel
Idling Speed: RPM's	
Manual Transmission in Neutral .....	450-500
Automatic Transmission in Drive .....	450-500
Compression Pressure (engine hot) .....	140
Dry Weights:	
Engine and Clutch .....	492
With Transmission .....	558

### ENGINE IDENTIFICATION

Engine Color .....	Green
Decalcomania Location .....	R.M. Side of Rocker Cover

### HIGH THRIFT 194

Gross Horsepower .....	120 at 4400 RPM
Net Horsepower .....	95 at 4000 RPM
Gross Torque, ft. lbs. ....	177 at 2400 RPM
Net Torque, ft. lbs. ....	155 at 2000 RPM



### TEST PROCEDURES

These curves represent full-throttle performance as obtained from dynamometer test data corrected to barometric pressure of 29.92 mercury and 60°F dry air.

Gross horsepower and torque were obtained in a regular dynamometer test with the dynamometer exhaust system, no fan, Delcotron not charging, and optimum spark advance.

Net horsepower and torque were obtained from a dynamometer test simulating actual operating conditions when the engine is in the vehicle.

### AVAILABILITY

STANDARD

RPO

L21

**153 4-CYLINDER ENGINE**  
**194 6-CYLINDER ENGINE - Cont'd.**

		HIGH TORQUE 153	HIGH TORQUE 194
<b>CYLINDER BLOCK</b>			
Material		Cast alloy iron	
Bore		3.875	3.563
<b>CYLINDER HEAD</b>			
Material		Cast alloy iron	
Type		Valve-in-head	
Cylinder head bolt torque		90-95 foot pounds	
Number of cylinder head bolts		10	14
<b>CRANKSHAFT</b>			
Material		High strength forged steel	Cast nodular iron
Number of counterweights			4
Weight		38 lbs	52.75 lbs
End play			.002-.006
Stroke			3.250
Main bearing journal diameter		#1-4: 2.2983-2.2993 #5: 2.2978-2.2988	#1-7: 2.2983-2.2993
Pulley diameter		6.64	
Crankpin journal	Width	1.038-1.042	
	Diameter	1.999-2.000	
Harmonic balancer		None	Rubber mounted inertia
Main Bearings	Type	Precision removable	
	Material	Steel backed babbitt or copper lead alloy	
	End thrust against	#5	#7
	Bearing clearance	.0003-.0029	
	Effective Length	#1-4: .752 #7: .760	#1-6: .752 #7: .760
	Theo. I.D.	#1-4: 2.2986-2.3022 #5: 2.2981-2.3017	#1-7: 2.3004
Projected area *		#1-4: 1.7299 #5: 1.7475	#1-6: 1.7299 #7: 1.7483
<b>CAMSHAFT</b>			
Material		Cast alloy iron	
End play		.003-.007	
Thrust		Between timing gear & journal front face	
Timing Gears	Type	Gear	
		Steel	
Gears	Drive	Steel	
	Driven	Aluminum	Bakelite and fabric composition with steel hub
Bearings	Material	Extra-life steel backed babbitt	
	Clearance on diameter	.0005-.0015	.0003-.0029
	Ream diameter		1.8712
	Length		.860
Projected area †			1.6092

\* - Based on theoretical I.D. and effective length.  
† - Based on ream diameter and overall length.

		HIGH TORQUE 153	HIGH TORQUE 194
<b>PISTONS</b>			
Material		Cast aluminum alloy	
Skirt and head		Flat, notched head slipper skirt	Flat head, slipper skirt
Skirt clearance		.0006-.0010	.0005-.0011
Top land clearance		.035-.044	.033-.044
Top ring groove insert		None	
Compression ring groove depth		.2153-.2218	.1960-.2025
Oil ring groove depth		.2093-.2158	.1985-.2050
Weight ounces		20.40	17.60
<b>PISTON PINS</b>			
Material		Chromium steel	
Type		Locked in rod	
Diameter		.9270-.9273	
Length		2.990-3.010	
Taper limit in full length		.0001	
Clearance in piston		.00015-.00025	
Surface finish		14 Micro inches	
<b>CONNECTING RODS</b>			
Material		Drop forged steel	
Rod width at piston		1.007-1.011	
Rod width at crankpin		0.944-0.945	
End play		.008-.014	
Rod length centerline to centerline		5.699-5.701	
<b>CRANKPIN BEARINGS</b>			
Type		Precision, removable	
Material		Extra life steel backed babbitt	Steel backed babbitt or copper lead alloy
Bearing Dimensions	Diameter	2.0016	2.155
	Effective length	.807	.837
	Projected area	1.615	1.804
<b>COMPRESSION RINGS</b>			
Number per piston		Two	
Type		Inside bevel	
Material		Cast alloy iron	
Coating	Upper	Flash chrome plated O.D.	
	Lower	Wear resistant coated O.D.	
Width	Upper	.0775-.0780	
	Lower	.0770-.0780	
Gap		.010-.020	
Diameter		3.875	
Wall thickness	Upper	.184-.194	
	Lower	.184-.194	
Ring groove clearance		.0022	



# 153 4-CYLINDER ENGINE - Cont'd. 194 6-CYLINDER ENGINE

		HIGH TORQUE 153	HIGH TORQUE 194
<b>OIL CONTROL RINGS</b>			
Number per piston		One	
Type		Multi-piece, two rails and one spacer	
Material	Rails	Stainless steel, chrome plated O.D.	
	Spacer	Steel	
Width	Rails	.028	
	Spacer	.177-.182	
Rail gap		.015-.055	
Diameter	Rails	3.875	
	Spacer (free)	3.892-3.918	
Rail wall thickness		.150-.156	
Total oil ring width		.233-.238	.1840-.1880
Ring groove clearance		.007-.011	.0022
<b>VALVE TRAIN</b>			
Valve	Type	Individually mounted overhead rocker arms push rod operated	
Operating	Lifters	Hydraulic	
Mechanism	Rocker arm ratio	1.75:1	
	Valve guides	Integral with head	
	Valve lash	Zero	
<b>VALVE SPRINGS</b>			
Material		GM 63M	
Compressed length	Closed	1.66 @ 78-86 lbs	1.66 @ 84-92 lbs
	Opened	1.26 @ 170-180 lbs	1.33 @ 166-176 lbs
Free length		2.03	
<b>VALVE SEATS</b>			
Material	Inlet	Cast iron	
	Exhaust	Cast iron	
Valve seat inserts		None	
<b>INLET VALVES</b>			
Material		Carbon steel	
Face coating		None	
Overall length		4.902-4.922	
Head diameter		1.715-1.725	
Stem diameter		.3410-.3417	.3404-.3417
Stem to guide clearance		.0015-.0032	.0010-.0033
Angle of valve face		45°	
Seat angle in head		46°	
Valve lift		.3973	.3350

		HIGH TORQUE 153	HIGH TORQUE 194
<b>EXHAUST VALVES</b>			
Material		High alloy steel	
Face coating		None	
Overall length		4.913-4.933	
Head diameter		1.495-1.505	
Stem diameter		.3410-.3417	
Stem to guide clearance		.0015-.0032	.0010-.0027
Angle of valve face		45°	
Seat angle in head		46°	
Valve lift		.3973	.3350
Exhaust valve rotator		None	
<b>VALVE TIMING</b>			
Inlet valve	Opens	17°30' BTC	34° BTC
	Closes	54°30' ABC	86° ABC
Exhaust valve	Opens	57° BBC	68° BBC
	Closes	15° ATC	52° ATC
Inlet duration	W/ramp	300°	
	WO/ramp	252°	
Exhaust duration	W/ramp	300°	
	WO/ramp	252°	
<b>CRANKCASE VENTILATION</b>			
Type		Positive	Closed Positive
<b>Cooling System</b>			
<b>GENERAL</b>			
Type		Pressure	
By-pass type		Permanent	
Cooling system capacity (quarts)		9.5	12
<b>RADIATOR HOSES</b>			
Material	Inlet	Fabric reinforced rubber	
	Outlet	Steel reinforced rubber	
Hose I.D.	Inlet	1.32	1.28
	Outlet	1.75	
<b>THERMOSTAT</b>			
Make		Harrison	
Type		Pellet	
Begins to open		177° - 183° F	
Fully open		202° F	

**153 4-CYLINDER ENGINE**  
**194 6-CYLINDER ENGINE** -Cont'd.

	HI-TORQUE 153	HIGH TORQUE 194
<b>WATER PUMP</b>		
Type	Centrifugal	
Drive	V-Belt	
Capacity	53 GPM @ 4400 RPM	58 GPM @ 4400 RPM
Water pump bearing	Permanently lubricated double row ball	
<b>FAN</b>		
Number of blades	Five-staggered	
Blade diameter	18.0	
Blade type	Curved tip	
Fan to engine speed ratio	.949:1	
<b>FAN BELTS</b>		
Material	Dacron cord and oil & heat resistant rubber compound	
Type	High strength, low stretch, wedge belt	
Width	.380	
Developed length	40.50	39.00
Number used	One	

**Lubrication System**

GENERAL		HI-TORQUE 153	HIGH TORQUE 194
Type		Full pressure	
Method	Main bearings	Pressure	
	Camshaft bearings	Pressure	
	Timing gear	Nozzle	
	Connecting rods	Pressure	
	Valve mechanism	Pressure	
	Cylinder walls	Cross sprayed by pressurized jets	Connecting rod bearing throw-off
Piston pins		Splash	
Crankcase capacity	With filter	4.0	5.0
	Without filter	3.5	4.0
<b>OIL PUMP</b>			
Type		Gear	
Pump intake		Stationary	
Pressure gauge type		Electric	
Normal oil pressures		40-60 PSI @ 2000 RPM	30-45 PSI @ 1500 RPM
Capacity		.6 GPM @ 200 RPM	17.2 Qts @ 2000 RPM

	HIGH TORQUE 153	HIGH TORQUE 194
<b>OIL FILLER</b>		
Location		
Cap type	Breather	Rocker cover Screw type
<b>OIL FILTER</b>		
Type		Full flow
Availability		Standard
Capacity (quarts)	1/2 Quart	1 Quart
<b>OIL PAN</b>		
Drain plug location		Lower center of oil pan
Drain plug thread size		1/2 - 20 UNF 2A
Hex head size		.875
<b>OIL GRADE RECOMMENDATIONS</b>		
Not lower than 32 degrees F		SAE 20W, SAE 20 or SAE 10W-30
Not lower than 0 degrees F		SAE 10W, SAE 10W-30
Lower than 0 degrees F		SAE 5W, SAE 5W-20

### Fuel and Exhaust System

<b>FUEL TANK</b>	
Capacity	16 gallons
<b>CARBURETOR</b>	
Type	Single barrel-downdraft
Make and model	Carter YF
Venturi	1.3125
Throttle bore	1.6875
SAE flange size	1-1/2
Choke control	Hand choke
<b>AIR CLEANER</b>	
Make	AC
Element material	Paper
Oil wetted	

**153 4-CYLINDER ENGINE**  
**194 6-CYLINDER ENGINE** -Cont'd.

	HIGH TORQUE 153	HIGH TORQUE 194
<b>FUEL FILTER</b>		
Location	Wire mesh in gas tank; sintered bronze filter in carburetor	Fine mesh plastic strainer in gas tank; sintered bronze filter in carburetor
<b>FUEL PUMP</b>		
Make	AC Mechanical	
Type		
Pressure range	3.5-4.5 PSI	5.00-6.50 PSI
Arm movement	.250	
<b>MUFFLER, EXHAUST AND TAILPIPE</b>		
Muffler type	Single resonance, straight thru	Reverse flow
Exhaust pipe O.D.	1.82	2.00
Tail pipe O.D.		1.875
<b>Electrical System</b>		
<b>GENERAL</b>		
Make and type	Delco-Remy - 12 Volt	
Firing order	1-3-4-2	1-5-3-6-2-4
Timing (initial setting)	4° BTC @ 450-500	8° +1° BTC @ 450-500
Timing mark location	Tab on crankshaft pulley	On harmonic balancer
<b>DELCOTRON EQUIPMENT</b>		
Rating and model	32 ampere, Delco-Remy #1100670	
Pulley size	2.70 P.D.	
Ratio-Del. to engine rpm	2.46:1	
<b>VOLTAGE REGULATOR</b>		
Make and model	Delco-Remy #1119515	
Location	Front L.H. side of engine compartment	
Voltage	Two unit (voltage regulator & cutout relay)	
Regulator	13.8-14.8 @ 85° F	
Combination light and field relay closing voltage @ 80 degrees	2.5-4.5 Volts	1.3 Volts

	HIGH TORQUE 153	HIGH TORQUE 194
<b>SPARK PLUGS</b>		
Make and model	AC 46N (long reach)	
Thread size and type	14 MM	
Gap	.033-.038	
Torque	25	
<b>IGNITION COIL</b>		
Make and model	Delco-Remy #1115171	Delco-Remy #1115184
<b>DISTRIBUTOR</b>		
Make and model	Delco-Remy #1110292	Delco-Remy #1110293
Breaker arm tension	19-23 oz.	
Nominal cam angle (dwell)	31°-34°	
Breaker point gap	.019	
Condenser capacity	.18-.23 Microfarad	
Type of advance	Centrifugal & Vacuum	
<b>STARTING MOTOR</b>		
Make and model	Delco-Remy #1107273	Delco-Remy #1107259
Number of pinion teeth	9	
Test data	Amperes	49-76
(free speed)	Volts	10.6
	RPM	6200-9400
Starter actuation	By solenoid	
<b>IGNITION SWITCH</b>		
Type	Key operated	
Positions	Accessory, Lock, Off, On, Start	
<b>SPARK PLUG WIRES</b>		
Type	Graphite impregnated, braided rayon core	
Cable size	7 MM	
Resistance	4000 Ohms per foot	
<b>BATTERY</b>		
Model number	554	
Capacity @ 20 hr. rate	44 Amperes	
Plates per cell	9	
Weight	30 Lbs.	
Ground	Negative	
Fully charged	Specific gravity of 1.270 ± 0.010 @ 80°F	
Location	Front R.H. side of engine compartment	

# CLUTCHES

CLUTCH SIZE AND TYPE		DIAPHRAGM 9-1/8 INCH	DIAPHRAGM 10 INCH
Engine application		153 cubic inch	194 cubic inch
Rated torque capacity (ft lbs)		235	235
Clutch Springs	Number used	1	
	Material	Spring steel heat treated	
Springs	Total pressure (lbs)	1700-1950	
	Spring release	Diaphragm action	
Driven Disc	Type	Dry disc with two facings	
	Number of plates	1	
	Vibration dampers	6	
	Material	Woven asbestos composition	
Facing	O.D.	9-1/8	10
	I.D.	6-1/8	6
	Thickness	.135	
	Area sq. in.	71.8	100.5
Bearing	Clutch Type	Single row ball	
	Release Lubrication	Packed with high viscosity grease and sealed	
	Pilot Make	Chevrolet	
Flywheel	Pilot Type	Sintered powdered bronze bushing	
	Material	Cast iron	
Ring Gear	O.D.	12.54	
	Type	Cold drawn steel, shrunk on flywheel	
Gear	No. of teeth	153	
	Width	.4110-.4220	
	Pitch dia.	12.75	
Controls	Clutch fork	Drop forged steel, pivot mounted on ball	
	Pedal mounting	Through toe panel, attached to frame	
	Linkage	Mechanical	

## TRANSMISSIONS

### Synchronesh

TYPE		3-SPEED
APPLICATION		153 CU.IN. L-4 194 CU.IN. L-6 (RPO L21)
Make		Chevrolet
Gears	Material	Forged steel, hardened
	Type	Helical
Synchronized Speeds		2nd and 3rd
	First	2.94
	Second	1.68
	Third	1.00
	Fourth	--
	Reverse	2.94
Gearshift	Type	Manual remote
Control	Location	Mounted on steering column
Lubricant Capacity (pints)		2.0

### Automatic

TYPE		POWERGLIDE	
APPLICATION		153 CU.IN. L-4 194 CU.IN. L-6 (RPO L21)	
Make		Chevrolet Powerglide	
Type		Two-speed Automatic	
Cooling		water	
Range Selector Lever Location		Mounted on steering column	
Powerglide	Converter Ratio	Maximum	1:1
	Drive	2.40	1.00
Torque	Low	4.37	1.82
Multiplication	Reverse	4.37	1.82
Engine Starting		Selector lever in Neutral	
Lubricant	Dry Refill	15 Pints	
Capacity	Refill	3 Pints	



1992

1993

1994

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