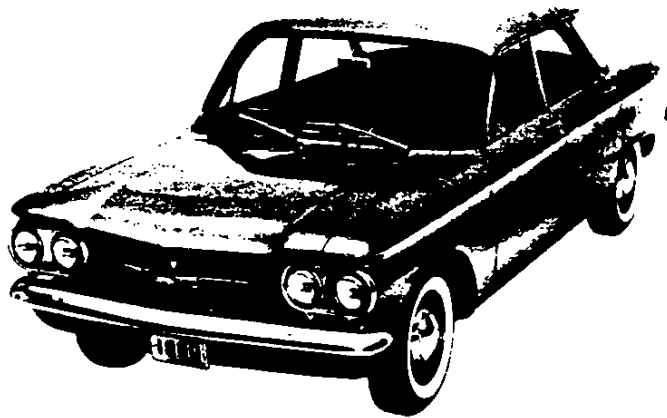




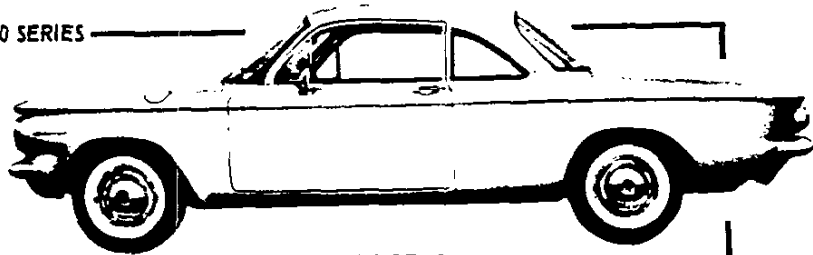
CORVAIR GENERAL



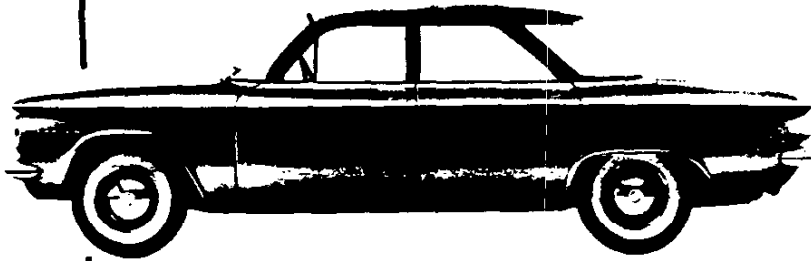
MODEL IDENTIFICATION	2
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MODEL IDENTIFICATION

STANDARD 500 SERIES

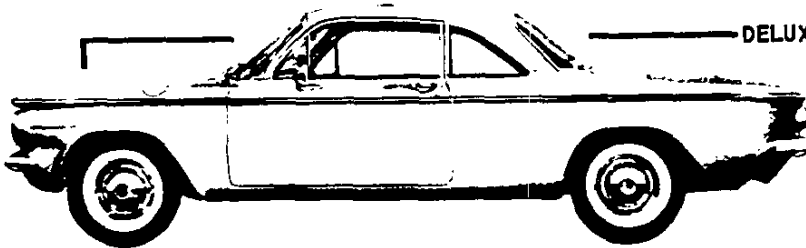


MODEL 527 2-DOOR •
5-Passenger, 4 window coupe,
Luggage compartment in front

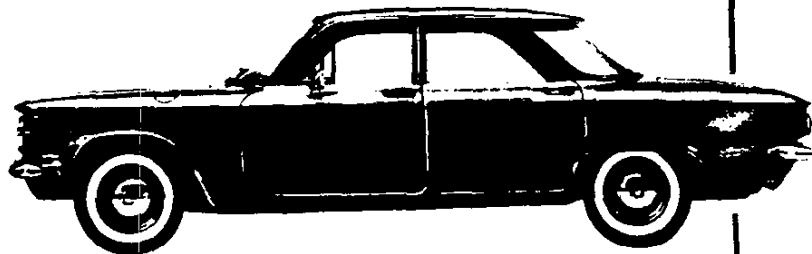


MODEL 569-4 DOOR
6-Passenger, 4 window sedan,
Luggage compartment in front

DELUXE 700 SERIES



MODEL 727 2-DOOR •
5-Passenger, 4 window coupe,
Luggage compartment in front



MODEL 769-4 DOOR
6-Passenger, 4 window sedan,
Luggage compartment in front.

SERIAL NUMBERS AND IDENTIFICATION

VEHICLE SERIAL NUMBER

Example:

Model Year (1960)	Model	Assembly Plant (Willow Run)	Unit Number (25th unit)
0	0569	W	100025

Thus: The 25th model built at Willow Run would be serial number 00569W100025.



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

Location ----- Stamped tag located on left body center pillar.

ASSEMBLY PLANTS

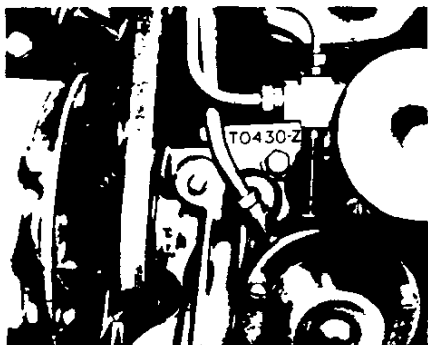
- O - Oakland
- K - Kansas City
- W - Willow Run

ENGINE SERIAL NUMBER

Example: T0205Y

Source Designation	Production* Month & Date	Type Designation
T - Tonawanda	0205	Y
Y - 6-cylinder engine, 3-speed transmission		
Z - 6-cylinder engine, automatic transmission		
YB - 6-cylinder engine, High Perf., 3-speed trans.		
YD - 6-cylinder engine, High Perf., 4-speed trans.		

* - Month: 02-February etc.; 05-5th day of February.



Location ----- Stamped on top rear surface, left half or crankcase.

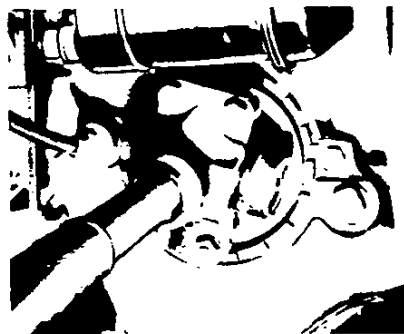
REAR AXLE IDENTIFICATION

Example: BT 0102

Source and Type Designation	Production* Month Day
BT - (Buffalo)	0102

- BT ----- 3-speed, axle ratio 3.55:1
- BU ----- Powerglide, axle ratio 3.55:1
- BR ----- 3-speed, axle ratio 3.89:1
- BS ----- Powerglide, axle ratio 3.89:1
- BV ----- 4-speed, axle ratio 3.55:1
- BP ----- 4-speed, axle ratio 3.89:1

* - Month: 01-January; 02-2nd day of January.



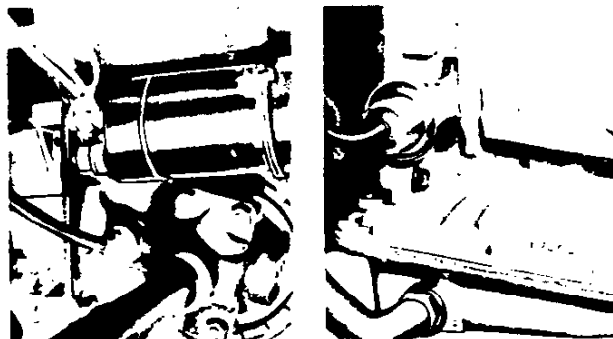
Location ----- Number stamped on lower left side of casting.

TRANSMISSION IDENTIFICATION

Example: B306D

Source Designation	Production* Month & Day	Shift
B - Buffalo	306	D(day)
T - Toledo		
S - Saginaw		

* - Month: 3-March; 06-6th day of March.



Location:
 3 and 4-Speed ----- Stamped on side of upper left differential mounting boss.
 Powerglide ----- Stamped on right hand side of casting between forward and middle pan mounting bosses.

• Revised February 1960 October 1959
CORVAIR GENERAL -3

REGULAR EQUIPMENT-EXTERIOR

ITEM			MODELS •
Bright Metal Trims	Anodized Aluminum	Dual headlight frames	All
		Dual parking and direction signal light frames	
		Dual stop, tail, and direction signal light frames	
		Dual back-up light bezels and cover plate	
		Exhaust grille panel	
	Chrome Plated Metal	Front bumper	
		Front emblem	
		Push-Button door handles	
		Key locks below front door handles	
		Fender nameplates (Corvaire)	
		Deck lid script (Chevrolet)	
	Stainless Steel	Rear bumper	
		Luggage compartment lock	
		Hub caps	
		Moldings		Windshield reveal	727-769
Drip cap			
Body trim molding			
Rear window reveal			
Dual cowl air inlet banks			All
Dual single speed electric wipers			
Gasoline filler door (left front fender)			
Rear license lamp			
Deck lid air intake louvers			
Single horn			527-569
Dual horns			727-769

REGULAR EQUIPMENT-INTERIOR

ITEM		MODELS •		
Instrument Panel	Cluster Area	Dual direction signal lights	All	
		Fuel indicator		
		Speedometer		
		High beam indicator		
		Control Knobs		Light
				Windshield wiper
		Cigarette lighter cover plate		
		Ignition switch (4 positions)		
		Oil and generator warning lights		
		Anodized aluminum trim plate		
Ash tray				
Radio speaker grille				
Glove Box	Silver-painted door		527-569	
	Anodized aluminum trim plate and vehicle name (Corvair 700)		727-769	
	Lock			
Dual vent control knobs				
Dual spoke steering wheel				
Decorated anodized aluminum horn button				
Left hand sunshade		All		
Inside rear view mirror				
Friction-type front ventipanes				
Door locking control handles				
Painted interior trim moldings				
Floor	Black rubber	527-569		
Mats	Vinyl-coated, color-keyed			
Coat hooks		727-769		
Front luggage compartment mat				
Stowage Compartment	Embossed composition boards - sides		All	
	Vinyl-coated jute - wheelhouses			
Center Dome Lamp	Lamp switch integral with main switch		727-769	
	Automatic (on front door jambs)			
Gray and Silver interior trim		569		
Gray, Green, or Blue interior trims		769		
Rear folding seat		All		

REGULAR PRODUCTION OPTIONS AND FACTORY OPTIONAL ACCESSORIES

REGULAR PRODUCTION OPTIONS		NUMBER
Transmission, Automatic		360
Engine Equipment, High Performance		649
Transmission, Four Speed		651
Battery, Heavy-duty (12-Volt)		655
Taxicab Equipment		657
Tires, 6.50-13-4 Ply (White Wall)		661
Axle, Rear (3.89:1 Ratio)		662
Pad, Instrument Panel		668
Deluxe Body Equipment	Cigarette Lighter	669
	Right Hand Sunshade	
	Front Armrests	

FACTORY OPTIONAL ACCESSORIES		NUMBER
Heater and Defroster	Gasoline-Type	118
Radio, Manual		119
Comfort and Convenience Equipment	Outside Rear View Mirror	120
	Windshield Washers	
	Back-up Lights	
	Glove Box Light	
Wheel Trim Ring		122
Generator, 35 Amp. Low Cut-In		650
Armrests, Rear Door		248

DEALER INSTALLED ACCESSORIES

Alarm, Parking Brake
Antenna, Radio
Armrests, Front
Armrests, Rear
Belt Equipment, Seat
Cap, Gasoline Tank Filler Locking
Carrier, Rooftop Luggage
Container, Litter
Cover, Accelerator
Cover, Front Seat Cushion
Cover, Luggage Carrier
Cushion, Air Ride
Dispenser, Tissue
Extension, Exhaust Pipe
Guard, Bumper
Guard, Door Edge
Guard, Gasoline Tank Filler Door
Heater and Defroster
Horn, High Note (500 Series only)
Kit, Tool
Lamp, Back-up
Lamp, Courtesy
Lamp, Glove Compartment
Lamp, Portable Spot
Lighter, Cigarette
Mat, Front and Rear Floor
Mirror, Outside Rear View
Mirror, Rear View Prismatic
Mirror, Visor Vanity
Pad, Ventilated Seat
Radio, Manual
Ring, Wheel Trim
Sunshade, Right Hand
Washer, Windshield
Molding, Body Sill
Boot, Package Compartment

TAXI-CAB EQUIPMENT-RPO 657

• MODEL APPLICATION 569

BODY EQUIPMENT

INTERIOR TRIM

Standard ----- Cloth trim
Optional ----- Gray vinyl coated fabric
Sunshade ----- Silver

FLOORS, FRONT AND REAR

Covering ----- Waterproof asphalt im-
pregnated paper felt, .125 minimum thickness
Mats ----- Black rubber (no spatter
design) .125 minimum thickness

SEAT CUSHIONS AND BACK RESTS

Construction, front and rear ----- Heavy-duty
"S" wire springs, reinforced. Fixed type rear seat
back.

DOORS, REAR

Armrests ----- Left and right doors

CHASSIS EQUIPMENT

LUBRICATION FITTINGS

Application ----- Used at
universal joint trunnion yoke assys

BATTERY

Type ----- Heavy duty

• SPRINGS, REAR

Part Number ----- 6257159

Deflection Rate:

At spring ----- 550 lb/in

At wheel ----- 192 lb/in

SHOCK ABSORBER, FRONT

Diameter ----- 1"

Travel ----- 4.75

POLICE CAR EQUIPMENT - LPO 1104

MODEL APPLICATION 569

BODY EQUIPMENT

INTERIOR TRIM

Standard ----- Cloth trim
Optional ----- Vinyl coated fabric

FLOORS, FRONT AND REAR

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

SEAT CUSHIONS AND BACKRESTS

Construction, front and rear ----- Heavy-duty
"S" wire springs, reinforced. Fixed type rear seat
back.

CHASSIS EQUIPMENT

LUBRICATION FITTINGS

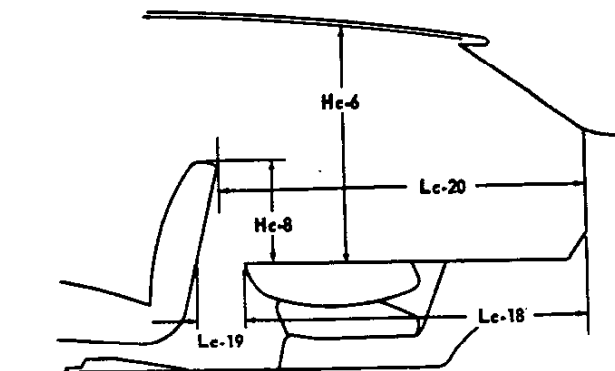
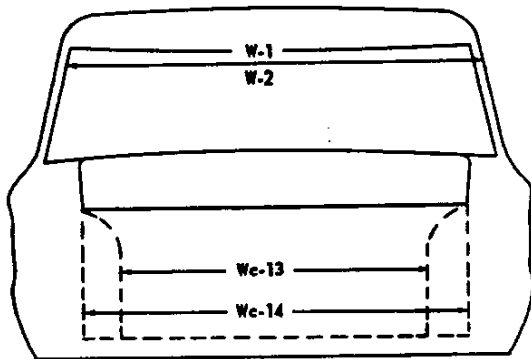
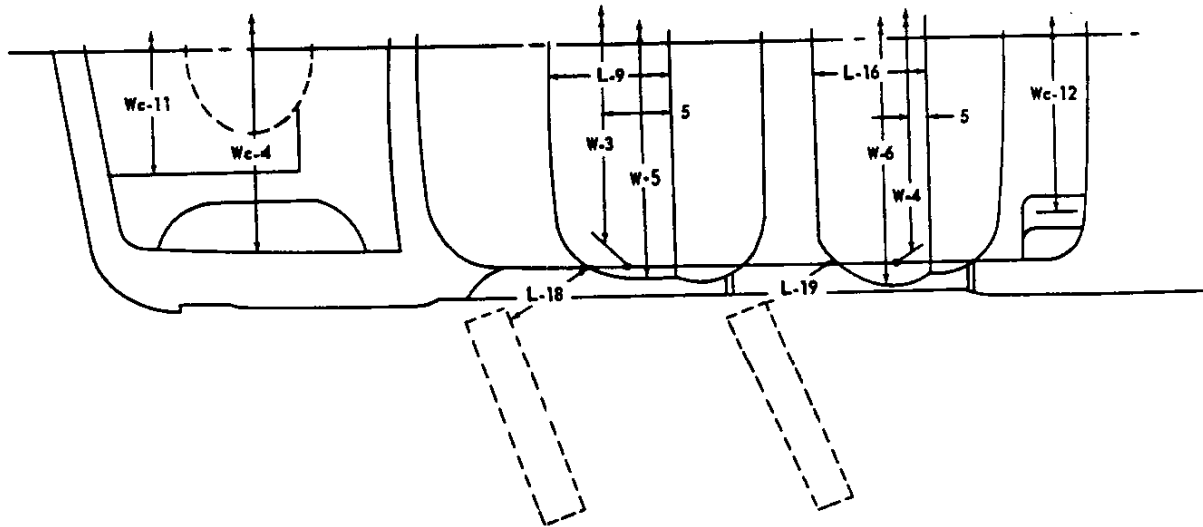
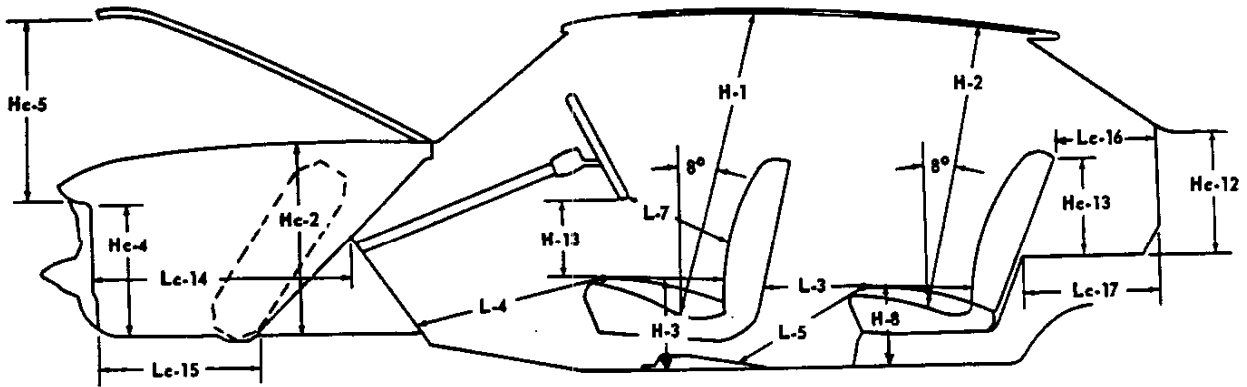
Application ----- Used at universal
joint trunnion yoke assemblies.

DIMENSIONS AND WEIGHTS



INTERIOR DIMENSIONS	2
EXTERIOR DIMENSIONS	4
VEHICLE AND EQUIPMENT WEIGHTS	6

INTERIOR DIMENSIONS



INTERIOR LENGTHS •

MODELS

Dim.	Description	527-727	569-769
L-3	Rear compartment room	22.5	24.5
L-4	Leg room - front		43.8
L-5	Leg room - rear	31.5	36.2
L-7	Steering wheel clearance to seat back		15.0
L-9	Seat depth - front		18.4
L-16	Seat depth - rear	13.6	16.7
L-18	Entrance - foot clearance - front		13.9
L-19	Entrance - foot clearance - rear	9.0	11.3
Lc-14	Front end panel to compartment pan channel		30.7
Lc-15	Floor length - luggage compartment		17.5
Lc-16	Stowage well length at rear seat top		10.6
Lc-17	Stowage well length - maximum		16.3
Lc-18	Load floor length - folding seat down		42.4
Lc-19	Load floor to front seat back		5.4
Lc-20	Back of front seat to rear of package shelf		43.9

INTERIOR WIDTHS •

W-1	Hat room - front		50.9
W-2	Hat room - rear	49.0	47.8
W-3	Shoulder room - front		54.0
W-4	Shoulder room - rear	51.9	51.6
W-5	Hip room - front		58.4
W-6	Hip room - rear	57.0	58.0
W-7	Steering wheel center to C of car		14.0
Wc-4	Luggage compartment maximum opening width		46.1
Wc-11	Floor width - luggage compartment (mean)		23.0
Wc-12	Stowage well width (mean)		38.0
Wc-13	Width between wheel houses (minimum)		29.5
Wc-14	Maximum width - luggage compartment		49.1

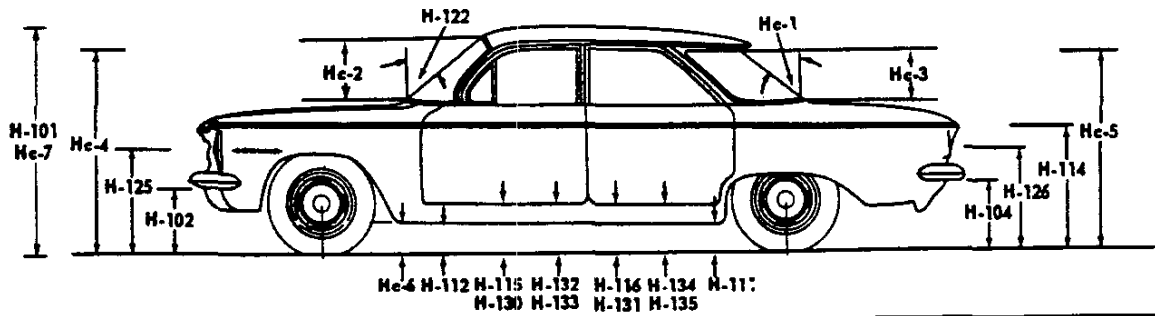
INTERIOR HEIGHTS •

H-1	Head room - front (depressed & free)		38.1, 33.6
H-2	Head room - rear (depressed & free)	36.5, 32.4	37.4, 33.2
H-3	Chair height - front		10.0
H-8	Chair height - rear	9.7	11.5
H-11	Entrance room - front		29.0
H-12	Entrance room - rear		28.0
H-13	Steering wheel clearance		5.1
Hc-2	Maximum height - luggage compartment		23.0
Hc-4	Luggage compartment sill to floor		19.7
Hc-5	Luggage compartment opening height - maximum		33.0
Hc-6	Maximum load height - folding seat down		30.5
Hc-8	Front seat back to load floor		13.3
Hc-12	Stowage well height		14.5
Hc-13	Rear seat back to stowage well floor		11.0

LUGGAGE AREAS

LOCATION	OVERALL	STANDARD LUGGAGE
Main luggage compartment (Cu. Ft)	11.3	4.2
Rear seat stowage well (Cu. Ft)	4.3	2.2
Rear compartment with folding seat down - includes stowage well (Cu. Ft)	17.6	15.8

EXTERIOR DIMENSIONS

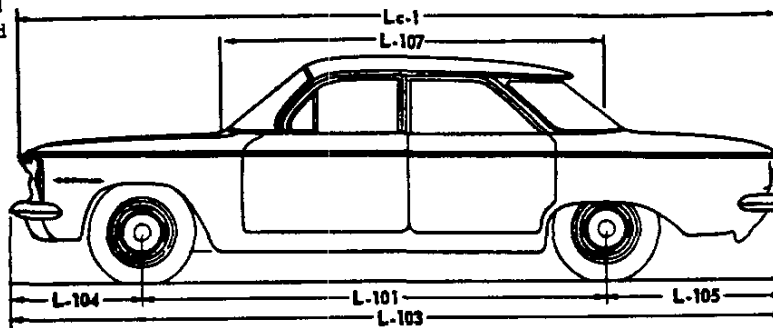


EXTERIOR HEIGHTS •

Code	Description	527-727	569-769
H-101	Overall height - loaded		51.3
H-102	Front bumper bottom to ground		14.9
H-104	Rear bumper bottom to ground		15.5
H-111	Body sill to ground		7.2
H-112	Rocker panel to ground - front		7.2
H-114	Hood at rear to ground		33.8
H-115	Step height - front door - loaded		12.6
H-116	Step height - rear door - loaded	—	12.3
H-122	Windshield slope angle		52.8°
H-125	Headlight centerline to ground - Loaded		24.0¢
H-126	Taillight centerline to ground - Loaded		23.8@
H-130	Step height - front door - unloaded		14.1
H-131	Step height - rear door - unloaded	—	13.8
H-132	Bottom of front door to ground - open		12.6
H-133	Bottom of front door to ground - closed		11.2
H-134	Bottom of rear door to ground - open	—	11.2
H-135	Bottom of rear door to ground - closed	—	11.0
Hc-1	Rear window slope angle	50.0°	52.5°
Hc-2	Windshield DLO height		22.8
Hc-3	Rear window DLO height	12.8	18.5
Hc-4	Front door opening height		36.5
Hc-5	Rear door opening height	—	35.8
Hc-6	Bottom of front fender at rear to ground		7.7
Hc-7	Overall height - unloaded		52.8

¢ - 25.0 curb load

@ - 24.8 curb load



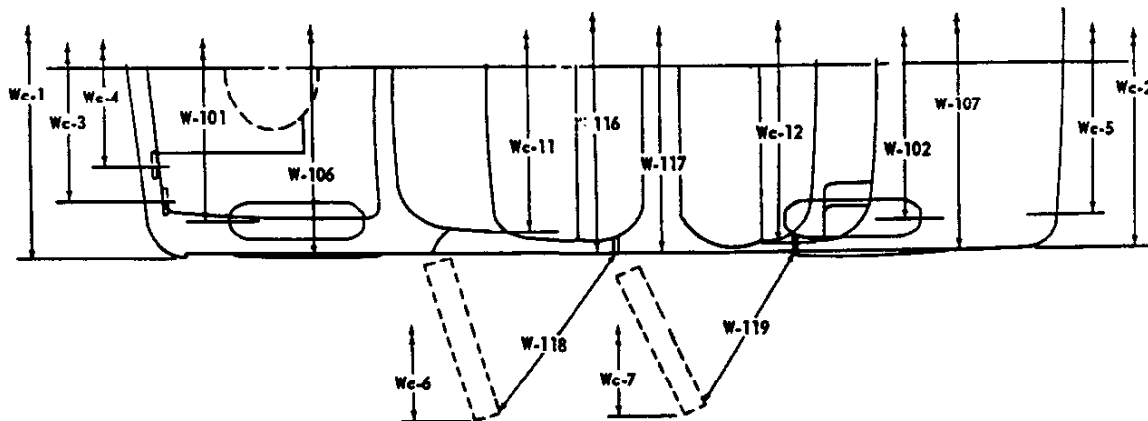
EXTERIOR LENGTHS

Code	Description	527-727	569-769
L-101	Wheelbase		108.0
L-103	Overall length - bumper to bumper		180.0
L-104	Overhang - front		30.3
L-105	Overhang - rear		41.7
L-107	Front of dash to \mathcal{C} of rear wheels		99.0
Lc-1	Overall length less bumpers		176.7

October 1959 • Revised February 1960

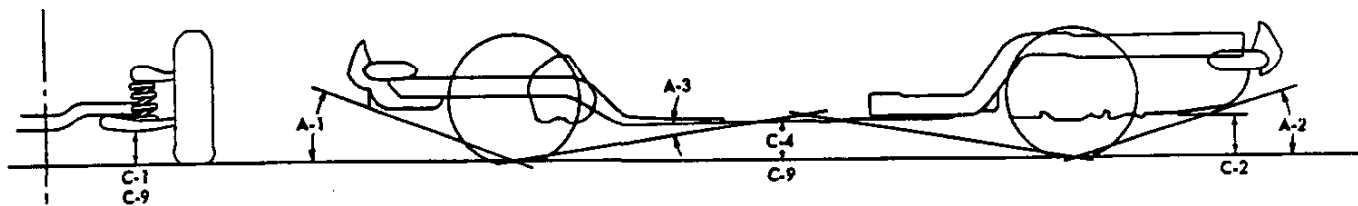
4-DIMENSIONS AND WEIGHTS

1960 CHEVROLET CORVAIR



EXTERIOR WIDTHS *			
Code	Description	527-727	369-769
W-101	Tread - front		54.0
W-102	Tread - rear		54.0
W-103	Overall width (maximum)		66.9**
W-106	Front fender width at \mathcal{C} of wheel		66.9
W-107	Rear fender width at \mathcal{C} of wheel		66.0
W-116	Maximum overall width of body		66.9**
W-117	Maximum body width at center pillar		66.1
W-118	Door swing out distance - front	43.8	35.8
W-119	Door swing out distance - rear	—	29.3
Wf-150	Maximum overall width with moldings		65.8
Wc-1	Front bumper width		66.4
Wc-2	Rear bumper width		62.4
Wc-3	Outer headlight centers width		55.4
Wc-4	Inner headlight centers width		41.5
Wc-5	Taillight centers width		50.0
Wc-6	Overall width, front doors open	145.4	129.3
Wc-7	Overall width, rear doors open	—	124.1
Wc-8	Opening width at beltline - front door	36.0	29.3
Wc-9	Opening width below beltline - front door	44.3	36.0
Wc-10	Opening width below beltline - rear door	—	35.5
Wc-11	Windshield DLO width		54.5
Wc-12	Rear window DLO width		54.5

* - @ Front fender opening



GROUND CLEARANCES			
Code	Description	527-727	369-769
A-1	Angle of approach		22.2°
A-2	Angle of departure		16.0°
A-3	Ramp breakover angle		13.5°
C-1	Front suspension to ground		6.0
C-2	Oil pan to ground		6.1
C-4	Frame rail to ground		6.0
C-9	Minimum ground clearance		6.0

VEHICLE WEIGHTS

500 SERIES - STANDARD

MODEL	VEHICLE TYPE DESCRIPTION	SHIPPING WEIGHT			CURB WEIGHT			LOADED WEIGHT		
		Front	Rear	Total	Front	Rear	Total	Front	Rear	Total
569	4-Door Sedan 6-Cylinder	830	1475	2305	890	1485	2375	1220	2055	3275
569P		830	1485	2315	890	1495	2385	1220	2065	3285
527	2-Door Club Coupe, 6-Cylinder	830	1430	2260	890	1440	2330	1195	1885	3080
527P		830	1440	2270	890	1450	2340	1195	1895	3090

700 SERIES - DELUXE

769	4-Door Sedan 6-Cylinder	830	1485	2315	890	1495	2385	1230	2055	3285
769P		830	1505	2325	890	1510	2400	1230	2065	3295
727	2-Door Club Coupe 6-Cylinder	830	1450	2280	890	1460	2350	1195	1905	3100
727P		830	1460	2290	890	1470	2360	1195	1915	3110

P-Powerglide

ACCESSORY AND OPTIONAL EQUIPMENT WEIGHTS •

OPTION	ITEM	WEIGHT
FOA 118	Gasoline Heater	+34.00 lbs
FOA 119	Manual Radio	+12.00 lbs
FOA 120	Safety & Convenience Equipment	+ 4.00 lbs
FOA 122	Wheel Trim Ring	+ 2.00 lbs
RPO 360	Automatic Transmission	+11.00 lbs
RPO 661	Whitewall Tires, 6.50-13-4	+0 lbs
RPO 662	3.89 Rear Axle Ratio	+ 2.00 lbs
RPO 655	Heavy-Duty Battery	+ 3.00 lbs
RPO 669	Deluxe Body Equipment	+ 3.00 lbs
RPO 668	Padded Instrument Panel	+ 2.00 lbs
RPO 651	Four Speed Transmission	—
RPO 649	High Performance Engine	—
RPO 657	Taxi Cab Equipment	+42.00 lbs
RPO 248	Rear Door Armrests	+ 1.72 lbs
RPO 650	35 Amp Generator	—

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.

CURB WEIGHT: The weight of the empty vehicle ready to drive. It is the shipping weight plus the weight of gasoline. For the weight of gasoline add 67 pounds.

LOADED WEIGHT: The curb weight of the basic vehicle plus a maximum of 150 pounds for each passenger.

Example:

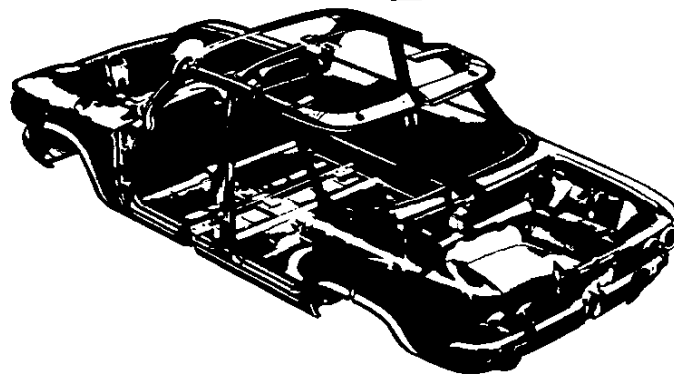
Model 569 (6-passengers) ----- 2375+900=3275

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

Example:

Model 569 (4-passengers) ----- 2375+600=2975

BODY



EXTERIOR PAINT PROCESS	2
EXTERIOR-INTERIOR COLOR COMBINATIONS	3
BODY CONSTRUCTION.	4
SEAT PADDING	5

EXTERIOR PAINT PROCESS

FOR TWO-TONING, ROOF IS SECOND COLOR.



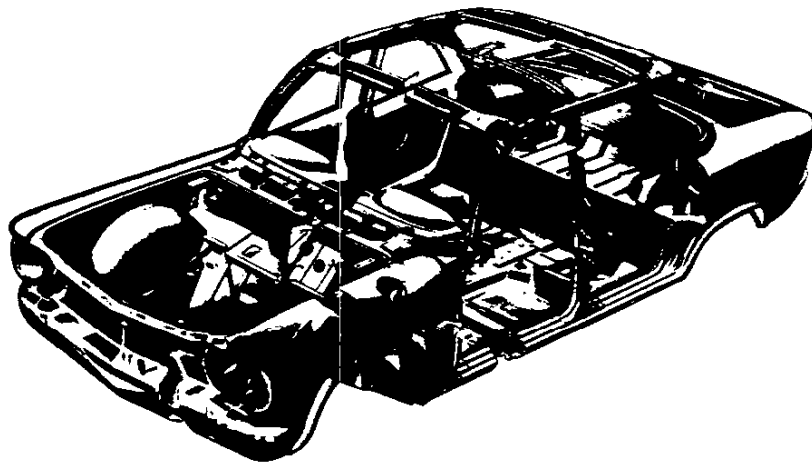
1. **RUSTPROOFING . . .** Anti-corrosion treatment requires selective use of three specialized compounds containing non-ferrous metallic particles. A high zinc content primer is sprayed on the interior surfaces of structural members frequently subjected to moisture. This primer is applied prior to assembly and does not inhibit welding operations. Structural members with a final paint finish and some less critical corrosion areas are treated with a primer of lower zinc content. Localized areas that tend to collect water are sealed with metallic aluminum dispersed in a wax base vehicle.
2. **BODY AND SHEET METAL PRIMER . . .** Exposed surfaces of the body, including the underbody, receive a coat of specially formulated anti-corrosion primer. This corrosion resistant paint is baked at 300°F for 40 minutes. After baking a coat of sealer is applied to all surfaces requiring a subsequent coat of lacquer.
3. **PRIMER-SURFACER COAT . . .** A primer-surfacers coat is applied to all outside surfaces of the body requiring lacquer and then oven baked a minimum of 45 minutes at 285°F.
4. **SANDING . . .** Power wet-sanding followed by hand sanding is done on all surfaces requiring lacquer. After sanding, surface is inspected and additional spot sanding is done to assure an absolutely smooth surface as a base for the lacquer.
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. **FINAL BAKING . . .** To assure a durable, hard, high luster finish the lacquer is now baked 30 minutes at 235°F.
7. **UNDERCOATING . . .** An asphaltos 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.
8. **POLISHING . . .** Machine buffing with special pastes to provide both a high luster and a glassy smooth surface.
9. **PAINT REPAIR . . .** Any slight mars, nicks, or scratches that might occur during final assembly are factory-repaired and corrected before shipping.

EXTERIOR - INTERIOR COLOR COMBINATIONS

SOLID COLORS, WHEELS AND LOWER BODY COLOR OF TWO-TONE MODELS	ROOF OF TWO- TONED MODELS	INTERIOR FABRICS	INTERIOR PAINTED AREAS	
			INSTRUMENT PANEL AND GARNISH MOLDINGS	SIDE WALLS
Tuxedo Black	Ermine White	Gray and Silver	Tuxedo Black	
Ermine White			Shadow Gray	Ermine White
Roman Red			Roman Red	
Sateen Silver	Ermine White		Shadow Gray	Sateen Silver
Tasco Turquoise	Ermine White		Tasco Turquoise	
Cascade Green	Jade Green	Green *	Jade Green	Cascade Green
Jade Green	Cascade Green		Jade Green	
Horizon Blue	Royal Blue	Blue *	Royal Blue	Horizon Blue
Royal Blue	Horizon Blue		Royal Blue	

* - Standard model Gray and Silver

BODY CONSTRUCTION



GENERAL

Type ----- Integral, with step-down underbody floor, front and rear side rail type members, and front and rear end sheet metal components welded to the body assembly.

VENTILATION

Type ----- Cowl top with plenum chamber

DOORS AND LOCKS

Door Construction ----- Two full steel welded panels
 Door Handles ----- Push-button with rotary type door latches.
 Door Ventipanes ----- Friction type
 Key Locks ----- One key operates all car locks.

LUGGAGE COMPARTMENT

Location ----- Under hood in front of cowl; hood lid torsion rod counterbalanced.

Capacity:
 With spare tire ----- 11.3 cu ft
 Without spare tire ----- 12.8 cu ft

INSIDE COMPARTMENT

Location ----- Package shelf behind rear seat back.

Capacity ----- 4.3 cu ft
 Total capacity folding seat plus pkg shelf -- 17.6 cu ft

WINDSHIELD WIPERS

Type ----- Positive action single speed electric
 Linkage ----- Parallel acting

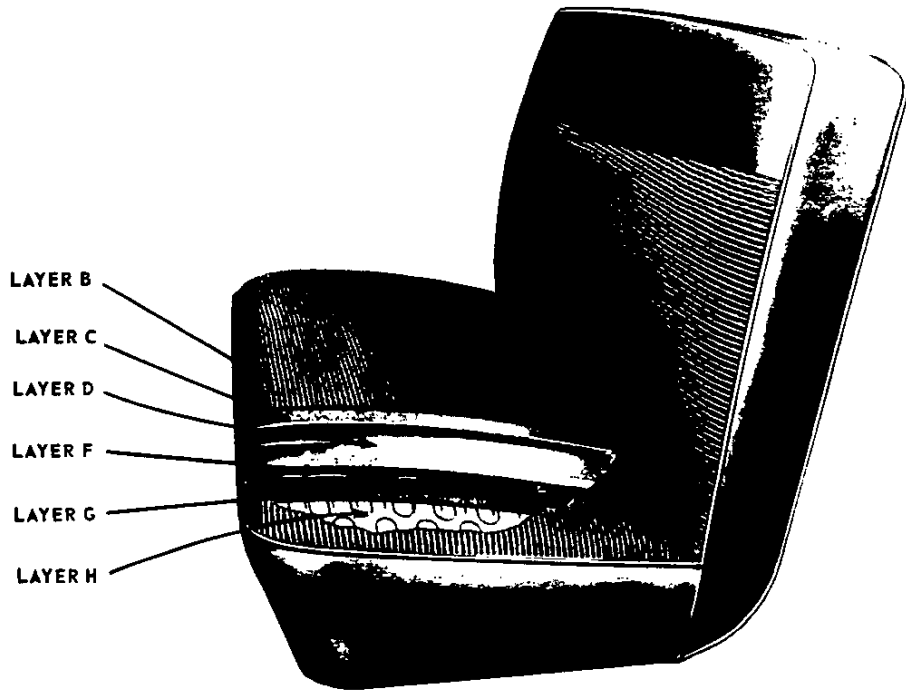
SPARE TIRE MOUNT

Location ----- At rear of front luggage compartment.

BODY GLASS •

Window	Type	527-727	569-769
Location	Type	Visibility Area (sq in)	
Windshield	One piece	1120.3	
Front Door			
Ventipane	Pivoting	62.1	
Window	Roll down	706.0	482.1
Rear Door	Roll down		610.6
Rear Quarter	727-Roll down	259.2	
	527-Fixed	247.7	
Back Window	One piece	1069.2	1106.4
	Total Visibility Area	527-3207.7	3381.8
		727-3219.2	

SEAT PADDING



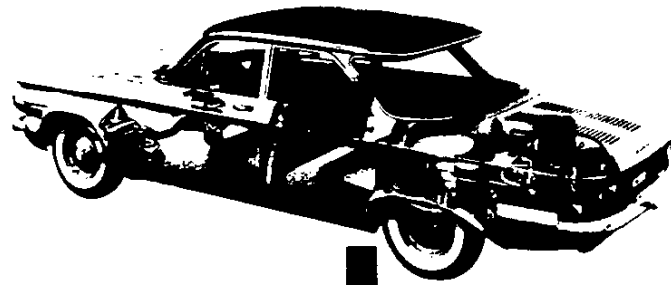
**EXAMPLE
769 FRONT SEAT CUSHION**

Material Application	MODEL	
	• 527-727	569-769
Front Seat Cushion	A-C-D-F-G-H	B-C-D-F-G-H
Folding Rear Seat Cushion	A-E-F-G-H	B-E-F-G-H

Item	Material Type
A	Cloth-Cover
B	Cloth-Cover (Imitation Leather Side Facing)
C	3 oz. # 1 Cotton Topper
D	3/4" Polyurethane Pad
E	6 oz. # 1 Cotton Pad
F	1/2" 45 oz. Jute Base Pad
G	Wire-Burlap Insulator
H	Zig-Zag Spring

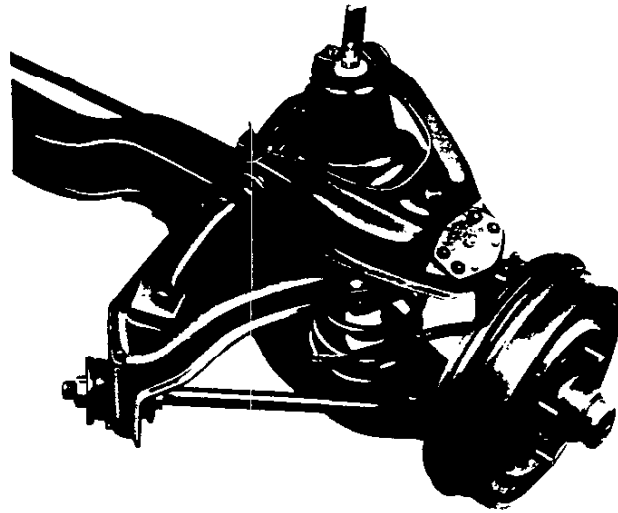


CHASSIS



FRONT SUSPENSION	2
STEERING	3
REAR SUSPENSION	4
BRAKES	5
WHEELS, TIRES AND TOOLS	5
ELECTRICAL	6

FRONT SUSPENSION



GENERAL

Type ----- Independent, combining long and short control arms, with spherical joints, coil springs, and anti-dive control. Front suspension, steering linkage and front crossmember unitized as sub-assembly.

WHEEL TRAVEL

Vertical, Loaded Conditions:

Metal to metal ----- Jounce 4.00; rebound 3.12
Wheel to spring ratio----- 1.63:1

CONTROL ARMS

Upper -----Stamped A frame with pivot shafts bolted to front suspension crossmember. Pivot shafts rubber bushed at control arms.
Lower ----- Two-piece, beam and strut with pivot points at front suspension crossmember. Pivot points rubber bushed.

STEERING KNUCKLE

Type ----- Forged steel
Spindle Diameters:
At inner bearing ----- 1.0618-1.0623
At outer bearing ----- .6868-.6873
Spindle Thread Size ----- 11/16 - 24

SPHERICAL JOINTS

Type ----- Ball stud and socket
Number ----- 1 each, upper and lower at left and right hand.

Ball Stud:

Material ----- Hot rolled steel
Ball spherical diameter:
Upper and lower ----- 1.000-.996

Seals:

Upper and lower ----- Rubber

Socket:

Type and material:

Upper ----- Two-piece, bonded by grease-tight weld with non-metallic bearing liner.

Lower ----- Two-piece, bonded by grease-tight weld with sintered iron bearing.

SPRINGS

Model Application ----- 527-727; 569-768
Part Number ----- 6257482
Make and Type ----- Chevrolet, right hand helix
Material ----- High alloy steel
Number of Coils ----- Active, 5.85; total, 7.45
Wire Diameter ----- .460
Outside Diameter (pitch dia plus wire dia) ---- 4.373
Pitch Diameter ----- 3.913
Free Height ----- 11.00
Working Height ----- 6.17@815 lbs
Height Under Curb Weight ----- 6.96
Deflection Rate at Spring ----- 168 lb/in
Deflection Rate at Wheel ----- 86 lb/in

SHOCK ABSORBERS

Type ----- Direct, double acting hydraulic
Make ----- Delco
Piston Diameter and Travel ----- 1.00; 4.75
Mounting Location ----- Mounted vertically within coil spring, between control arm and suspension crossmember.

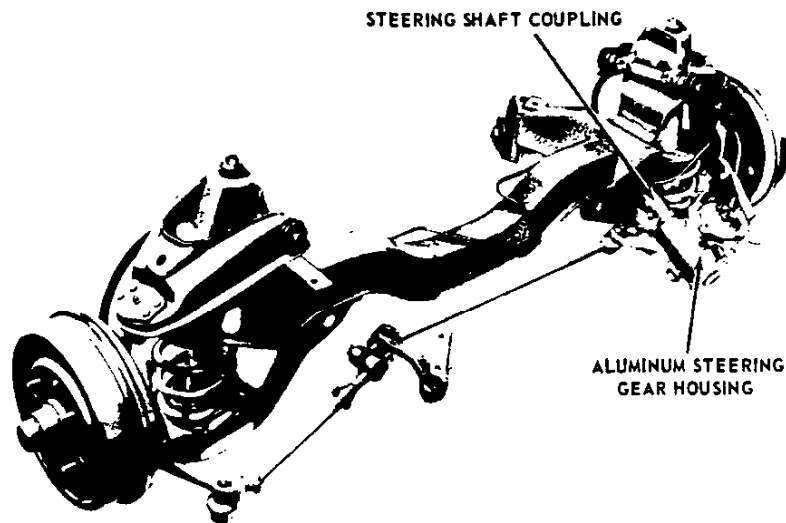
WHEEL BEARINGS

Type and Make ----- Tapered roller, Hyatt

FRONT SUSPENSION GEOMETRY

Caster at Design Load ----- $4-1/2^{\circ} \pm 0^{\circ}$
----- $-1/2^{\circ}$
Caster at Curb Load ----- $3^{\circ} \pm 0^{\circ}$
----- $-1/2^{\circ}$
Camber at Design or Curb Load ----- $1/2^{\circ} \pm 1/2^{\circ}$
Steering Axis Inclination ----- 7°
Toe-In (per wheel):
At Design Load ----- 1/32 to 3/32
At Curb Load ----- 1/8 to 3/16

STEERING



STEERING GEAR

Make ----- Saginaw
 Type ----- Recirculating ball with
 cast aluminum housing.
 Ratio ----- 18:1
 Overall Ratio ----- 23.5:1
 Mainshaft Diameter ----- .750
 Column Diameter ----- 1.490-1.510
 Number of Wheel Turns (right and left hand):
 To steering gear stops ----- 5.00
 To wheel stops on control arm ----- 4.60

STEERING WHEEL

Type ----- Two spoke, dished
 Diameter ----- 16.00

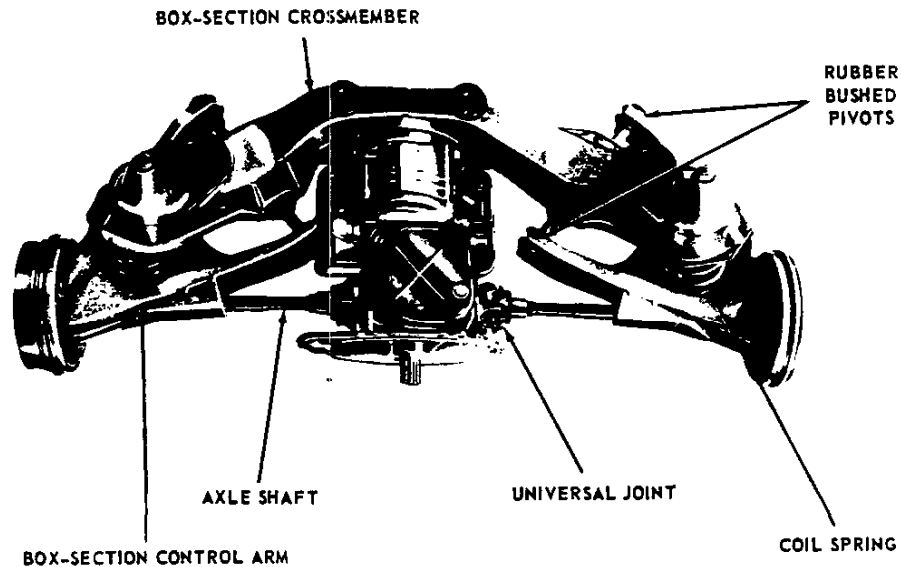
STEERING LINKAGE

Type ----- Parallel relay
 Location ----- Front of wheels
 Number of Tie Rods ----- Two
 Outside Wheel Angle w/Inside Wheel at 20° -- 18.03°

TURNING DIAMETERS

Outside Front:
 Wall to wall ----- right 41.6 ft; left 41.3 ft
 Curb to curb ----- right 39.5 ft; left 39.0 ft
 Inside Rear:
 Wall to wall ----- right 24.4 ft; left 24.2 ft
 Curb to curb ----- right 24.9 ft; left 24.6 ft

REAR SUSPENSION



GENERAL

Type ----- Independent swing type, combining hollow box section type lower control arms, coil springs and shock absorbers. Drive taken through control arms, torque taken through chassis.

WHEEL TRAVEL

Vertical, Loaded Conditions:
 Metal to metal ----- Jounce 3.62; rebound 4.64
 Wheel to Spring Ratio ----- 1.72:1

CONTROL ARMS

Mounting ----- Control arm pivot shafts bolted to rear crossmember. Pivot shafts rubber bushed at control arms.

SHOCK ABSORBERS

Type ----- Direct, double acting hydraulic
 Make ----- Delco
 Piston Diameter and Travel ----- 1.00; 5.00
 Mounting Location ----- Mounted vertically within coil spring, between control arm and suspension crossmember.

SPRINGS •

Model Application ----- 527-727; 569-769
 Part Number ----- 3780791
 Make and Type ----- Chevrolet, right hand helix
 Material ----- High alloy steel
 Number of Coils ----- Active, 6.5; total, 7.95
 Wire Diameter ----- .610
 Outside Diameter (pitch dia plus wire dia) ----- 4.773
 Pitch Diameter ----- 4.113
 Free Height ----- 11.02
 Working Height ----- 4.75 @ 1575
 Height Under Curb Weight ----- 8.03
 Deflection Rate at Spring ----- 425 lb/in
 Deflection Rate at Wheel ----- 117 lb/in

REAR SUSPENSION GEOMETRY

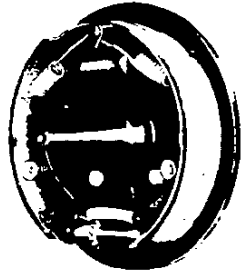
Camber at Design Load ----- $1^{\circ} \pm 1/2^{\circ}$ neg
 Camber at Curb Load ----- $1-1/2^{\circ} \pm 1/2^{\circ}$ pos
 Toe-In (total) at Design or Curb Load ----- 0 to 1/4"

WHEEL BEARINGS

Type ----- Double row spherangular roller bearing lubricated for life.
 Make ----- Hyatt

BRAKES, WHEELS AND TIRES

BRAKES



SERVICE BRAKES

Type	Duo-Servo, 4 wheel hydraulic
Brake Drum:	
Type	Composite
Rim material	Cast alloy iron
Web material	Pressed steel
Diameter, front and rear	9.0
Total effective area	197.9 sq in
Distribution of Braking Effort (theoretical):	
On front wheels	46%
On rear wheels	54%
Brake Linings:	
Material	Full molded asbestos composition
Width, front and rear	1.75
Thickness .....	.160
Length per wheel	17.27
Length, primary shoe	7.85
Length, secondary shoe	9.42
Method of attachment	Bonded

• Clearance adjustment	Adjust to heavy drag and back off 12 notches front, 16 notches rear.
Total effective area	120.8 sq in
Master Cylinder:	
Filler location	On brace under dash, fill from luggage compartment through access hole in cowl.
Diameter	1.000
Wheel Cylinders:	
Mounting	Front, on wheel spindles; rear, on backing plate.
Diameter	Front, .875; rear, .9375
Braking Ratio:	
Pedal	6.55:1
Hydraulic	3.29:1
Total overall	21.55:1
Foot Pedal:	
Type	Pendant
Travel	5.75
Mounting	On brace under dash
Brake system fluid capacity (pints)	0.60
Line pressure at 100 lb pedal load .....	.840 psi

PARKING BRAKE

Type	Mechanical pull rods, cables and pulleys operate rear service brakes.
Total Effective Lining Area	60 sq in
Control	Lever under dash

WHEELS AND TIRES

WHEELS

Type	Short spoke full disc
Rim Size	13x5.50J (modified)
Attachment to Hub	4 hex nuts, 7/16-20
Circle Diameter	4.50
Rim Offset	1.15

TIRES

Type:	
Standard	Blackwall, tubeless
Optional	Whitewall, tubeless
Cord Material Rayon (Tyrex)	
Size and Ply Rating 6.50x13-4	
Rev/Mile, Loaded at 30 mph 853	
Inflation (psi-cold):	
Front	15 lbs
Rear	26 lbs
Outside Diameter - Unloaded 24.75	
Section Width - Unloaded 6.89	
Section Height - Unloaded 5.88	
Rolling Radius - Loaded 11.81	
Capacity - Loaded 835 lbs	
Spare Location Front of dash in front luggage compartment.	

HUB CAPS

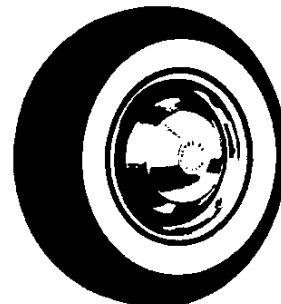
Material	Stainless steel
Diameter	9.61

WHEEL TRIM RINGS

Material	Stainless steel
Availability	Optional as FOA 112 or Dealer Installed Accessory.

JACK

Type	Scissors
Capacity	1500 lbs
Wrench	Non-adjustable open ratchet. Reverse by turning opposite face to car. Use adaptor for wheel nuts.
Storage	Behind spare tire
Jack Location-Front	8" rear of hinge pillar
Jack Location-Rear	8" forward of door pillar



• Revised February 1960 October 1959

ELECTRICAL COMPONENTS

HEADLIGHTS

Make ----- Guide T-3
 Type ----- Dual, horizontal
 Sealed Beam Unit Diameter ----- 5.75
 Dimmed By ----- Foot switch
 High Beam Indicator ----- Horizontal Bar
 in Speedometer face
 Watts ----- 37.5-50
 Volts ----- 12-16
 Location ----- Outer extremity
 of Front sheet metal

PARKING LIGHTS

Location ----- Immediately below
 and between head lights
 Bulb Replacement ----- Remove screws in bezel
 Controlled By ----- Main switch

TAIL AND STOP LIGHTS

Make ----- Guide Lamp
 Type ----- Dual Filament

DIRECTIONAL SIGNAL

Make ----- Guide Lamp
 Type ----- Flasher, front and rear
 Self cancelling
 Front ----- Uses double filament
 parking bulb
 Rear ----- Uses double filament
 parking bulb
 Turn Indicators on Dash ----- Arrows
 outer extremities of speedometer face

BACK-UP LIGHTS

Location ----- Adjacent to stoplights
 Standard and Deluxe models ----- Optional

INSTRUMENT PANEL LIGHTING

Gasoline Gauge ----- Clear white light
 Speedometer Dial ----- Clear white light
 High Beam Indicator ----- Red when lighted

Oil Pressure Indicator ----- The word "OIL"
 (black letters on red background) visible when oil
 pressure is below safety level or oil temp.
 becomes to high.

Generator ----- The word "GEN" and "FAN"
 (black letters on red background) visible when gen-
 erator is not charging or fan is not functioning

Turn Indicators ----- Green when lighted

Glove Compartment ----- Clear white
 light when switch is actuated by opening compart-
 ment door

MAIN SWITCH

Type ----- Three position "pull" type switch
 mounted on instrument panel with protective fuse
 A rheostat operated by rotating the switch knob con-
 trols the brightness of the instrument panel lights,
 Passenger compartment lights are controlled by a
 detent in the rheostat when switch knob is rotated
 to extreme travel counter clockwise.

PASSENGER COMPARTMENT LIGHTS

Standard and Deluxe models ----- Single dome light
 controlled by main switch. Also, deluxe model uses
 automatic door jam switches.

REAR LICENSE LIGHTS

Standard and Deluxe models ----- One bulb in
 upper support of license recess

HORNS

Make ----- Delco-Remy
 Type ----- Vibrator
 Number
 Standard ----- One
 Deluxe ----- Two
 Location ----- Behind
 and at ends of front valance.
 Relay in circuit ----- Yes
 Current: High and Low notes ----- 8-11 Amperes

BULBS

Location			Quan.	Trade No.	CP*	Location			Quan.	Trade No.	CP*
Headlamp	Outer	High beam	2	4002	37.5W	Directional Signal Indicator	2	53	1		
		Low beam			50W						
	Inner	High beam	2	4001	37.5W						
Back-up Lamp			2	1073	32	Generator Indicator	1	57	1		
Directional Signal Front	Parking and Turn	2	1034	4-32	Glove Compartment Light	1	2				
Directional Signal Rear	Tail, Stop and Turn	2			Oil Pressure Indicator	1	1				
Courtesy Lamp			2	89	6	Instrument Cluster	1	1816	2		
Portable Spot Light			1	4416	30W	Dome Light	1	211	1		
						License Plate	1	67	4		
						Radio Dial Light	1	1891	1		

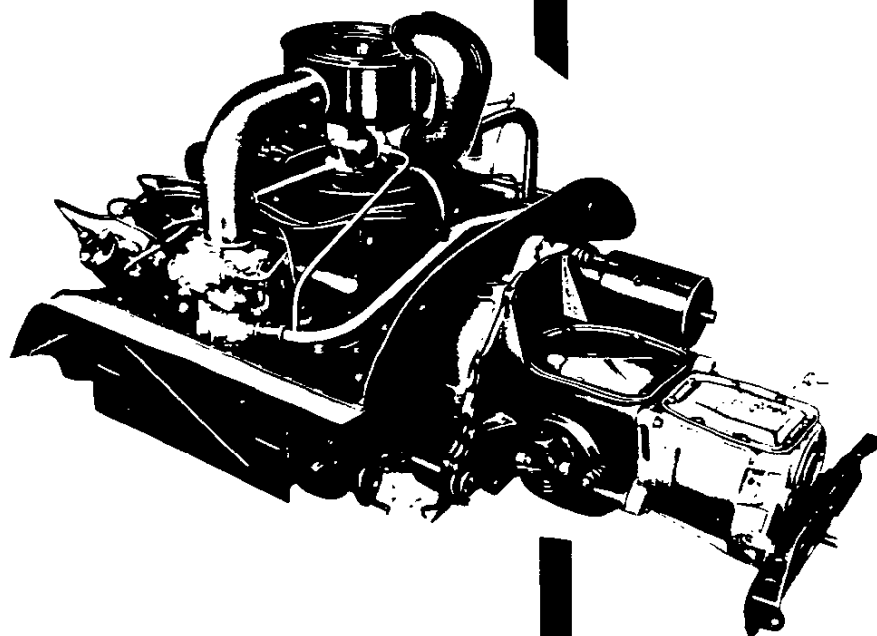
* - Candle Power

CIRCUIT BREAKERS AND FUSES

Device or Circuit Protected	Fuse and Amp	Circuit Breaker	Location
Back-up Lamp	AGC 10		Fuse block
Courtesy Lamp	AGC 15		
Directional Signal Indicator	Flasher		
Dome Lamp	AGC 10		
Glove Compartment Lamp	AGC 15		
Headlamps		15 amp	Switch
Heater and Defroster (Deluxe)	AGC 10		Fuse block
Instrument Lamp	AGC 3		
License Lamp	AGC 15		
Parking Lamp		15 amp	Switch
Radio Lamp	AGC 3		Fuse block
Radio Receiver (Manual & Pushbutton)	AGC 4		
Stop Lamps	AGC 15		
Tail Lamps	AGC 15		
Transmission Selector Indicator	AGC 3		Switch
Windshield Wiper Motor		10 amp	



POWER TRAINS



POWER TEAM COMBINATIONS	2
ENGINE	3
CLUTCH	13
TRANSAXLE	14

POWER TEAM COMBINATIONS

<u>ENGINE</u>	<u>TRANSMISSION</u>	<u>AXLE RATIO</u>
140 CUBIC INCH TURBO-AIR SIX CYLINDER (PRODUCTION)	3-SPEED	3.55:1 3.89:1
	POWERGLIDE	3.55:1 3.89:1
• 140 CUBIC INCH TURBO-AIR SPECIAL SIX CYLINDER (RPO 649)	3-SPEED	3.55:1 3.89:1

MULTIPLICATION FACTORS

WITH MANUAL TRANSMISSIONS

ENGINE	TRANSMISSION	TOTAL GEAR REDUCTION *				AXLE RATIO	MAX AXLE TORQUE LOW GEAR - Lb-Ft Ⓞ
		1st	2nd	3rd	Rev		
80 HP Std Six Cylinder	3-Speed	11.43	6.53	3.55	12.96	3.55:1	1069
		12.53	7.16	3.89	14.18	3.89:1	1172
• 95 HP Six Cylinder (RPO 649)	3-Speed	11.43	6.53	3.55	12.96	3.55:1	
		12.53	7.16	3.89	14.18	3.89:1	

WITH AUTOMATIC TRANSMISSIONS

ENGINE	TRANSMISSION	SELECTOR POSITION	TOTAL TORQUE MULTIPLICATION *	AXLE RATIO
Turbo-Air	Powerglide	Drive	16.79:1-3.55:1	3.55:1
		Low & Rev	16.79:1-6.46:1	
		Drive	18.40:1-3.89:1	3.89:1
		Low & Rev	18.40:1-7.08:1	

* - Axle ratio x transmission ratio

Ⓞ - Gear reduction x maximum net engine torque x efficiency factor (0.90 indirect drive, 0.85 all others).

140 CUBIC INCH SIX CYLINDER ENGINE

GENERAL DATA

Engine		Conventional	Powerglide
Type		Horizontal opposed OHV	
Piston displacement (Cu In)		140	
Number of cylinders		6	
Bore and stroke		3.375 x 2.600	
Compression ratio		8.0:1	
Taxable horsepower (SAE)		27.3	
Idling speed (RPM)		500	
Compression press (PSI) @ cranking speed, engine hot		140	
Dry weight (pounds)	Engine and clutch	332	294
	With transaxle	427	455
Lubrication		Full pressure	
Power plant mounting		Two front and one rear - shear type front, compression type rear	
Measurements	Width (including carburetors)	30.32	
	Length (incl clutch hsg & oil filter)	29.60	
	Height (incl air cleaner & oil pan)	23.58	

ADVERTISED MAXIMUM ENGINE PERFORMANCE

Engine		Turbo-Air	Turbo-Air • Special
Brake horsepower	Gross	80@4400	95@4800
	Net	65@3600	
Torque (Lb-Ft)	Gross	125@2400	125@2800
	Net	110@2400	

ENGINE SPEED AND PISTON TRAVEL

Transmission		3-Speed (Production)		Powerglide (RPO 360)	
Rear axle ratio		3.55:1	3.89:1	3.55:1	3.89:1
Tire size		6.50x13-4 ply			
Crankshaft revolutions per mile		3028.2	3318.2	3028.2	3318.2
Crankshaft RPM @ 1 MPH	Low	162.6	178.1	91.9	100.6
	Reverse	184.3	201.8		
	Second	92.9	101.8		
	Third*	50.5	55.3	50.5	55.3
Piston travel (Ft/mile)		1311.2	1436.8	1311.2	1436.8

* - Also known as N/V factor.

140 CUBIC INCH SIX CYLINDER ENGINE-Cont'd.

ADVERTISED CAR PERFORMANCE FACTORS (Model 569)

Engine	Turbo-Air				Turbo-Air Special •	
	3-speed		Powerglide*		3-speed	
Rear axle ratio	3.55:1	3.89:1	3.55:1	3.89:1	3.55:1	3.89:1
Performance weight (Lb)	2975		2985		2975	
Pounds/gross horsepower	37.19		37.31		31.32	
Pounds/Cu In displacement	21.25		21.32		21.25	
Gross horsepower/Cu In displacement	.571		.571		.679	
Power displacement (Cu Ft/mile)	122.7	134.4	122.7	134.4	122.7	134.4
Displacement factor (Cu Ft/ton mile)	82.5	90.4	82.2	90.1	82.5	90.4

* - Data computed assuming zero slippage in torque converter

GLOSSARY

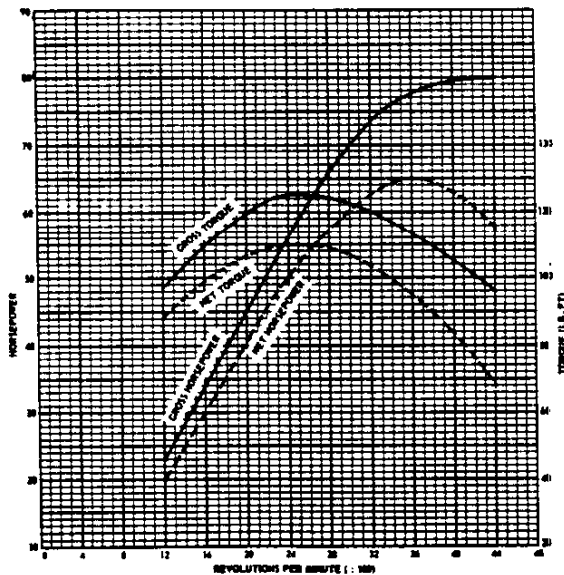
Performance Weight = Curb Weight plus 600 Lb •
(weight of four 150 Lb passengers)

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

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

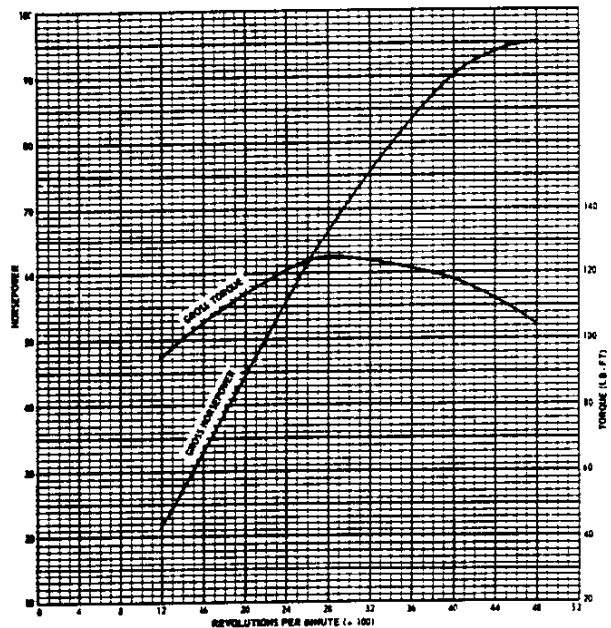
TURBO-AIR SIX CYLINDER ENGINE

140 Cubic Inch -
Engine Test Report EX-5170 •



TURBO-AIR SPECIAL SIX CYLINDER ENGINE •

140 Cubic Inch w/Special Camshaft -
Engine Test Report 25007-456



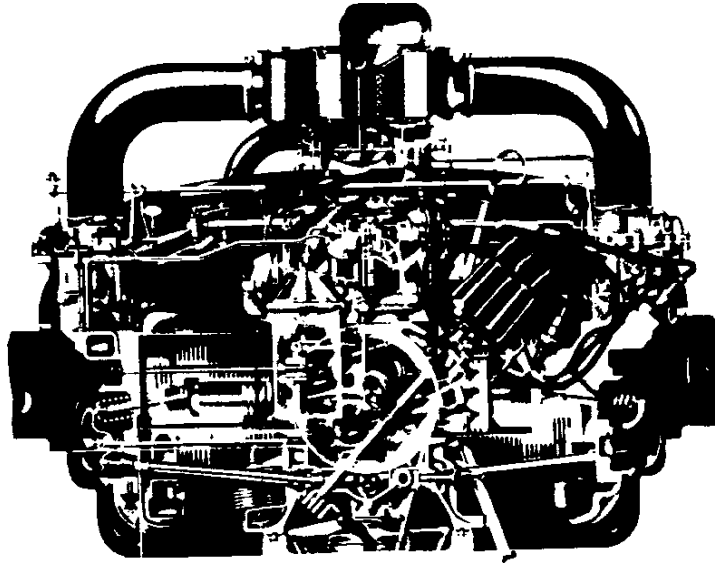
The engine performance curves represent full throttle performance as obtained from dynamometer test data corrected to standard barometric pressure 29.92 inches of mercury and standard temperature of 60°F.

GROSS POWER and TORQUE were obtained in a regular dynamometer test with the dynamometer exhaust

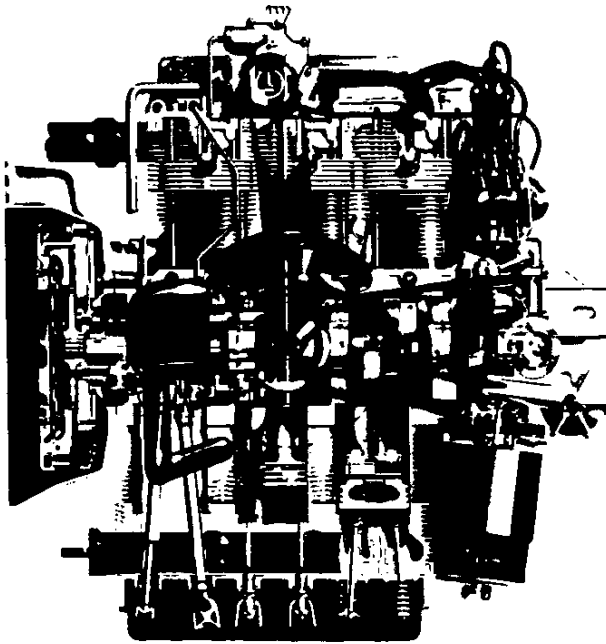
system, no fan, generator not charging, optimum spark advance, and optimum fuel setting. •

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

• ENGINE CROSS SECTION
END VIEW



• ENGINE CROSS SECTION
PLAN VIEW



140 CUBIC INCH SIX CYLINDER ENGINE-Cont'd.

PRINCIPAL COMPONENTS

CRANKCASE

Type ----- Molded into left and right halves
 Material ----- Cast aluminum

ENGINE REAR HOUSING

Material ----- Cast aluminum

• CYLINDERS

Type ----- Individually cast with integral cooling fins.
 Material ----- Cast iron
 Bore Diameter ----- 3.3745-3.3775
 Numbering System (front to rear)
 Left bank ----- #6, 4, 2
 Right bank ----- #5, 3, 1

CYLINDER HEADS

Material ----- Permanent mold cast aluminum with integral cooling fins
 Valve Seat Insert Material
 Inlet ----- Cast nickel steel alloy
 Exhaust ----- Cast chromium steel alloy

CRANKSHAFT

Material ----- Drop forged steel
 End Play ----- .002-.006
 Vibration Damper ----- None
 Counter weights ----- None
 Pulley (PD) ----- 6.64

Stroke ----- 2.595-2.605 •
 Main Bearings ----- Extra-life steel backed babbitt
 Type ----- Precision, removable
 End Thrust Against Bearing ----- #1
 Clearance ----- .0012-.0037
 Dimensions

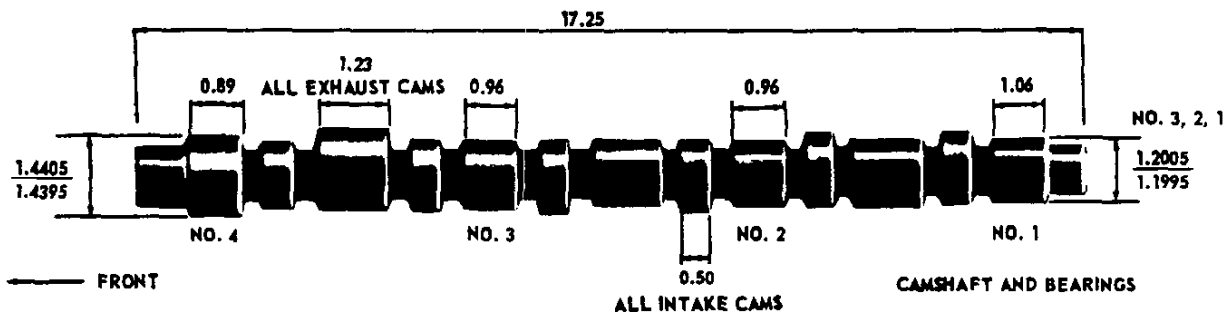
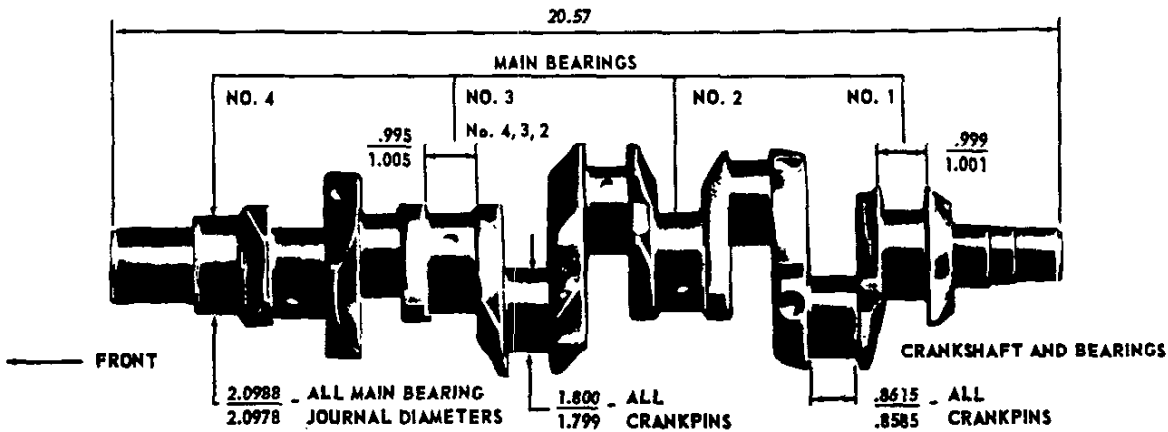
Bearing	Theo ID	Eff Length	Proj Area
1	2.1008	.785 •	1.649 •
2-4	2.1008	.752 •	1.580 •

CAMSHAFT

Material ----- Cast alloy iron
 Drive ----- Gear
 Gear Material
 Crankshaft ----- Steel
 Camshaft ----- Permanent mold cast aluminum
 Bearings ----- No inserts, aluminum crankcase machined for bearing surfaces.

VALVE MECHANISM

Type ----- Stamped rocker arm & individual ball & stud, push rod actuated
 Lifters ----- Hydraulic
 Body Material
 Foot ----- Cast iron
 Sleeve ----- Steel
 Plunger and push rod seat ----- Steel
 Rocker Arm Ratio ----- 1.5:1
 Valve Lash (hot) ----- Zero



VALVES

Material Inlet ----- Alloy steel
 Stem to Guide Clearance ----- .0010-.0027
 Material Exhaust ----- High alloy steel
 Stem to Guide Clearance ----- .0015-.0032

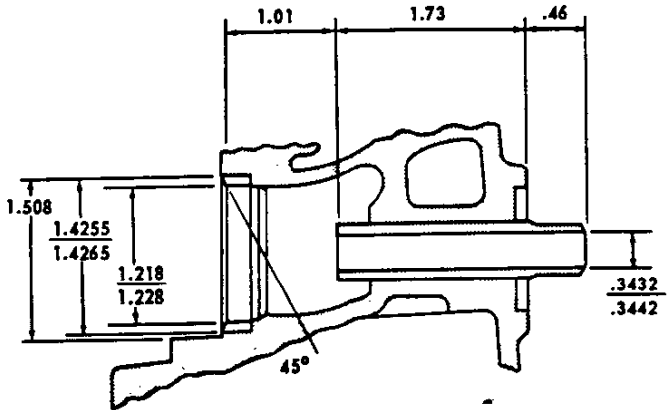
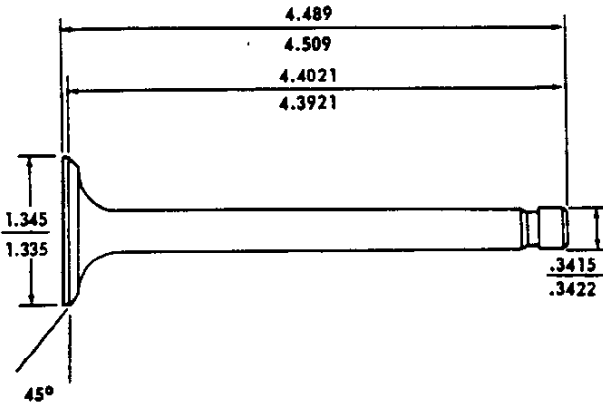
VALVE SPRINGS

Compressed Length & Pressure (In@Lb)		
Camshaft	Production	Special ●
Valves closed	1.508@58-64	1.696@69-79
Valves opened	1.148@141-149	1.306@159-169
Free Length	1.74	2.08

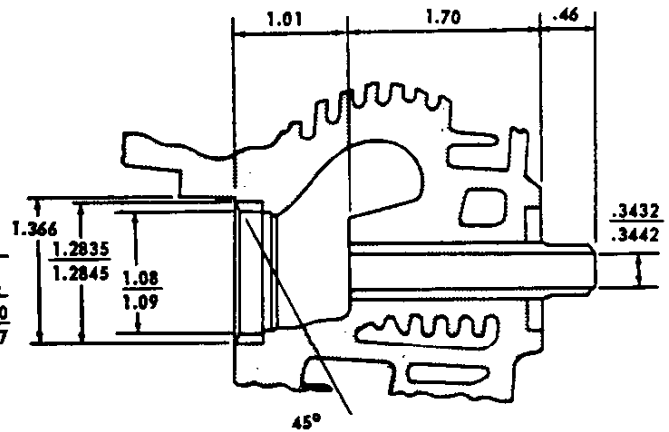
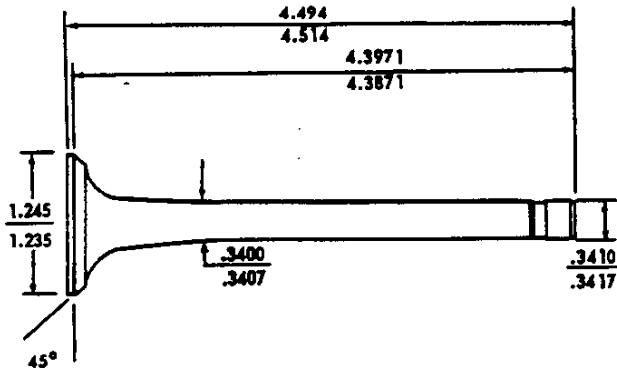
VALVE TIMING

Camshaft	Production	Special ●
Inlet opens - °BTC	43	54
Closes - °ABC	93	118
Exhaust opens - °BBC	87	90
Closes - °ATC	69	82
Inlet tappet lift	.20926	.25186
Exhaust	.22935	.25186
Ramp opening	.0056, 14°	.0036, 9°
Closing	.0070, 28°	.0070, 28°
Inlet valve lift	.314	.380
Exhaust	.344	.380

INLET



EXHAUST



140 CUBIC INCH SIX CYLINDER ENGINE-Cont'd.

PRINCIPAL COMPONENTS - Continued

PISTONS

Type	Slipper skirt, autothermic
Material	Cast alloy aluminum
Weight (Oz)	14.61
Top Land Clearance .....	.020-.026
Skirt Clearance .....	.0011-.0015
Compression Ring Groove Depth .....	.189-.195
Oil Control Ring Groove Depth .....	.191-.198

PISTON PINS

Type	Pressed in rod
Material	Alloy steel
Length	2.630-2.650
Diameter .....	.7999-.8002
Clearance .....	.00015-.00025
Direction of Offset	Major thrust side

COMPRESSION RINGS

Type	Inside bevel or counterbore
Material	Cast alloy iron
Coating	Wear resistant
Width .....	.0770-.0780
Wall Thickness .....	.159-.169
Gap .....	.010-.020

OIL CONTROL RINGS

Type	Single-piece
Material	Cast alloy iron
Coating	None
Width .....	.1860-.1865
Wall Thickness (rails) .....	.141-.147
Gap (rails) .....	.010-.020

CONNECTING RODS

Material	Drop forged steel
Length (center to center)	4.719-4.721
Weight (Oz)	13.73
Bearings	
Type	Precision, removable
Material	Extra-life steel backed babbitt
End play .....	.005-.010
Clearance .....	.0007-.0027
Effective length .....	.649
Theoretical ID	1.8012
Projected area	1.169

COOLING SYSTEM

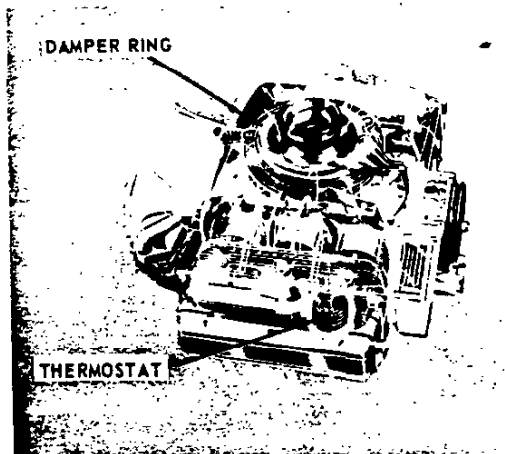
GENERAL

Type

Air cooled by blower. Engine enclosed by sheet metal shrouding to direct cooling air over fins on outside of engine cylinders and cylinder head castings. Rate of cooling regulated by bellows type thermostat in lower part of plenum, which operates an engine cooling air valve. Ring shaped valve closes the blower air intake until engine has attained a correct operating temperature.

ENGINE BLOWER

Type	Centrifugal
Location	Mounted horizontally on top center of engine between air cleaner and crankcase.
Material	Steel
Diameter	11.00
Number of Vanes	24
Bearing	Sealed, permanently lubricated ball bearing
Number of Vanes	24
Drive	By "V" belt from crankshaft over idler and generator pulleys
Air Flow	1800 CFM @ 4000 engine RPM
Blower Pulley PD	4.1875
Ratio (blower to engine speed)	1.58:1
Idler Pulley PD	3.32
Belt	"V"
Pitch length	55.7
Width .....	.380±.005
Angle of "V"	40°



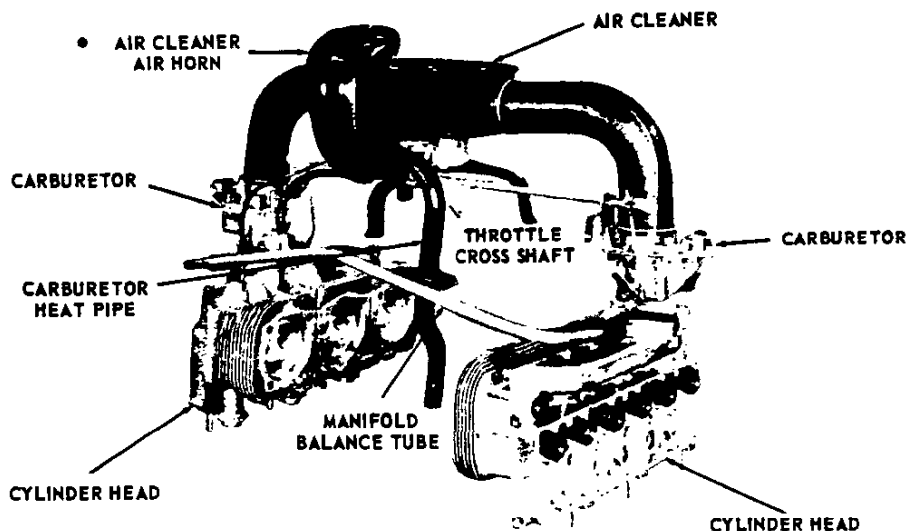
ENGINE COOLING AIR THERMOSTAT

Type	Bellows (seamless)
Make	Harrison
Bellows Start to Open at	177-183°F

ENGINE COOLING AIR VALVE

Material	Steel
Inner Diameter	7.48
Height	2.48

FUEL AND EXHAUST SYSTEM



FUEL TANK

Location ----- Under front compartment floor
 Capacity (Gallons) ----- 11
 Filler Location ----- Left front fender crown
 Fuel Filter Type ----- Strainer

FUEL GAUGE (Tank Unit)

Make ----- AC
 Type ----- Electric

FUEL PUMP

Make ----- AC
 Type ----- Mechanical
 Location ----- Mounted on engine rear housing
 Pressure Range (PSI) ----- 5.25-6.50
 Drive ----- By eccentric on rear end
 of crankshaft

AIR CLEANER

Type ----- Oil wetted
 Element Material ----- Polyurethane

CHOKE

Type ----- Automatic
 Location ----- On right side of air
 cleaner air horn

AIR CLEANER TO CARBURETOR HOSE

Type ----- Molded elbow ●
 Number ----- Two
 Inner Diameter ----- 2.25

CARBURETOR

Number ----- Two (one for each cylinder bank)
 Make ----- Rochester
 Model, syn trans ----- 7015311 "H"
 Powerglide ----- 7015310 "H" ●
 Special camshaft ----- 7015319 "H" ●
 Type ----- Single barrel, downdraft
 SAE Flange Size ----- 0.75
 Venturi Type ----- Radial tube cluster
 Diameter ----- 1.00
 Throttle Bore ----- 1.2495-1.2505
 Stud Centers ----- 2.75
 Fuel Filter Location ----- Fuel inlet
 Material ----- Sintered bronze

INTAKE MANIFOLD

Type ----- Cast integral with cylinder heads

EXHAUST MANIFOLD

Material ----- Cast iron
 Type ----- Straight - fitted to three
 steel sleeves pressed into cylinder head exhaust
 ports. Forward end opens to Y-shaped single ex-
 haust pipe.

EXHAUST SYSTEM

Type ----- Single, diffusion and resonance
 Muffler ----- Reverse flow
 Exhaust Pipe OD ----- 1.875
 Tail Pipe OD ----- 1.50
 Special camshaft ----- 2.00 ●

140 CUBIC INCH SIX CYLINDER ENGINE—Cont'd.

LUBRICATION SYSTEM

GENERAL

Type ----- Controlled, full pressure
Main Bearings ----- Pressure
Connecting Rods ----- Pressure
Piston Pins ----- Splash
Cylinder Walls ----- Cross sprayed
Camshaft Bearings ----- Pressure
Hydraulic Lifters ----- Pressure
Timing Gears ----- Sprayed
Crankcase Capacity (Qt)
 Dry ----- 5.5
 Refill ----- 4.0
Filler Location ----- On engine rear cover
Pressure Gauge Type ----- Electric
Crankcase Vent ----- By road draft tube

OIL PUMP

Type ----- Gear
Location ----- In engine rear housing
Driven By ----- Distributor
Intake Type ----- Fixed
Normal Oil Pressure (PSI @ RPM) ----- 35 @ 2000
Capacity (GPM @ RPM) ----- 9 @ 4000

OIL COOLER

Make ----- Harrison
Material ----- Aluminum
Location ----- On left bank of
 cylinder to rear
By-Pass Valve Function--- Allows cold oil to by-pass
 cooler
Begins to open @ ----- 10 PSI

OIL FILTER

Type ----- Full flow
Capacity (Pt) ----- 1.0
By-Pass Valve ----- Allows oil to by-pass
 oil filter when oil pressure drop reaches 10 PSI

• LUBRICANT GRADES & TEMPERATURES

32°F & above ----- SAE-30*
10°F to 32°F ----- SAE-10W
Below 10°F ----- SAE 5W-20
* Always use SAE 30 if daytime temperature is
 above 60°F

ELECTRICAL SYSTEM

STARTING

Ignition Switch ----- 4 positions; Off, Unlocked Off,
 On, and Start

Starting Procedure

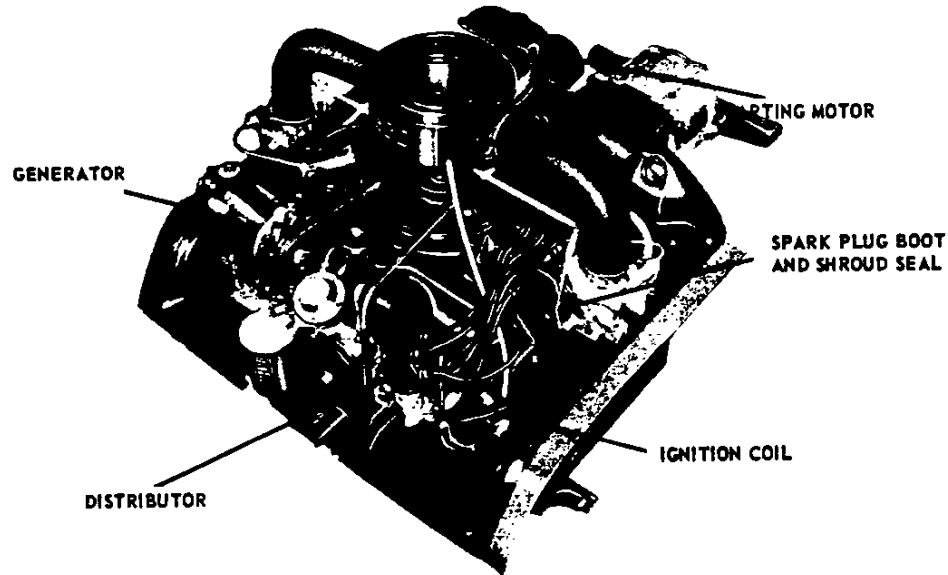
Regular transmission --- Transmission in Neutral,
 depress clutch, and turn ignition key to extreme
 right

Automatic transmission ----- Transmission in
 Neutral, turn ignition key to extreme right

STARTING MOTOR

Make ----- Delco-Remy
Model
 Manual trans ----- 1108300
 Automatic trans ----- 1108301
Rotation (drive end view) ----- Clockwise
Test Conditions ----- Engine at operating temperature
No Load Test
 Amperes ----- 69
 Volts ----- 10.6
 RPM ----- 7675
Drive
 Engagement type ----- Solenoid
 Number of teeth ----- 9
 Gear ratio, clutch starter ring gear to starter -----
 ----- 16.3:1
 Clutch starter ring gear tooth face width
 Conventional transmission ----- .363-.387
 Automatic transmission ----- .236-.260

ELECTRICAL SYSTEM - Contd.



GENERATOR
 Make ----- Delco-Remy
 Model ----- 1100357
 Type ----- Two brush, shunt wound
 Drive ----- Blower belt
 Pulley Size ----- 2.88 PD
 Generator RPM/MPH ----- 116
 Maximum Generator Output RPM (hot) ----- 3100
 Engine RPM @ Max Gen Output ----- 1580
 Ratio (generator to engine speed) ----- 2.30:1
 Rating
 Amperes ----- 30
 Volts ----- 14.5

• **GENERATOR, OPTIONAL (RPO 650)**
 Model ----- 1105135
 Amperes ----- 35
 Voltage Regulator ----- 1119635

BATTERY
 Make ----- Delco
 Model ----- 1980456
 Voltage Rating ----- 12
 Capacity ----- 35 amp hr@20 hr rate
 Plates per Cell ----- 7
 Terminal Grounded ----- Negative
 Location ----- In engine compartment
 on right hand side

OPTIONAL BATTERY EQUIPMENT (RPO 655)
 Model ----- 1980556
 Capacity ----- 40 amp hr @ 20 hr rate
 Plates per Cell ----- 9

VOLTAGE AND CURRENT REGULATOR
 Make ----- Delco-Remy
 Model ----- 1119261
 Type ----- Vibrator
 Cut-out Relay
 Closing voltage @ Gen RPM ----- 11.8-13.5@1300
 Regulated Voltage ----- 14.5
 Regulated Current Amperes ----- 30

• Revised February 1960 October 1959

140 CUBIC INCH SIX CYLINDER ENGINE-Cont'd.

ELECTRICAL SYSTEM - Contd.

DISTRIBUTOR (Synchromesh Transmission) •

Make	----- Delco-Remy
Model	----- 1110258 •
Housing Material	----- Aluminum
Location	----- Rear engine housing
Driven Off	----- Crankshaft
Breaker Gap	----- .019
Cam Angle	----- 33±1°
Breaker Arm Tension	----- 19-23 oz
Centrifugal Spark Adv Begins (RPM)	----- 400
Max degrees @ RPM	----- 32 @ 3600
Vacuum Advance Begins ("Hg)	----- 6.0
Max degrees @ "Hg	----- 23 @ 15.2

• DISTRIBUTOR (Powerglide)

Model	----- 1110259
Centrifugal Spark Adv Begins (RPM)	----- 1700
Max degrees @ RPM	----- 20 @ 3600
Vacuum Advance Begins ("Hg)	----- 7.0
Max degrees @ "Hg	----- 23 @ 16.2

• DISTRIBUTOR (Special Camshaft)

Model	----- 1110260
Centrifugal Spark Adv Begins (RPM)	----- 700
Max degrees @ RPM	----- 24 @ 4800
Vacuum Adv Begins ("Hg)	----- 6.0
Max degrees @ "Hg	----- 23 @ 15.2

(See Turbo-Air Engine (Synchromesh) -- for Vacuum Advance curve)

SPARK PLUGS

Make	----- AC
Model	----- 44-FF
Thread Size	----- 14 MM
Gap	----- .035
Torque (Lb-Ft)	----- 25

COIL

Make	----- Delco-Remy
Model	----- 1115135
Amperes Drawn:	
Engine stopped	----- 4.0
Engine idling	----- 1.8

IGNITION TIMING (Turbo-Air Engine)

Synchromesh Transmission	
C/S degrees (initial setting)	----- 4° BTC
Mark location	----- Crankshaft pulley
Firing order	----- 1-4-5-2-3-6

• Powerglide Transmission

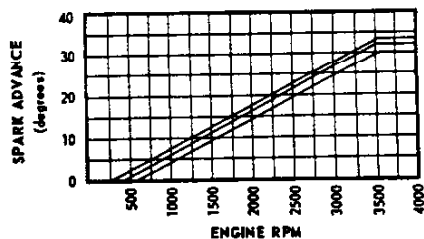
C/S degrees (initial setting)	----- 14° BTC
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• IGNITION TIMING (Turbo-Air Special Engine)

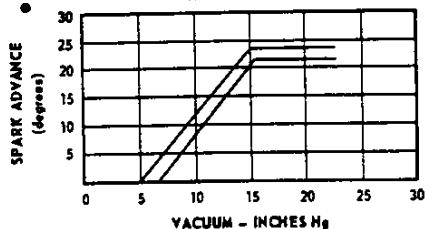
C/S Degrees (initial setting)	----- 16° BTC
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TURBO-AIR ENGINE

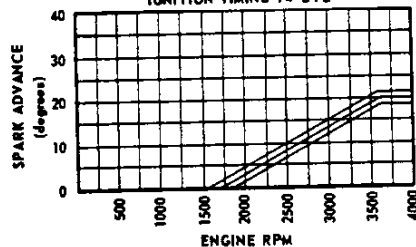
(Synchromesh)
CENTRIFUGAL ADVANCE
IGNITION TIMING 4°BTC



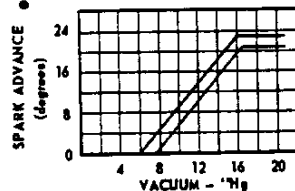
VACUUM ADVANCE



(Powerglide)
CENTRIFUGAL ADVANCE
IGNITION TIMING 14°BTC

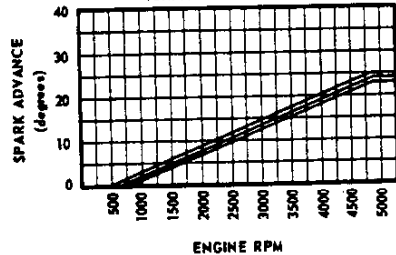


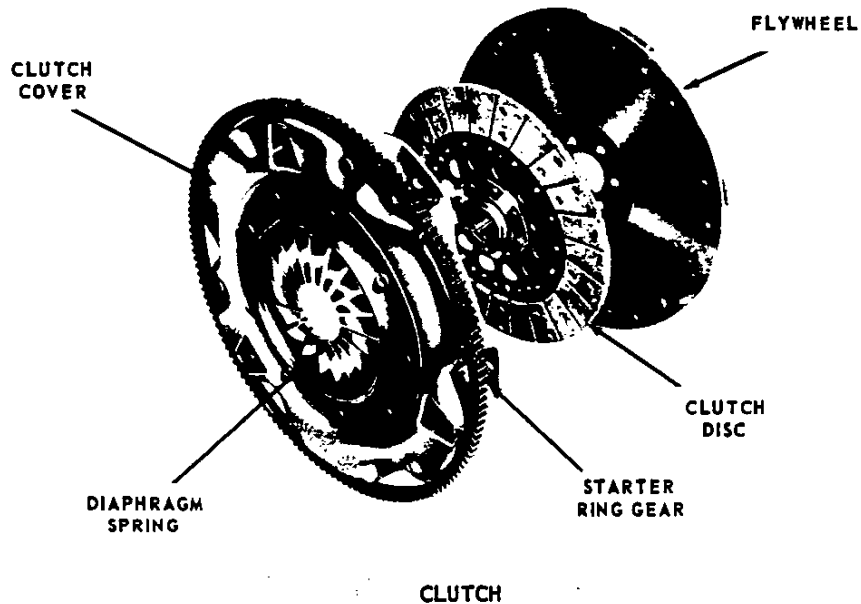
VACUUM ADVANCE



TURBO-AIR SPECIAL ENGINE

(Synchromesh only)
CENTRIFUGAL ADVANCE
IGNITION TIMING 16°BTC





GENERAL

Type ----- Single plate, dry disc
 Rated Torque Capacity (Lb-Ft) ----- 143

CLUTCH SPRING

Material ----- Spring steel, heat treated
 Spring Pressure ----- Through diaphragm spring
 Total Pressure (Lb) ----- 900-1050
 Release ----- Diaphragm action,
 spring pivots on pivot ring

DRIVEN DISC

Type ----- Cushion plate with two facings
 Facings (two)
 Material ----- Molded or woven type asbestos (Opt) ●
 Outside diameter ----- 9.12
 Inside diameter ----- 6.12
 Area (both facings) ----- 71.82 Sq In
 Thickness ----- .133-.138

BEARINGS

Clutch Release
 Make and Number ----- Chevrolet, 907052
 Lubrication ----- Packed for life
 Pilot
 Make and number ----- Chevrolet, 6256648
 Type ----- Sintered powdered bronze,
 oil impregnated.
 Outside diameter ----- .8835-.8845
 Inside diameter ----- .5915-.5925
 Width ----- .740-.760
 Lubrication ----- Self

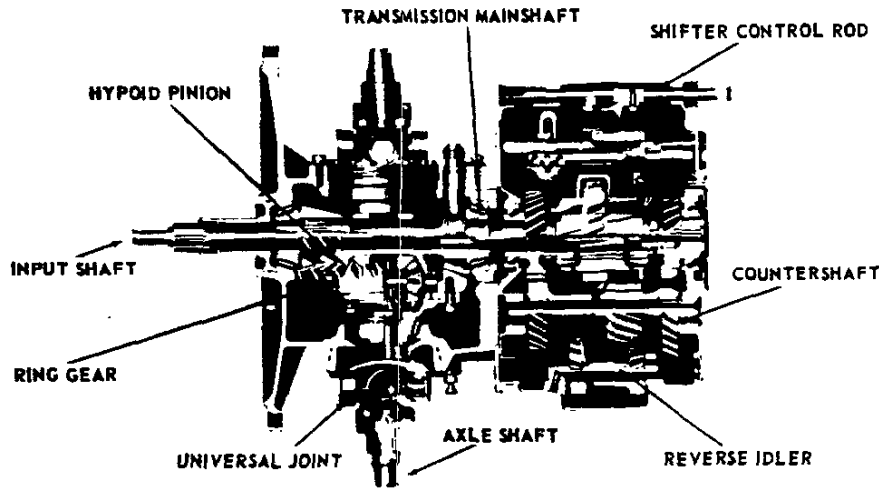
CONTROLS

Clutch Fork Type ----- Forged pivot mounted on ball
 Pedal Mounting ----- Pendant from brace on dash

FLYWHEEL

Type ----- 3-piece flexible construction
 Material ----- Cast iron
 Weight (Lb) ----- 18.7
 Clutch Attachment to Flywheel ----- 6 bolts

TRANSAXLE



GENERAL DATA

Make ----- Chevrolet
 Type ----- 3-speed synchromesh, manual shift
 Location ----- In rear compartment-integral
 with engine and differential
 Transmission Case Material ----- Cast aluminum alloy

GEARSHIFT

Control ----- Remote
 Type ----- Lever
 Location ----- Floor mounted

GEARS

Type ----- Helical
 Material ----- Forged steel, hardened

Synchronization ----- 2nd and 3rd
 Constant Mesh Gears ----- 2nd and 3rd
 Sliding Gears ----- 1st and reverse
 Ratios
 First ----- 3.22:1
 Second ----- 1.84:1
 Third ----- 1.00:1
 Reverse ----- 3.65:1

LUBRICANT

Type Recommended ----- Multipurpose gear
 lubricant SAE 80
 Capacity (Pt) ----- 1.9

REAR DRIVE

GENERAL

Type ----- Differential integral with
 engine and transmission, driving rear wheels in-
 dependently through U-joints.

AXLE SHAFT

Type ----- Forged and hardened steel
 with wheel drive flange forged integral with shaft.
 Diameter ----- 1.10
 Hub Attachment ----- Bolted to integrally
 forged wheel drive flange.
 Drive Flange Diameter ----- 5.88

DIFFERENTIAL

Type ----- 2 pinion
 Pinion Teeth, No of ----- 10
 Ring gear teeth ----- 16
 Pinion Shaft Length ----- 3.890-3.900
 Diameter ----- .6710-.6720

DRIVE DATA

Rear Axle Ratio	3.55:1	3.89:1
Hypoid Gear Teeth		
Ring gear	32	35
Pinion gear	9	9

LUBRICANT

Capacity (Pt) ----- 3.1
 Type ----- Multi-purpose gear lubricant
 (SAE 80)

SPEEDOMETER GEARS

Tooth Pitch ----- 30
 Teeth, Drive ----- 8
 Driven - 3.55:1 axle ----- 23 ●
 - 3.89:1 axle ----- 25 ●

TRANSAXLE WITH OPTIONAL AUTOMATIC TRANSMISSION

GENERAL DATA

Make and Type ----- Chevrolet, hydraulic torque converter with automatic planetary gear system for reverse and low.
 Transmission Case Material --- Cast aluminum alloy
 Converter Maximum Torque Ratio (at stall)---- 2.6:1
 Total Transmission Torque Multiplication (converter planetary gear ratio)
 Maximum overall transmission ratio ---- 4.73:1
 Low gear drive or low range -- 4.73:1 to 1.82:1
 Reverse range ----- 4.73:1 to 1.82:1
 Oil Type ----- "A", suffix "A"
 Oil Filler Location ----- Right side of engine
 Oil Capacity (Pt)
 Dry ----- Approx 13
 Refill ----- Approx 6
 Oil Cooled By ----- Air
 Selector Lever Location ----- At right of steering column on instrument panel.
 Operation ----- Actuates manual valve in hydraulic control system.
 Positions (indicated on quadrant on instrument panel) ----- Four (top to bottom) - L-Low, D-Drive, N-Neutral, R-Reverse.

Drive Range - Representative Shift Points

Accelerator Pedal Position	Upshift	Downshift
Closed throttle	10.0-12.5	8-12
Throttle at detent	34-41	23-30
Full throttle	41-47	38-44

HYDRAULIC CONTROLS

Manual Valve
 Type ----- Spool
 Pressure Regulator Valve
 Type ----- Spool
 Governor
 Type ----- Centrifugal
 Drive ----- From transmission output shaft

HYDRAULIC TORQUE CONVERTER

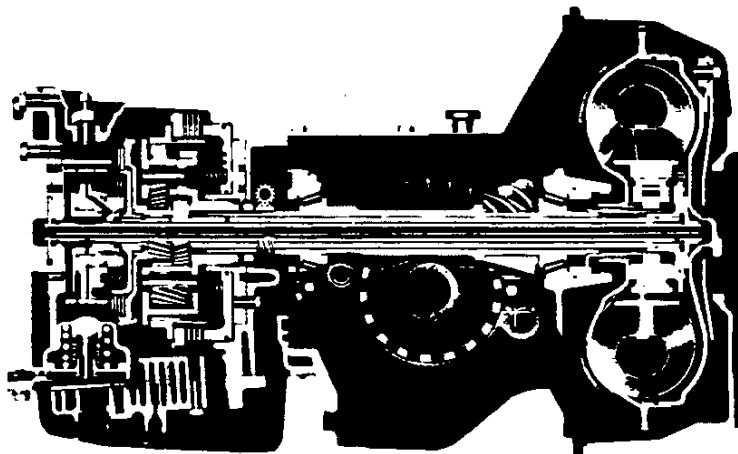
Type ----- Three element
 Driving Member (pump) ----- Sheet metal, multi-vane type, spot welded to torque converter housing. Housing cover is bolted to flywheel.
 Driven Member (turbine) ----- Sheet metal, multi-vane type, supported by torque converter housing cover. Turns independently of housing
 Splined to input shaft.
 Reaction Member (stator) ----- Aluminum air foil type supported on stationary sleeve by an over-running clutch of cam and roller design.
 Diameter ----- 10" •

CLUTCHES

Type ----- Multiple disc
 High
 Discs, Driving
 Number and type ----- Two, non-metallic faced
 Discs, Driven
 Number and type ----- Three, steel
 Reverse
 Discs, Driving
 Number and type ----- Four, non-metallic faced
 Discs, Driven
 Number and type ----- Four, steel plates and one cast iron pressure plate.

PLANETARY GEAR UNIT

Type ----- Compound planetary
 Gear Ratios
 Cruising range ----- 1:1 (direct drive)
 Low range ----- 1.82:1
 Reverse ----- 1.82:1
 Low brake band ----- Double-wrap design
 Low band servo, Type --- Piston, one release spring





1960 CHEVROLET CORVAIR INDEX

October, 1959

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