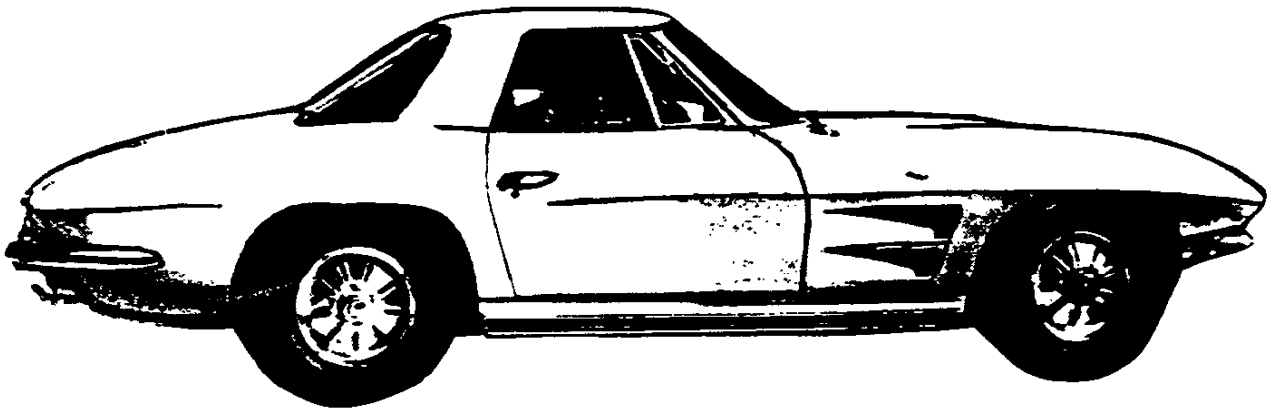
CHEVROLET

1964

CORVETTE

SPECIFICATIONS



GENUINE CHEVROLET™

1964 CORVETTE

Production: 8,304 coupe, 13,925 convertible, 22,229 total.

1964 NUMBERS

Vehicle: 40837S100001 through 40837S122229
- For convertibles, fourth digit is a 6.

Suffix:

RC: 327ci, 250hp, mt	RT: 327ci, 365hp, mt, ig
RD: 327ci, 300hp, mt	RU: 327ci, 365hp, mt, ac, ig
RE: 327ci, 365hp, mt	RX: 327ci, 375hp, mt, ig
RF: 327ci, 375hp, mt	SC: 327ci, 250hp, at
RP: 327ci, 250hp, mt, ac	SD: 327ci, 300hp, at
RQ: 327ci, 300hp, mt, ac	SK: 327ci, 250hp, at, ac
RR: 327ci, 365hp, mt, ac	SL: 327ci, 300hp, at, ac

Block: 3782870: All

Head: 3782461: 327ci, 300hp, 365hp, 375hp
3795896: 327ci, 250hp

Carburetor: Carter 3696S #3846246: 327ci, 250hp, at
Carter 3697S #3846247: 327ci, 250hp, mt
Carter 3720S/SA/SB #3851762: 327ci, 300hp, at
Carter 3721S/SA/SB #3851761: 327ci, 300hp, mt
Holley R2818A #3849804: 327ci, 365hp

Fuel Injection: Rochester 7017375, ep
Rochester 7017380, lp
Rochester 7017375R, lu

Distributor:

1111024: 327ci, 250hp,300hp	1111064: 327ci, 375hp, ig
1111060: 327ci, 365hp, ig	1111069: 327ci, 365hp, lp
1111062: 327ci, 365hp, ep	1111070: 327ci, 375hp, lp
1111063: 327ci, 375hp, ep	

Alternator: 1100628: 327ci, ep, lu
1100665: 327ci, 250hp, 300hp, 365hp, ac
1100668: 327ci
1100669: 327ci, 365hp, 375hp, ig
1100684: 327ci, 365hp, ac, ig

Ending Vehicle:

Sep 63: 101741	Jan 64: 110297	May 64: 118805
Oct 63: 104045	Feb 64: 112322	Jun 64: 120920
Nov 63: 106063	Mar 64: 114570	Jul 64: 122229
Dec 63: 108091	Apr 64: 116865	

Abbreviations: ac=air conditioning, at=automatic transmission, ci=cubic inch, ep=early production, hp=horsepower, ig=transistor ignition, lp=late production, lu=limited use, mt=manual transmission.

1964 FACTS

- Visible styling clues for 1964 included removal of the window split (coupes) and removal of the hood trim panels. Hood recesses remained.
- A three-speed fan was added to the rear of coupes to help ventilation. The fan pulled air through vents added to the driver side roof panel. The control switch was mounted under the driver's side of the instrument panel.
- Seats in 1964s looked similar to 1963, but 1964 backs were thicker and more square at the top; also, 1964 seats didn't have tilting mechanisms.
- Delivery of the knock-off wheel option during 1964 was certain. Only three-bar spinners were offered and the finish between fins was natural.
- Center recess areas of 1964 instruments were finished in black.
- Steering wheels in all 1964 Corvettes were walnut-grained plastic.
- The exterior door surface of 1964 models had a raised "pad" for the door handle to mount (except for late 1964s).
- Starting in 1964 (through 1967), some Corvette bodies were supplied by Dow-Smith, Ionia, Michigan, a division of A. O. Smith Company.

1964 OPTIONS

RPO #	DESCRIPTION	QTY	RETAIL $
837	Base Corvette Sport Coupe	8,304	$4,252.00
867	Base Corvette Convertible	13,925	4,037.00
—	Genuine Leather Seats	1,334	80.70
A01	Soft Ray Tinted Glass, all windows	6,031	16.15
A02	Soft Ray Tinted Glass, windshield	6,387	10.80
A31	Power Windows	3,706	59.20
C07	Auxiliary Hardtop (for convertible)	7,023	236.75
C48	Heater and Defroster Deletion (credit)	60	-100.00
C60	Air Conditioning	1,988	421.80
F40	Special Front and Rear Suspension	82	37.70
G81	Positraction Rear Axle, all ratios	18,279	43.05
G91	Special Highway Axle, 3.08:1 ratio	2,310	2.20
J50	Power Brakes	2,270	43.05
J56	Special Sintered Metallic Brake Package	29	629.50
J65	Sintered Metallic Brakes, power	4,780	53.80
K66	Transistor Ignition System	552	75.35
L75	327ci, 300hp Engine	10,471	53.80
L76	327ci, 365hp Engine	7,171	107.60
L84	327ci, 375hp Engine (fuel injection)	1,325	538.00
M20	4-Speed Manual Transmission	19,034	188.30
M35	Powerglide Automatic Transmission	2,480	199.10
N03	36 Gallon Fuel Tank (for coupe)	38	202.30
N11	Off Road Exhaust System	1,953	37.70
N40	Power Steering	3,126	75.35
P48	Cast Aluminum Knock-Off Wheels (5)	806	322.80
P91	Blackwall Tires, 6.70x15 (nylon cord)	372	15.70
P92	Whitewall Tires, 6.70x15 (rayon cord)	19,977	31.85
T86	Back-up Lamps	11,085	10.80
U69	AM-FM Radio	20,934	176.50

- A 327ci, 250hp engine, 3-speed manual transmission, vinyl interior trim, and a soft top (convertible) were included in the base price.
- The 7,023 C07 quantity included 1,220 in lieu of soft tops at no extra cost.
- The 1,998 C60 quantity was split 1,069 coupe, 919 convertible.
- The 19,034 M20 quantity was split 10,538 with wide ratio 250hp and 300hp engines; 8,496 with close ratio 365hp and 375hp engines
- The 2,480 M35 quantity was split 904 with 250hp, 1,576 with 300hp .

1964 COLORS

CODE	EXTERIOR	QTY	SOFT TOP	WHEELS	INTERIORS
900	Tuxedo Black	1,897	Bk-W-Bg	Black	Bk-R-Si-W
912	Silver Blue	3,121	Bk-W-Bg	Black	Bk-B-W
916	Daytona Blue	3,454	Bk-W-Bg	Black	B-Si-W
923	Riverside Red	5,274	Bk-W-Bg	Black	Bk-R-W
932	Saddle Tan	1,765	Bk-W-Bg	Black	S-W
936	Ermine White	3,909	Bk-W-Bg	Black	Bk-B-R-S-Si-W
940	Satin Silver	2,785	Bk-W-Bg	Black	Bk-B-R-Si-W

- Suggested interiors shown. Other combinations were possible.
- In 1964, 24 Corvettes had non-standard paint, or primer.

Interior Codes: Std=Bk/V, 898A=Bk/L, 490AA/AB/G/H=R/V, 898FA/EA/L/M=R/L, 490BA/BB/J/K=B/V, 898JA/KA/N/P=B/L, 490CA/CB/L/M=S/V, 898CA/DA/G/H=S/L, 491AA/AE=Si+Bk/V, 899AA/AE=Si+Bk/L, 491BA/BE/M/N=Si+B/V, 899BA/BE/M/N=Si+B/L, 491CA/CB/CE=W+Bk/V, 899CA/CB/CE=W+Bk/L, 491GA/GE/R/S=W+B/V, 899GA/GE/R/S=W+B/L, 491DA/DE/P/Q=W+R/V, 899DA/DE/P/Q=W+R/L, 491HA/HE/T/U=W+S/V, 899HA/HE/T/U=W+S/L

- With the exception of "std" for black vinyl, 1964 interior codes consisted of three numbers followed by a one or two alpha-character suffix. In some cases, the suffix differentiated coupe from convertible and/or A. O. Smith body build from St. Louis in-house body build.

Abbreviations: B=Blue, Bg=Beige, Bk=Black, L=Leather, R=Red, S=Saddle, Si=Silver, V=Vinyl, W=White.

The Corvette Black Book

1953-1993

October 1992

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CONTENTS

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CORVETTE

1964 MODEL CORVETTE WITH STANDARD EQUIPMENT
(250-hp Corvette V8 Engine—98" Wheelbase)

Model Description	Price at which Dealer is Invoiced (List Price less 23%)♣	Factory D & H	List Price	Mfr's Sgt'd Dealer D & H	Mfr's Sgt'd Retail Price★	Destination Charge	Total
837 Corvette Sport Coupe 2-door—2-passenger	$3012.24	$300.00	$3912.00	$40.00	$4252.00	.....	.....
867 Corvette Convertible—2-passenger With manually operated soft top	2858.24	285.00	3712.00	40.00	4037.00	.....	.....

♣ Base discount is 25% with the 2% difference retained for dealer's account in accordance with Dealer Price List.
★ Manufacturer's Suggested Retail Price does not include state and local taxes, license fees, options or accessories.

FACTORY INSTALLED REGULAR PRODUCTION TUBELESS TIRES

Description	Option Number	Dealer Net	Factory D & H	List Price	Mfr's Suggested Retail Delivered Price◈
(5) 6.70–15/4-ply Regular Highway Blackwall	Std	N.C.	N.C.	N.C.	N.C.
(5) 6.70–15/4-ply Regular Highway Whitewall	P92	$22.80	$1.85	$30.00	$31.85
(5) 6.70–15/4-ply Nylon Highway Blackwall	P91	11.40	.70	15.00	15.70

◈ State and local taxes not included.

OPTIONS AND ACCESSORIES WHEN INSTALLED BY CHEVROLET

Description	Option Number	Dealer Net	Factory D & H	List Price	Mfr's Suggested Retail Delivered Price◈
Air Conditioning, Four Season: With 250-hp, 300-hp or 365-hp engine only	C60	$297.92	$29.80	$392.00	$421.80
Axle, Rear: 3.08 ratio (4-spd trans with 250-hp or 300-hp engine)	G91	1.52	.20	2.00	2.20
Axle, Positraction Rear: See Power Teams chart for availability					
3.08 ratio	★ G81	30.40	3.05	40.00	43.05
3.36 ratio	G81	30.40	3.05	40.00	43.05
3.55 ratio	G81	30.40	3.05	40.00	43.05
3.70 ratio	G81	30.40	3.05	40.00	43.05
4.11 ratio	G81	30.40	3.05	40.00	43.05
4.56 ratio	G81	30.40	3.05	40.00	43.05
Brakes, Special: Metallic facings, also includes vacuum power brakes. Not available when special performance package is ordered	J6S	38.00	3.80	50.00	53.80
Brakes: Vacuum power. Not available when special performance package or special metallic brakes are ordered	J50	30.40	3.05	40.00	43.05
Engine: 327-cu-in displacement					
300-hp Corvette V8—large 4-barrel carburetor (Regular camshaft)	L75	38.00	3.80	50.00	53.80
365-hp Corvette V8—large 4-barrel carburetor (High-lift camshaft)	★ L76	76.00	7.60	100.00	107.60
375-hp Corvette V8—Fuel Injection (High-lift camshaft)	L84	380.00	38.00	500.00	538.00
Exhaust: Off-road service. (With 300-hp, 365-hp or 375-hp engine). Not available with Powerglide transmission	N11	26.60	2.70	35.00	37.70
Glass, Soft Ray Tinted: Windshield only	A02	7.60	.80	10.00	10.80
All windows	A01	11.40	1.15	15.00	16.15
Heater and Defroster Deletion: Not available with air conditioning	C48	69.75 CR.	7.00 CR.	93.00 CR.	100.00 CR.
‡Ignition System: (Full-transistor) 365-hp or 375-hp engine required; for detailed description see 1964 Finger-Tip Facts book	K66	53.20	5.35	70.00	75.35
Lamps, Back-Up	T86	7.60	.80	10.00	10.80
Paint, Exterior: Solid colors only. See Color and Trim chart	...	N.C.	N.C.	N.C.	N.C.
Radio, AM-FM: *Fully Transistorized:*					
Pushbutton control	U69	124.64	12.50	164.00	176.50
Steering: Power. With 250-hp engine or 300-hp engine only	N40	60.80	6.10	80.00	86.10
Tank, Fuel: Model 837 only (Capacity 36.5 gal) Also includes wheelhouse filler panel	N03	142.88	14.30	188.00	202.30
Top, Auxiliary: Hard top; Model 867 only					
In place of folding top	C07	N.C.	N.C.	N.C.	N.C.
In addition to folding top	C07	167.20	16.75	220.00	236.75
Top, Folding: Model 867 only. White or beige (Standard color is black)	C05	N.C.	N.C.	N.C.	N.C.
Transmission: See Power Teams chart for availability					
4-Speed Synchro-Mesh	★ M20	133.00	13.30	175.00	188.30
Powerglide (With 250-hp or 300-hp engine only)	M35	140.60	14.10	185.00	199.10
Trim Combinations: See Color and Trim chart					
Genuine leather seats	898/899	57.00	5.70	75.00	80.70
All other trims	490/491	N.C.	N.C.	N.C.	N.C.
Wheels: Five cast aluminum 15 x 6L quick knock-off type	P48	228.00	22.80	300.00	322.80
Windows, Power: Electric control	A31	41.80	4.20	55.00	59.20

◈ State and local taxes not included.

SPECIAL BRAKE SYSTEM	J56	444.60	44.50	585.00	629.50
SPECIAL FRT. & REAR SUSPENSION	F40	46.60	4.70	65.00	69.70

★ ORDERING J56 & F40 REQUIRE USE OF OPTIONS G81, L84 & M20!

ENGINE, TRANSMISSION & REAR AXLE COMBINATIONS

ENGINE		TRANSMISSION	REAR AXLE RATIOS			
			Standard	Optional		
Option Number	Description		*General Purpose*▲	*Special Purpose or Mountain*★	*Performance Cruise*	*High Performance*★
Standard	250 HP 327-cu-in displacement 4-barrel carburetor Hydraulic lifters 10.5:1 compression ratio	3-speed	3.36:1		3.08:1 (RPO G91)▲	
		4-speed Wide-Range				
		Powerglide				
L75	300 HP 327-cu-in displacement Large 4-barrel carburetor Hydraulic lifters 10.5:1 compression ratio	3-speed	3.36:1		3.08:1 (RPO G91)▲	
		4-speed Wide-Range				
		Powerglide				
# L76	365 HP 327-cu-in displacement Large 4-barrel carburetor Special camshaft Mechanical lifters 11.25:1 compression ratio	4-speed Close-Ratio	3.70:1	3.36:1 3.55:1	3.08:1★	4.11:1 4.56:1
# L84	375 HP 327-cu-in displacement Fuel injection Special camshaft Mechanical lifters 11.25:1 compression ratio	4-speed Close-Ratio	3.70:1	3.36:1 3.55:1	3.08:1★	4.11:1 4.56:1

★ Available as Positraction only (RPO G81)

▲ Also available as Positraction (RPO G81)

1964 CORVETTE

COLOR AND TRIM COMBINATIONS

EXTERIOR COLOR & OPTIONAL HARDTOP	OPT NO	INTERIOR TRIM: 837-867 LEATHER▲										837-867 VINYL										FOLDING TOP COLORS
OPT. NO.		898	898	898	898	899	899	899	899	899	899	STD	490	490	490	491	491	491	491	491	491	
COLUMN 25 CODE		K	M	N	J	P	R	T	S	U	W	E	D	B	C	Y	A	Q	F	H	G	
		BLACK	RED	BLUE	SADDLE	SILVER/BLACK	SILVER/BLUE	WHITE/RED	WHITE/BLACK	WHITE/BLUE	WHITE/SADDLE	BLACK	RED	BLUE	SADDLE	SILVER/BLACK	SILVER/BLUE	WHITE/RED	WHITE/BLACK	WHITE/BLUE	WHITE/SADDLE	BLACK WHITE BEIGE
TUXEDO BLACK	900	X	X			X			X			X	X			X			X			ALL TOPS AVAILABLE WITH ANY COLOR
SILVER BLUE (MED)	912	X		X						X		X		X						X		
DAYTONA BLUE (DK)	916			X			X			X				X			X			X		
RIVERSIDE RED	923	X	X				X	X				X	X				X					
SADDLE TAN	932				X						X				X						X	
ERMINE WHITE	936	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
SATIN SILVER	940	X	X	X		X	X		X			X	X	X		X	X		X			

▲LEATHER SEATS ONLY

NOTE: THE INSTRUMENT PANEL AND CARPETING ARE COLOR KEYED AS SHOWN IN CHART BELOW.

INTERIOR TRIM	COLOR OF INSTRUMENT PANEL AND CARPETING
BLACK OR WHITE/BLACK	BLACK INSTRUMENT PANEL AND BLACK CARPETING
RED OR WHITE/RED	RED INSTRUMENT PANEL AND RED CARPETING
BLUE OR WHITE/BLUE	BLUE INSTRUMENT PANEL AND BLUE CARPETING
SADDLE OR WHITE/SADDLE	SADDLE INSTRUMENT PANEL AND SADDLE CARPETING
SILVER/BLACK	BLACK INSTRUMENT PANEL AND GRAY CARPETING
SILVER/BLUE	BLUE INSTRUMENT PANEL AND GRAY CARPETING

NOTE: IT IS MOST IMPORTANT THAT DEALERS CLEARLY SPECIFY ON ORDER FORM THE COLOR AND TRIM COMBINATION DESIRED.

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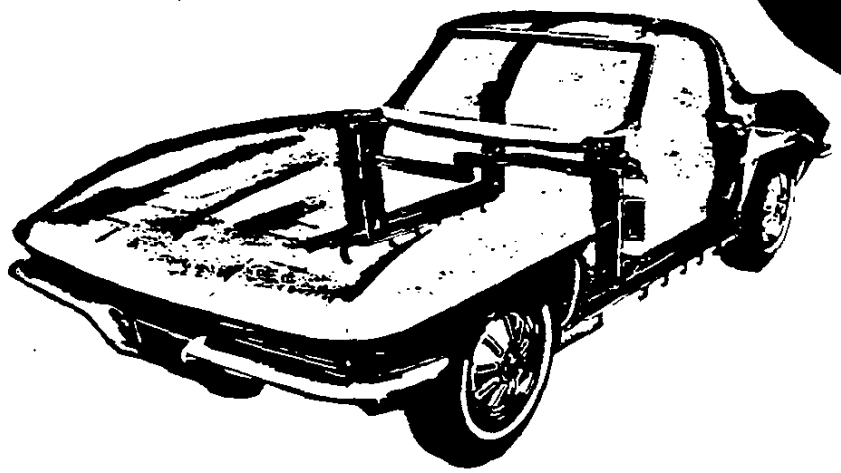
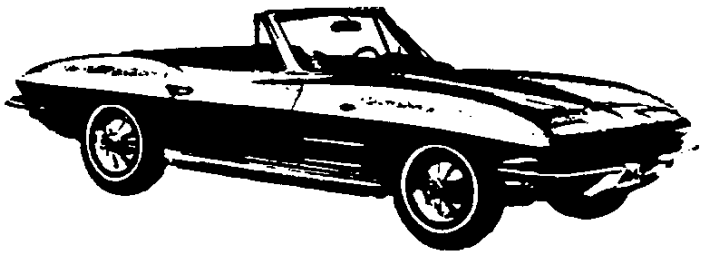
GENERAL

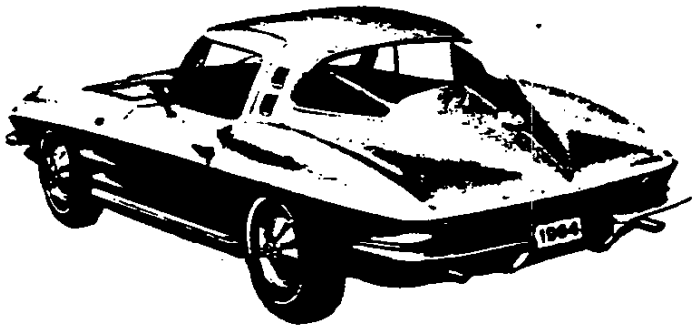


MODEL IDENTIFICATION



MODEL 867

2-PASSENGER CONVERTIBLE



MODEL 837

2-PASSENGER SPORT COUPE

● VEHICLE SERIAL NUMBER

Description ---------- The vehicle serial number describes four aspects of the automobile - the year it was built, the model, where it was built, and the number of the unit built. Every Corvette is built in St. Louis.

Description symbols

Production year symbol for 1964 ---------- 4
Model symbol ---------- 0837 or 0867
Assembly plant code (for St. Louis) ---------- S
Number of unit built ---------- In numerical sequence beginning with 100001

Example: The 2000th, 1964 Corvette produced, if it was a model 867, the serial number would be 40867S102000.

● ENGINE IDENTIFICATION

Description ---------- Engine identification describes three aspects - where the engine was built, and the type of engine. Every Corvette engine is assembled in Flint.

Description symbols

Assembly plant code (for Flint) ---------- F
Month and day code ---------- To be designated as numerals ("0" before any month or day not two numerals)

Engine type code

Regular production engine ---------- RC
RPO 2-L75 engine ---------- RD
RPO 2-L76 engine ---------- RE
RPO 2-L84 engine ---------- RF
Regular production engine with Powerglide ---- SC
RPO 2-L75 engine with Powerglide ---------- SD

Example: A RPO 2-L84 Corvette engine built December 10th would bear engine identification F1210RF; if an RPO 2-L75 engine with Powerglide built June 1st the engine identification would be F0601SD.

● REAR AXLE IDENTIFICATION

Description ---------- Rear axle identification is achieved with a two-letter code to identify the production plant followed by 4 numerals to indicate the month and day (in that sequence) axle was produced. All 1964 Corvette axles, including positraction, are produced in Warren.

Description symbols

Assembly plant code

Regular axles

3.08:1 ---------- CZ
3.36:1 ---------- CA
3.70:1 ---------- CX

Positraction axles

3.08:1 ---------- CJ
3.36:1 ---------- CB
3.55:1 ---------- CC
3.70:1 ---------- CD
4.11:1 ---------- CE
4.56:1 ---------- CF

Month and day code ---------- To be designated as numerals ("0" before any month or day not two numerals)

Example: A Corvette positraction axle with a 4.11:1 ratio, built December 10th would bear the identification CF1210; a regular 3.08:1 axle built June 1st would bear identification CZ0601.

REGULAR EQUIPMENT – INTERIOR

Bucket seats with seat belts; individual fore-aft adjustment		All
Arm rest on each door and between seats		
Door locking knob (upper reflector on sidewall trim)		
Twin reflectors on doors		
Door side window crank handle		
Door vent window crank handle		
Door opening handle with ball-shaped knob		
Compound curved door glass		
Passenger compartment carpeting		
Rear compartment carpeting		
Cowl vents with bowden cable controls		
Hood release control		
Direction signal control		
Heater controls (on instrument panel console)		
Parking brake control		
Roof blower motor with exhaust vents		837
Heater and defroster		All
Padded sun shades		
Rear view mirror		
Ash tray (on seat separator)		
Electric clock with second hand (on instrument panel console)		
Transmission shift pattern diagram (on seat separator)		
Steering wheel with competition type 3-spoke design, and horn button		
Two-speed electric windshield wiper with washer		
Vinyl covered instrument panel hoods; passenger assist in right hood		
Glove compartment with trim panel and emblem, and key lock		
Simulated vinyl instrument cluster		
Instrument Cluster	Speedometer (160 MPH) with odometer	
	Trip odometer with reset stem	
	Tachometer (7000 RPM)	
	Ammeter	
	Oil pressure gage	
	Fuel gage	
	Temperature gage	
	Ignition switch (5-position)	
	Main light switch	
	Windshield washer and wiper control switch	
	Roof blower motor switch	837
	Headlamp rotation switch	All
	Headlamp position warning indicator	
	Headlamp hi-beam indicator	
	Direction signal indicators	
	Parking brake alarm	
	Cigarette lighter	
	Clock	837
Interior Lighting	Dome	All
	Glove compartment	
	Heater controls	
	Instrument cluster controls and gages	
	Instrument panel courtesy	
	Rear compartment courtesy	
Bright Metal Surfaces	Transmission shift lever bezel, ash tray door and shift pattern diagram	All
	Transmission shift lever and knob	
	Floor tunnel cover plate moulding	
	Instrument panel console control knobs	
	Instrument cluster trim and control knobs	
	Glove box door trim plate, emblem and moulding	
	Seat adjustment handle	
	Seat backrest side trim	
	Side door hardware and panel moulding	
	Direction signal control lever and knob	
	Parking brake handle	
	Steering wheel spokes and horn button bezel	–
	Rear view mirror and support	
	Top header release latches	867
	Sill plates	All
	Windshield upper and side garnish mouldings	867

INTERIOR DIMENSIONS

	Code *	Description *	Models			
			837	867 Soft-top	867 Hardtop	
FRONT COMPARTMENT	L31	Body zero line to H point	44.9			
	H70	Body zero line to H point	8.3			
	H61	Effective head room	36.3	37.1	36.9	
	H37	Headlining to roof height	.18	— —	.18	●
	L34	Maximum effective leg room - accelerator	43.1			
	H30	H point to heel point	8.2			
	H67	Depressed floor covering thickness	.4			●
	L40	Back angle (degrees)	25			
	L42	Hip angle (degrees)	105			
	L44	Knee angle (degrees)	139			
	L46	Foot angle (degrees)	83			
	H65	D point differential, side to center	—			
	H54	D point to tunnel	1.56			●
	L53	D point to accelerator floor point	35.7			●
	L17	H point travel	4.0			
	H58	H point rise	.32			
	H5	H point to ground	15.8			
SEAT AND ENTRANCE - FRONT	W3	Shoulder room	48.2			
	W5	Hip room	52.4			
	W16	Seat width (each seat)	20.8			
	H50	Upper body opening to ground	46.7	41.8		
	H11	Entrance height	30.7	25.8		
	H115	Step height (design load)	14.0			
	H130	Step height (curb load)	16.2			
	L18	Entrance foot clearance	16.6			●
	H32	Seat cushion deflection	3.2			
	L14	Seat back thickness	4.0			
	W1	Hat room	44.8	42.7		●
	H3	Seat chair height	8.9			●
	H26	Interior body height, M/M @ car Centerline	36.1	36.9	35.8	●
	H27	Interior body, M/M @ C/LO	40.2	41.6	40.6	●
VISION AND CONTROL	H6	H point to W/S bottom DLO	19.5			
	H64	H point to W/S upper DLO	31.0			
	L49	H point to W/S upper DLO	15.9			
	H25	Belt height	17.3			
	W7	Steering wheel center to car Centerline	12.9			
	W9	Steering wheel maximum OD	16.0			
	H18	Steering column angle (degrees) - horizontal	16.45			
	H49	H point to top of steering wheel	22.7			
	L7	Steering wheel torso clearance	15.2			
	H13	Steering wheel thigh clearance	4.5			
	L13	Brake pedal knee clearance	24.6			
	L52	Brake pedal to accelerator	1.4			
	W122	Tumble-home (degrees)	14.25			

*--Code and description conform generally to AMA Specifications. ●

REGULAR EQUIPMENT - EXTERIOR

Exterior Lighting	Headlamps, dual, retractable		All
	Parking and direction signal lamps (amber lenses)		
	Rear license lamp		
	Tail, stop and direction signal lamps, dual		
Emblems	Crossed Flags	Body front panel	
		Front fender side	
		Wheel disc ornaments	
		Gas filler door	
	Nameplate	Rear deck	
Integral front and rear bumper guards			
Manual folding top			867
Spare tire well cover lock			All
Bright Metal Surfaces	Body sill mouldings		
	Bumpers, front and rear		
	License plate frame front support		
	License plate frames		
	License plate bezel, rear		
	Grille		
	Parking and direction signal lamp bezels		
	Door handles and key locks		
	Vent window frames		867
	Windshield reveal mouldings		All
	Rear window reveal		837
	Tail, stop and direction signal lamp bezels		All
	Tail pipe extensions and bezels		
	Gas filler door and bezel		
	Outside rear view mirror, left hand door		
	Wheel discs and ornaments		

REGULAR PRODUCTION OPTIONS

Body	Air conditioning		C60	All models
	Backup lamps		T86	
	Auxiliary top equipment		C07	Model 867
	Folding top colors		C05	
	Less heater equipment		C48	All models
	Power windows		A31	
	Radio, AM-FM		U69	
	Tinted body glass		A01	
	Tinted windshield		A02	
Chassis	Brakes	Metallic	J65	
		Heavy-duty	J56 ●	
		Power	J50	
	Rear axles	Positraction	G81	
		3.08:1	G91	
	Tires	6.70 x 15 Nylon	P91	
		6.70 x 15 Rayon, whitewall	P92	
	Transmissions	4-Speed	M20	
		Powerglide	M35	
	Power steering		N40	
	Special front and rear suspension equipment		F40 ●	
	15 x 6L wheel (quick take off)		P48	
Engine	Engine, 300 HP		L75	
	Engine, 365 HP		L76	
	Engine, 375 HP		L84	
	Gasoline tank, 36 gallon		N03	Model 837
	Off road exhaust equipment		N11	All models
	Transistor ignition equipment		K66	

DEALER INSTALLED ACCESSORIES

Antenna, radio	All
Fire extinguisher	
Floor mat (clear vinyl)	
Gas cap, locking	
Mirror, (glare proof) rear view	
Radio, AM-FM	
Radio shielding installation unit	
Spotlamp, portable	
Tool kit	

VEHICLE WEIGHTS

VEHICLE WEIGHTS, LB

Weight of basic vehicle - 250 HP engine and 3-speed transmission

Model 867 soft top	
Shipping weight	
Front	1500
Rear	1445
Total	2945
Curb weight	
Front	1505
Rear	1605
Total	3110
Design weight	
Front	1580
Rear	1825
Total	3405
Model 837 Sport Coupe	
Shipping weight	
Front	1510
Rear	1450
Total	2960
Curb weight	
Front	1510
Rear	1615
Total	3125
Design weight	
Front	1590
Rear	1835
Total	3425
Model 867 hardtop	Add 8 lb to soft top values
Powerglide transmission	Add 23.3 lb

EXTERIOR PAINT PROCESS

1. PRIMARY SANDING . . . All body panels and bonded joints that receive acrylic lacquer are dry sanded to prepare surfaces for painting. A filler material, called putty rub, is applied to the entire body to fill minor imperfections.

2. PRIMER . . . Two coats of primer are applied -- the first red and the second gray -- and are oven baked for 60 minutes at 280 degrees F.

3. WET SANDING . . . The body is wet sanded to provide a smooth surface for the sealers. Most of the gray primer coat is removed with the red primer acting as a depth signal for the sanding operation. The body is dried to remove all moisture.

4. SEALERS . . . One coat of sealer and one coat of color acrylic lacquer are applied and baked.

5. DRY SANDING . . . The body is dry sanded to prepare surfaces for the final acrylic lacquer.

6. LACQUERING . . . Three coats of acrylic lacquer are sprayed on the body to build up the required paint thickness. The paint is "rested" for eight minutes to permit it to partially set up and to remove excess volatile paint vehicle.

7. INITIAL BAKING . . . The body is oven baked for 30 minutes at 140 degrees F to harden the paint which permits the subsequent operation. Small interior and exterior parts are painted to complete the body paint schedule.

8. FINAL BAKING . . . To assure a durable, hard, high luster finish the lacquer is oven baked for 45 minutes at 250 degrees F. Rebaking the lacquer permits the paint film to soften and allows surface blemishes and sanding scratches to disappear during the thermo-reflow process.

9. FINAL SANDING AND POLISHING . . . The body is lightly oil sanded and polished to bring painted surfaces to a high luster finish.

EXTERIOR DIMENSIONS

	CODE •	DESCRIPTION •	Models		
			837	867 Soft Top	867 Hardtop
WIDTH	W101	Tread - front	56.3		
	W102	Tread - rear	57.0		
	W103	Max. overall car width	69.2		
	W116	Max. overall body width	(see W106)		
	W106	Front fender overall width	69.6		
	W107	Rear fender overall width	67.3		
	W120	Max. overall width - doors open	139.3		
HEIGHT	H101	Overall height	49.6	49.8	
	H114	Hood at rear to ground	34.8		
	H112	Rocker panel to ground - front	7.95		
	H111	Rocker panel to ground - rear	7.95		
	H132	Bottom of door to ground, open	13.5		
	H133	Bottom of door to ground, closed	12.5		
	H122	W/S slope angle (degrees)	56.5		
	H136	Body zero to ground - front	7.7		
	H137	Body zero to ground - rear	7.7		
	H125	Headlamp to ground	24.36		
	H126	Tail lamp to ground	21.76		
	H158	Roof thickness	2.7	5.7	5.6
	H159	DLO height	13.4	12.2	
	H160	Body thickness			
LENGTH	L30	Body zero line to actual front of dash	2.37 fore of dash		
	L101	Wheelbase	98.0		
	L104	Overhang - front	32.0		
	L105	Overhang - rear	45.3		
	L103	Overall length	175.3		
	L128	Hood length at car C/L	46.7		
	L123	Body upper structure length @ car C/L	77.9	66.8	69.2
	L129	Deck length @ car C/L	28.6	39.7	37.3
	L127	Body zero line to C/L rear wheels	72.0		
	L130	Body zero line to W/S cowl point	9.0		
	L102	Tire size	6.70 X 15		
CLEARANCE AND GLASS AREA-HEIGHT	H102	Front bumper to ground	18.0		
	H104	Rear bumper to ground	16.6		
	H106	Angle of approach (degrees)	26.65		
	H107	Angle of departure (degrees)	17.35		
	H147	Ramp breakover angle (degrees)	11.75		
	H148	Front suspension to ground	8.0		
	H149	Oil pan to ground	6.0		
	H150	Flywheel housing to ground	5.9		
	H151	Frame structure to ground	5.5		
	H152	Exhaust system to ground	5.0		
	H153	Rear axle differential to ground	7.8		
	H154	Fuel tank to ground	— —		
	H155	Spare tire well to ground	6.1		
	H156	Minimum running ground clearance	5.0 (see H152)		
	SI	Windshield glass area (sq. inches)	789.7		

•–Code and description conform generally to AMA Specifications.

BODY GLASS

BODY GLASS
- Type ---------- Solid safety plate except: windshield, laminated safety plate; soft top backlight, flexible plastic; hardtop backlight, Plexiglass.
- Shape
  - Windshield ---------- Single curved, 1 piece
  - Backlight
    - Soft top ---------- Flat, 1 piece
    - Hardtop ---------- Curved, 1 piece
    - Sport Coupe ---------- Compound curved, 1 piece
  - Side door glass
    - Door glass ---------- Compound curved
    - Ventipane ---------- Compound curved
- Area, sq. inches
  - Windshield ---------- 789.7
  - Backlight
    - Soft top ---------- 440.5
    - Hardtop ----------
    - Sport Coupe ---------- 821.5
  - Side door glass
    - Door glass
      - Soft top and hardtop ---------- 442.8
      - Sport Coupe ---------- 528.3
    - Ventipanes
      - Soft top and hardtop ---------- 107.3
      - Sport Coupe ---------- 91.8
  - Total glass area
    - Soft top ---------- 1780.3
    - Hardtop ----------
    - Sport Coupe ---------- 2231.3

BODY CONSTRUCTION

GENERAL
- Construction ---------- Uniconstruction: fiber glass reinforced plastic body backboned by a steel cage outlining the passenger compartment. Principal members - underbody, front and rear end assemblies, dash panel, roof (Model 837) and hinge pillars are bonded, riveted, or bolted together and to each other. Hood is plastic with bonded plastic reinforcement.

DOOR AND LOCKS
- Construction ---------- Plastic, double paneled, reinforced with steel at hinge and lock locations. Front hinged.
- Door handles ---------- Push button with rotary type latches. Inside door locking knob on each door (upper reflector on side wall trim)
- Door ventipanes operation ---------- Crank

HOOD
- Operation ---------- Internal release lever. Front hinged with telescoping link on right side. Ratchet-type lock for hold open.

VENTILATION
- Type ---------- "Saddlebag" - cowl top air inlets channel air to cowl side kick panel outlets controlled by bowden cable operated valves. Water drainage at base of "saddlebag" plenum chambers.

SEATS
- Type and construction ---------- Bucket; leather grained vinyl covering over polyurethane padding

WINDSHIELD WIPERS
- Type ------ Dual, two-speed, electric; washer provided
- Linkage ---------- Parallel acting

SPARE TIRE
- Location ---------- In well under fuel tank; accessible from underside of car. Cover with key lock provided.

TOOLS
- Type ---------- Scissors jack, and combination jack handle and lug wrench
- Stowage ---------- In well in luggage area directly behind drivers seat; carpeted cover over well.

INTERIOR TRIM COLORS - SOLID			Black	Red	Blue	Saddle
			Model 867			
RPO - All Vinyl Interior			Reg. Prod.	490 AB	490 BB	490 CB
RPO - Genuine Leather Seat Trim			898A	898 FA	898 KA	898 DA
			Model 837			
RPO - All Vinyl Interior			Red. Prod.	490 AA	490 BA	490 CA
RPO - Genuine Leather Seat Trim			898A	898EA	898JA	898CA
EXTERIOR COLORS						
RPO	Color	Sales Name				
900	Black-Reg. Prod.	Tuxedo Black	X	X		
912	Med. Blue	Silver Blue	X		X	
916	Dark Blue	Daytona Blue			X	
923	Red	Riverside Red	X	X		
932	Lgt. Saddle	Saddle Tan				X
936	White	Ermine White	X	X	X	X
940	Silver	Satin Silver	X	X	X	

INTERIOR TRIM COLORS - TWO-TONE			Silver Black instru. panel, med. gray carpet	Silver Dark blue instru. panel, med. gray carpet	White Black instru. panel and carpet	White Dark blue instru. panel and carpet	White Red instru. panel and carpet	White Saddle instru. panel and carpet
			Model 867					
RPO - All Vinyl Interior			491AE	491BE	491CA	491GE	491DE	491HE
RPO - Genuine Leather Seat Trim			899AE	899BE	899CA	899GE	899GE	899HE
			Model 837					
RPO - All Vinyl Interior			491AA	491BA	491CA	491GA	491DA	491HA
RPO - Genuine Leather Seat Trim			899AA	899BA	899CA	899GA	899DA	899HA
EXTERIOR COLORS								
RPO	Color	Sales Name						
900	Black-Reg. Prod.	Tuxedo Black	X		X			
912	Med. Blue	Silver Blue				X		
916	Dark Blue	Daytona Blue		X		X		
923	Red	Riverside Red					X	
932	Lgt. Saddle	Saddle Tan						X
936	White	Ermine White	X	X	X	X	X	X
940	Silver	Satin Silver	X	X	X			

SPECIAL FRONT AND REAR SUSPENSION EQUIPMENT
RPO 2-F40

Same as regular production specifications except as follows

FRONT SUSPENSION

SHOCK ABSORBERS
- Piston travel (unassembled) ---------- 5.00

STABILIZER BAR
- Diameter ---------- .940

SPRING
- Part number ---------- 3832518
- Type ---------- Right hand helix
- Cut-off length ---------- 100.16
- Number of coils (active, total) ---------- 5.67, 7.093
- Wire diameter ---------- .680
- OD ---------- 5.160
- PD ---------- 4.480
- Height
  - Free ---------- 10.842
  - Working (inches @ lb) ----------8.56 @ 1255
- Deflection rate (lb per inch, between
  - At spring ---------- 550
  - At wheel (ride rate)

REAR SUSPENSION

REAR SPRING
- Type ---------- Multi-leaf, 7 leaves
- Design load, lb @ - camber ---------- 1325 @ .290
- Deflection rate, lb per inch, @ design load
  - @ Spring ---------- 305
  - @ Wheel (wheelrate)
- Spring liners
  - Number ---------- 5
  - Location ---------- Between all leaves except numbers 6 and 7

SHOCK ABSORBERS
- Piston diameter and travel (unassembled) ----- 1.375, 4.75

HEAVY-DUTY BRAKES RPO 2-J56

Same as regular production specifications except as follows

BRAKES

SERVICE BRAKES
- General
  - Type ---------- Duo servo, 4-wheel Hydraulic, forward self-adjusting. Also features provisions for cooling, and master cylinder assisted by vacuum power unit
  - Line pressure, psi, @ 100 lb pedal load, stabilized ---------- Approximately 1200
- Braking ratios
  - Pedal ---------- 3.43
  - Hydraulic ---------- 4.82
  - Overall ---------- 16.53
- Pedal effort -------- Approximately ____% less than regular production brakes at same deceleration rate

Brake drum
- Construction---Composite, web cast into rim, finned
- Web thickness, front and rear ---------- .1295
- Swept drum area (sq. in.) ---------- 334.3
- Diameter, front and rear ---------- 11.2

Brake linings
- Material ---------- Sintered iron
- Size
  - Front wheel segments
    - Primary and secondary ------- 1.64 x 1.37 x .388
  - Rear wheel segments
    - Primary and secondary ------- 2.00 x 1.00 x .388
- Segments per shoe
  - Primary, front and rear ---------- 6
  - Secondary
    - Front ---------- 12
    - Rear ---------- 10
- Method of attachment ----------Welded
- Total effective area (sq. in.) ---------- 145.2
- Gross lining area (sq. in.) ---------- 145.2

Master cylinder
- Type ---------- Divided output
- Diameter of pistons ---------- 1.00
- Piston travel (with available pedal travel) ------- 1.20

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

Cooling ----------Achieved with finned drums, vented backing plates, and a cooling fan mounted inside each brake drum; also by air scoop attached to each front brake

POWER TEAM COMBINATIONS

327 CUBIC INCH V-8 ENGINES	TRANSMISSION	REGULAR PRODUCTION AXLES	LIMITED SLIP AXLES
REGULAR PRODUCTION ENGINE, 250 HP	3-SPEED 4-SPEED AUTOMATIC	3.36:1 (3.08:1 AVAILABLE OPTIONALLY WITH 4-SPEED)	3.36:1 (3.08:1 WHERE APPLICABLE)
RPO 2-L75 ENGINE, 300 HP	3-SPEED 4-SPEED AUTOMATIC		
RPO 2-L76 ENGINE, 365 HP	● 4-SPEED	3.70:1	3.08:1 3.36:1 3.55:1 3.70:1 4.11:1 4.56:1
RPO 2-L84 ENGINE, 375 HP (FUEL INJECTION)	● 4-SPEED	3.70:1	3.08:1 3.36:1 3.55:1 3.70:1 4.11:1 4.56:1

● MANUAL TRANSMISSION MULTIPLICATION FACTORS

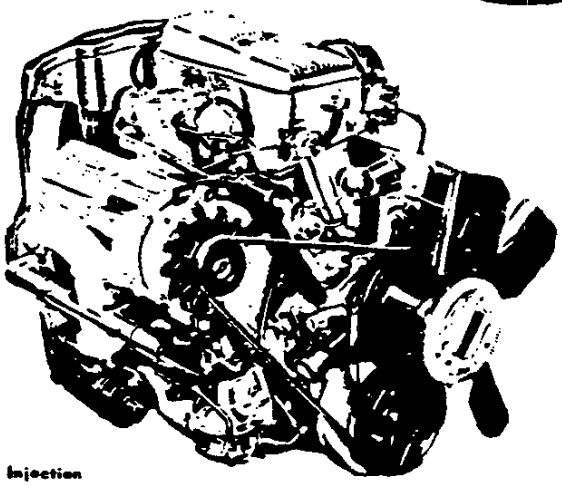
Engine	Transmission	Axle ratio	Total gear reduction					* Max. axle torque - low gear (lb-ft)
			Low	Second	Third	Fourth	Reverse	
250 HP 300 HP	3-speed (2.58:1 low)	3.36:1	8.67	5.64	3.36		8.67	2321
250 HP 300 HP	4-speed (2.56:1 low)	3.36:1	8.60	6.42	4.97	3.36	8.87	2303
365 HP 375 HP	4-speed (2.20:1 low)	3.70:1	8.14	6.07	4.74	3.70	8.40	

AUTOMATIC TRANSMISSION MULTIPLICATION FACTORS

Engine	Transmission	Selector Position	**Total Torque Multiplication	Axle Ratio
250 HP 300 HP	Powerglide	Drive	12.43:1-3.36:1	3.36:1
		Low and reverse	12.43:1-5.93:1	

* - Gear reduction x maximum net engine torque x efficiency (.9 direct drive, .85 all others).
** - Axle ratio x transmission ratio.

POWER TRAINS



Fuel Injection

ADVERTISED CAR PERFORMANCE FACTORS
MODEL 867 SOFT TOP

Engine, gross horsepower	250 HP	300 HP	365 HP	375 HP
3.36:1 AXLE				
3-Speed transmission				
Performance weight, lb	3410	3410		
Performance weight per gross HP	13.64	11.38		
Performance weight per cu. in. displ.	10.42	10.44		
Gross HP per cu. in. displ.	.765	.917		
Power displacement, cu. ft. per mile	241.6			
Displacement factor, cu. ft. per ton per mile	141.7	141.4		
3.36:1 AXLE			**3.70:1 AXLE**	
4-Speed transmission				
Performance weight, lb	3410	3410	3400	3420
Performance weight per gross HP	13.64	11.37	9.32	9.12
Performance weight per cu. in. displ.	10.42	10.43	10.40	10.46
Gross HP per cu. in. displ.	.765	.917	1.116	1.146
Power displacement, cu. ft. per mile	241.6		266.1	
Displacement factor, cu. ft. per ton per mile	141.7	141.7	156.5	155.6
3.36:1 AXLE				
Automatic transmission				
Performance weight, lb	3435	3435		
Performance weight per gross HP	13.74	11.45		
Performance weight per cu. in. displ.	10.50			
Gross HP per cu. in. displ.	.765	.917		
Power displacement, cu. ft. per mile	241.6			
Displacement factor, cu. ft. per ton per mile	140.7	140.6		

Performance weight	Curb Weight plus 300 Lb (weight of two 150 lb passengers)
Power displacement	$\frac{\text{Crankshaft revs/mi} \times \text{piston displacement}}{2 \times 1728}$
Displacement factor	$\frac{\text{Power displacement}}{\text{Performance wt (tons)}}$

GENERAL ENGINE DATA

ENGINE		TRANSMISSION		
		3-Speed	4-Speed	Automatic
Displacement, cubic inches		327		
Type		V-8, valve in head		
Bore and stroke		4.00 x 3.25		
Compression ratio		10.5:1, 250 and 300 HP; 11.0 for 365 and 375 HP		
SAE taxable horsepower		51.2		
Idling speed (RPM)		500 in neutral (a)		475 in drive
Compression pressure, psi, cranking speed, engine hot		160 (b)		
Crankshaft inclination		plus 3 degrees		
Lubrication		Full pressure		
Power plant mounting		Three point, two front, one rear (at transmission); compression type		
Overall measurements	Length (without transmission)			
	Width			
	Height			
Cylinder	Designation	FRONT	2-4-6-8 1-3-5-7	Right bank Left bank
	Firing order	1-8-4-3-6-5-7-2		

(a) - 800 in neutral for 365 HP engine; 850 for 375 HP engine.

● (b) - 150 for 365 and 375 HP engines.

ADVERTISED ENGINE RATINGS

Engine		Standard	300 HP	365 HP	375 HP
Brake Horsepower	Net	210 @ 4400 RPM			
	Gross	250 @ 4400 RPM	300 @ 5000 RPM	365 @ 6200 RPM	375 @ 6200 RPM
Torque (lb-ft)	Net	315 @ 2600 RPM			
	Gross	350 @ 2800 RPM	360 @ 3200 RPM	350 @ 4000 RPM	350 @ 44-4800 RPM

ENGINE SPEED AND PISTON TRAVEL

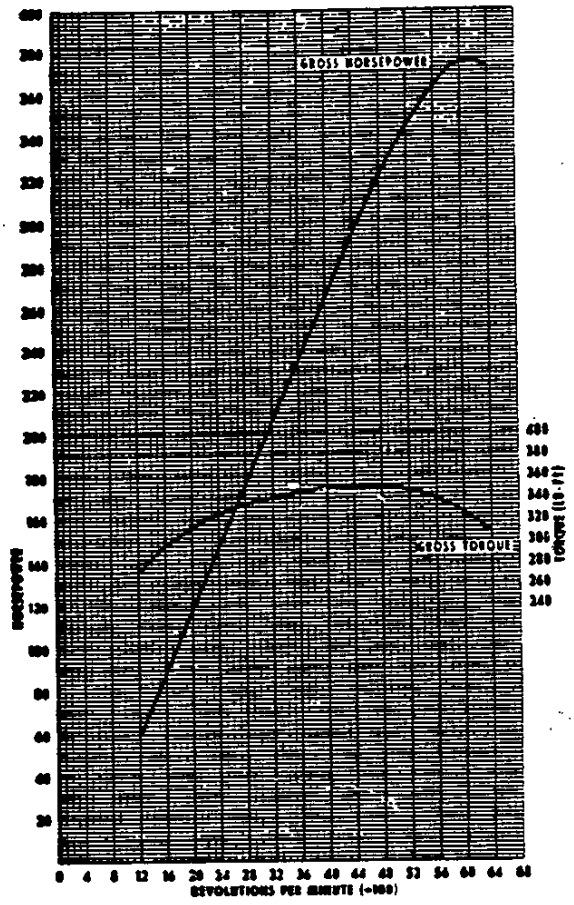
Transmission		3-Speed	Powerglide*	4-Speed (2.56 Low)	
Rear axle ratio		3.36:1	3.36:1	3.08:1	3.36:1
Tire size and rev/mile		6.70 x 15, 760			
Crankshaft rev/mile in direct drive		2553.6	2553.6	2347.0	2553.6
Crankshaft rev/min @ 1 mile/hr	Low	109.8	77.5	99.9	109.0
	Second	71.5		74.5	81.3
	Third	42.6	direct 42.6	57.7	63.0
	Fourth			39.0	42.6
	Reverse	109.8	77.5	103.0	123.6
Piston travel ft/mile in direct drive		1383.3	1383.3	1271.4	1383.3

Transmission		4-Speed (2.20 Low)					
Rear axle ratio		3.08:1	3.36:1	3.55:1	3.70:1	4.11:1	4.56:1
Tire size and rev/mile		6.70 x 15, 760					
Crankshaft rev/mile in direct drive		2347.0	2553.6	2698.0	2812.0	3123.6	3465.6
Crankshaft rev/min @ 1 mile/hour	Low	85.8	93.4	98.9	103.1	114.6	127.1
	Second	64.0	69.8	73.7	76.9	85.4	94.7
	Third	49.9	54.5	57.6	60.0	66.6	73.9
	Fourth	39.0	42.6	45.0	46.9	52.1	57.8
	Reverse	88.6	96.6	102.1	106.4	118.2	131.1
Piston travel ft/mile in direct drive		1271.4	1384.1	1461.5	1523.3	1692.1	1877.3

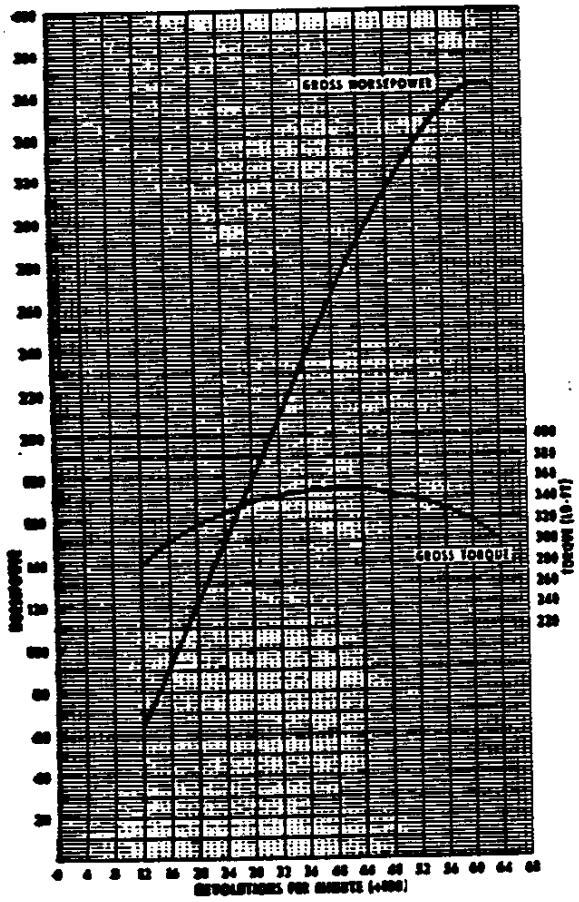
* Zero slippage assumed

POWER CURVES

RPO 2-L84
375 HP
FUEL INJECTION

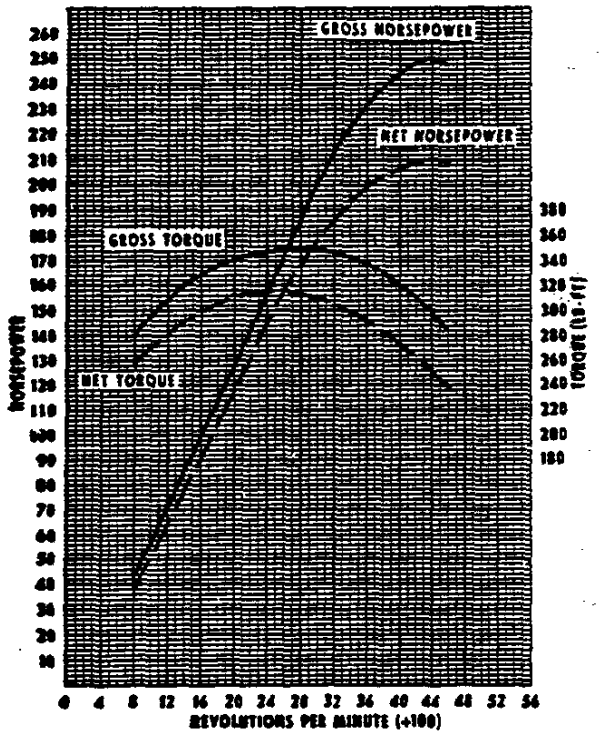


RPO 2-L76
365 HP

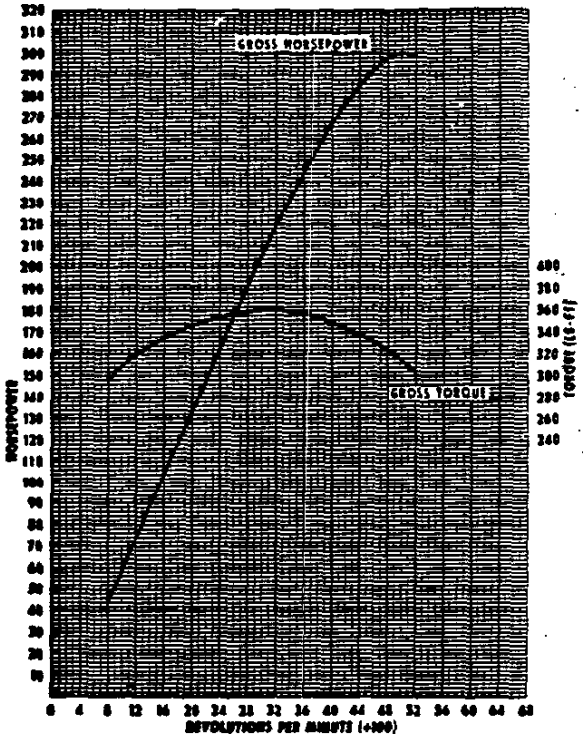


POWER CURVES

REGULAR PRODUCTION ENGINE
250 HP



RPO L-75
300 HP



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

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

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

Continued on page 6

ENGINES – Continued

VALVE TRAIN

- Type ---------- Individual mounted, push rod operated overhead rocker arms
- Lifters
  - 250 and 300 HP engines ---------- Hydraulic
  - 365 and 375 HP engines ---------- Mechanical
- Push rods
  - Material
    - Shank ---------- Hollow steel
    - Shank ends
      - 250 and 300 HP engines ---------- Hardened
      - 365 and 375 HP engines ---------- Rocker arm end has brazed or welded on hardened tip
- Rocker arms
  - Type ---------- Stamping
  - Material ---------- Steel
  - Ratio ---------- 1.5:1

VALVE SPRINGS

- I D ---------- .872 - .888
- Installed length, inches @ lb
  - Valve closed ---------- 1.66 @ 78-86
  - Valve open ---------- 1.26 @ 170-180
- Free length ---------- 2.03
- Damper
  - Type ---------- 4 coils
  - Material ---------- Steel
- Oil shields
  - Type ---------- Steel cups

VALVE TRAIN LASH

- Inlet
  - 250 and 300 HP engines ---------- Zero
  - 365 and 375 HP engines ---------- .025
- Exhaust
  - 250 and 300 HP engines ---------- Zero
  - 365 and 375 HP engines ---------- .025

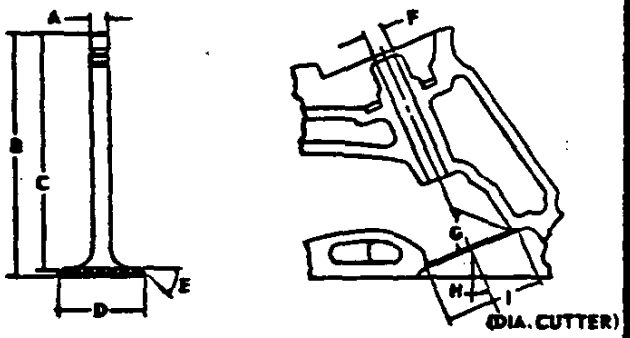
VALVES

- Inlet
  - Material
    - 250 HP engine ---------- Carbon steel
    - 300, 365 and 375 HP engines ---------- Steel alloy
  - Head diameter
    - 250 HP engine ---------- 1.715-1.725
    - 300 HP engine ---------- 1.935-1.945
    - 365 and 375 HP engines ---------- 2.017-2.023
- Exhaust
  - Material
    - Except tip ---------- Heat and corrosion resistant valve steel
    - Tip
      - 250 and 300 HP engines --- Chrome-nickel steel
      - 365 and 375 HP engines ---------- Silichrome #1
  - Head diameter
    - 250 and 300 HP engines ---------- 1.495-1.505
    - 365 and 375 HP engines ---------- 1.595-1.605
  - Coating
    - 365 and 375 HP engines --- Aluminized head and face

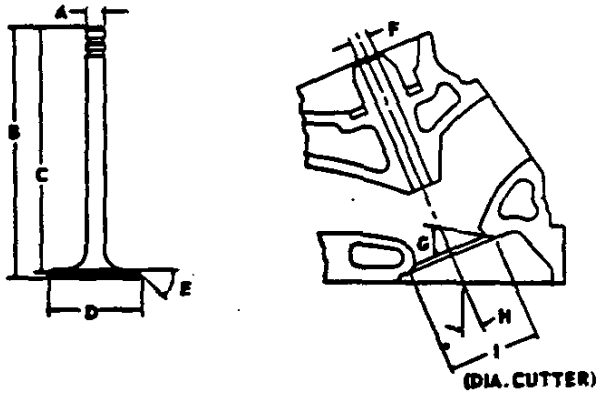
VALVE LIFT

- Inlet
  - 250 and 300 HP engines ---------- .3987
  - 365 and 375 HP engines ---------- .4850
- Exhaust
  - 250 and 300 HP engines ---------- .3987
  - 365 and 375 HP engines ---------- .4850

INTAKE VALVE



EXHAUST VALVE



ENGINE	250 HP	300 HP	365 HP	375 HP
A	.3404-.3417			
B	4.9024-4.9224		4.8704-4.8894	
C	4.7854-4.7954			
D	1.715-1.725	1.935-1.945	2.017-2.023	
E	45 degrees plus or minus one-fourth degree			
F	.3427-.3437			
G	46 degrees plus or minus one-half degree			
H	25 degrees			
I	1.770-1.790	1.990-2.010	2.020	

ENGINE	250 HP	300 HP	365 HP	375 HP
A	.3404-.3417		.3410-.3417	
B	4.913-4.933		4.891-4.910	
C	4.781-4.791			
D	1.495-1.505		1.595-1.605	
E	45 degrees plus or minus one-fourth degree			
F	.3427-.3437			
G	46 degrees plus or minus one-half degree			
H	24 degrees			
I	1.55-1.57		1.600	

PRINCIPAL COMPONENTS

CYLINDER BLOCK
- Material ---------- Cast iron alloy
- Bore
  - Diameter ---------- 4.0
  - Spacing, ℄ to ℄ ---------- 4.4
- Number of bulkheads ---------- 5
- Water jackets ------- Full length around each cylinder
- Cylinder numbering arrangement (front to rear)
  - Left bank ---------- 1-3-5-7
  - Right bank ---------- 2-4-6-8

CYLINDER HEAD
- Material ---------- Cast iron alloy (high chrome)
- Bolts
  - Number ---------- 16 short, 14 long, 4 medium
  - Thread size ---------- 7/16-14 UNC-3A
- Combustion chamber volume, cubic inches
  - 250 HP engine ---------- 4.43
  - 300 HP engine ---------- 4.49
  - ● 365 and 375 HP engines ---------- 3.98

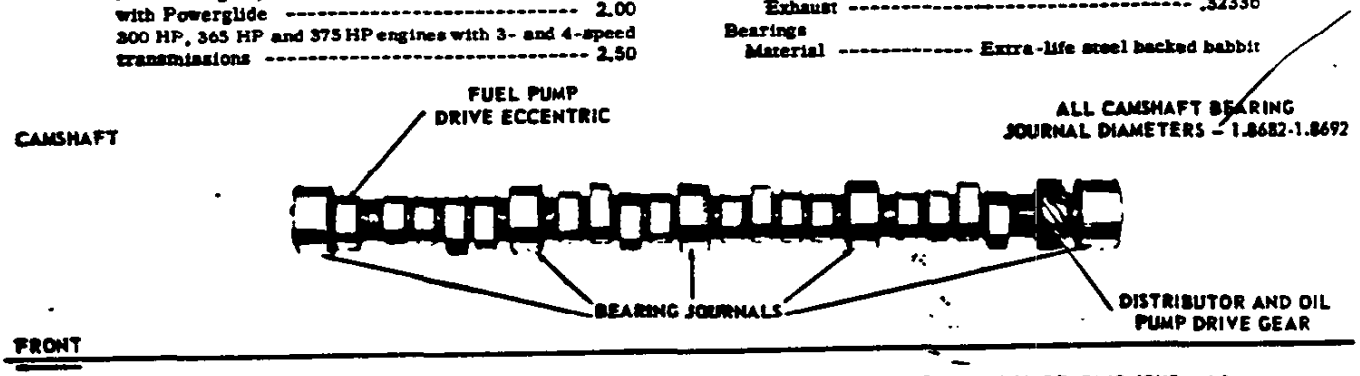
INLET MANIFOLD
- Material
  - 250 and 300 HP engines ---------- Cast iron alloy
  - 365 and 375 HP engines ---------- Aluminum
- Type
  - 250, 300 and 365 HP engines ---------- Individual passages, 2 decks of 4 each
  - 375 HP engine ---------- Chamber
- Method of heating
  - 250, 300 and 365 HP engines --- Exhaust gas passages
  - 375 HP engine ---------- None

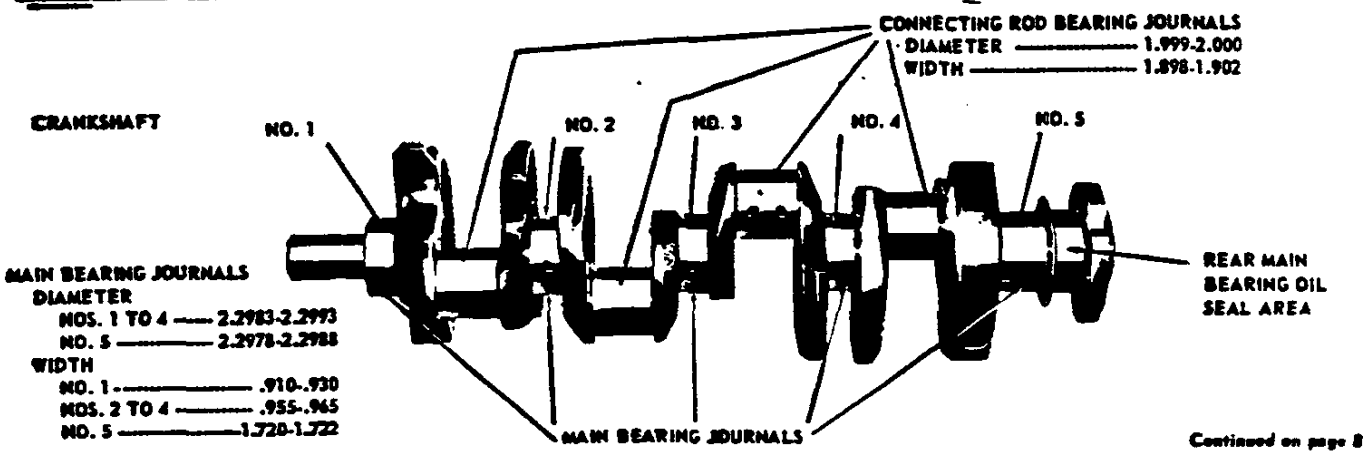
EXHAUST MANIFOLD
- Material ---------- Cast iron alloy
- Type ---------- Low resistance flow
- Outlet diameter, nominal
  - 250 HP engine, all transmissions, and 300 HP engine with Powerglide ---------- 2.00
  - 300 HP, 365 HP and 375 HP engines with 3- and 4-speed transmissions ---------- 2.50

CRANKSHAFT (See COOLING SYSTEM for pulley)
- Material ---------- Forged steel
- End play ---------- .002-.006
- Number of counterweights ---------- 6
- Crank arm length ---------- 1.625
- Type of vibration damper ------ Rubber mounted inertia
- Timing gear
  - Type ---------- Sprocket (and chain)
  - Material ---------- Steel

MAIN BEARINGS
- Material
  - All except upper rear ---------- Premium aluminum
  - Upper rear ---------- Steel backed babbit
- Type ---------- Precision removable
- End thrust taken by ---------- Number 5 bearing
- Clearance
  - Bearing numbers 1 through 4 ---------- .0008-.0034
  - Bearing number 5 ---------- .0010-.0036
- Dimensions
  - Inner diameter (theoretical)
    - Bearing numbers 1 through 4 ---------- 2.3009
    - Bearing number 5 ---------- 2.3006
  - Effective length
    - Bearing numbers 1 through 4 ---------- .752
    - Bearing number 5 ---------- 1.1824
  - Projected area
    - Bearing numbers 1 through 4 ---------- 1.7303
    - Bearing number 5 ---------- 2.7202

CAMSHAFT
- Material ---------- Cast iron alloy
- Lobe lift
  - 250 and 300 HP engines
    - Inlet ---------- .2658
    - Exhaust ---------- .2658
  - 365 and 375 HP engines
    - Inlet ---------- .32336
    - Exhaust ---------- .32336
- Bearings
  - Material ---------- Extra-life steel backed babbit





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FUEL SYSTEM

FUEL TANK

- Capacity (gallons) ---------- 20
- Location ---------- In body cavity at rear of deck lid
- Filler location ---------- Center of deck lid at rear; cap secured directly to tank, accessible through door affixed to deck lid
- Gage ---------- Electric

FUEL FILTER

- Tank unit ---------- Plastic mesh strainer
- Carburetor unit
  - 250 HP engine ---------- Sintered bronze element in carburetor inlet
  - 300 and 365 HP engines ---- In-line can (between fuel pump and carburetor) with paper element
  - 375 HP engine ---------- In-line can (between fuel pump and fuel meter assembly) with paper element

FUEL PUMP

- Type ---------- Diaphragm
- Drive ---------- Camshaft eccentric
- Location ---------- Lower right front of engine
- Shut off pressure, psi @ RPM
  - 250 and 300 HP ---------- 5.25 to 6.5 @ 1800
  - 365 and 375 HP ---------- 6 to 7.5 @ 1800

EXHAUST AND VENTILATION SYSTEMS

EXHAUST SYSTEM

- Type ---------- Dual with no resonators
- Exhaust pipes
  - OD
    - 250 HP engine, all transmissions, and 300 HP engine with Powerglide ---------- 2.00
    - 300, 365 and 375 HP engines with 3- and 4-speed transmissions ---------- 2.50
  - Wall thickness
    - Front section
      - 250 HP engine, all transmissions, and 300 HP engine with Powerglide ---------- .067-.081
      - 300, 365 and 375 HP engines with 3- and 4-speed transmissions ---------- .072-.092
    - Intermediate section ---------- .076-.092
- Tail pipes
  - Material ---------- Stainless Steel
  - OD ---------- 2.00
  - Wall thickness ---------- .023
- Mufflers
  - Type ---------- Reverse flow
  - Construction ---------- Oval, bends and body joined by rolled lock seam; insulator of embossed asbestos crepe
  - Dimensions
    - Length ---------- 17.00
    - Width (approx.) ---------- 9.32
    - Height (approx.) ---------- 5.32

AIR CLEANER

- 250 and 300 HP engines ---------- Low silhouette with forward-directed snouts extending from opposite sides; oil-wetted, polyurethane element
- 365 HP engine ---------- Low silhouette, louver, chrome-plated canister; oil-wetted, polyurethane element
- 375 HP engine ---------- Conical, located in air intake ducting; oil-wetted polyurethane element

CARBURETOR

- Type
  - 250 and 365 HP engines ---------- 4-bbl downdraft
  - 300 HP engine ---------- Aluminum 4-bbl downdraft
- SAE carburetor size (throttle body) ---------- 1.50
- Venturi diameter
  - 250 HP engine
    - Primary ---------- 1.06
    - Secondary ---------- 1.25
  - 300 HP engine
    - Primary ---------- 1.25
    - Secondary ---------- 1.56
  - 365 HP engine
    - Primary ---------- 1.25
    - Secondary ---------- 1.3125
- Throttle bore
  - 250 HP engine
    - Primary ---------- 1.44
    - Secondary ---------- 1.44
  - 300 HP engine
    - Primary ---------- 1.56
    - Secondary ---------- 1.69
  - 365 HP engine
    - Primary ---------- 1.56
    - Secondary ---------- 1.56
- Secondary throttle actuation ---------- Linkage, approximately when primary valves are open half way between closed and full open

MUFFLER ANTI-CORROSIVE MEASURES

- Left hand muffler
  - Aluminized parts
    - All
- Right hand muffler
  - Aluminized parts
    - Front pipe baffle
    - Front tube
    - Front pipe
    - Front resonator
    - Center resonator
    - Rear tube resonator
    - Rear baffle
    - Shell
    - Cover
  - Stainless steel parts
    - Front head
    - Front outer baffle
    - Rear outer baffle
    - Rear tube
    - Rear head

ENGINE VENTILATION

- Type ---------- Closed-positive featuring an orifice restriction. Scavenging path is from filtered side of air cleaner to crankcase road draft exit, and from oil filler tube to intake manifold

VALVE TRAIN TIMING

	Excluding ramps	Including ramps
Inlet valve		
250 and 300 HP engines		
Opens (degrees)	12-1/2 BTC	32-1/2 BTC
Closes (degrees)	57-1/2 ABC	87-1/2 ABC
Duration (degrees)	250	300
365 and 375 HP engines (.025 lash)		
Opens (degrees)	60-5/6 BTC	156 BTC
Closes (degrees)	105-23/60 ABC	198 ABC
Duration (degrees)	346-13/60	534
Exhaust valve		
250 and 300 HP engines		
Opens (degrees)	54-1/2 BTC	74-1/2 BBC
Closes (degrees)	15-1/2 ATC	45-1/2 ATC
Duration (degrees)	250	300
365 and 375 HP engines (.025 lash)		
Opens (degrees)	108-5/6 BBC	204 BBC
Closes (degrees)	57-23/60 ATC	150 ATC
Duration (degrees)	346-13/60	534

PISTON

- **Material**
  - 250 and 300 HP engines ------- Aluminum alloy, cast
  - 365 and 375 HP engines ----- Aluminum alloy, impact extruded
- **Head type**
  - 250 and 300 HP engines ---------- Flat, notched
  - 365 and 375 HP engines ---------- Domed
- **Skirt type**
  - 250 and 300 HP engines ---------- Slipper
  - 365 and 375 HP engines ---------- Slipper
- **Top land clearance (on diameter)** --------- .0365-.0455
- **Skirt clearance (on diameter)**
  - 250 and 300 HP engines ---------- .0005-.0011
  - 365 and 375 HP engines ---------- .0039-.0045
- **Compression ring groove depth** ---------- .2218-.2283
- **Oil ring groove depth** ---------- .2038-.2103
- **Pin bore offset**
  - 250 and 300 HP engines ---------- .055-.065 (major thrust side)
  - 365 and 375 HP engines ---------- On center
- **Compression height**
  - 250 and 300 HP engines ---------- 1.674-1.676
  - 365 and 375 HP engines ---------- 1.673-1.677

COMPRESSION RING, UPPER

- **Construction**
  - Regular production and RPO 2-L75 engines --- Beveled OD and ID at bottom of ring; ring face slightly tapered and chrome flashed.
  - RPO 2-L76 and 2-L84 engines ---------- Beveled OD and ID at bottom of ring; ring face slightly tapered and molybdenum coated.
- **Material** ---------- Cast iron alloy
- **Dimensions**
  - Width (ground) ---------- .0775-.0780
  - Wall thickness ---------- .190-.200
  - Gap @ 4.00 OD) ---------- .013-.023

COMPRESSION RING, LOWER

- **Construction**
  - Regular production and RPO 2-L75 engines --- Beveled ID at top of ring; ring face slightly tapered and provided with wear resistant surface.
  - RPO 2-L76 and 2-L84 engines ---------- Beveled ID at top of ring; ring face slightly tapered and molybdenum coated.
- **Material** ---------- Cast iron alloy
- **Dimensions**
  - Width (max. after coating) ---------- .0780
  - Wall thickness ---------- .164-.170
  - Gap @ 4.00 OD) ---------- .013-.025

EXPANDER, FOR 250 AND 300 HP ENGINES

- **Construction** ---------- Crimped
- **Material** ---------- Heat treated steel
- **Dimensions**
  - Width ---------- .068-.074
  - Wall thickness ---------- .02075
  - Gap (@ 3.551 OD) ---------- .25-.50

OIL CONTROL RINGS

- **Construction** ---------- Multi-piece unit consisting of 2 rails and 1 spacer
- **Rails** ---------- Curved OD and ID, wear resistant coating
- **Spacer** ---------- Humped and vented
- **Material**
  - Rails ---------- Flat spring steel
  - Spacer ---------- Steel alloy (high chrome)
- **Assembled dimensions**
  - Width (maximum) ---------- .189
  - Wall thickness (maximum) ---------- .166
  - Gap (@ 4.00 OD) ---------- .015-.055

PISTON PIN

- **Material** ---------- Steel alloy (high chrome)
- **Dimensions**
  - Length ---------- 2.990-3.010
  - Diameter ---------- .9270-.9273
- **Clearance in piston** ---------- None; locked in rod by shrink fit

CONNECTING RODS

- **Material** ---------- Drop forged steel
- **Length, center to center** ---------- 5.699-5.701

CONNECTING ROD BEARINGS

- **Type** ---------- Precision removable
- **Material** ---------- Precision aluminum
- **Clearance between bearings and crankshaft** --.0007-.0028
- **ID (theoretical)** ---------- 2.0017
- **Effective length** ---------- .807
- **End play** ---------- .009-.013

BELTS

250 and 300 HP engines
- Number used ---------- 1
- "V" angle ---------- 37-44 degrees
- Pitch line length ---------- 55.25
- Width at PD ---------- .38

365 and 375 HP engines
- Number used ---------- 2
- "V" angle ---------- 37-44 degrees
- Pitch line length
  - Crankshaft, water pump & fan, & generator --- 54.75
  - Crankshaft, water pump & fan, & idler ------- 57.50
- Width at PD ---------- .38

SURGE TANK
- Location in system ---------- Between radiator top tank and return heater hose
- Capacity (qts) ---------- 2.3
- Fill requirements ------- Fill 1/2 when weather is cold

ELECTRICAL SYSTEM

SUPPLY SYSTEM

BATTERY
- Voltage ---------- 12
- Capacity (SAE) ---------- 61 amp. hr. @ 20 hr. rate
- Total number of plates ---------- 66
- Number of cells ---------- 6
- Terminal grounded ---------- Negative
- Location ---------- Rear of right wheelhouse

GENERATOR (See COOLING SYSTEM for pulley)
- Type ---------- Diode rectified
- Rating
  - Amp ---------- 9-37
  - Volts ---------- 10-15

REGULATOR
- Type ---------- Two unit; vibrator
- Voltage regulator
  - Voltage ---------- 13.8-14.8 @ 85 degrees F
- Field relay (combination light & field relay)
  - Closing voltage ---------- 1-3 volts @ 80 degrees F
- Location ---------- Left side front eng. compartment

STARTING SYSTEM

STARTING MOTOR
- Rotation (drive end view) ---------- Clockwise
- No load test (engine at operating temperature)
  - Amps ---------- 65-100
  - Volts ---------- 10.6
  - RPM ---------- 3600-5100
- Motor drive
  - Engagement ---------- Solenoid
  - Pinion meshes at ---------- Rear
  - No. of teeth on pinion ---------- 9
  - No. of teeth on flywheel ---------- 153
- Mounting ---------- Bolted to clutch housing

IGNITION SYSTEM

COIL
- Type ---------- 12 Volt
- Amperes drawn
  - Engine stopped ---------- 4.0
  - Engine idling ---------- 1.8

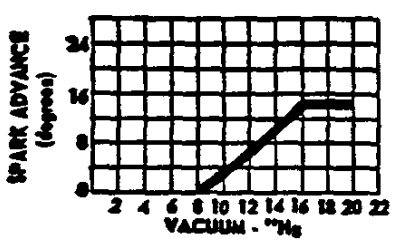
● **DISTRIBUTOR**
- Type ---------- Single breaker
- Cam angle (degrees)
  - Regular production and RPO 2-L75 engines --- 28-32
  - RPO 2-L76 engine ---------- 28-30
  - RPO 2-L84 engine ---------- 29-31
- Breaker gap (new) ---------- .019
- Breaker arm tension, oz. ---------- 19-23
- Centrifugal advance begins, rpm
  - Regular production and RPO 2-L75 engines ------ 700
  - RPO 2-L76 and 2-L84 engines ---------- 800
  - Max. degrees @ rpm
    - Regular production and RPO 2-L75 engines -- 24 @ 4600
    - RPO 2-L76 and 2-L84 engines ---------- 24 @ 2350
- Vacuum advance begins, in. of Hg
  - Regular production and RPO 2-L75 engines ------- 8
  - RPO 2-L76 and 2-L84 engines ---------- 4
  - Max. degrees @ in. of Hg
    - Regular production and RPO 2-L75 engines -- 15 @ 15.5
    - RPO 2-L76 and 2-L84 engines ---------- 16.5 @ 8.2
- Timing (initial design setting, vacuum disconnected)
  - Crankshaft degrees @ rpm
    - Regular production engine ---------- 4 BTC @ 500 with 3- or 4-speed; with Powerglide, 4 BTC @ 475
    - RPO 2-L75 engine ---------- 8 BTC @ 500 with 3- or 4-speed; with Powerglide, 4 BTC @ 475
    - RPO 2-L76 and 2-L84 engines ------ 12 BTC @ 700 with 4-speed
  - Timing mark location ---------- On harmonic balancer
  - Firing order ---------- 1-8-4-3-6-5-7-2

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

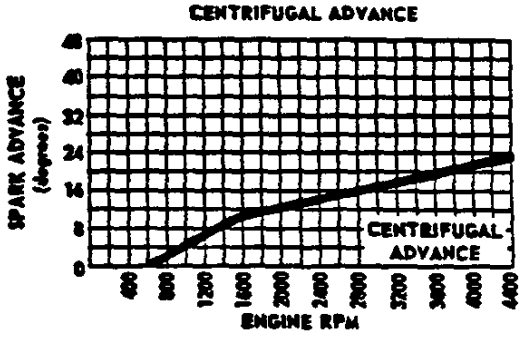
CABLE ---------- Linen core impregnated with electrical conducting material and insulation of rubber with neoprene jacket.

DISTRIBUTOR CHARACTERISTICS FOR REGULAR PRODUCTION AND RPO 2-L75 ENGINES

VACUUM ADVANCE



CENTRIFUGAL ADVANCE



MAXIMUM ADVANCE 24° at 4600 RPM

LUBRICATION SYSTEM

GENERAL

- System type ---------- Controlled pressure, full flow
  - Camshaft bearings ---------- Pressure
  - Connecting rod bearings ---------- Pressure
  - Cylinder walls -------- Pressure, jet cross sprayed
  - Main bearings ---------- Pressure
  - Piston Pins ---------- Splash
  - Rocker arms ---------- Pressure
  - Timing gears ---------- Nozzled sprayed
  - Valve lifters ---------- Pressure
- Capacity (qts)
  - 250 and 300 HP engines
    - Refill ---------- 4
    - Refill with filter ---------- 5
  - 365 and 375 HP engines
    - Refill ---------- 5
    - Refill with filter ---------- 6
- Lubricant grades and temperatures (degrees, Fahrenheit)
  - 32 and warmer ------ SAE 20W, SAE 20, SAE 10W-30
  - 0 and warmer ---------- SAE 10W, SAE 10W-30
  - Colder than 0 ---------- SAE 5W, SAE 5W-20
  - Sustained high speed warmer than 90 ------- SAE 30
- Oil pressure sending unit
  - Type ---------- Bourdon tube
  - Actuation ---------- Oil pressure
- Oil filler
  - Cap ---------- Solid
  - Location ---------- Intake manifold at front

OIL PUMP

- Type ---------- Gear
- Capacity ---------- Delivery 4.3 gpm at 2000 engine rpm with nominal spring force of 60 lb
- Intake type ---------- Fixed
- Regulator valve ---------- Opens at 40-45 lb

OIL FILTER

- Type ---------- Full flow, replacement element
- Location ---------- Left rear underside of engine
- Capacity (qts) ---------- 1
- By-pass valve ---------- Opens at 9-11 psi drop in Pressure

OIL PAN DRAIN SCREW

- Type ---------- Hex head
- Specifications
  - Hex size, across flats ---------- .860-.875
  - Thread ---------- 1/2-20 UNF-2A
  - Length, *from under head* ---------- .81
- Location ---------- Rear of pan

COOLING SYSTEM

GENERAL

- Type ---- Liquid, pressurized. Internal by-pass for 250 & 300 HP engines; external for 365 & 375 HP engines.
- Capacity, qts
  - With heater ---------- 19.0
  - Without heater ---------- 18.0
- Drains
  - Location
    - Engine block ---- ------- Right and left side, center
      - Type ---------- Plug
    - Radiator ---------- Left side, bottom tank
      - Type ---------- Petcock

RADIATOR

- Type ---------- Cross flow
- Material ---------- Aluminum
- Core constant ---------- .18 x .556
- Front area, sq. inches ---------- 315.4
- Cap relief valve characteristics ------- Opens at 13 psi
- Hose ID's
  - Outlet ---------- 1.75
  - Inlet ---------- 1.50

FAN

- Description ---------- 5 bladed, staggered
- OD ---------- 17.12
- Drive
  - Type ----------Thermo modulated fluid coupling
  - Performance ---------- At 4000 rpm input and 135 to 150 degrees Fahrenheit ambient, fan speed 3200 to 3500 rpm; at 120 degrees Fahrenheit ambient and cooler, fan speed 800 to 1600 rpm.

WATER PUMP

- Type ---------- Centrifugal
- ● Capacity (GPM @ engine RPM) ---------- 55 @ 4000
- Bearing ---------- Permanently lubricated double row ball

PULLEYS

- 250 and 300 HP engines
  - Type ---------- Single
  - PD
    - Crankshaft ---------- 6.64
    - Water pump and fan ---------- 7.00
    - Generator ---------- 2.70
  - Width at PD ---------- .38
  - Ratio
    - Water pump and fan to engine speed, rpm ---- .94:1
    - Generator to engine speed, rpm ---------- 2.46:1
- 365 and 375 HP engines
  - Type
    - Crankshaft, water pump and fan ---------- Dual
    - Generator, (water pump and fan) idler ------ Single
  - PD
    - Crankshaft
      - Actual ---------- 6.64
      - Effective ---------- 6.27
    - Water pump and fan
      - Actual ---------- 7.00
      - Effective ---------- 6.63
    - Water pump and fan idler
      - Actual ---------- 3.62
      - Effective ---------- 3.25
    - ● Generator
      - Actual ---------- 3.50
      - Effective ---------- 3.13
  - Width at PD ---------- .50
  - Ratio
    - Water pump and fan to engine speed, rpm ----- .94:1
    - ● Generator to engine speed, rpm ---------- 2.00:1

Continued on page 12

FUEL INJECTION ENGINE – Continued

GENERAL
- Make ---------- Rochester Products
- Model ---------- 7017380
- Type ---------- Mass air flow with continuous fuel injection

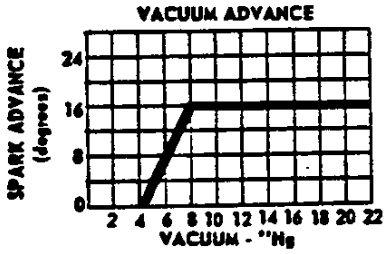
AIR INDUCTION
- Description ---------- Outside air ducted thru air cleaner to air meter
- Outside air ducting
  - Location ---------- Left side of engine compartment
- Air cleaner
  - Type ---------- Oil-soaked, polyurethane element; conical
- Air meter
  - Flow control ---------- Throttle valve
  - Flow measurement ---------- Annular venturi
  - Cold enrichment
    - Type ---------- Choke
    - Action ---------- Automatic, bi-metallic spring and exhaust heat

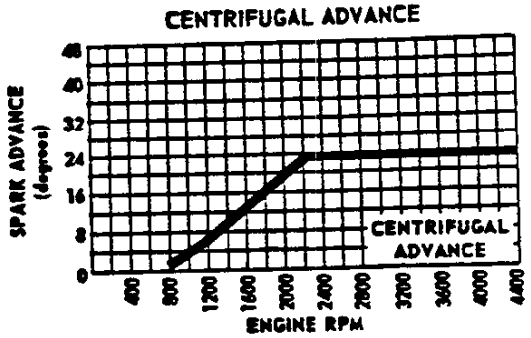
FUEL METER
- Flow control ---------- Continuous flow pump with diaphragm controlled bypass; system feeds measured amounts of fuel directly to intake ports where orifice injection nozzles direct fuel to intake valves
- Pump
  - Type ---------- Gear
  - Drive ---------- Flexible shaft from distributor
  - Output psi, maximum ---------- 200
- Bypass system
  - Control ---------- Diaphragm controlled spill valve – by vacuum from air meter annular venturi
- Injection nozzles
  - Quantity ---------- 8
  - Type ---------- Continuous flow
  - Material ---------- Brass
  - Location ---------- On intake manifold above intake ports
  - Orifice diameter ---------- .0118
  - Insulation ---------- Bakelite block

DISTRIBUTION SYSTEM
- Intake manifold
  - Type ---------- Integral plenum chamber
  - Material ---------- Aluminum
- Intake manifold adapter
  - Material ---------- Aluminum
- Ram pipes
  - Quantity ---------- 8
  - Length ---------- 12.0
  - Construction ---------- Integral with inlet manifold

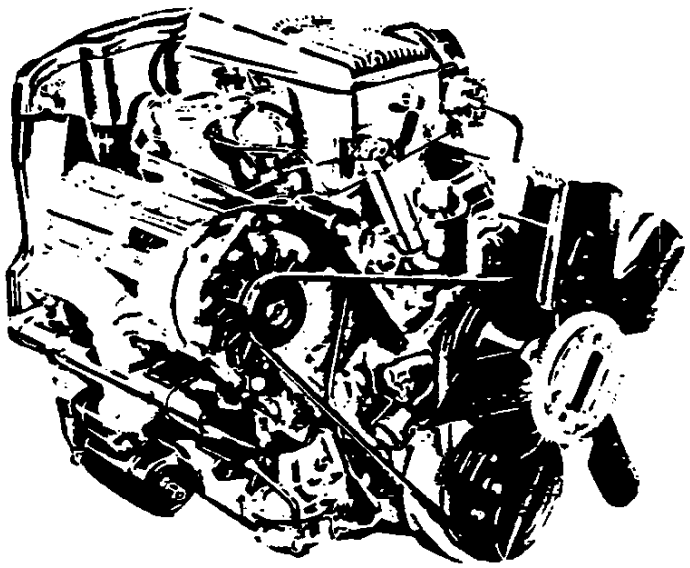
STARTING
- Description ---------- Fuel channeled directly from fuel pump into distribution spider into intake ports thru bypass valve; valve actuated by solenoid energized thru ignition switch

DISTRIBUTOR CHARACTERISTICS FOR RPO 2-L76 AND 2-L84 ENGINES





FUEL INJECTION ENGINE



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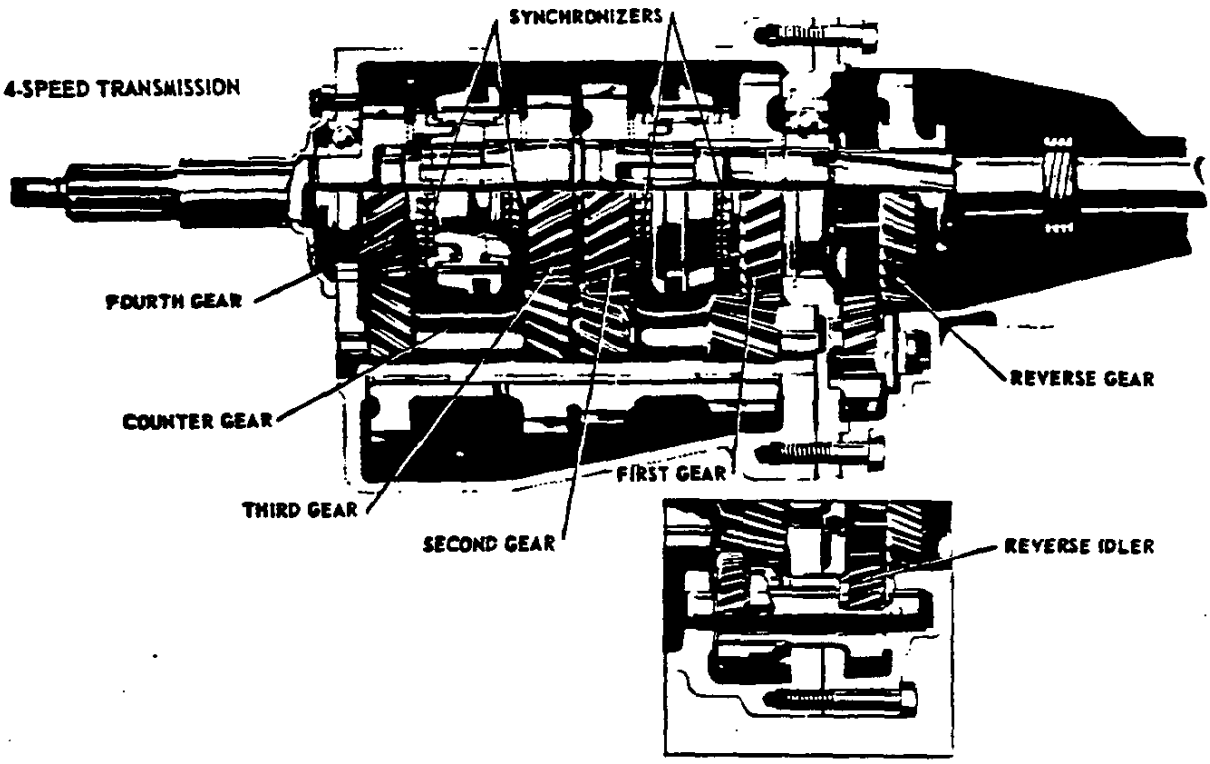
TRANSMISSIONS



3-AND 4-SPEED TRANSMISSIONS

CASE
- Material
  - 3-Speed ---------- Cast iron
  - 4-Speed ---------- Aluminum

GEARSHIFT
- Type ---------- Lever
- Location ---------- Floor mounted between seats
- Control ---------- Remote

LUBRICANT
- Type ---------- Military MIL-L-2105-B
- Viscosity ---------- SAE 80
- Capacity, pts
  - 3-Speed ---------- 2
  - 4-Speed ---------- 2.5

EXTENSION
- Material ---------- Aluminum
- Oil seal ---------- Steel encased double seal of spring loaded rubber or felt

GEARS
- Type ---------- Helical
- Material ---------- Forged steel, hardened
- Synchronization
  - 3-Speed ---------- Second and third
  - 4-Speed ---------- All forward gears
- Constant mesh gears
  - 3-Speed ---------- Second
  - 4-Speed ---------- All forward gears and reverse idler
- Sliding gears
  - 3-Speed ---------- First and reverse
  - 4-Speed ---------- Reverse
- Ratios
  - 3-Speed
    - First ---------- 2.58:1
    - Second ---------- 1.48:1
    - Third ---------- 1.00:1
    - Reverse ---------- 2.58:1
  - 4-Speed
    - 250 and 300 HP engines
      - First ---------- 2.56:1
      - Second ---------- 1.91:1
      - Third ---------- 1.48:1
      - Fourth ---------- 1:1
      - Reverse ---------- 2.64:1
    - 365 and 375 HP engines
      - First ---------- 2.20:1
      - Second ---------- 1.64:1
      - Third ---------- 1.28:1
      - Fourth ---------- 1:1
      - Reverse ---------- 2.27:1

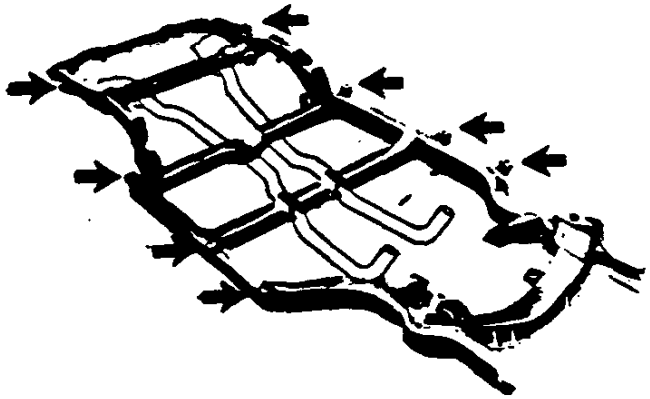
FOR 3-AND 4-SPEED TRANSMISSIONS

General
- Type ---------- Single disk, dry centrifugal
- Clutch cover and pressure plate assembly
  - Effective plate load, lb ---------- 2100-2300
  - Type of drive ---------- Steel straps
  - Pressure plate
    - Material ---------- Nodular iron ●
    - OD ---------- 10.48
  - Clutch spring
    - Type ---------- Circular plate diaphragm, bent finger design
    - Material ---------- Spring steel, heat treated
  - Attachment to flywheel --- 6 bolts, 3/8-16 UNC 3A, 1.00 long
- Driven plate assembly
  - Type ---------- Single disk, dual friction rings
  - Cushions ---------- Flat spring steel between friction rings
  - Dampers ---------- 10 springs, 5 sets of 2
  - Friction rings
    - OD ---------- 10.0
    - ID ---------- 6.5
    - Total (sq. inches) ---------- 90.7
    - Material ---------- Premium woven asbestos
- Flywheel assembly
  - Flywheel
    - Material ---------- Cast iron
    - OD ---------- 12.54
  - Ring gear
    - Material ---------- HR steel, heat treated
    - No. of teeth ---------- 153
    - Width ---------- .4010-.4130
    - PD ---------- 12.75
    - Attachment ---------- Shrink fit
- Bearings
  - Release
    - Type ---------- Single row ball
    - Lubrication ------ Packed with high temperature, high viscosity grease
  - Pilot
    - Type -------- Sintered powdered bronze bushing
    - Lubrication ---------- Oil impregnated
- Controls
  - Clutch fork ---------- Drop forged steel, pivot mounted on ball
  - Pedal mounting ------- Pendent, from brace on dash
- Clutch housing
  - Material ---------- Aluminum alloy
  - Attachment to engine -------- 6 bolts, 3/8-16 UNC-2A, 1.25 long
- Lubrication ---------- Crossover shaft ●

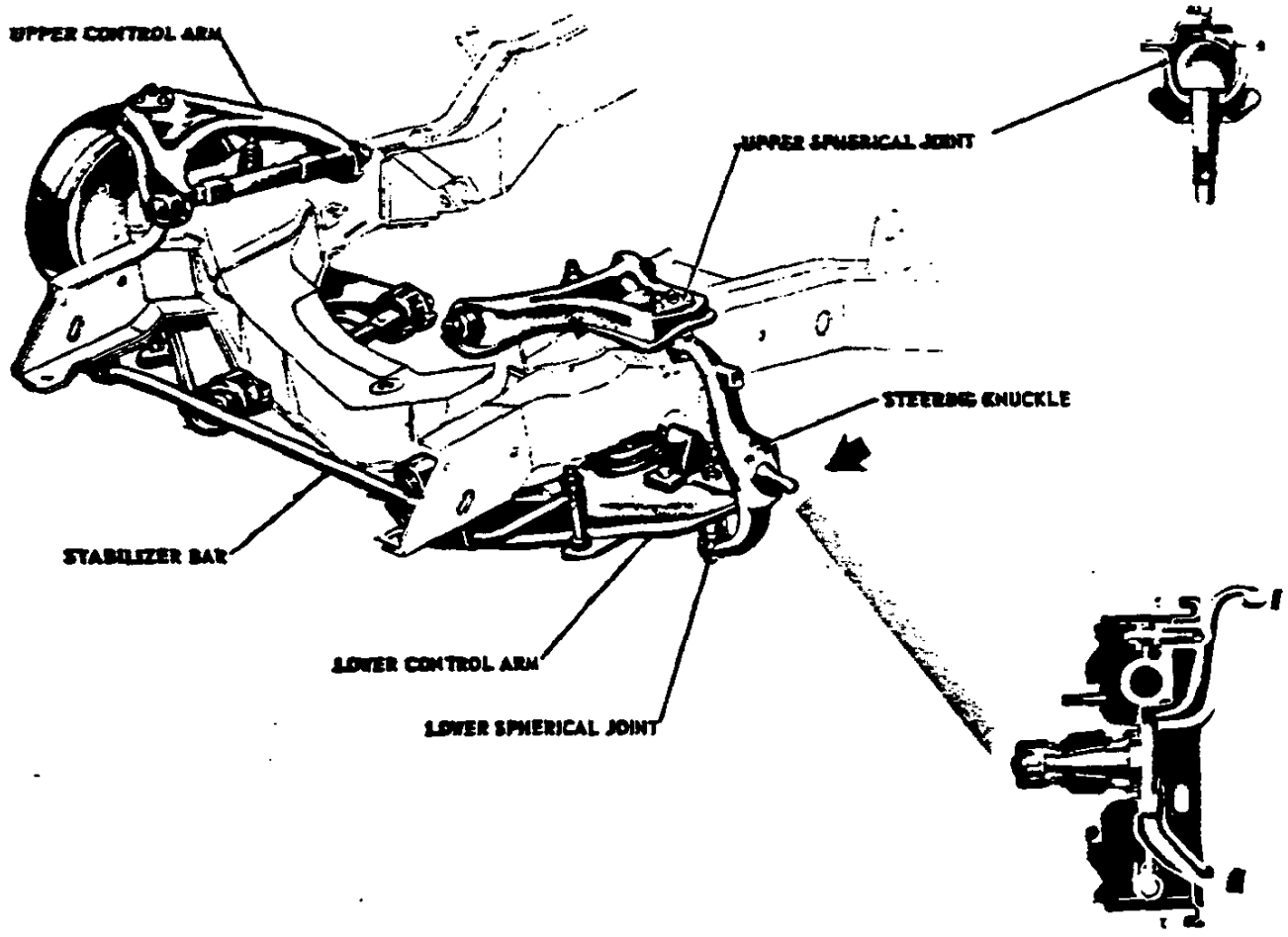
FRAME

GENERAL

Description	All welded, full length, ladder constructed frame with 5 crossmembers. Side rails and intermediate crossmembers box section; rear crossmember C section; front crossmember box-girder section.
Overall dimensions	
Length	149.9
Width	54.5
Height	18.2
Mounting points	
For body	8
For engine	3
Crossmember exhaust pipe holes diameter	3.56



FRONT SUSPENSION



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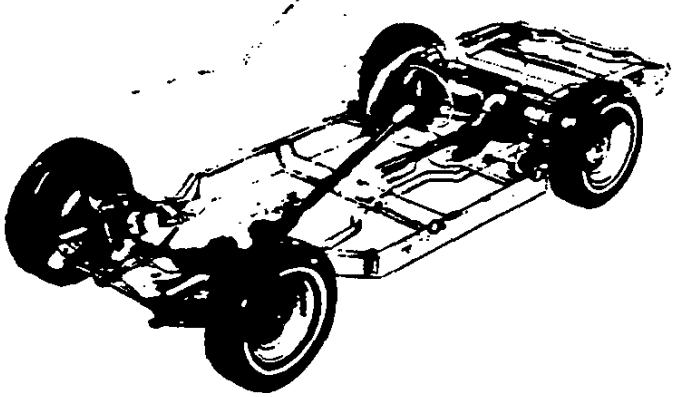


GENERAL

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

Wheel travel, from design attitude

Jounce	3.75
Rebound	4.00
Wheel to spring ratio	1.80

CONTROL ARMS

Description

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

Bushings

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

STEERING KNUCKLES

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

Spindle diameters

At inner bearing	1.2493-1.2498
At outer bearing	.7492-.7497

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

● FRONT SPRING

Part number	3851100
Type	Right hand helix, variable rate
Material	AISI A-5160, heat treated
Cut-off length	168.50
Number of coils (active, total)	10.67,12.00
Wire dia (theoretical)	.600
Outside dia, max. at ends (theoretical)	5.19
Pitch dia (theoretical)	4.40

Height

Free	15.40
Working (inches @ lb)	6.58 @ 1957, 8.56 @ 1340 (design load), 10.65 @ 932

Deflection rate (lb per inch) @ design load

@ Spring	195
@ Wheel (wheel rate)	80

FRONT WHEEL ALIGNMENT

Design

Camber (degrees)	0 to P1
Caster (degrees)	P1-1/2 to P2-1/2
Toe-in, per wheel	1/16

Curb

Camber (degrees)	P1/4 to P1-1/4
Caster (degrees)	P1-1/4 to P2-1/4
Toe-in, per wheel	3/32-5/32

Steering axis inclination (degrees) ----- 6-1/2 to 7-1/2

WHEEL BEARINGS

Type	Taper roller
Quantity	Two per spindle

SPHERICAL JOINTS

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

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

Bearing surfaces

Material

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

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

Seals

Description

Upper ---------- Reinforced neoprene secured by retainer

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

Lubrication

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

SHOCK ABSORBERS

Type ---------- Direct, double-acting, hydraulic; freon filled envelope in reservoir

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

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

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

STABILIZER BAR

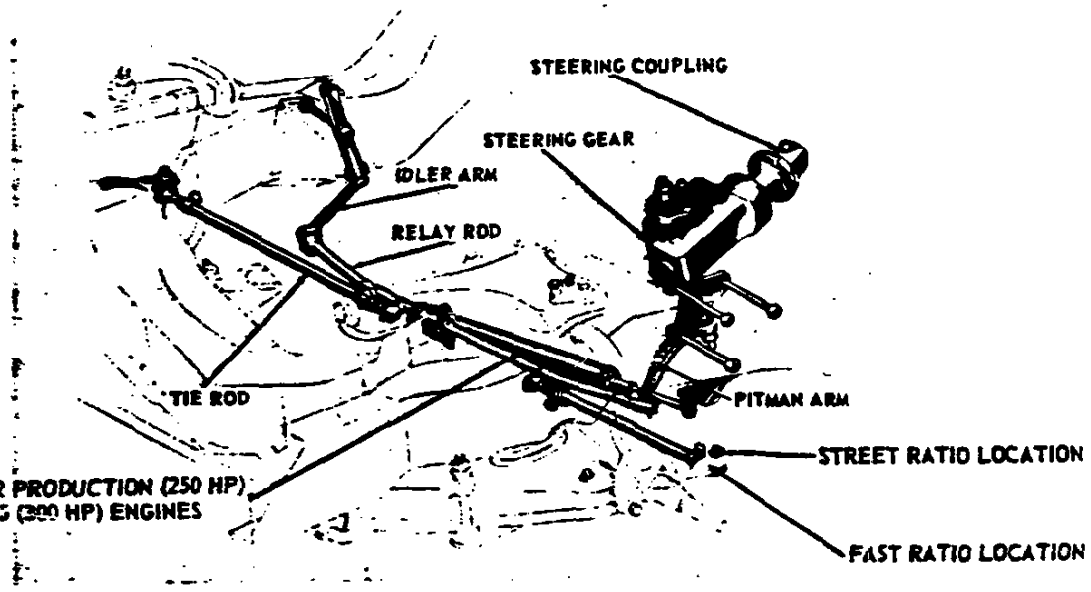
Type ---------- Link

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

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

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

STEERING



FOR REGULAR PRODUCTION (250 HP) AND RPO 2-L75 (300 HP) ENGINES

GENERAL

Description	Semi-reversible, recirculating ball and nut steering gear with three-inch axial column adjustment. Manual steering standard; power optional with 250 and 300 HP engines. Two-location steering arm-tie rod connection for street and fast ratio; adjustment available only with manual steering.
Steering gear	
Gear ratio	16:1
Overall ratio	
Manual	
Street	20.2:1
Fast	17.6:1
Power	17.6:1
Turning characteristics	
Turning diameters (ft)	
Outside front	
Wall to wall	
Right	41.9
Left	41.3
Curb to curb	
Right	40.4
Left	39.4
Inside rear	
Wall to wall	
Right	26.2
Left	25.1
Curb to curb	
Right	26.2
Left	25.1
Number of wheel turns, lock to lock	
Manual	
Street	3.4
Fast	2.92
Power	2.92
Outside wheel angle with inside wheel @ 20 degrees	18.47
Steering shaft	
Number	1
Diameter	.75
Steering wheel	
Type	Deep dished
Diameter	16.0
Linkage	
Type	Relay
Location	Rear of wheels
Number of tie rods	2
Lubrication points	5: one at each tie rod; one at pitman arm-relay rod connection

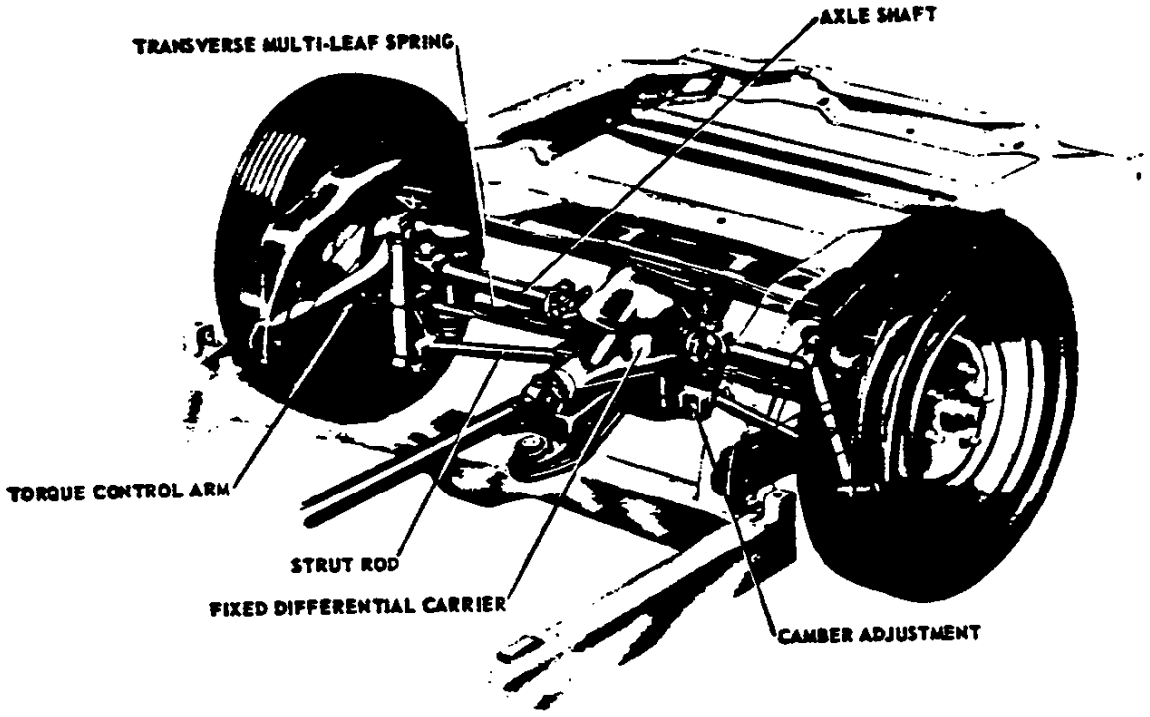
POWER STEERING, RPO 2-N40

Description	Hydraulic; pump powered cylinder assisting linkage.
Drive	
Type	V-belt from crankshaft
Pump pulley	
PD	5.60
"V" angle (degrees)	36
Width @ PD	.38
Crankshaft pulley	
PD	6.64
"V" angle (degrees)	36
Width @ PD	.38
Belt	
Pitch line length	35.0
● Lubrication	Two additional fittings, at cylinder piston rod ball stud, and at valve adapter

DRIVELINE

PROPELLER SHAFT
- Type ---------- Exposed, unsupported
- Quantity ---------- 1
- Construction ---------- Welded
  steel tubing incorporating yoke at each end
- Tube
  - OD ---------- 1.995-2.003
  - Length ---------- 26.52
  - Wall thickness ---------- .092-.097
- Length between axis of yoke bores ---------- 29.90

REAR SUSPENSION



GENERAL
- Description ---------- Full independent with frame-anchored differential. Locus of each wheel established by 3 links: universally-jointed axle drive shaft and adjacent strut, and torque control arm pivoted at frame side rail. Vertical suspension loads taken by shock absorbers and transversely-positioned leaf spring. Built-in camber adjustment at struts
- ● Wheel travel, from design height
  - Jounce ---------- 3.17
  - Rebound ---------- 4.00
  - Wheel to spring ratio

● REAR SPRING
- Type ---------- Multi-leaf, 9 leaves
- Material ---------- Chrome carbon steel, heat treated
- Length (developed) between eye centers ---------- 46.36
- Width ---------- 2.25
- Design load, lb@ - camber ---------- 1360 @ .352
- Deflection rate, lb per inch, @ design load
  - @ Spring ---------- 140
  - @ Wheel (wheel rate) ---------- 123
- Spring liners
  - Number ---------- 7
  - Location ---------- Between all leaves except numbers 6 and 7
  - Material ---------- Polyethylene with graphite

Continued on page 6

SHOCK ABSORBER

Type	Direct, double acting, hydraulic, freon filled envelope in reservoir
Secured between	Bracket welded to underside of frame rail and strut shaft at wheel spindle support
Piston diameter and travel (unassembled)	1.00, 5.00
Piston rod plating	Chrome

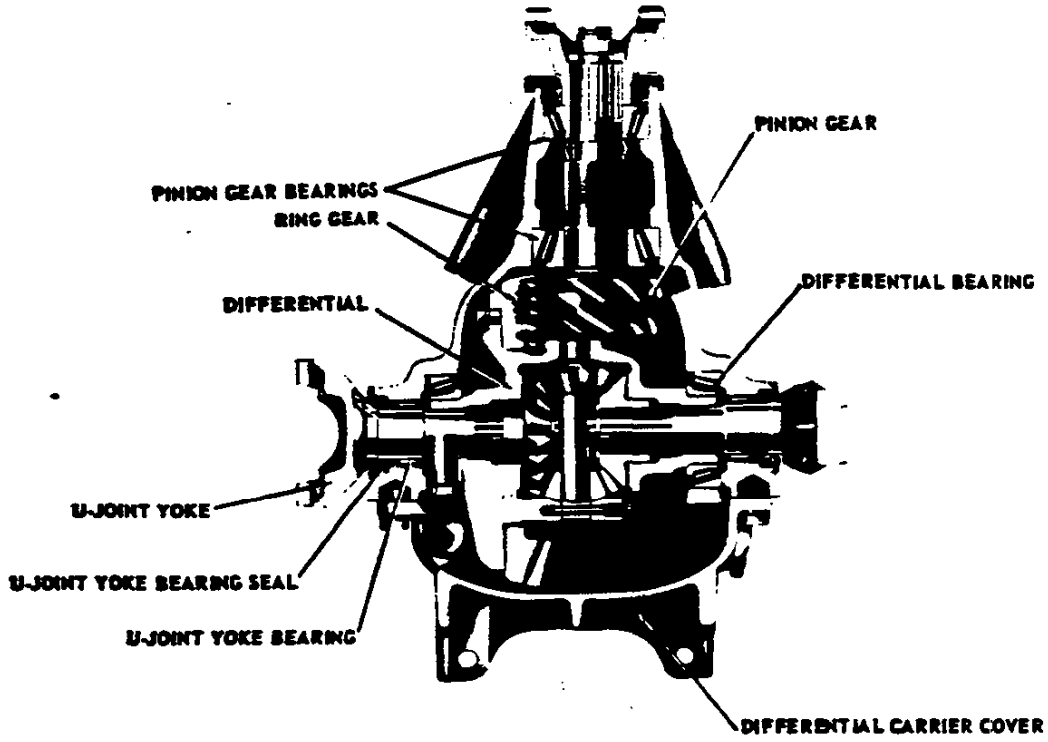
STRUT

Material	Forged steel
Diameter	.75
Length between attaching centers	16.58
Bushings	
Description	Rubber on steel serrated at each end

REAR WHEEL ALIGNMENT

Design	
Camber (degrees)	N1 to N2
Toe-in, per wheel	1/16
Curb	
Camber (degrees)	P1/6 to N5/6
Toe-in, per wheel	0-1/16

DIFFERENTIAL CARRIER AND AXLE SHAFT



GENERAL

Description	Semi-floating with overhung pinion gear supported by two taper roller bearings.
Lubricant	
Type	Military MIL-L-2105-B
Capacity (pts)	3.7
Filler plug	1-3/8 hex, 1-20 AN thread
Viscosity	SAE 80
Regular production ratio	3.36:1
Teeth combination	
Pinion gear	11
Hypoid gear	37

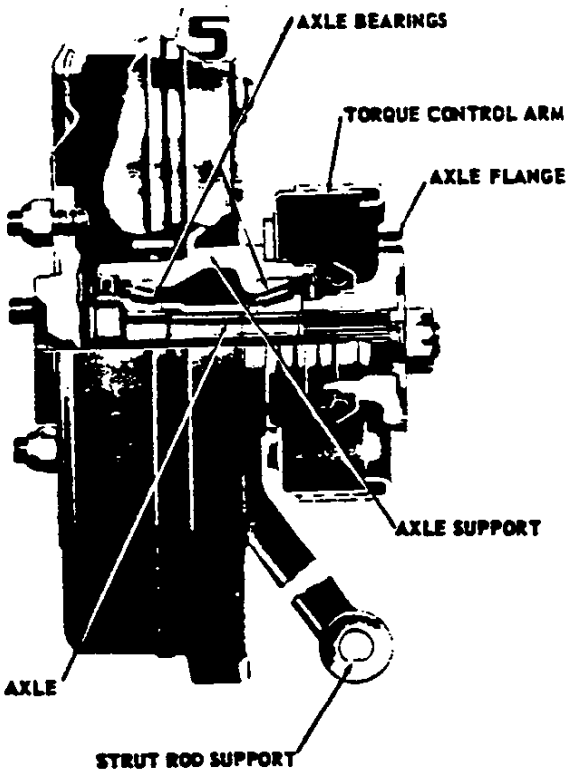
DIFFERENTIAL CARRIER

General	
Offset	
Vertical	1.5
Horizontal	.575
Differential	
Type	Two pinion in cast nodular iron case

Differential continued
- Bearings
  - Type ---------- Taper roller
  - OD ---------- 3.0625-3.0626
  - Hypoid drive (ring) gear
    - PD and OD ---------- 8.375
    - Number of teeth ---------- 37
- U joint yoke
  - Material ---------- Forged steel, heat treated
  - Diameter at bearing ---------- 1.3745-1.3750
- U joint yoke bearing
  - Type ---------- Needle
  - OD ---------- 1.7495-1.7505
- U joint yoke bearing seal
  - Type ---------- Spring loaded rubber encased in steel
  - OD ---------- 2.002-2.006
- Cover
  - Material ---------- Cast iron

AXLE SHAFT
- Type ---------- Tubular, exposed incorporating universal joint at each end
- Length between yoke bores ---------- 13.833
- Tubing
  - Material ---------- Welded steel tubing
  - OD ---------- 2.495-2.503
  - Wall thickness ---------- .117-.123

REAR WHEEL AND AXLE



GENERAL
- Description ---------- Brake drum flange integral with axle which is universally-jointed (thru splined axle flange) to axle shaft; torque control arm bolted to axle support. Axle supported by two taper roller bearings.

AXLE
- Material ---------- Steel forging, heat treated
- Diameter at outer bearing ---------- 1.3743-1.3748
- Diameter at inner bearing ---------- 1.1868-1.1873

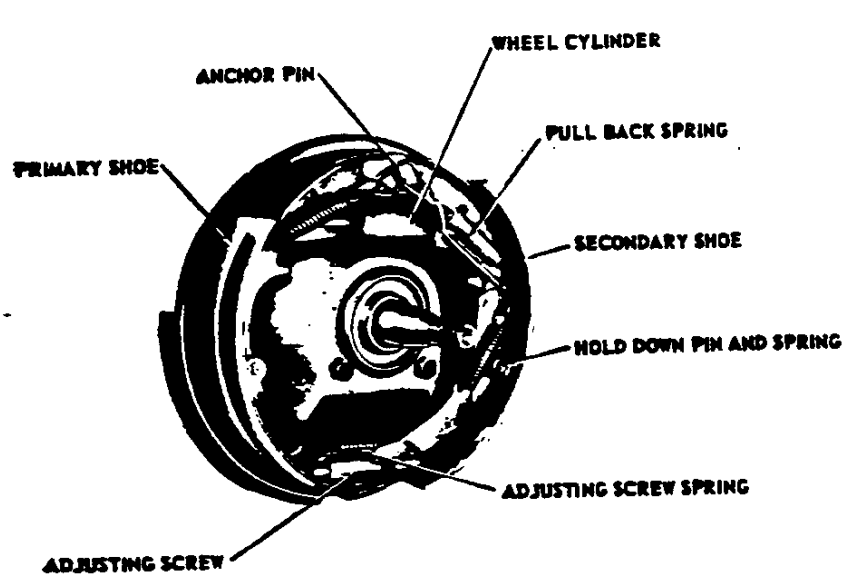
AXLE BEARINGS
- Type ---------- Taper roller
- Quantity ---------- 2
- Bearing seals
  - Description, outer and inner ----Steel encased rubber

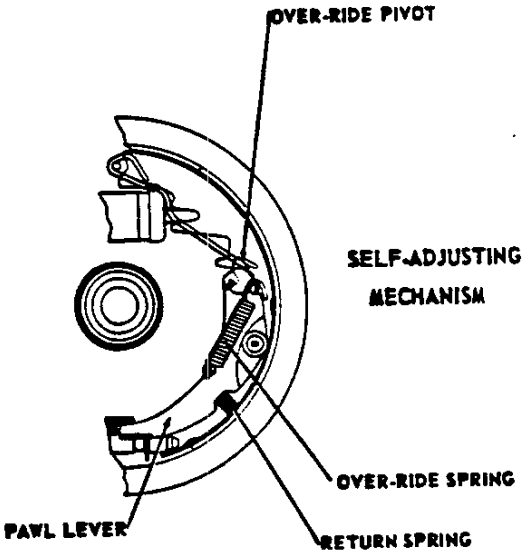
AXLE FLANGE
- Material ---------- Cast nodular iron

AXLE SUPPORT
- Material ---------- Cast nodular iron

TORQUE CONTROL ARM
- Description ---------- Box section, welded
- Material ---------- Steel
- Length between attaching centers ---------- 17.37

BRAKES





SERVICE BRAKES, Regular Production

General

Type	Duo servo, 4-wheel hydraulic, reverse self-adjusting
Brake system fluid capacity (pts)	.6
Line pressure, psi, @ 100 pedal load	750
Braking ratios	
Pedal	4.54
Hydraulic	6.30
Overall	28.60
Distribution of braking effort (theoretical, percent)	
Front wheels	58.5
Rear wheels	41.5
Clearance adjustment	Self-adjusting

Brake drum

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

Brake lining

Material	Full molded asbestos composition
Length	
Per wheel	21.09
Primary shoe	9.34
Secondary shoe	11.75
Width	
Front shoes	2.75
Rear shoes	2.00
Thickness, minimum @ centerline	.168
Method of attachment	Bonded
Total effective area, sq. inches	185.2
Gross lining area, sq. inches	200.4

Master Cylinder

Location	Engine compartment on dash panel
Piston diameter	.875
Piston travel (with available pedal travel)	1.10

Wheel cylinders

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

Foot pedal

Type	Pendant
Travel	5.00
Mounting	On dash brace

PARKING BRAKE

Type	Mechanical pull rods and cables operate two rear service brakes
Total effective area, sq. inches	77
Control	Apply and release by pawl-type lever at right of steering column under instrument panel. Axial clockwise turning of T handle releases brake.

STOPLIGHT SWITCH

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

● SERVICE BRAKES, METALLIC, RPO 2-J65 •

same as service brake, regular production, except as follows

General

Braking ratios

Pedal	3.43
Hydraulic	6.30
Overall	21.60

Brake Drum

Web thickness

Front	.125-.135

Brake lining

Material	Sintered iron segments

Size

From wheel segments

Primary	1.64 x 1.37 x .175
Secondary	1.64 x 1.37 x .295

Rear wheel segments

Primary	2.00 x 1.00 x .175
Secondary	2.00 x 1.00 x .295

Segments per shoe

Primary, front and rear	6

Secondary

Front	12
Rear	10

Method of attachment	Welded
Total effective area, sq. inches	145.2

Master cylinder

Piston travel (with foot pedal)	1.20

Foot pedal

Travel	4.12

POWER BRAKES, RPO 2-J50

Same as service brakes, regular production, except as follows

General

Type	Vacuum power unit added to assist regular production master cylinder; integral
Pedal effort	Approximately 30% less than regular production brakes at same deceleration rate

Braking ratios

Pedal	3.43
Hydraulic	6.30
Overall	21.60

Master cylinder

Piston travel (with foot pedal)	1.20

Foot pedal

Travel	4.12

WHEELS AND TIRES •

WHEELS, Regular Production

Type	Short spoke spider
Attachment to hub	5 hex nuts, 7/16-20 UNF-2B, arranged on a 4.75 diameter bolt circle
Offset	.44
Rim size	15 x 5.5K

WHEEL, RPO 2-P48

Type	Quick take-off
Material	Cast aluminum
Rim size	15 x 6L
Offset	.61
Method of retension	Adapter and lock nut (2-5/8 - 8 UN 2B)

TIRES, Regular Production

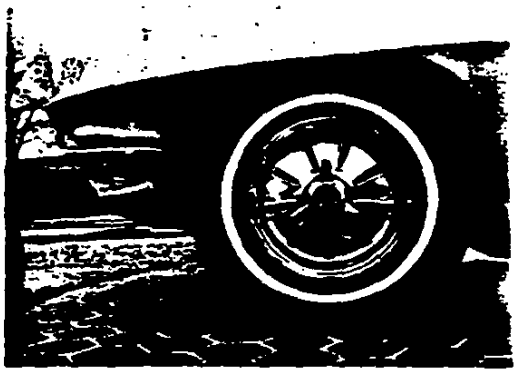
Type	Rayon tubeless, blackwall
Construction	4 ply
Size and ply rating	6.70 x 15-4

Specifications

Loaded rolling radius	13.40
Loaded rev/mi	760
Capacity (lb @ psi)	1065 @ 24
Recommend inflation, all tires, psi	24

SPARE TIRE

Location	Under gasoline tank, accessible from underside of vehicle, shielded with cover.



REGULAR PRODUCTION WHEEL DISC AND ORNAMENT

• Available with power brakes only

ELECTRICAL

LAMPS	NO. REQUIRED	TRADE NO.	CANDLE POWER PER LAMP
Air conditioning controls	1	1893	2
Back up	2	1156	32
Cigarette lighter	1	1445	1
Clock	2	1816	3 ●
Courtesy			
Instrument panel	2	90	6
Rear compartment (867)	1	90	6
Direction signal indicators	2	1816	3 ●
Dome (837)	1	90	6
Glove compartment	1	1893	2
Headlamps			
Outer	2	4002	High beam - 37.5 W Low beam - 55.0W ●
Inner	2	4001	High beam - 37.5 W
Headlamp hi-beam indicator	1	1445	1
Headlamp warning indicator	1	257	2
Heater controls	1	1893	2
Ignition switch	1	1445	1
Instrument cluster	7	1816	3 ●
License plate, rear	1	1155	4
Parking			
Park	2	1157	4
Direction signal			32
Parking brake alarm	1	257	2
Radio	1	1893	2
Tail			
Tail	4 without backup lamps	1157	4
Stop			32
Direction signal			32

DEVICE PROTECTED	TYPE OF PROTECTION	LOCATION AND CIRCUIT ●
Air conditioning circuit	2 AGC 30 fuses	In line Fuse panel (f)
Air conditioning controls lamp	AGC 4 fuse	Fuse panel (d)
Backup lamps	AGC 10 fuse	Fuse panel (b)
Cigarette lighter	AGC 10 fuse	Fuse panel (b)
Cigarette lighter lamp	AGC 4 fuse	Fuse panel (d)
Clock	AGC 15 fuse	Fuse panel (c)
Clock lamps	AGC 4 fuse	Fuse panel (d)
Courtesy lamps	AGC 15 fuse	Fuse panel (c)
Dome lamp	AGC 5 fuse	Fuse panel (c)
Fuel gage	AGC 10 fuse	Fuse panel (g)
Glove compartment lamp	AGC 15 fuse	Fuse panel (c)
Headlamps	15 amp CB	Light switch (a)
Headlamp hi-beam indicator lamp	15 amp CB	Light switch (a)
Headlamp motors	40 amp CB	Hinge pillar (n)
Headlamp warning indicator lamp	40 amp CB	Hinge pillar (n)
Heater circuit	AGC 10 fuse	Fuse panel (f)
Heater controls lamp	AGC 4 fuse	Fuse panel (d)
Ignition switch lamp	AGC 4 fuse	Fuse panel (d)
Instrument cluster lamps	AGC 4 fuse	Fuse panel (d)
License lamp	AGC 10 fuse	Fuse panel (b)
Parking brake alarm lamp	AGC 10 fuse	Fuse panel (g)
Parking lamps	15 amp CB	Light switch (a)
Power windows	40 amp CB	Hinge pillar (i)
Radio and radio lamp	AGC 2.5 fuse	Fuse panel (e)
Roof blower motor circuit	AGC 10 fuse	Fuse panel (f)
Stop lamps	AGC 15 fuse	Fuse panel (c)
Tail lamps	AGC 10 fuse	Fuse panel (b)
Temperature gage	AGC 10 fuse	Fuse panel (g)
Windshield wiper motor circuit	14 amp CB	Motor switch

● - Letter suffix indicates same circuit

SECTION 0

GENERAL INFORMATION AND LUBRICATION

GENERAL INFORMATION

The 1964 Corvette fastback and convertible coupe will remain basically the same as the 1963 models except for minor styling changes and product improvements. The pillar dividing the rear window has been removed and a new, one piece rear window has been added to improve rear visibility.

New, improved 3 and 4-speed transmissions will also be part of the 1964 Corvette package. Revised gear ratios for the new transmissions are called out in the following chart.

3-Speed Transmission	
GEAR	RATIO
1st	2.58:1
2nd	1.48:1
3rd	1.00:1
Reverse	2.80:1

4-Speed Transmission		
GEAR	RATIO	CLOSE RATIO
1st	2.56:1	2.20:1
2nd	1.91:1	1.64:1
3rd	1.48:1	1.28:1
4th	1.00:1	1.00:1
Reverse	2.64:1	2.27:1

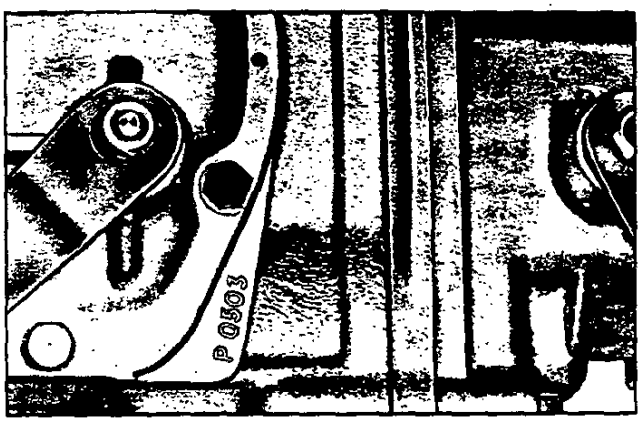


Fig. 1—4-Speed Transmission Source Data Code Location

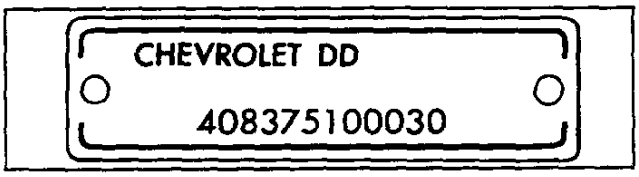


Fig. 2—Vehicle Serial Number Tag

The new 4-speed transmission source data code is stamped on the left side, lower cover flange of the case as shown on Figure 1.

The serial number identification tag has been revised, as shown on Figure 2, to provide a space for dealer delivery date.

LUBRICATION

Lubrication information for the 1964 Corvette remains basically the same as called out in the 1963 Corvette Shop Manual except for the following revisions:

STEERING GEAR

Every 36.000 miles check to see that lubricant is at level of filler plug hole. If necessary, add steering gear lubricant.

REAR WHEEL SPINDLE BEARINGS

No periodic lubrication recommended—Lube for life feature.

CRANKCASE VENTILATION

Fixed Orifice

Check every 6000 miles or at every oil change. If dirty or plugged, clear with drill. Twist drill by hand to remove any sludge or carbon formation.

CLUTCH CROSS SHAFT

Periodic lubrication of the clutch cross shaft is not required. At 36,000 miles or sooner, if necessary, remove plug, install lubrication fitting and lubricate with water resistant EP lube.

SELF ADJUSTING BRAKES

Brake linings should be inspected periodically. Frequency of inspection will depend upon traffic conditions and personal driving habits.

AIR CONDITIONING

Every 6,000 miles check sight glass under the hood after the system has been in operation for several minutes. Sight glass should be clear. Bubbles or dirt indicate a leak which should be corrected immediately.

Every week—during winter months—run the system for 10 to 15 minutes to insure proper lubrication of the seals and moving parts.

SECTION 2

FRAME

The service operations for the 1964 Corvette frame remain the same as outlined in the 1963 Corvette Shop Manual. Because of new, lower frame body mounting brackets to accommodate new body mounts, alignment reference dimensions were revised at these locations on fig. 1.

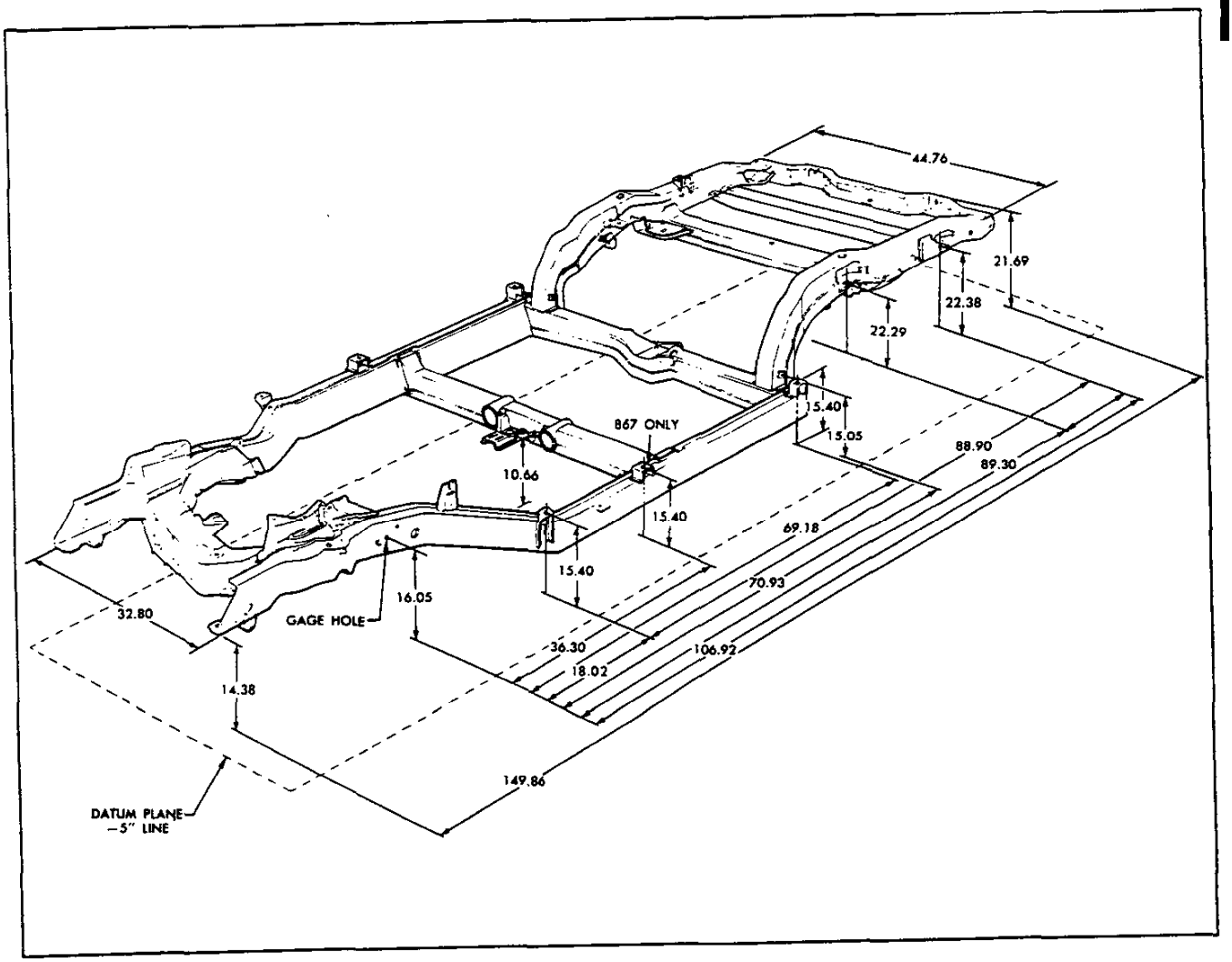


Fig. 1—Frame Dimensioned Drawing

SECTION 3

FRONT SUSPENSION

No changes affecting service procedures have been made on the front suspension. The information included in the 1963 Corvette Shop Manual will apply to 1964 except for Front Wheel Alignment as follows:

STEERING AXIS INCLINATION

The correct steering axis inclination should be $7° \pm ½$.

TOE-IN ADJUSTMENT

Toe-in, or the inward pointing of both front wheels, is checked with the wheels in a straight ahead position. It is the difference of the distance measured between the extreme front of both front wheels and the distance measuered between the extreme rear of the wheels. Correct total toe-in should be $\frac{3}{16}$" to $\frac{5}{16}$".

If the equipment being used measures the toe-in of each wheel individually, the following procedure should be used:

1. Set steering gear on high point mark, 12 o'clock position on steering shaft, and position steering wheel for straight ahead driving.
2. Loosen clamp bolt at each end of each tie rod and adjust each wheel to $\frac{1}{16}$" to $\frac{3}{16}$" toe-in, to obtain **total** toe-in of $\frac{3}{16}$" to $\frac{5}{16}$".
3. Position inner tie rod clamps with bolt horizontal and down. Position outer clamps with bolt vertical and to the rear. to avoid stabilizer link bolt interference.

If a tram gauge is used. the following procedure should be used:

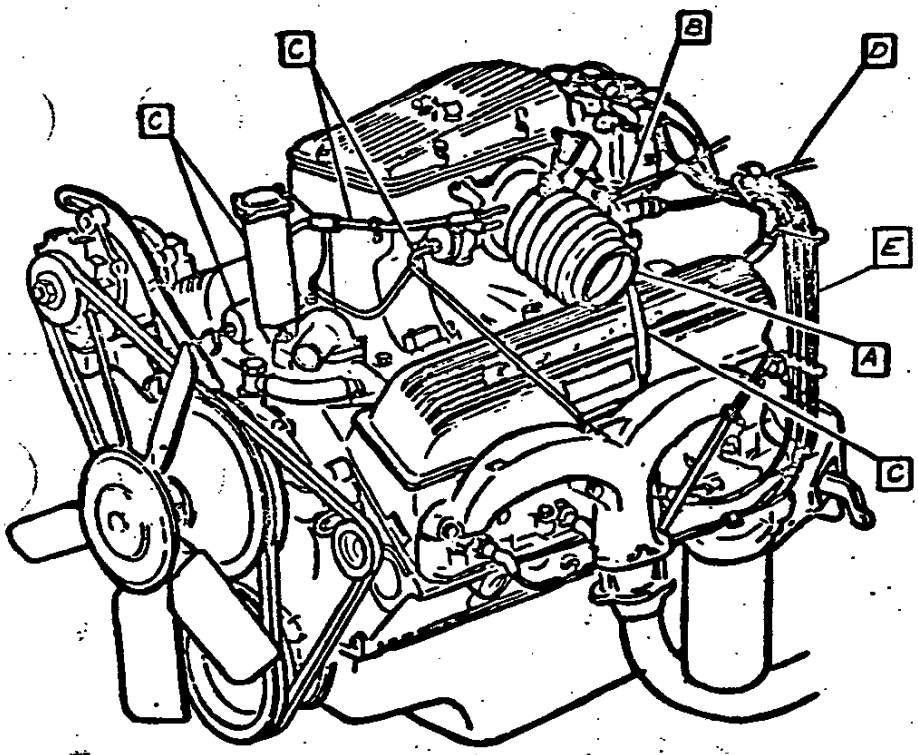
1. Set front wheels in a straight ahead position.
2. Loosen clamp bolts on both tie rods and adjust for $\frac{3}{16}$" to $\frac{5}{16}$" total toe-in.
3. Turn both rods the same amount and in the same direction to keep the steering gear on its high point and position the steering wheel for straight ahead driving.
4. Position inner tie rod clamps with bolt horizontal and down. Position outer clamps with bolt vertical and to the rear.

Drafting Graphic CHEVROLET **ASSEMBLY INSTRUCTIONS**

3865300 CORVETTE 19000 SERIES

	SHEET	TITLE
	1.	CONTENTS-FUEL INJECTION
	2.	NON-ILLUSTRATED PARTS
A	3.	AIR CLEANER
B	4.	ACCELERATOR LINKAGE & SPARK CONTROL HOSE
C	5.	CARB. CHOKE PIPE, FUEL FILTER PIPE & POSITIVE VENTILATION
D	6.	NAME PLATE & WIRE ASM - SOLENOID
E	7.	SPARK PLUG WIRE ROUTING

● 3864821 ENGINE ASM (AS SHIPPED)



CHEVROLET MOTOR DIVISION, GMC		UPC	DATE SYM	REVISION RECORD AUTH. DR CK
FUEL INJECTION - CONTENTS		L84		
19000		1.		
DWG	REF: 1.00 L- L-	SHEET		
DATE REL 6-4	L- L- L-			

(1) THE FOLLOWING PARTS ARE INSTALLED SAME AS REGULATOR PRODUCTION

3827368	HOSE - RADIATOR - INLET
3864974	GAGE ASM - OIL LEVEL
(1) 6455364	CLUSTER ASM - INSTRUMENT

THE FOLLOWING PARTS ARE INSTALLED SAME AS UPC L-75

3849861	PIPE ASM - EXHAUST FRT. LH
3849862	-RH
3851673	SHIELD ASM - EXHAUST FRT. LH
3851674	-RH
3796797	SPACER - EXHAUST PIPE TO MANIFOLD
1845198	GASKET
3767556	PACKING
3853725	CLAMP
3853726	BOLT
3859561	MUFFLER & EXHAUST PIPE ASM. LH
3859562	-RH
9985020	SEALING COMPOUND - FRT. EXH. PIPE TO MUFFLED (3/4 OZ. PER JOB)
2385666	CLAMP

THE FOLLOWING PARTS ARE INSTALLED SAME AS UPC L-76

3854796	PIPE ASM - FUEL PUMP TO FUEL FILTER
187343	CONNECTOR
142558	ELBOW
6650703	FILTER ASM - FUEL
3834122	BRACKET
120394	WASHER
124829	NUT
3840344	SCREW - CLAMPING
3855147	CONNECTOR
3770245	PULLEY ASM - W/PUMP
3766987	PULLEY ASM - C/SHAFT
3815933	BOLT
131718	L. WASHER
3739422	SPL. WASHER
(2) 3871242	PULLEY - GENERATOR
3829191	PULLEY ASM - IDLER
3793288	STUD - W/PUMP
446212	P WASHER
120377	NUT
122126	BOLT
103321	L WASHER
3843162	BELT - FAN & GENERATOR
3843164	BELT - W/PUMP & FAN
6440883	FUEL PUMP
181629	BOLT
(3) 103321	L. WASHER
1115203	COIL ASM.

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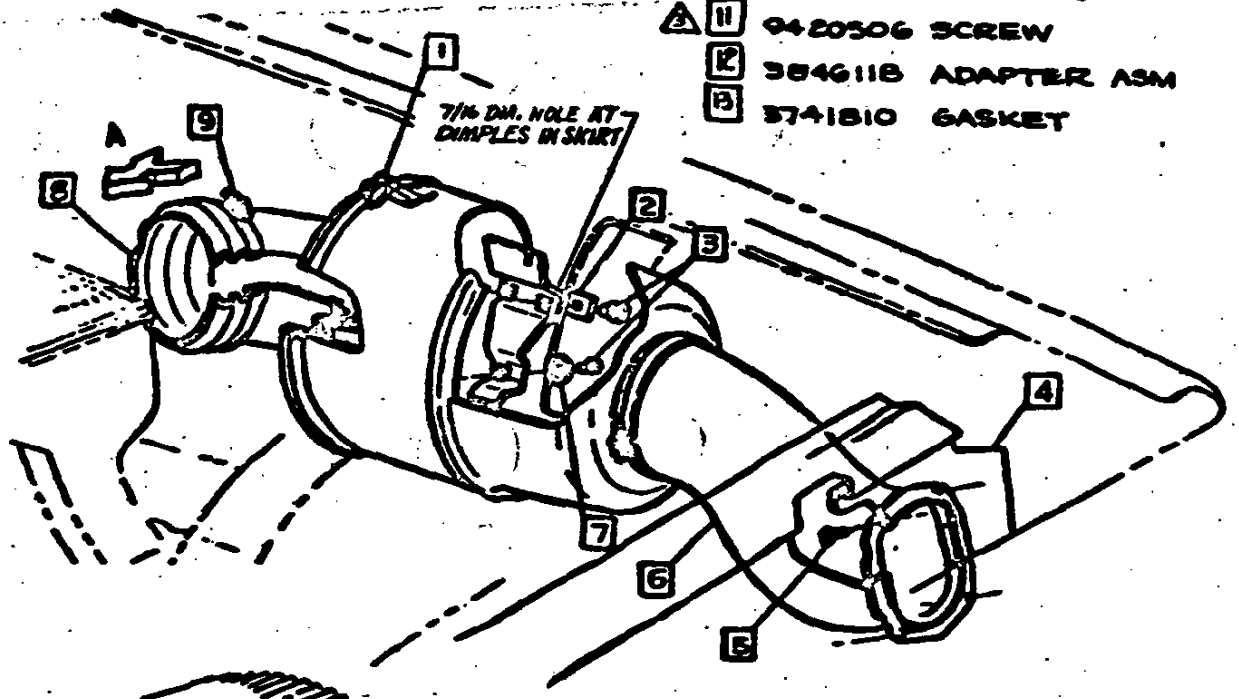
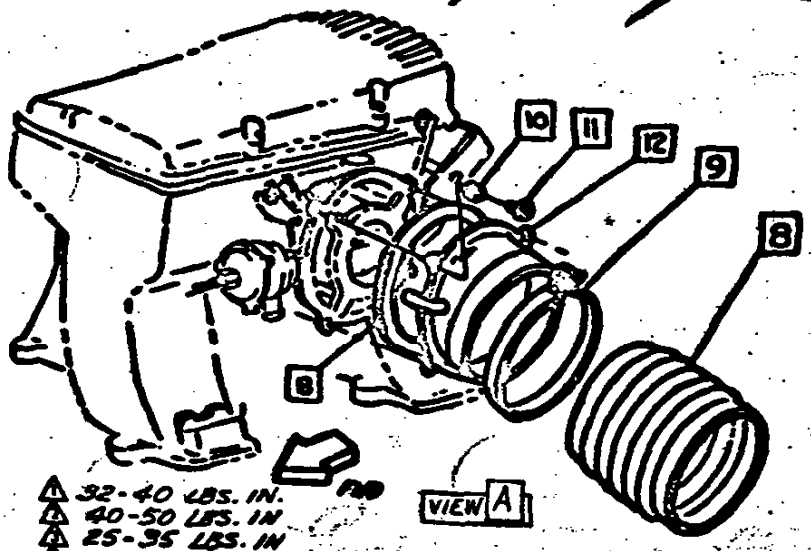
3865300 CORVETTE 19000 SER

1	6418094	AIR CLEANER ASM	
2	3825657	REINFORCEMENT	
△1 3	9417692	BOLT	
◑ 4	3858963	SUPPORT ASM	
△2 5	9417226	SCREW	
6	3825660	TUBE ASM	
7	3704579	P.WASHER	
8	3853879	HOSE	
△4 9	3749810	CLAMP	
10	138473	L.WASHER	
△3 11	9420506	SCREW	
12	3846118	ADAPTER ASM	
13	3741810	GASKET	





△1 32-40 LBS. IN.
△2 40-50 LBS. IN
△3 25-35 LBS. IN
△4

CHEVROLET MOTOR DIVISION, GMC		UPC	DATE BY REVISION RECORD AUTH. DR CK
FUEL INJECTION - AIR CLEANER		L84	
19000		3.	
DWG 4-30-64 REL 6-4	FS/CI REF: 3.00 L- 71164 L- L- L- L-	SHEET	

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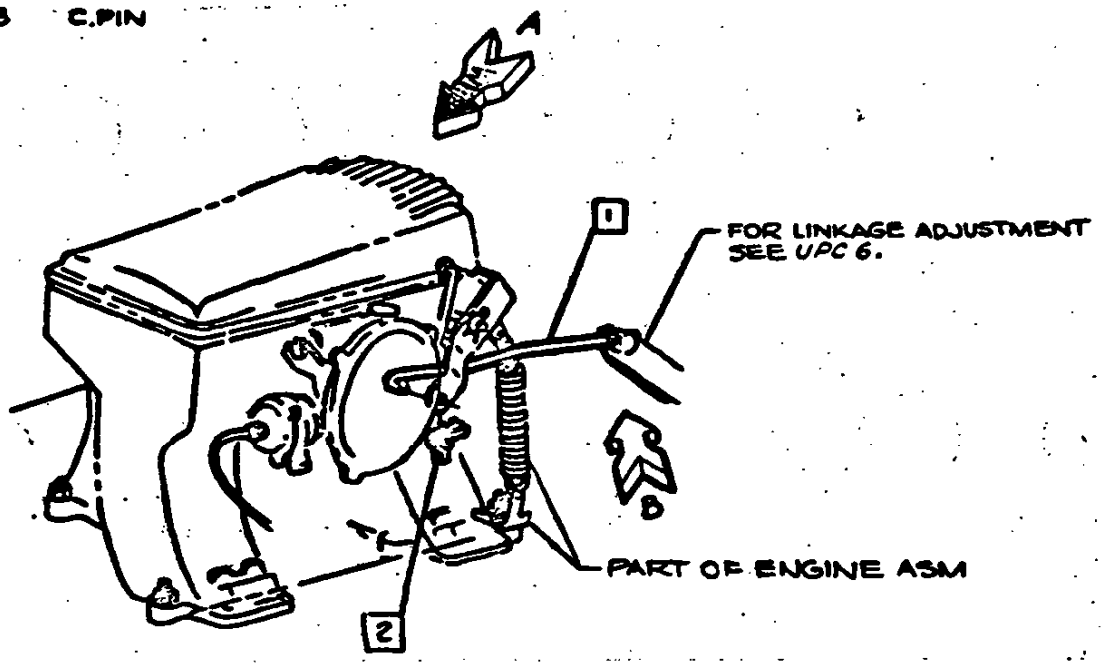
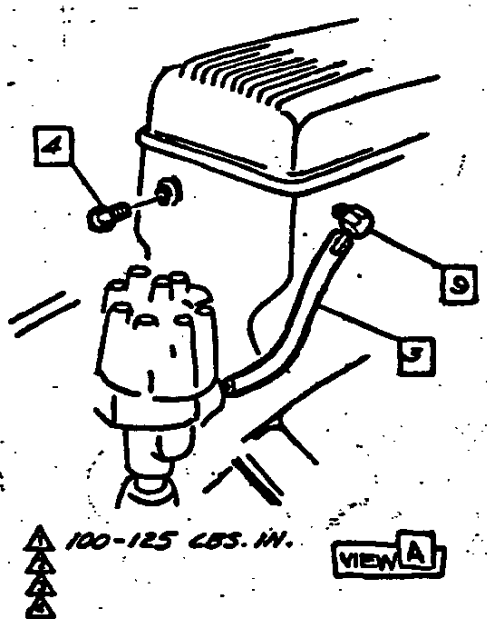
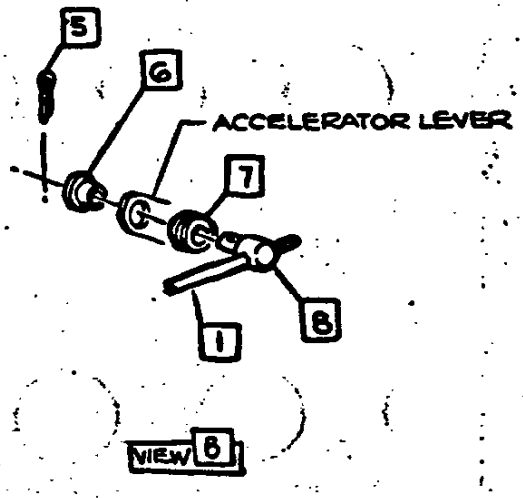
ASSEMBLY INSTRUCTIONS

3865300 CORVETTE 19000 SERIES

1	3828224	ROD	6	3707713	SLEEVE
2	3700188	CLIP	7	3054399	BUSHING
3	38/3024	HOSE-SPARK CONTROL	8	3758592	SWIVEL
⚠1 4	444819	PLUG	⚠1 9	3750029	CONNECTOR
5	103373	C.PIN			





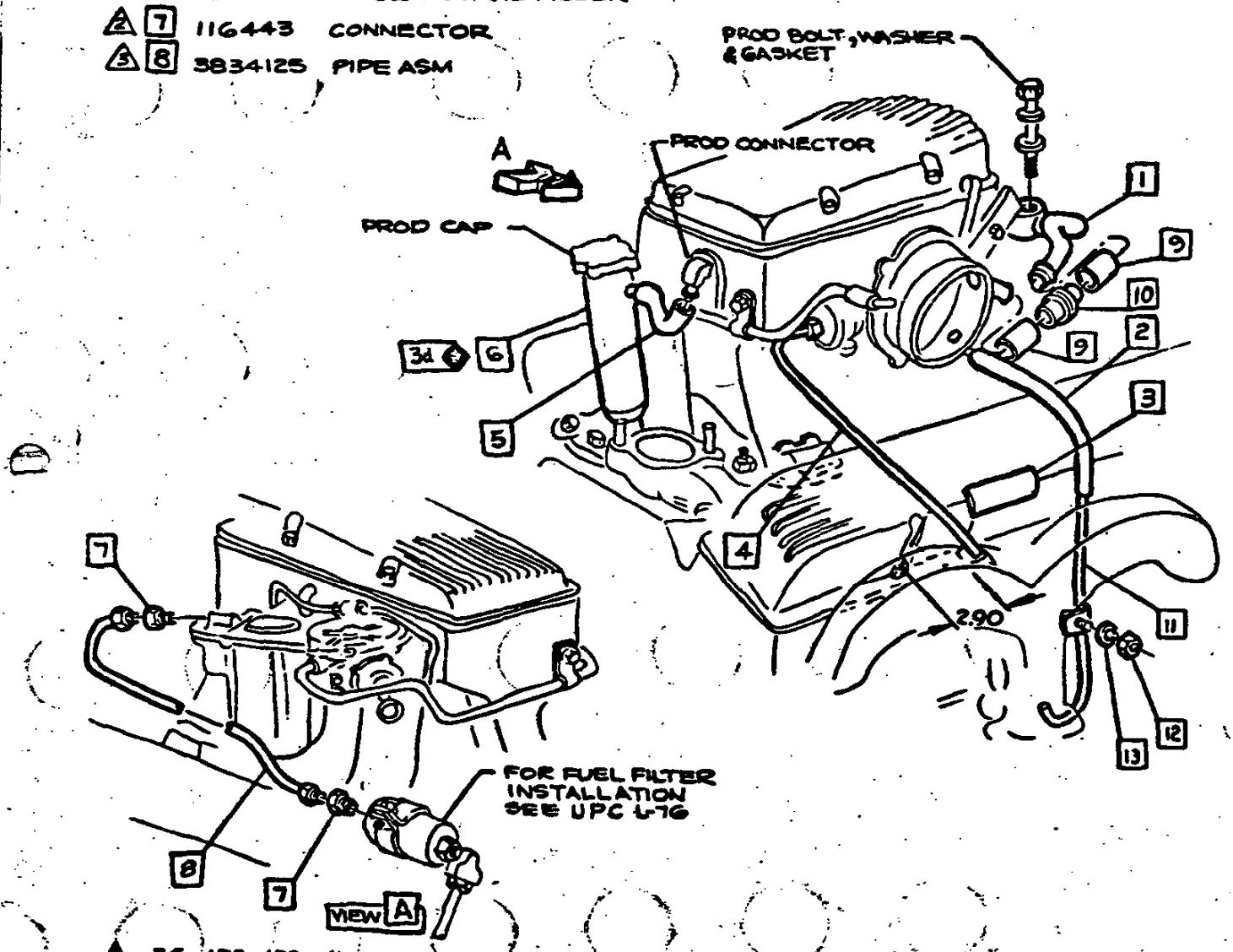


CHEVROLET MOTOR DIVISION, GMC	UPC	DATE	SYM	REVISION RECORD	AUTH	DR	CK
FUEL INJECTION - ACCELERATOR LINKAGE & SPARK CONTROL HOSE	L84						
19000	4.						
DWG 4-30-64 PS/CI REF: 4.00 L-63450 L-62424							
DATE REL 6-4 L- L- L-	SHEET 1						

ASSEMBLY INSTRUCTION

3865300 CORVETTE 19000 SERI

1	3857477	TUBE ASM	
2	3828404	HOSE	
3	3853877	DECALCOMANIA	
△1 4	3834121	PIPE ASM	
5	3854238	HOSE	
◑ 6	3846102	TUBE ASM-OIL FILLER	
△2 7	116443	CONNECTOR	
△3 8	3834125	PIPE ASM	
9	3850370	HOSE	
10	3857476	FLAME ARRESTOR	
11	3817306	PIPE ASM - AIR INTAKE	
△4 12	124829	NUT	
13	120394	L WASHER	



△1 75-175 LBS. IN.
△2 100-125 LBS. IN.
△3 115-135 LBS. IN.
△4 25-30 LBS. FT.

CHEVROLET MOTOR DIVISION, GMC

FUEL INJECTION — CARB CHOKE PIPE, FUEL FILTER PIPE & POS/VENTILATION

19000

DWG 4-30-64 ES/CI REF. 5.00 L-71164 L-
DATE REL 6-4 L- L- L-

UPC L84

5. SHEET

DATE	SYM	REVISION RECORD	AUTH.	DR	CK

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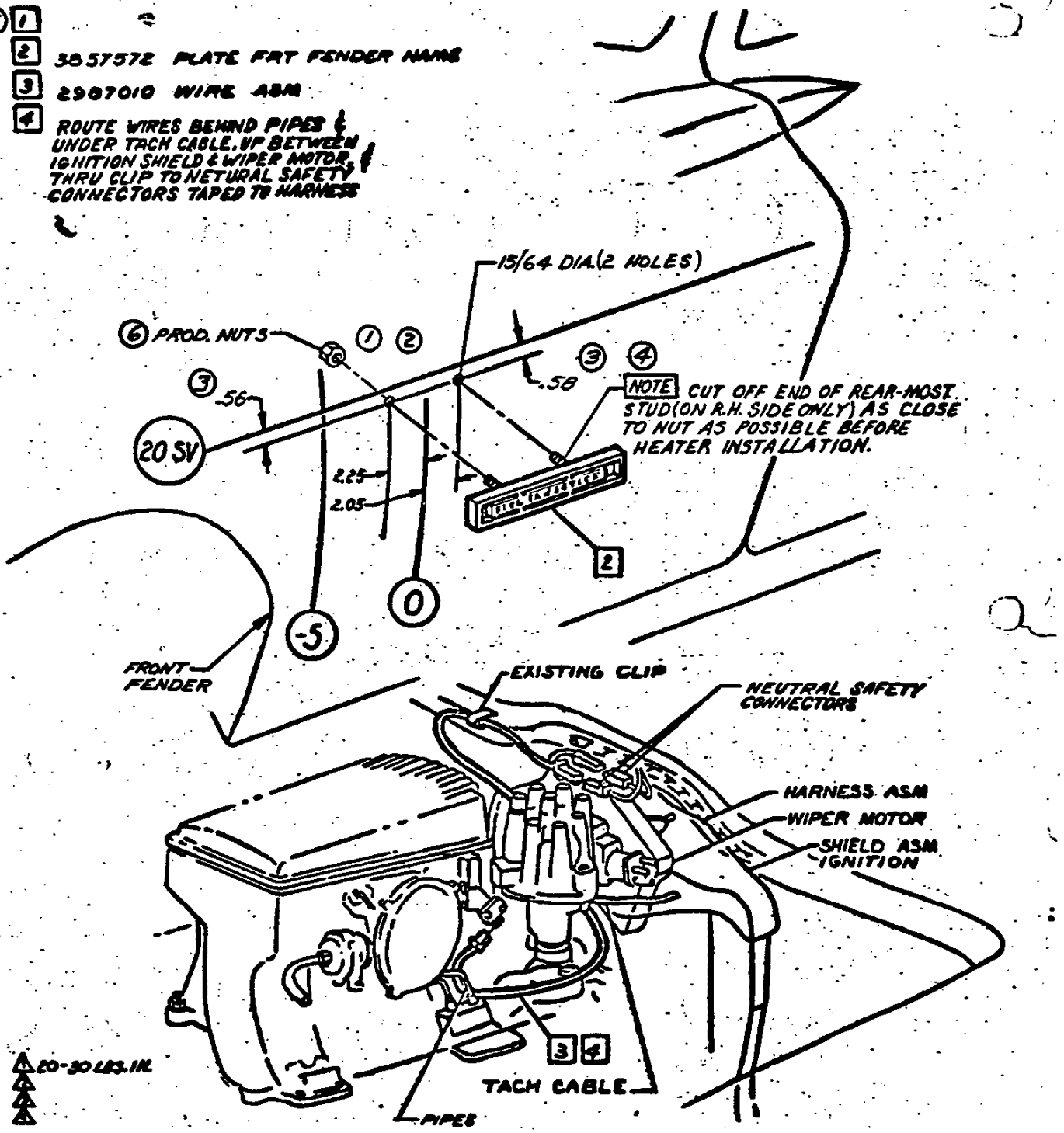
ASSEMBLY INSTRUCTIONS

3865300 CORVETTE 19000 SERIES

5 1
2 3857572 PLATE FAT FENDER NAME
3 2907010 WIRE ASM
4 ROUTE WIRES BEHIND PIPES & UNDER TACH CABLE. UP BETWEEN IGNITION SHIELD & WIPER MOTOR, THRU CLIP TO NETURAL SAFETY CONNECTORS TAPED TO HARNESS



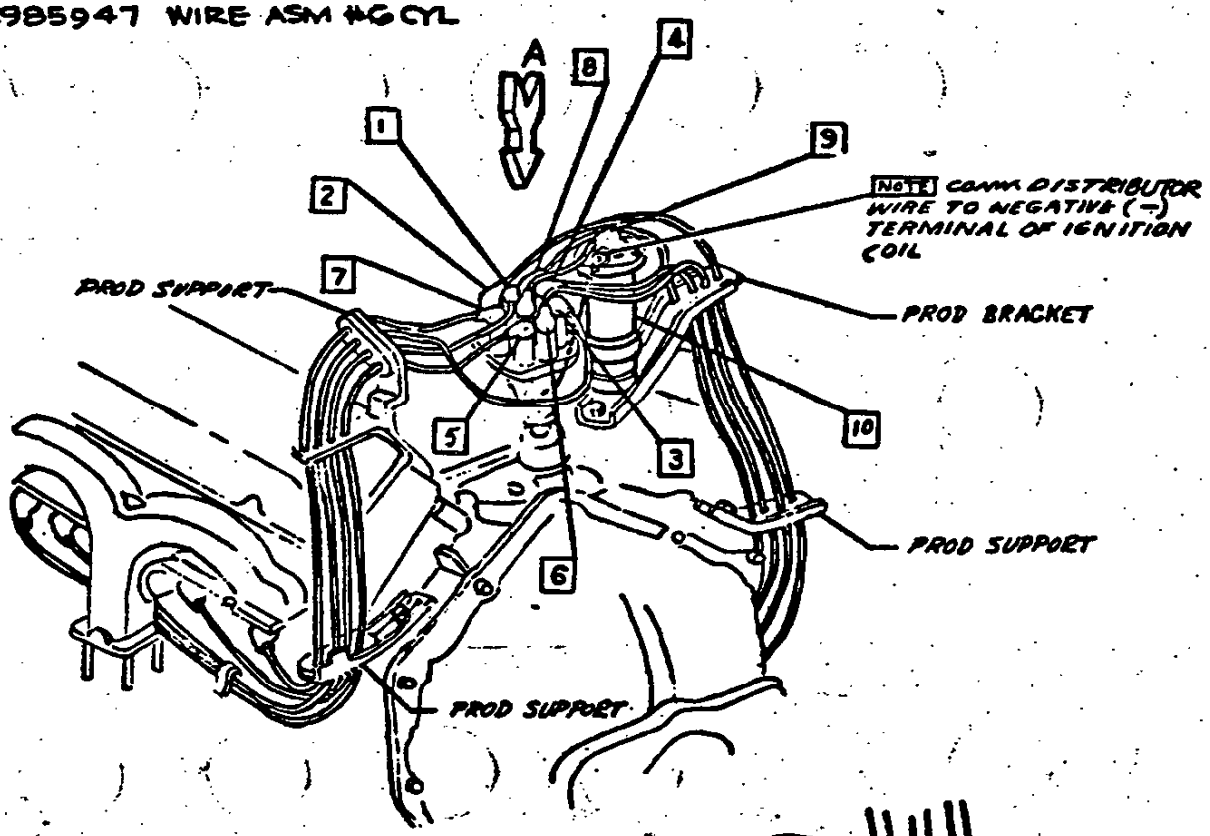
CHEVROLET MOTOR DIVISION, GMC	UPC	DATE	SYM	REVISION RECORD	AUTH.	DR	CK
FUEL INJECTION-NAME PLATE & WIRE ASM.-SOLENOID	L84	6-23-64	1	EMBLEM REMOVED	59678	EM	
19000	6.		2	FENDER DWG. REVISED			CI
DWG PREL. 5-21 RS/CI REF: PREL. 1. L-58008 L-	SHEET 1	7-24-64	3	DIM. REVISED (2 PLACES)	65584	DB	CI
DATE REL 5-21 L- L- L-		10-16-64	4	STUD NOTE ADDED	67027	BR	CI
		11-20-64	5	9419756 NUT(20-30 LBS. IN.)	67626	BR	
				REMOVED			
			6	WAS ITEM 1			CI

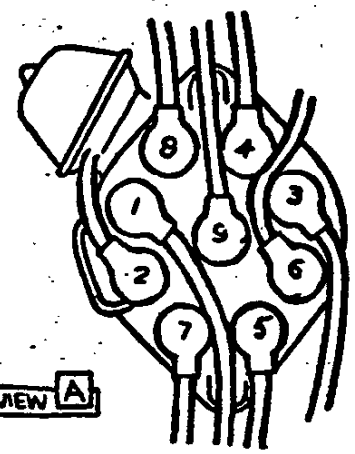
DRAFTING Graphic CHEVROLET

ASSEMBLY INSTRUCTIONS

3865300 CORVETTE 19000 SERIES

1	2985949	WIRE ASM #1 CYL
2	2985949	WIRE ASM #2 CYL
3	2985949	WIRE ASM #3 CYL
4	2985948	WIRE ASM #4 CYL
5	2985947	WIRE ASM #5 CYL
6	2985947	WIRE ASM #6 CYL
7	2985946	WIRE ASM #7 CYL
8	2985946	WIRE ASM #8 CYL
9	2985975	WIRE ASM - HI TENSION
◑ 10	1115091	COIL ASM





FORWARD

CHEVROLET MOTOR DIVISION, GMC	UPC	DATE	SYM	REVISION RECORD	AUTH	DR	CK
FUEL INJECTION - SPARK PLUG WIRE ROUTING	L84						
19000	7.						
DWG 9-30-64 REF: 7.00	SHEET						
DATE REL 6-4							

SECTION 6

ENGINE MECHANICAL

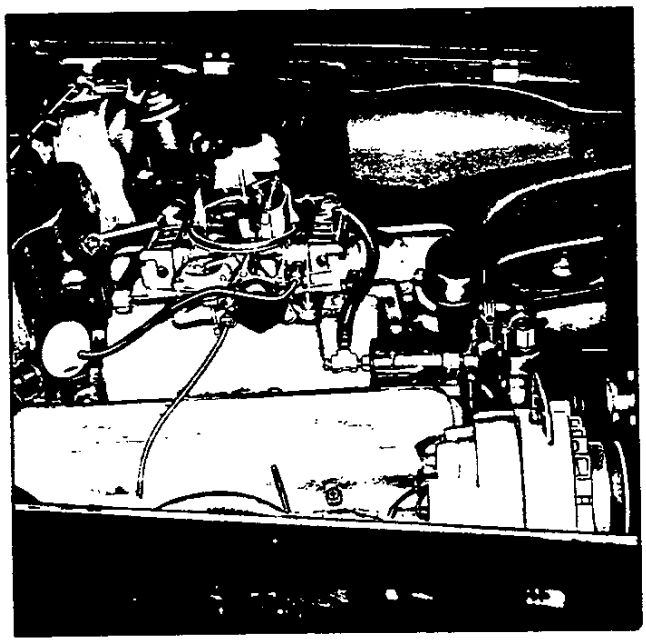


Fig. 1—Corvette High Performance Engine

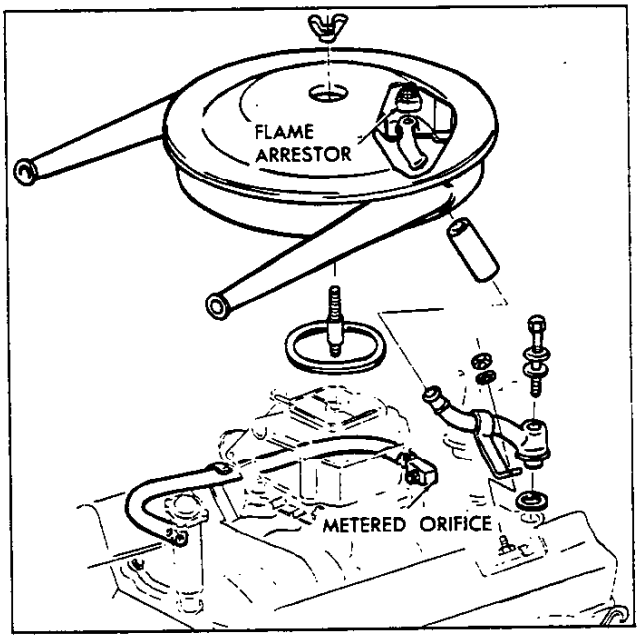


Fig. 2—Crankcase Ventilation—250 and 300 H.P. Engines

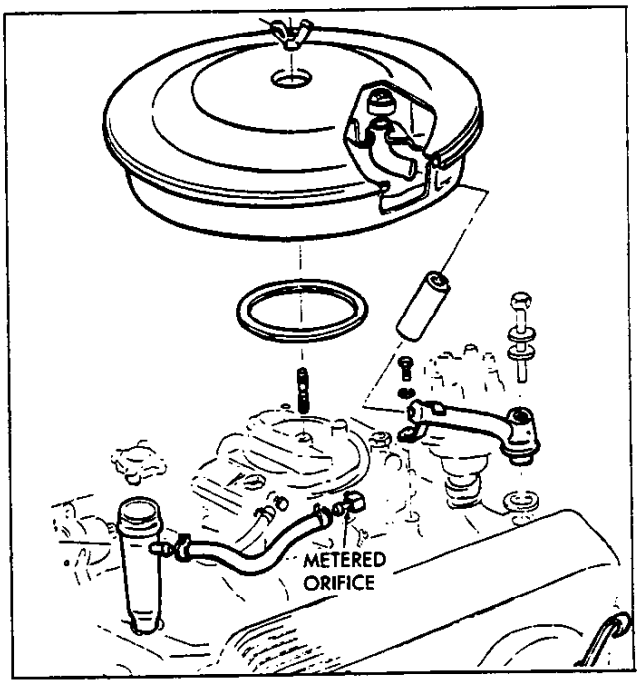
Three 327 cubic inch V-8 engines are available on the 1964 Corvette:

1. The base 250 H.P. engine with WCFB carburetor and hydraulic lifters:
2. A 300 H.P. engine with AFB carburetor and hydraulic lifters: and
3. A 365 H.P. engine (Fig. 1) equipped with a Holley 4-Bbl. carburetor, special camshaft and solid valve lifters.

All engines are equipped with positive crankcase ventilation, Delcotron AC charging system, thermo-modulated fan hub and dual exhaust system.

The 250 and 300 H.P. engines are available teamed with 3-Speed, 4-Speed or Powerglide transmissions while the 365 is available with manual transmission only.

Service operations and tune-up procedures remain essentially the same as those outlined in the 1963 Shop Manual except as follows:



TUNE UP

CRANKCASE VENTILATION (FIG. 2 and 3)

Crankcase ventilation is closed positive through a fixed metered orifice at the carburetor base and air is routed from the clean air side of the air cleaner, to the

cap is non-vented. The orifice should be cleaned at each tune-up period and can be tested in the same manner as the valve was in 1963 if desired.

VALVE ADJUSTMENT

Before adjusting the valve stem to rocker arm clearance, it is extremely important that the engine be thoroughly warmed up to normalize the expansion of all parts. This is very important because during the warm-up period, the valve clearances will change considerably. To adjust the valves during or before this warm-up period will produce clearances which will be far from correct after the engine reaches normal operating temperature.

Tests have shown that valve clearances will vary as much as .005" from a cold check through the normalizing range: consequently the engine should be run approximately 30 minutes to properly normalize all parts.

Covering the radiator will not materially hasten this normalizing process because even with the water temperature quickly raised, it does not change the rate at which the oil temperature increases or the engine parts become normalized.

The actual temperature of the oil is not as important as stabilizing the oil temperature. The expansion or contraction of the valves, rocker arm supports, push rods, cylinder head and cylinder block are relative to this oil temperature. Therefore, only after the oil temperature is stabilized, do these parts stop expanding and valve clearance changes cease to take place.

1. Normalize the engine.
2. Remove rocker arm covers and gaskets.
3. Tighten all head bolts (see engine torque specifications chart).

1964 ENGINE TUNE-UP SPECIFICATIONS

ENGINE			327	327	327
H.P.			250	300	365
Carburetors			WCFB	AFB	Holley
Compression PSI			160*	160*	150*
SPARK PLUGS	Make and No.	Colder	AC—43		
		STD.	AC—44		
		Hotter	AC—45		
	Gap		.035"		
Ignition Distributor	Point Dwell		28°—32°		
	Point Gap		.019" New—.016" Used		
	Point Arm Spring Tension		Preset at 19—23 oz.		
	Condenser		.18—.25 Microfarad		
	Fan Belt		75 ± 5 Lbs. Using Strand Tension Gauge		
Air Cleaner			Polyurethane Element***		
TAPPET CLEARANCE	Inlet		Hydraulic—One Turn to Center Plunger		Mech.—.030" Hot
	Exhaust		Hydraulic—One Turn to Center Plunger		Mech.—.030" Hot
Ignition Timing** (BTDC)°			4° Nominal 4°—10° Range	8° Nominal 6°—12° Range	10°
Engine Idle RPM	Syn.		475-500		800
	Auto. (In Drive)		450-475		
FUEL PUMP	Press.		5¼ to 6½ PSI @ idle to 1000 RPM		
	Vol.		One Pint in 30 to 45 Seconds		
Cooling System Radiator Pressure			13 PSI		
Crankcase Vent Valve			Metered orifice—clean at each tune-up		

At cranking speed with throttle open and all plugs removed —15 psi. max. variation between cylinders.

1963 ENGINE TUNE-UP SPECIFICATIONS

TURBO-FIRE 327 CU. IN. V-8 ENGINES	250 HP (Base Engine)	300 HP (RPO L75)	340 HP (RPO L76)	360 HP (RPO L84)
Carburetor	4 BBL Carter "WCFB"	4 BBL Carter "AFB"		Fuel Injection
Firing Order	1-8-4-3-6-5-7-2			
Test Compression	160 psi.*		150 psi.*	
Normal Idle Speed Manual Trans.	475 rpm		750 rpm	850 rpm
Normal Idle Speed Auto. (In Drive)	450 rpm		—	
Spark Plugs Gap and Torque	AC-44			
	.035"—25 ft. lbs.			
Distributor Dwell	28° to 32°			
Point Gap	.019" (New) .016" (Use			
Point Tension	19-23 oz.			
Ignition Timing** (BTDC Settings at Normal Idle)	4° (Prod.) 4°-10° Range	8° (Prod.) 6°-12° Range	10°	
Tappet Adjustment	Hydraulic—1 turn down from "no lash"		Mechanical Inlet .008"—hot Exh. .018"—hot	
Fuel Pressure	5¼-6½ psi. (at idle to 1000 rpm)			
Crankcase Capacity	5 qts. (with filter change) 4 qts. (without filter change)		6 qts. (with filter change) 5 qts. (without filter change)	

**Range depends on locality, driving conditions, and grade of fuel. When setting, disconnect vacuum advance line and cap vacuum opening.*

***Polyurethane wash and re-oil each 12,000 miles.*

4. Use a socket wrench on self-locking rocker arm stud nut and adjust as needed to obtain valve lash (see tune-up charts) measured between rocker arm and valve stem with a leaf type feeler gauge.

   NOTE: Individual rocker arm splash shields are available commercially.

5. Stop engine and install rocker covers with new gaskets.

PISTON CLEANING AND INSPECTION

Clean varnish from piston skirts and pins with a cleaning solvent. DO NOT WIRE BRUSH THE PISTON SKIRT. Clean the ring grooves with a groove cleaner and make sure oil ring holes and slots are clean.

Inspect the piston for cracked ring lands, skirts or pin bosses, wavy worn ring lands, scuffed or damaged skirts, eroded areas at top of the piston. Replace pistons that are damaged or otherwise show signs of excessive wear.

Replacement pistons are available in standard and in .020", .030" and oversizes. Each available size piston is supplied with 4 pistons to cover the size range (Example: High limit standard pistons). When pistons are being replaced and minimum cylinder honing is necessary, measure (mike) the cylinder bore and refer to the selection chart (Fig. 4) to obtain the closest clearance, then check the fit using the feeler strip method. When boring to oversize piston, fit the cylinder to the piston by honing the last .002", and checking fit with feeler method.

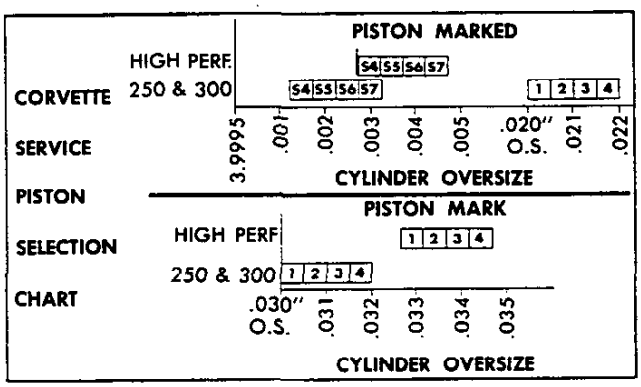


Fig. 4—Piston Selection Chart

1964 ENGINE SPECIFICATIONS

ENGINE	DISPLACEMENT	327	327	327
	EQUIPMENT	WCFB	AFB	HOLLEY & SPEC. CAM
GENERAL DATA:				
Horsepower @ rpm		250 @ 4400	300 @ 5000	365 @ 6200
Torque @ rpm		350 @ 2800	360 @ 3200	360 @ 4000
Type		V-8 Valve-in-Head		
Number of Cylinders		8		
Bore		4.00		
Stroke		3.25		
Taxable Horsepower (A.M.A.)		51.2		
No. System (Front to Rear)	Left Bank	1-3-5-7		
	Right Bank	2-4-6-8		
Firing Order		1-8-4-3-6-5-7-2		
Compression Ratio		10.5:1		11.0:1

ENGINE			DISPLACEMENT	327	327	327
			EQUIPMENT	WCFB	AFB	HOLLEY & SPEC. CAM
PISTONS:						
Clearance Limits	Top Land			.036-.046		
	Skirt			.0005-.0011		.0039-.0045
Ring Groove Depth	Compression			.2055-.2135		
	Oil			.1875-.1955		
PISTON RINGS:						
Compression	Width			.077-.078		
	Gap			.013-.023		
Oil Ring	Width			.184-.188		
	Gap			.015-.055		
Expanders				Integral with Spacer		
PISTON PINS:						
Length				2.990-3.010		
Diameter				.9270-.9273		
Clearance	In Piston	New		.00015-.00025		.00045-.00055
		Wear Limit		.001		
	In Rod			Press Fit		
CONNECTING RODS:						
Bearing	Clearance			.0007-.0028		
	End Play			.0017-.0038		
CRANKSHAFT:						
End Play				.002-.006		
End Thrust Taken by				Rear Main		
Main Bearing	Journal Diameter			2.2978-2.2988		
	Clearance			.0008-.0034		
Crankpin Journal Diameter				1.999-2.000		
CAMSHAFT:						
Lobe Lift Measured at Push Rod	Intake			.2658		.2625
	Exhaust			.2658		.2665
Cam Bearings	Journal Diameter			1.8682-1.8692		
Type of Drive				Timing Chain		
VALVE SYSTEMS:						
Lifters Type				Hydraulic		Mechanical
Rocker Arm Ratio				1.5:1		
Valve Lash	Intake (Hot)			Zero		.030
	Exhaust (Hot)			Zero		.030
Intake	Face Angle			45°		
	Seat Angle			46°		
	Stem to Guide Clearance			.0010-.0027		
	Lift (Meas. at Valve Stem)			.3987		.3937
Exhaust	Face Angle			45°		
	Seat Angle			46°		
	Stem to Guide Clearance			.0016-.0033		
	Lift (Meas. at Valve Stem)			.3987		.3997
Valve Springs	Outer Spring Press. and Length	Free Length		2.08		
		Pressure lb. @ in.		78-86 @ 1.66"		
		Pressure lb. @ in.		170-180 @ 1.26"		
	Inner Spring Damper	Free Length		2.00		
		No. of Coils		Approx. 4		
Recommended Valve Seat Width	Intake			1/16		
	Exhaust			3/32		
COOLING SYSTEM:						
Type				Liquid		
Radiator Cap Pressure				13 PSI		
Cooling System Capacity	W/Heater			Approx. 17		
	W/O Heater			Approx. 16		

SECTION 6M

ENGINE FUEL

The base (250 H.P.) and the 300 H.P. engines use the WCFB and the AFB carburetors respectively. These carburetors are basically carry over for 1964. The air cleaners and fuel pump are also basically the same. Refer to the 1963 Corvette Shop Manual for service procedures involving these items.

HOLLEY MODEL 4150 4-BBL.

INDEX

GENERAL DESCRIPTION

A Holley 4 barrel carburetor (fig. 1) is used on the high performance Corvette V-8 in 1964. This carburetor is a 4 barrel downdraft type providing the advantages of a dual 2 barrel installation in one compact unit. This carburetor is used in conjunction with a dual exhaust system, special camshaft and solid valve lifters.

A clean air choke system to the automatic choke housing minimizes any tendency toward sticking parts due to dirt. Clean air is drawn from the air cleaner, through a tube to the exhaust manifold heat passage and to the choke housing via another tube.

The Holley carburetor breaks down into four sub

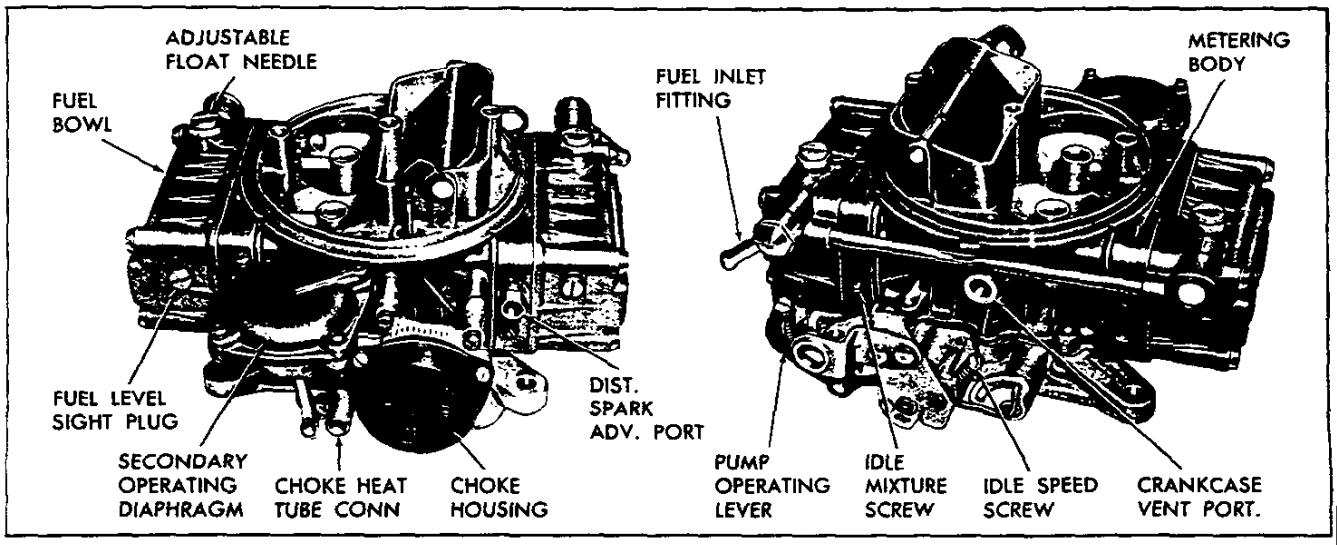


Fig. 1—Holley 4 Bbl Carburetor

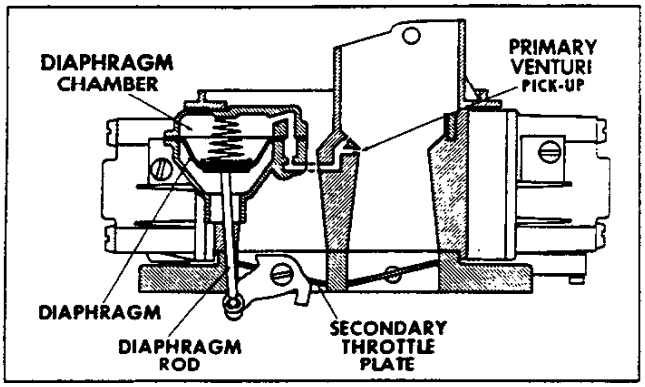


Fig. 2—Secondary Throttle Operating System

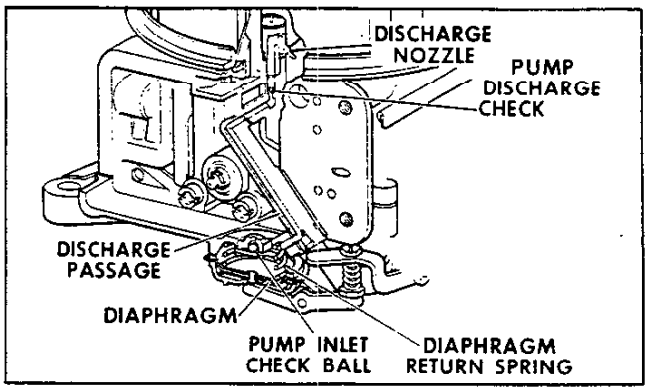


Fig. 4—Accelerator Pump System

assemblies; (1) throttle body, (2) main body, (3) metering bodies and (4) the fuel bowls. The throttle body consists of primary and secondary throttles, shafts and levers. The main body consists of venturi choke valve, choke housing assembly, secondary throttle operating diaphragm and the accelerating pump discharge nozzles and check valve. The metering bodies contain the idle jets, idle needles, main metering jets, power jet (economizing valve), and their corresponding passages. The fuel bowls contain the fuel inlet fitting, needle, seat and screen as well as the float and float spring. The primary fuel bowl also houses the accelerating pump diaphragm and inlet check valve. A fuel line tube connects the two fuel bowl assembly inlet areas.

The operation of each carburetor system is similar to other carburetors as follows:

1. The Float (fuel inlet) System consists of an inlet fitting (hose connection type), inlet screen, adjustable-caged needle and seat assembly, spring assisted float assembly to maintain fuel at the proper level, and the fuel level sight plug.
2. The Idle System (fig. 3) is an inverted "U" passage with an idle well (fed by the main jets), an idle feed restriction (jet), two air bleeds (to inside of air horn area), an idle transfer passage (slotted for off-idle operation) and a needle adjusted (idle mixture screw) idle discharge passage. The mixture needle and feed restriction are located in the metering body. The secondary idle system discharge opening has no mixture screws, but is controlled by the primary needles.
3. The Accelerating Pump System (fig. 4) has a diaphragm type pump (located on the bottom of the primary float chamber), an inlet check ball (held in place by a br[illegible] pin swedged into the casting), and a discharge needle check valve under the pump nozzle in the venturi area. The pump is lever actuated by a cam on the throttle shaft. A spring loaded screw between pump link and actuating lever provides pump duration.
4. Main Metering System (fig. 5) consists of the

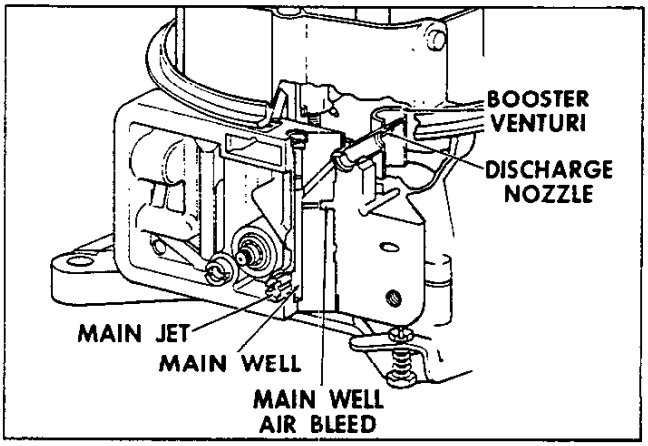


Fig. 5—Main Metering System

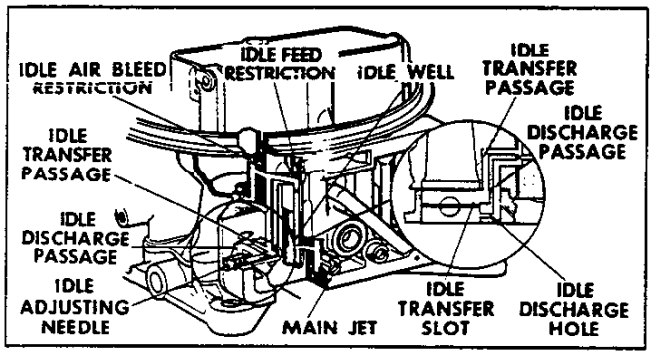


Fig. 3—Idle Speed System

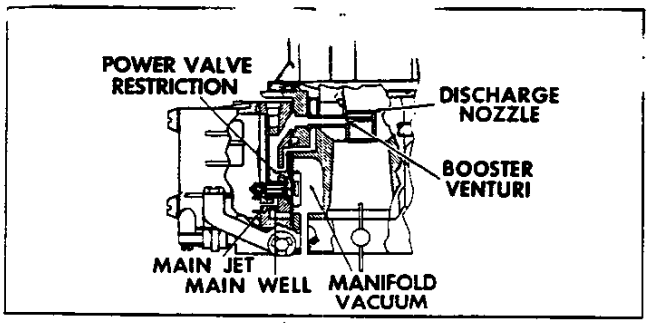


Fig. 6—Power Enrichment System

main jets, main well, a main well air bleed, the discharge nozzle (jet) and the passage to the nozzle located in the boost venturi.

5. Power Enrichment System (fig. 6) consists of a vacuum operated valve (threaded into the metering body) which supplies added fuel into the main well area during periods of low vacuum.
6. The Choke System is a conventional valve, fast idle cam, and thermostatic coil set up; varied by a vacuum operated piston and engine heat.

MAINTENANCE AND ADJUSTMENTS

Maintenance and adjustments consists of those adjustments done on the car. All adjustments, to be accurate must be made with the vehicle on level ground.

ACCELERATOR LINKAGE

The length of the throttle linkage is adjustable to assure wide-open throttle with full accelerator pedal depression. To check, depress accelerator pedal fully and check to see if throttle is wide open. If not, adjust threaded swivel at throttle lever to suit. With the accelerator pedal fully depressed and the carburetor throttle valve fully open the threaded swivel should be adjusted for free entry into the throttle lever. The swivel should then be turned two full turns to shorten the control rod.

IDLE SPEED AND MIXTURE ADJUSTMENT (VACUUM SPARK ADVANCE CONNECTED)

1. Remove air cleaner.
2. Turn the idle mixture screws lightly to their seat, then back off one full turn on each screw to provide an initial adjustment.

   CAUTION: Do not turn the screw tightly against its seat, as a smooth idle cannot be obtained the needle becomes grooved.

3. Connect tachometer and vacuum gauge to engine. Set parking brake and place transmission lever in neutral.
4. Start the engine, allow time to reach normal operating temperature then check to see that the choke is fully open and carburetor is on slow (curb) idle speed.
5. Adjust the idle speed screw to give the proper idle speed (see tune-up chart).
6. Adjust each idle mixture screw (one-at-a-time) to get highest steady vacuum reading and correct idle speed screw setting as speed changes.
7. Repeat steps 5 and 6 as needed to obtain highest steady vacuum at specified RPM.
8. Stop engine, remove instruments and install air cleaner.

CHOKE ADJUSTMENT

The choke adjustment is accomplished by loosening the choke coil cover screws and aligning the cover scribe mark with notch mark specified in tune-up chart, then tighten the screws.

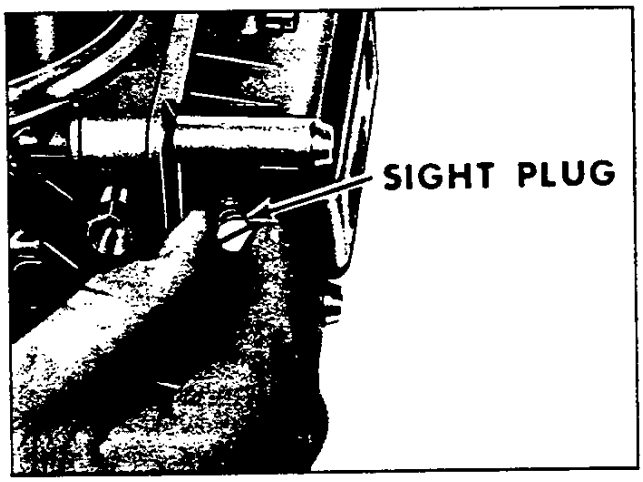


Fig. 7—Fuel Level Sight Plug

FLOAT LEVEL ADJUSTMENT (fig. 7)

1. Remove air cleaner then remove the sight plugs.
2. With parking brake on, and transmission in neutral, start the engine and allow it to idle.
3. With the car on a level surface, the fuel level should be on a level with the threads at the bottom of the sight plug port (plus or minus 1/32 inch).
4. If necessary to adjust (either or both bowls), loosen inlet needle lock screw and turn the adjusting nut clockwise to lower or counterclockwise to raise fuel level, then tighten lock screw.

   NOTE: 1/6 turn of adjusting nut equals approximately 1/16" fuel level change.

5. Allow a minute for fuel level to stabilize then recheck the level at sight plug.
6. Readjust, if necessary, until proper level is obtained, then install sight plug.

   NOTE: To assure proper secondary float level setting it is advisable to accelerate primary throttles slightly and hand operate secondary throttle. This assures a stabilized secondary fuel level.

   NOTE: No float drop adjustment is required on this carburetor.

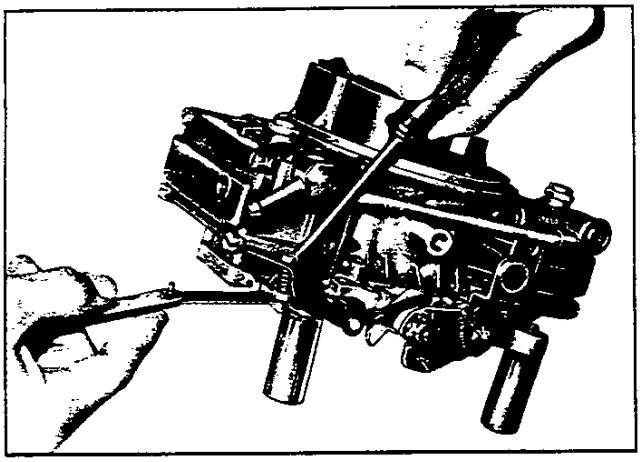


Fig. 8—Accelerator Pump Adjustment

ACCELERATOR PUMP ADJUSTMENT (override spring) Figure 8

1. With engine stopped—remove air cleaner.
2. Block throttle lever in wide open position and hold pump lever fully compressed (down), then measure the clearance between spring adjusting nut and arm of the pump lever.
3. Clearance should be .015"; adjust by turning nut or screw as required while holding opposite end. (The pump operating lever is not threaded.)
4. After adjustment is made, rotate the throttle lever to fully closed and partly open again. Any movement of the throttle lever should be noticed at operating lever spring end, indicating correct pump tip-in.
5. Install air cleaner.

UNLOADER ADJUSTMENT

1. Engine stopped—remove air cleaner.
2. Hold throttle lever in wide open throttle position.
3. Hold choke valve toward closed position against unloader tang of throttle shaft, then measure opening between choke valve lower edge and air horn with a drill rod (see specifications).
4. If necessary to adjust, bend choke rod (at off-set bend) using Tool J-4552. Recheck after adjusting.

FAST IDLE ADJUSTMENT

The fast idle is controlled by predetermined steps on the fast idle cam as they contact fast idle screw. Adjust as follows:

1. With engine normalized remove air cleaner.
2. Set parking brakes, in[illegible] then start engine.
3. Open primary throttle slightly, and lift fast idle cam up and let throttle close with fast idle screw on high step of cam.
4. Adjust fast idle screw (¼ open end wrench) to obtain specified engine R.P.M. (see specifications). Then repeat step three to check setting.

SERVICE OPERATIONS

REMOVAL AND INSTALLATION

1. Remove air cleaner, gasket and stud.
2. Disconnect
   a. Accelerator return spring.
   b. Accelerator linkage at throttle lever.
   c. Fuel line at carburetor.
   d. Choke heat tube at choke housing.
   e. Spark advance line at carburetor.
   f. Crankcase vent line at carburetor fitting.
3. Remove mounting nuts and lift carburetor from manifold—cover manifold opening with a rag to prevent foreign material entry.
4. Reverse removal procedure to install using new manifold flange gasket.

DISASSEMBLY

INTO SUBASSEMBLIES (fig. 9)

1. Remove secondary fuel bowl screws (4) and lift off fuel bowl, metering body and gaskets, then remove fuel tube from either bowl it remained in.
2. Remove primary fuel bowl screws (4) and remove fuel bowl, metering body and gaskets.
3. Remove secondary throttle operating diaphragm rod retainer clip and disconnect rod at throttle lever.
4. Remove throttle body to main body screws, then remove throttle body and gasket.

CLEANING AND INSPECTION

The most frequent causes of carburetor mal-function are gum, carbon, and water. Carefully clean and inspect all parts and castings as the carburetor is being serviced as follows:

1. Clean throttle flange, coil housing and all other non-metallic parts, in alcohol or gasoline.

   NOTE: Secondary throttle shaft bushings are delrin.

2. Wash all other parts in cleaning solvent.
3. Inspect holes in all operating levers and castings for excessive wear.
4. Inspect bearing surfaces of all shafts for excessive clearance (side play—slop). It is not necessary to remove shafts and plate to inspect.

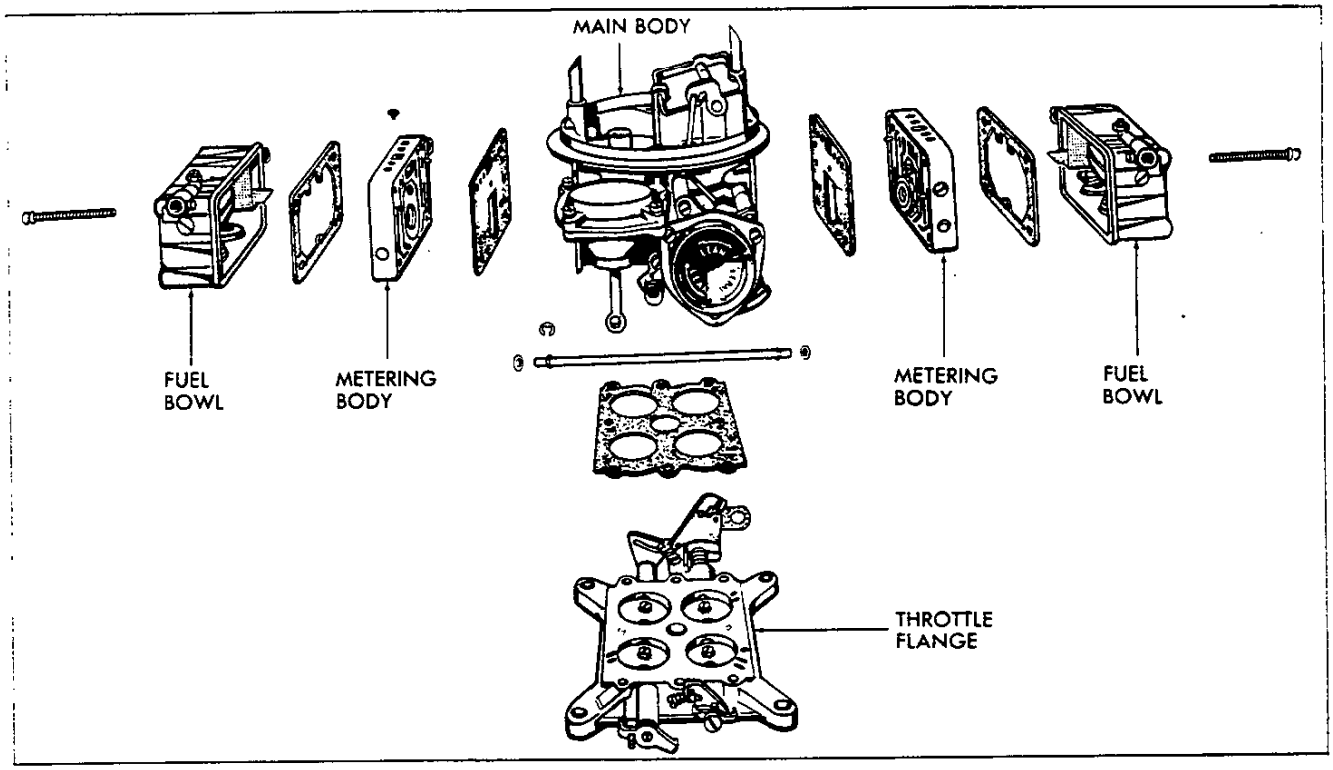


Fig. 9—Subassembly Removal

NOTE: If wear is excessive to the extent of improper operation of the carburetor, the worn parts should be replaced.

5. Inspect floats and bad dents and/or possible leaks.
6. Inspect pump diaphragm for damage.
7. If choke piston sticks in cylinder, remove piston and link assembly, wash piston and housing in solvent and blow dry. If washing does not clear up problem replace housing and/or piston and link assembly.
8. Inspect float needles and seats for burrs and ridges. If present, replace both the needle and seat; never replace either alone as these are an assembly.
9. Inspect edges of primary and secondary throttle valves for gouges and other deformations. If these or any other conditions exist which would prevent full seating, replace the faulty valve.
10. Inspect all mating surfaces of choke housing, fuel bowl, carburetor body, and throttle flange for burrs, gouges, or other surface irregularities. All surfaces must be smooth and square to prevent leaks.
11. Check secondary throttle operating diaphragm for free operation and leakage by moving diaphragm rod to the up position then covering vacuum passage opening in housing with thumb. The diaphragm should hold upward. Remove thumb from vacuum passage and diaphragm rod should move down readily.

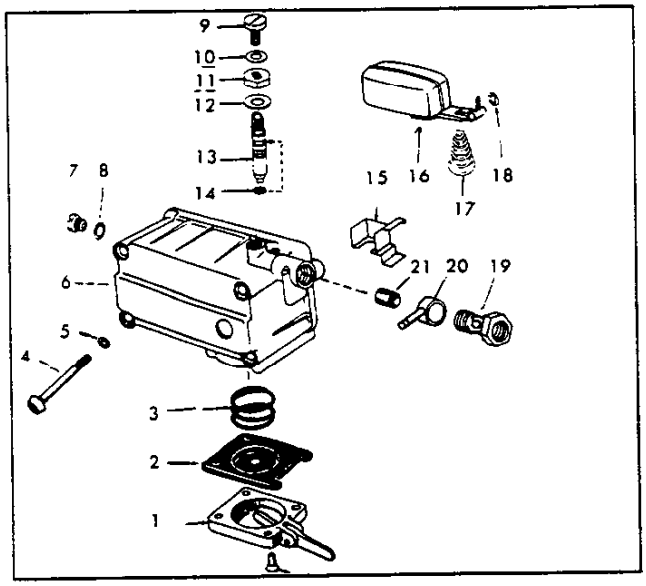


Fig. 10—Fuel Bowl—Exploded View

1. Pump Diaphragm Cover*
2. Pump Diaphragm*
3. Pump Diaphragm Spring*
4. Fuel Bowl Screw (4)
5. Gasket (4)
6. Fuel Bowl
7. Fuel Level Sight Plug
8. Gasket
9. Lock Screw
10. Gasket
11. Adjusting Nut
12. Gasket
13. Inlet Needle and Seat
14. "O" Ring Seal
15. Fuel Baffle
16. Float
17. Float Spring
18. Float Retainer Clip
19. Inlet Nut*
20. Inlet Fitting*
21. Inlet Screen*

*Primary Side Only

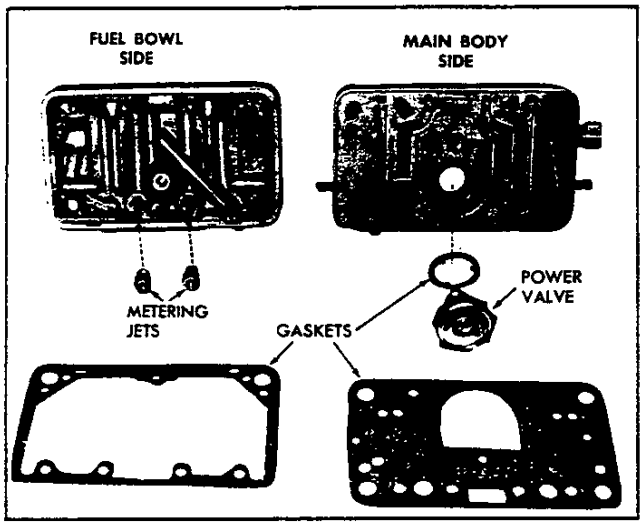


Fig. 11—Metering Body and Gaskets

12. After washing in solvent, clear all passages in the metering body and main body with compressed air. If passages or welsh plugs in either body are damaged, the body must be replaced.

SUBASSEMBLY OVERHAUL

FUEL BOWLS (fig. 10)

1. Remove float hinge pin retainer and slide float from bowl, then remove spring from float assembly if necessary.
2. Slide the inlet baffle out of bowl.
3. Loosen inlet needle and seat lock screw, then turn adjusting nut counterclockwise to remove the assembly.
4. Remove sight plug and gasket.
5. PRIMARY BOWL ONLY—

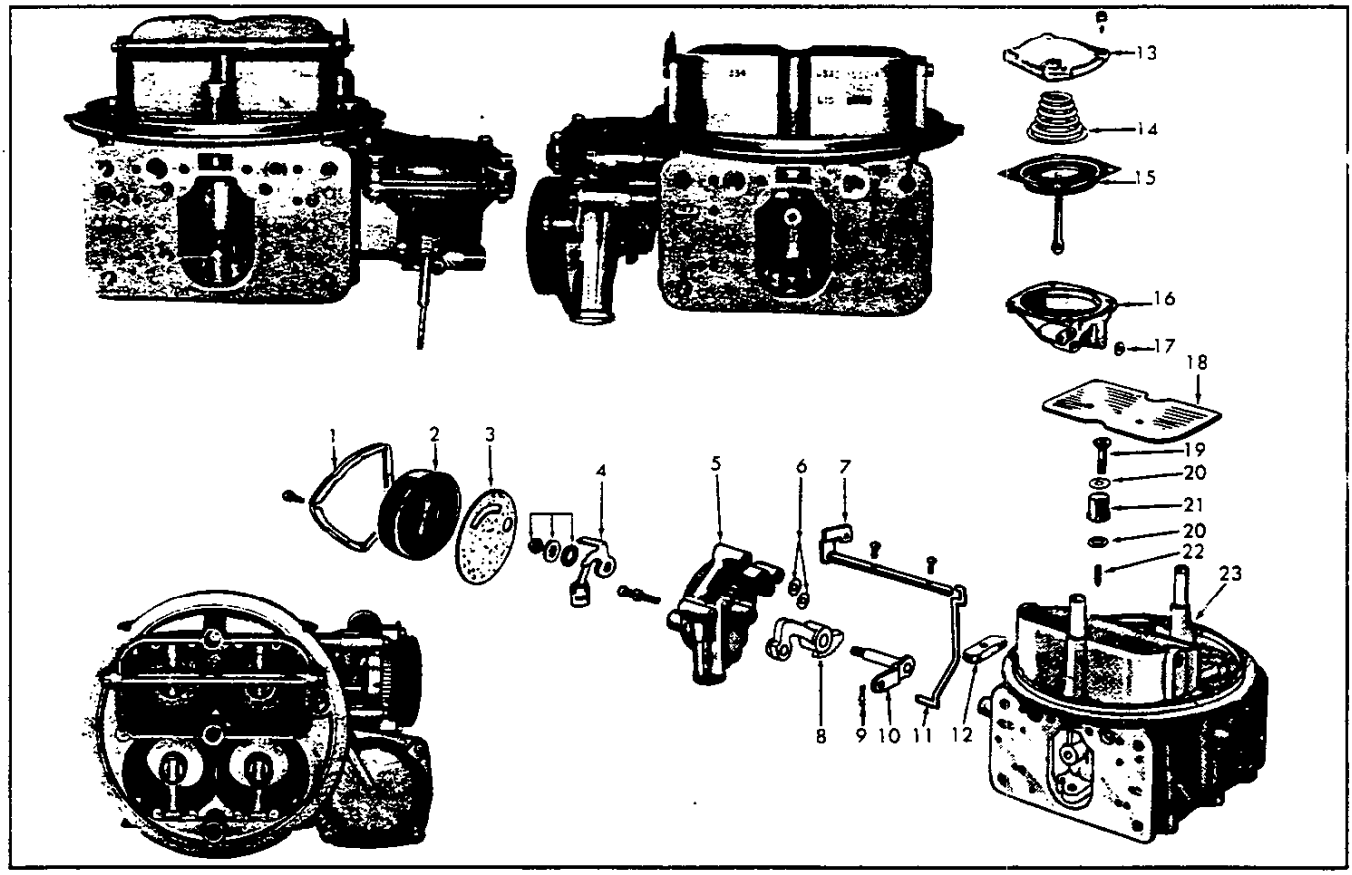


Fig. 12—Main Body—Disassembled

1. Retainer
2. Choke Coil Housing
3. Gasket
4. Choke Piston and Lever Assembly
5. Choke Housing
6. Gasket
7. Choke Valve Shaft
8. Fast Idle Cam
9. Retainer Clip
10. Choke Housing Shaft
11. Choke Rod
12. Seal
13. Diaphragm Cover
14. Diaphragm Spring
15. Secondary Operating Diaphragm
16. Diaphragm Housing
17. Gasket
18. Choke Valve
19. Gasket
21. Pump Discharge Nozzle
22. Pump Discharge Needle
23. Main Body

a. Remove inlet fitting assembly and filter screen.

b. Remove pump diaphragm screws and lift pump housing, diaphragm and spring from fuel bowl.

6. Check pump inlet ball for free movement and damage. Damage to ball, passage or retainer requires new fuel bowl assembly.

7. After cleaning and inspection, reverse the above procedure to assemble. Use new gaskets at needle and seat adjustment, inlet fitting, and sight plug. Replace all necessary parts.

METERING BODIES (fig. 11)

1. Remove main metering jets with a wide blade screw driver (a small screw driver will damage the jets).

NOTE: Primary and secondary jets are different size (secondary larger)—keep them separated.

2. PRIMARY SIDE ONLY

a. Remove vacuum fitting.

b. Remove idle mixture screws and seals.

c. Remove bowl vent splash shield.

d. Remove the power valve using a 1" 12 pt. socket.

3. After cleaning and inspection—reverse the above procedure to assembly—USE NEW IDLE MIXTURE SCREW SEALS, AND POWER VALVE GASKETS. Replace parts as needed.

MAIN BODY (fig. 12)

1. Remove and disassemble choke housing as follows:

a. Remove hairpin retainer from choke rod at lower end.

b. Remove choke thermostat housing screws, retainer, housing and housing gasket.

c. Remove choke housing mounting screws and housing from main body—catch the gasket.

d. Remove choke housing shaft nut, washer, and spacer then slide shaft from housing.

e. Remove choke piston and fast idle cam from choke housing.

f. After cleaning and inspection assemble in reverse of above, using new gaskets—guide lever onto choke rod during assembly to main body.

2. Remove and disassemble secondary throttle shaft operating diaphragm as follows:

a. Remove diaphragm housing mounting screws, diaphragm housing and gasket.

b. Remove diaphragm housing cover screws, cover and spring, then slide diaphragm assembly up out of housing.

c. After cleaning and inspection, reverse steps A and B, using new gasket at vacuum port to assemble.

3. Remove pump discharge nozzle screw, gasket, nozzle and gasket, then up-end the body assembly to remove pump discharge needle valves.

4. File off the staked ends of shaft screws then remove screws.

5. Remove valve from shaft slot and slide shaft from air horn.

6. Remove choke rod (upward through seal) and seal from main body.

7. Reverse steps 4-6 to install and center the valve on choke shaft by holding the valve closed while tightening screws.

8. Peen the screw ends with pliers.

NOTE: The choke valve is offset and should fall freely to wide open position from its own weight.

9. Reverse Disassembly procedure to assemble.

NOTE: Use needle nose pliers to install pump discharge valve (fig. 13).

THROTTLE BODY (fig. 14)

Ordinarily the throttle body need not be disassembled for cleaning and inspection purposes. If necessary, disassemble for part replacement as follows:

1. Remove pump operating lever retaining clip and lever assembly. Disassemble spring, bolt and nut if needed.

2. Remove idle speed screw and spring.

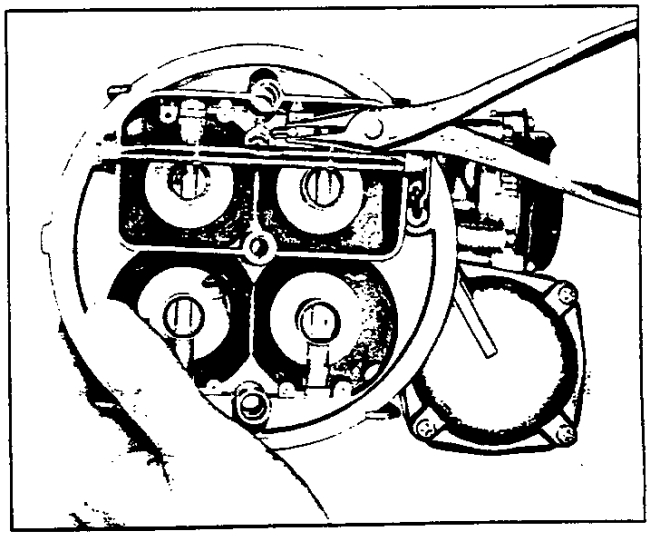


Fig. 13—Installing Pump Discharge Valve

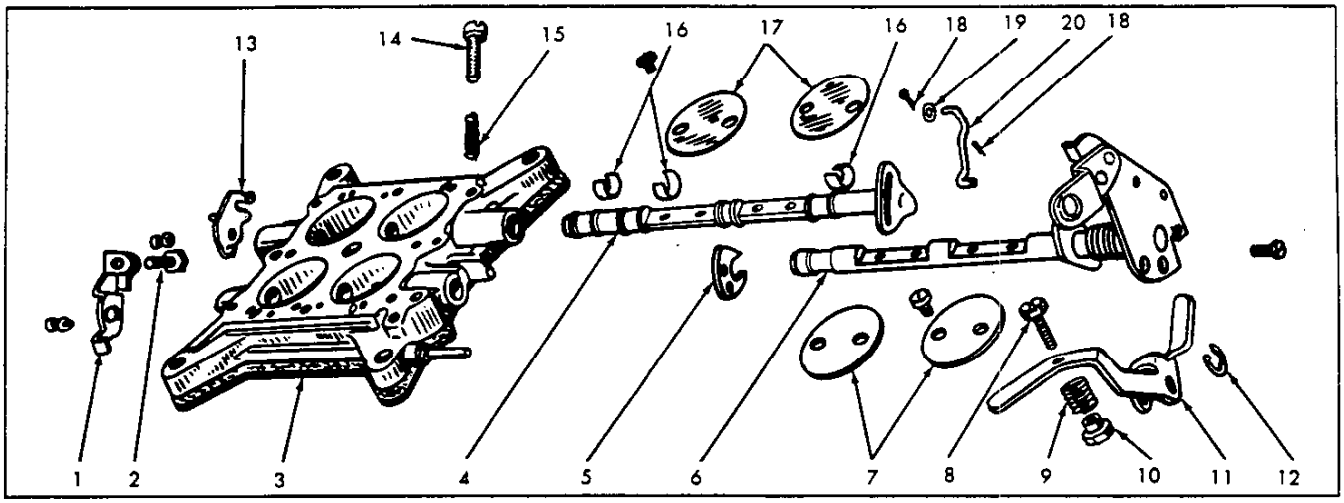


Fig. 14—Throttle Flange—Exploded View

1. Fast Idle Cam Lever
2. Fast Idle Cam Adjusting Screw
3. Throttle Flange
4. Secondary Throttle Shaft
5. Accelerator Pump Cam
6. Primary Throttle Shaft
7. Primary Throttle Plates
8. Pump Lever Adjusting Screw
9. Spring
10. Pump Adjusting Nut
11. Pump Operating Lever
12. Lever Retaining Clip
13. Diaphragm Lever Assembly
14. Idle Speed Screw
15. Spring
16. Throttle Shaft Bushings
17. Secondary Throttle Plates
18. Cotter Pin
19. Washer
20. Throttle Connector Link

3. Remove diaphragm lever from secondary throttle shaft and fast idle cam lever from primary throttle shaft.
4. Remove cotter keys and disconnect throttle connecting (secondary lockout) link from shaft levers.
5. File off the staked ends of the throttle plate attaching screws, then remove the screws and throttle plates. Slide the shaft out of flange.

NOTE: The secondary throttle shaft has teflon bushings. Roll new bushing between thumb and first finger to help shape the bushing on the shaft for easier installation.

6. If flange is being replaced, remove secondary throttle stop screw with a small screwdriver.
7. Reverse removal procedure to install—support the throttle shaft while staking the screws.

NOTE: The throttle valves are installed with identification numbers down (to manifold side).

CARBURETOR ASSEMBLY FROM SUBASSEMBLIES

(Refer to Figure 9)

1. Invert the main body, align new throttle body to main body gasket, then position throttle flange assembly and install the six screws.
2. Connect secondary operating diaphragm rod at secondary lever and install retainer.
3. Lay flange and main body on secondary side then install primary metering body (with new gasket) onto main body aligning dowel pins and holes.

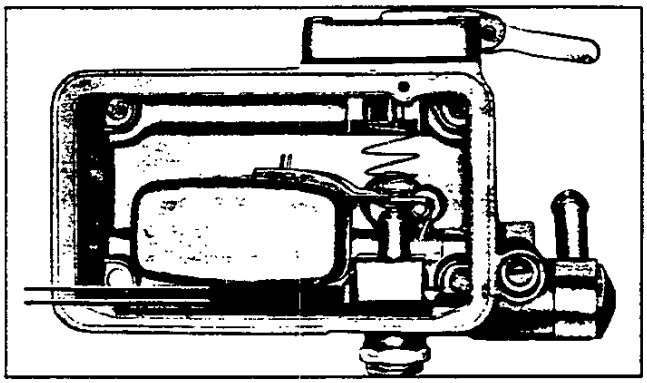


Fig. 15—Preliminary Float Adjustment

4. Make a preliminary float adjustment (fig. 15) by inverting fuel bowl and turning adjustable needle-seat until top of float is parallel with top of fuel bowl.
5. Install new gasket and primary fuel bowl—align pump lever under operating lever duration spring, then install retaining screws with gaskets under heads.
6. Lay assembly on primary bowl then install secondary metering body and gasket on main body.
7. Lubricate "O" ring seals and install on fuel tube at very end—they will roll into position during installation.
8. Install fuel tube into primary bowl inlet.
9. Make preliminary float setting then install secondary bowl (with new gaskets), aligning fuel tube

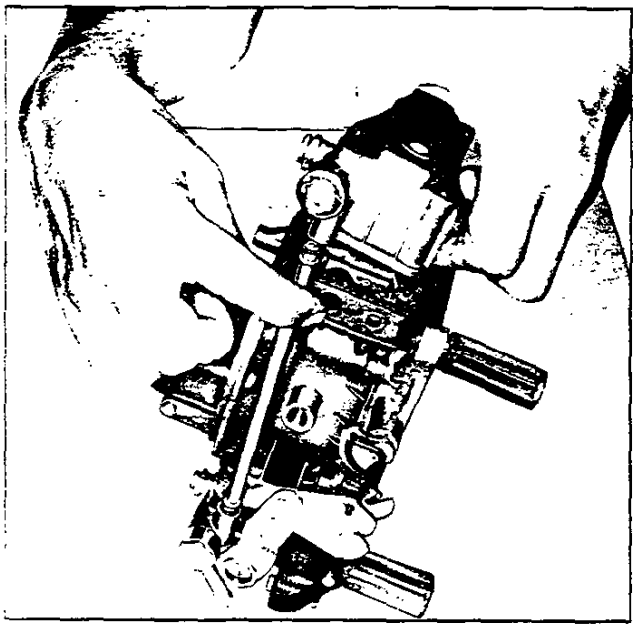


Fig. 16—Installing Fuel Bowl and Fuel Tube

(fig. 16) into inlet, then install retaining screws and gaskets.

10. *Perform the following adjustments:*

a. Secondary throttle valve stop screw (fig. 17). Back-off on adjustment screw until throttle *plates are closed fully, then turn screw until it* just touches the throttle lever and turn one-half turn more to position the valves.

b. *Make preliminary fast idle adjustment as follows:*

1. Open throttle slightly allowing choke plate to close throttle putting fast idle screw against top step of cam.

2. Adjust fast idle screw to give specified opening of throttle plates on idle transfer slot side of carb (see specifications).

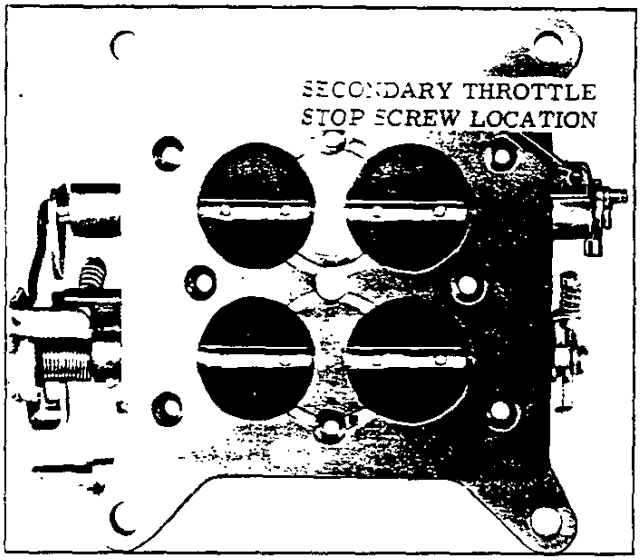


Fig. 17—Adjusting Secondary Throttle Stop Screw

c. Make preliminary adjustment of idle mixture screws by turning lightly to seat and back out one turn. Do not turn screw tightly against seat as a smooth idle cannot be obtained if the needle becomes grooved.

d. Make accelerator pump override spring adjustment, and unloader adjustment (see maintenance and adjustment section).

SPECIFICATIONS

CARBURETOR MODEL	WCFB				AFB		AFB	
	250-H.P.—SYN.		250-H.P.—P.G.		300-H.P.—SYN.		300-H.P.—P.G.	
	3826003 (3501S)		3826005 (3500S)		3851761 (3721S)		3851762 (3720S)	
	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary
Float Level*	7/32"	1/4"	7/32"	1/4"	7/32"	7/32"	7/32"	7/32"
Float Drop*	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Pump Rod	1/2"	—	1/2"	—	1/2"	—	1/2"	—
Idle Vent	3/32"	—	3/32"	—	—	—	—	—
Automatic Choke Setting	Index	—	Index	—	1 Lean	—	1 Lean	—
Unloader	3/16"	—	3/16"	—	1/4"	—	1/4"	—
Fast Idle Setting	1750 RPM Hot on Car	—	1750 RPM Hot on Car	—	1750 RPM Hot on Car	—	1750 RPM Hot on Car	—
Throttle Lockout Adj.	.020	—	.020	—	.020	—	.020	—
Bowl Vents	5 Inside—1 External Idle		5 Inside—1 External Idle		1 Outside, 4 Inside		1 Outside, 4 In-	
Choke Piston Vacuum Break Adj.	.060	—	.035	—	.070	—		
Main Metering Jet	.086	.0635	.086	.0635	.104	.0689	.104	.0689
Metering Rod (Sizes)	.042 .067	—	.042 .067	—	.060 .069	—	.060 .069	—
Throttle Bore	1 7/16"	1 7/16"	1 7/16"	1 7/16"	1 9/16"	1 11/16"	1 9/16"	1 11/16"
Main Venturi	1 1/16"	1 1/4"	1 1/16"	1 1/4"	1 1/4"	1 9/16"	1 1/4"	1 9/16"
Pump Discharge Jet	.021	—	.021	—	.028	—	.028	—
Idle Speed Jet	.031	—	.031	—	.035	—	.035	—

*Top of Float to Cover without Gasket

CARBURETOR MODEL		HOLLEY	
		365 H.P.	
		3849804 (R-2818-A)	
		Primary	Secondary
Float Level		Use Sight Plug	
Pump Lever		.015	—
Automatic Choke Setting		1 Lean	—
Unloader		.180 min (3/16 drill)	
Fast Idle Setting	bench	.028"	
	on car	22-2300 R.P.M.	
Bowl Vents		2 internal	

CARBURETOR MODEL	HOLLEY	
	365 H.P.	
	3849804 (R-2818-A)	
	Primary	Secondary
Main Metering Jet	.065"	.076"
Power Valve Jets	# 60 drill .040" (2)	—
Throttle Bore	1 9/16	1 9/16
Main Venturi	1 1/4	1 5/16
Pump Discharge Jet	.025" (2)	—
Idle Speed Jet	# 68 drill .031"	# 70 drill .028"

SECTION 7

TRANSMISSIONS

CONTENTS OF THIS SECTION

THREE-SPEED TRANSMISSION

Although the three speed transmission has been improved for 1964, the basic design, operation and service procedures remain the same as covered in the 1963 Corvette Shop Manual.

A brief description of what is new is given below.

GEARS

All gears are wider with greater helix angles.

CLUTCH SLEEVE AND MAINSHAFT

The mainshaft, and the second and third speed clutch sleeve are new with a change in clutch sleeve spline angles to match with the greater helix angle of the gear teeth. The output end of the mainshaft is changed from a 16 tooth to a 27 tooth spline.

CASE AND THRUST WASHERS

The case machining is changed and the thrust washers made thinner to provide room for the wider gears.

CLUTCH GEAR BEARING

The large diameter bearing retainer, formerly used with 409 V-8 engines, is now used.

SHIFT LINKAGE ADJUSTMENT

1. Set Transmission Levers (K) and (L) in neutral detent position.
2. Move Transmission Control Lever (A) to neutral detent and insert Locating Pin (D) into notch of Lever and Bracket Assembly.
3. Install Nut (N) and Clevis (M) on Rod (J) loosely, attach Rod to Lever (B) and secure with retainer.
4. With Lever (B) against Locating Pin, adjust Clevis at Lever (L) until Clevis pin passes freely through holes and secure with washer and cotter pin. Tighten Nut (N).
5. Install Nuts (E) and (G) and Swivel (F) loosely on Rod (H), attach Rod to Lever (K) and secure with retainer.
6. With Lever (C) against Locating Pin, attach Swivel to lever and secure with retainer. Run Nut (G) against Swivel then tighten Nut (E) against Swivel.
7. Remove Locating Pin and check shifts to insure proper operation. Readjust clevis and swivel if necessary.

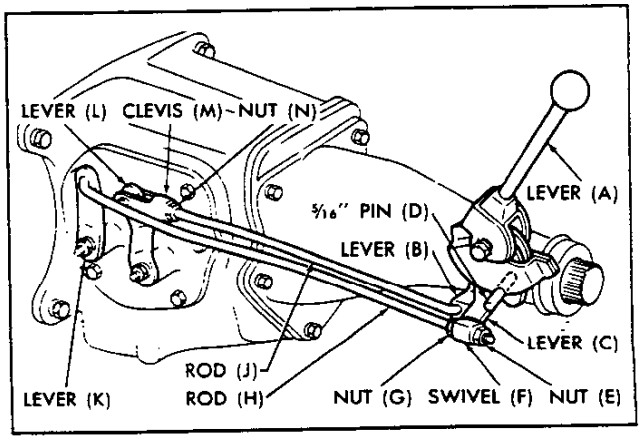


Fig. 1—Shift Linkage Adjustment

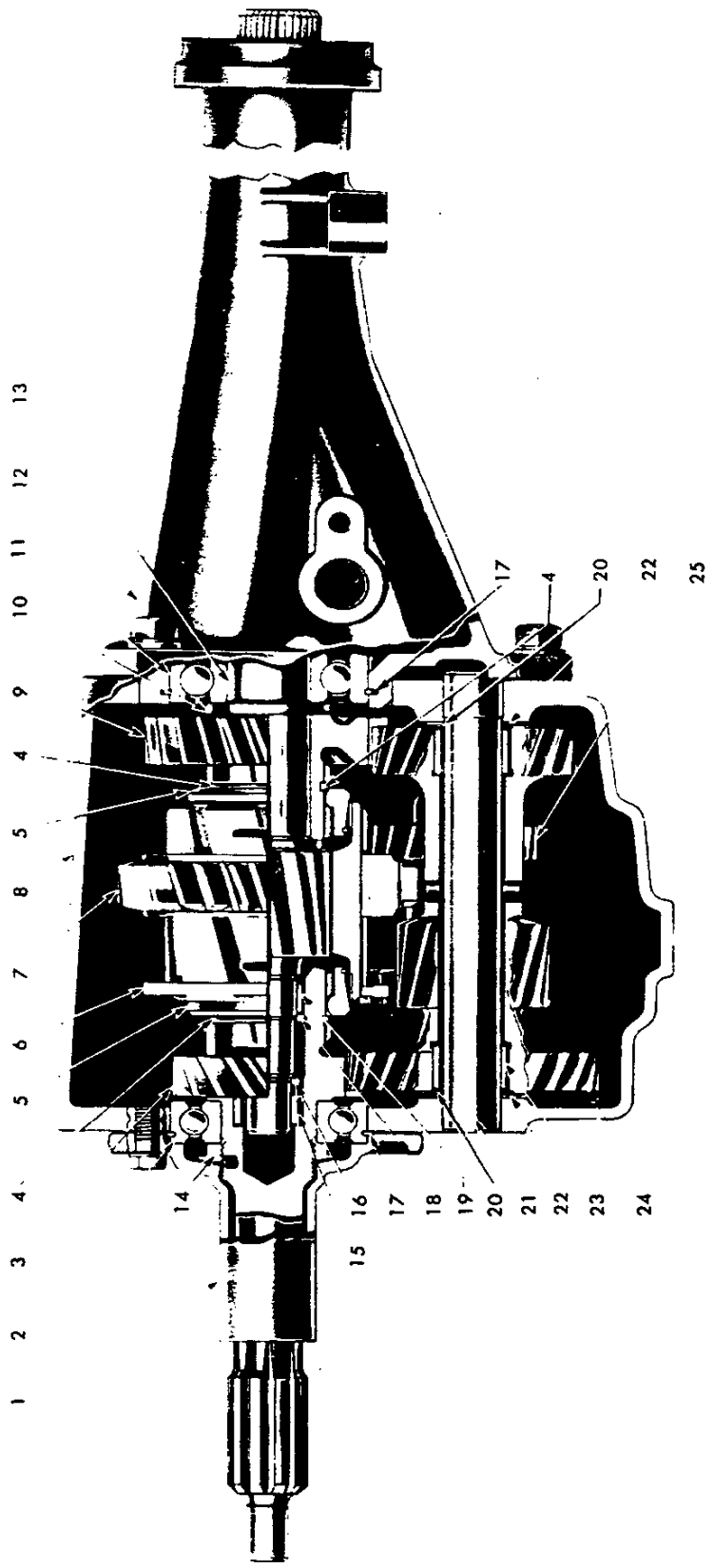


Fig. 2—Three-Speed Transmission Cross tion (Typical Side View)

1. Clutch Gear Bearing Retainer
2. Clutch Gear Bearing
3. Clutch Gear
4. Energizing Spring
5. Synchronizer Ring
6. Second and Third Speed Clutch
7. First and Reverse Sliding Gear
8. Transmission Case
9. Second Speed Gear
10. Thrust Washer
11. Mainshaft r Bearing
12. Extension
13. Mainshaft
14. Clutch earing Nut
15. Front P. aring Rollers
16. Thrust Washer
17. Snap Ring
18. Thrust Washer
19. Rear Pilot Bearing Rollers
20. Roller Thrust Washer
21. Countershaft
22. Thrust Washer
23. Roller Bearing
24. Countergear
25. Reverse Idler Gear

FOUR-SPEED TRANSMISSION

INDEX

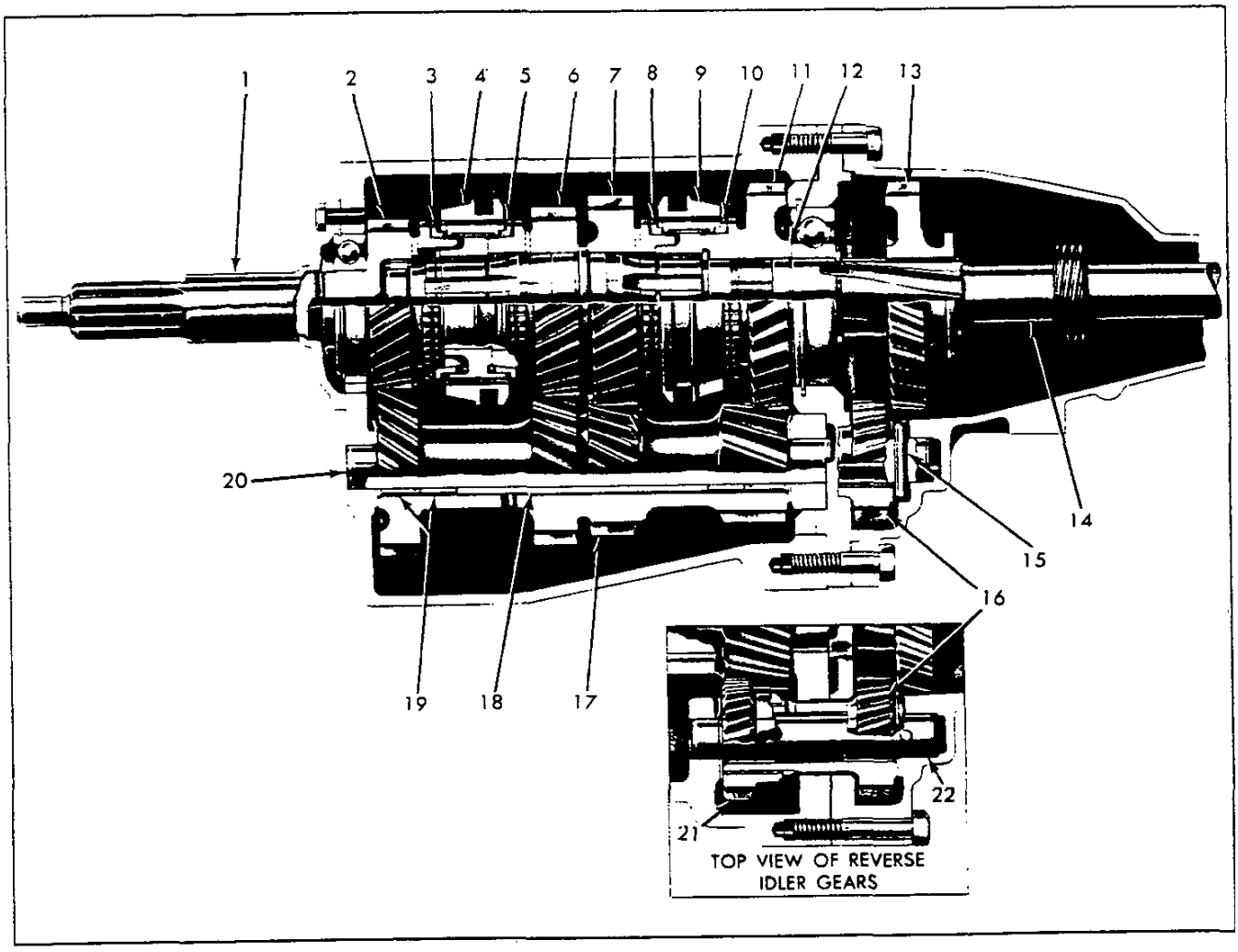


Fig. 1M—Four-Speed Transmission Cross Section

1. Bearing Retainer
2. Main Drive Gear
3. Fourth Speed Synchronizing Ring
4. Third and Fourth Speed Clutch Assembly
5. Third Speed Synchronizing Ring
6. Third Speed Gear
7. Second Speed Gear
8. Second Speed Synchronizing Ring
9. First and Second Speed Clutch Assembly
10. First Speed Synchronizing Ring
11. First Speed Gear
12. Thrust Washer
13. Reverse Gear
14. Mainshaft
15. Reverse Idler Shaft Roll Pin
16. Reverse Idler Gear (Rear)
17. Countergear
18. Countershaft Bearing Roller Spacer
19. Countershaft Bearing Roller
20. Countershaft
21. Reverse Idler Gear (Front)
22. Reverse Idler Shaft

GENERAL DESCRIPTION

The four-speed synchromesh transmission (fig. 1M), incorporates helical gears throughout specially designed to provide high torque capacity without additional weight, and gear teeth proportioned to operate at high speeds with neither excessive heat generation or excessive frictional losses. Shafts, bearings, high capacity clutches and other precision parts are held to close limits, providing proper clearances necessary for durability during extended heavy usage.

The main drive gear is supported by a heavy-duty ball bearing at the front end of the transmission case and is piloted at its front end in an oil impregnated bushing mounted in the engine crankshaft. The front end of the main-shaft is piloted in a row of roller bearings set into the hollow end of the main drive gear and the rear end is carried by a heavy-duty ball bearing mounted at the rear end of the transmission case in a retainer casting.

The counter gear is carried on a double row of rollers at both ends while thrust is taken on thrust washers located between the ends of the gear and the thrust bosses in the case.

The two-piece reverse idler gear is carried on bronze bushings while thrust is taken on thrust washers located between the front of the gear and the back of the reverse idler thrust boss and between the rear of the gear and the reverse idler shaft boss in the case extension.

Gearshifting is manual through shift control rods to the transmission cover shifter levers for first through fourth gears, and to the reverse lever located in the case extension. The shifter lever to the rear of the transmission cover controls first and second gears while the lever to the front controls third and fourth gears. All four forward gears are fully synchronized. The transmission may be used as an aid in deceleration by downshifting in sequence without double clutching or gear clashing. Reverse is not synchronized, however it is a helical gear to insure quiet operation.

MAINTENANCE AND ADJUSTMENTS

SHIFT LINKAGE ADJUSTMENT (Fig. 2M)

1. Set Transmission Levers (M) (P) and (S) in neutral detent position.
2. Move Shift Lever Stud (A) to neutral detent position and insert a 5/16" Locating Pin (B) into Control Lever Bracket Assembly.
3. Install Rod (V) with retainer on Lever (D).
4. Maintaining Lever (D) against Locating Pin, adjust Clevis (T) at Lever (S) until clevis pin freely passes through holes in Clevis and Lever.
5. Install clevis pin, washer, and cotter pin. Tighten Jam Nut (U) against Clevis.
6. Install Rod (H) with retainer on Lever (W).
7. With Jam Nuts (J) and (L) and Swivel (K) loose on Rod (H), insert and attach Swivel with washer and retainer to Lever (M).
8. Maintaining Lever (W) against Locating Pin (B) and while holding Swivel (K), run Jam Nut (J) against Swivel until Nut contacts Swivel. Then tighten Jam Nut (L) against Swivel.
9. Install Rod (R) with retainer on Lever (P).
10. With Jam Nuts (E) and (G) and Swivel (F) loose on Rod (R), insert and attach Swivel with retainer to Lever (C).
11. Maintaining Lever (C) against Locating Pin (B) and while holding Swivel (F), run Jam Nut (G) against S[illegible] Nut contacts Swivel. Then tighten Jam Nut [illegible]
12. Remove Locating Pin and check shifts to insure proper operation. Readjust clevis and swivels if necessary.

SPEEDOMETER DRIVEN GEAR AND OIL SEAL

Replacement

Disconnect speedometer cable, remove retainer to housing bolt and lock washer and remove retainer. Insert screwdriver in slot in fitting and pry fitting, gear and shaft from housing. Pry "O" ring from groove in fitting.

Install new "O" ring in groove and insert shaft. Hold the assembly so slot in fitting is toward boss on housing and install in housing. Push fitting into housing until retainer can be inserted in groove and install retainer lock washer and bolt.

TRANSMISSION SIDE COVER

Removal

1. Disconnect control rods from levers.
2. Shift transmission into second speed **before** removing cover, by moving 1-2 (Rear Cover) shifter lever into forward detent position.
3. Remove cover assembly from transmission case carefully and allow oil to drain.

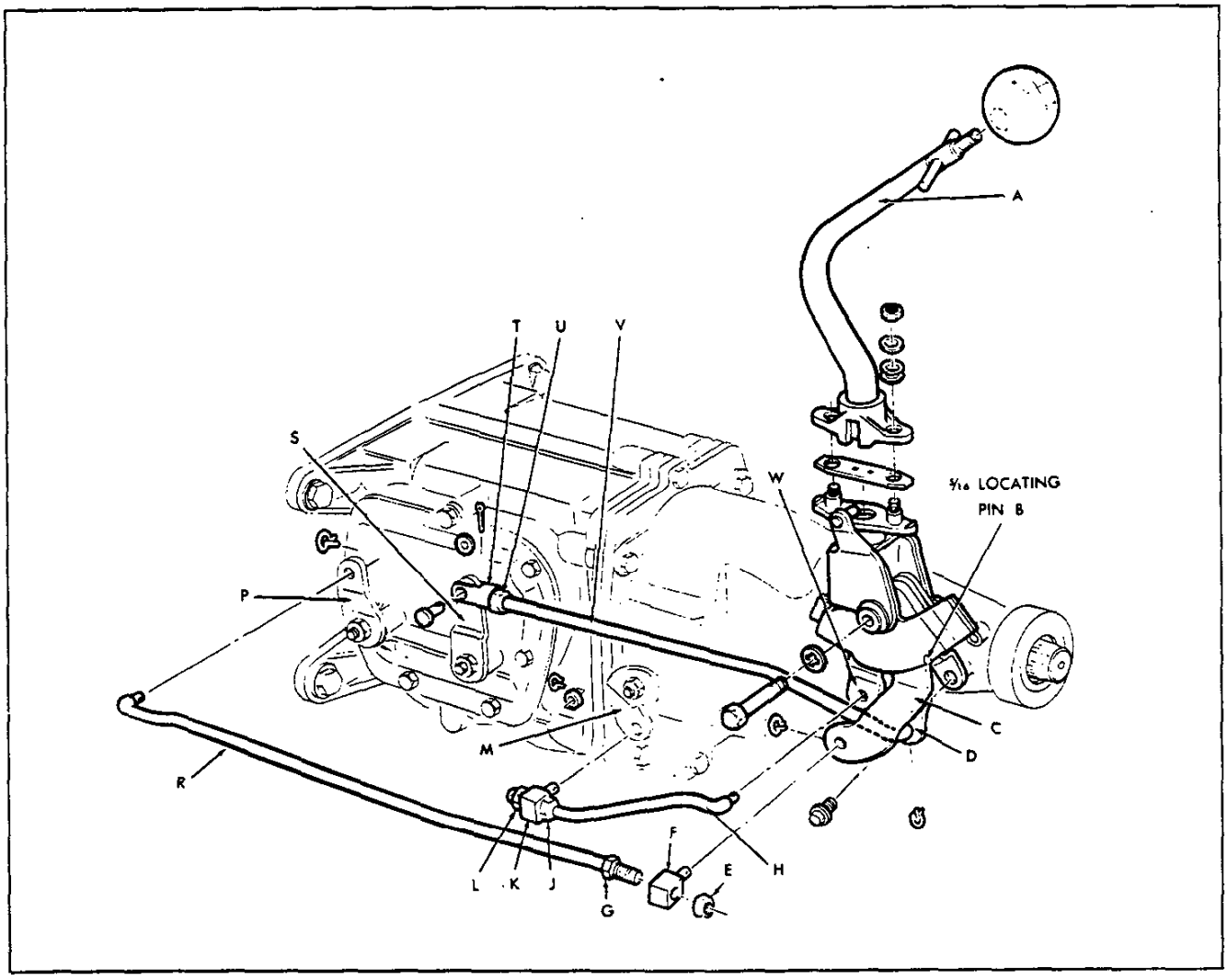


Fig. 2M—Four-Speed Transmission Gearshift Linkage

Disassembly (fig. 3M)

1. Remove the outer shifter lever nuts, lock washers and flat washers. Pull levers from shafts.
2. Remove both shift forks from shifter shaft and detent plate assemblies. Remove both shifter shaft assemblies from cover. Lip seals in side cover may now be pryed out if replacement is required because of damage.
3. Remove detent cam spring and pivot retainer "C" ring. Remove both detent cams.
4. Replace necessary parts.

Assembly (fig. 3M)

1. Install 1-2 detent cam to cover pivot pin first, then install 3-4 detent cam so the detent spring notches

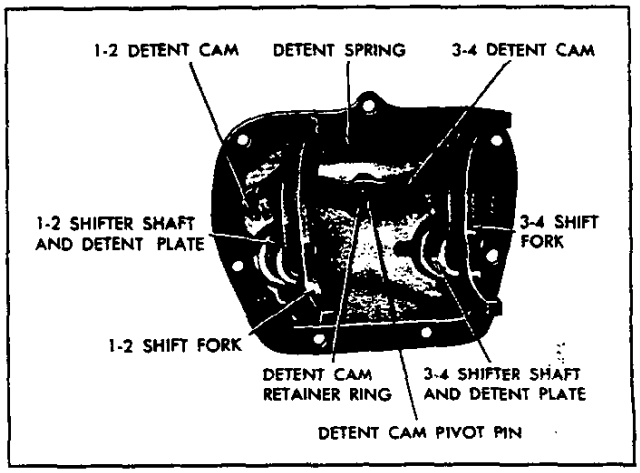


Fig. 3M—Transmission Side Cover, Shift Fork and Detent Assembly

are offset or opposite each other. Detent cam notches must be facing downward.

2. Install detent cam retaining "C" ring to pivot shaft, and hook spring into detent cam notches.

3. Install both shifter shaft assemblies in cover being careful not to damage lip seals. Install both shift forks to detent plates, lifting up on detent cam to allow forks to fully seat into position.

4. Install outer shifter levers, flat washers, lock washers and nuts.

Installation (fig. 4M)

1. Shift 1-2 shifter lever into second speed (forward) position. Position cover gasket on case.

2. Carefully position side cover into place making sure the shift forks are aligned with their respective mainshaft clutch sliding sleeves.

3. Install cover attaching bolts and tighten evenly to 15-20 ft. lbs. torque.

4. Remove filler plug and add lubricant to level of filler plug hole.

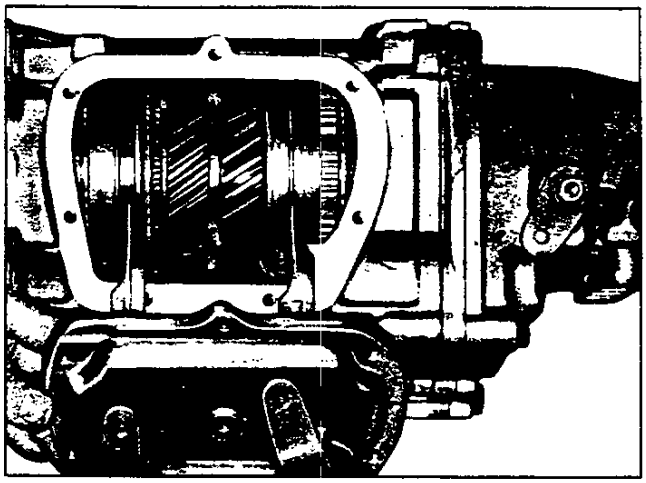


Fig. 4M—Installing Side Cover Assembly

EXTENSION OIL SEAL

Replacement

1. Remove propeller shaft.
2. Pry out the extension oil seal.
3. Press new oil seal carefully into place in extension using J-5154 or similar tool.

CAUTION: Do not excessively force the seal against the seat in the extension.

SERVICE OPERATIONS

REMOVAL FROM VEHICLE

1. Remove shift lever knob.
2. Remove shift lever trim plate and dust boot.
3. Raise vehicle to desired working height.
4. Disconnect the speedometer cable from speedometer driven gear fitting.
5. Remove propeller shaft, then support engine at the oil pan rail with a jack or other suitable support capable of supporting the engine when transmission is removed.
6. Disconnect shift lever bracket assembly from extension housing (3 bolts) and remove all 3 transmission shifter levers to shifter shafts, (leave linkage connected to levers) and remove bracket assembly levers and linkage.
7. Remove extension mount-to-center cross-member attaching bracket.
8. Lower engine as far as possible and remove both exhaust pipe heat shields.
9. Remove the transmission-to-clutch housing retaining bolts.
10. Slide the transmission straight back until the input shaft is free of splines in the clutch disc.

    NOTE: Turn transmission clockwise so the case-to-clutch housing attaching lugs on the right side of the case will straddle the right exhaust pipe to aid removal.

11. Slide the transmission rearward to allow sufficient clearance of input shaft and clutch housing. Then tilt input shaft end of transmission downward and withdraw transmission from vehicle.

DISASSEMBLY

1. Remove transmission side cover as outlined under "Maintenance and Adjustments."
2. Remove four bolts from front bearing retainer and remove retainer and gasket.

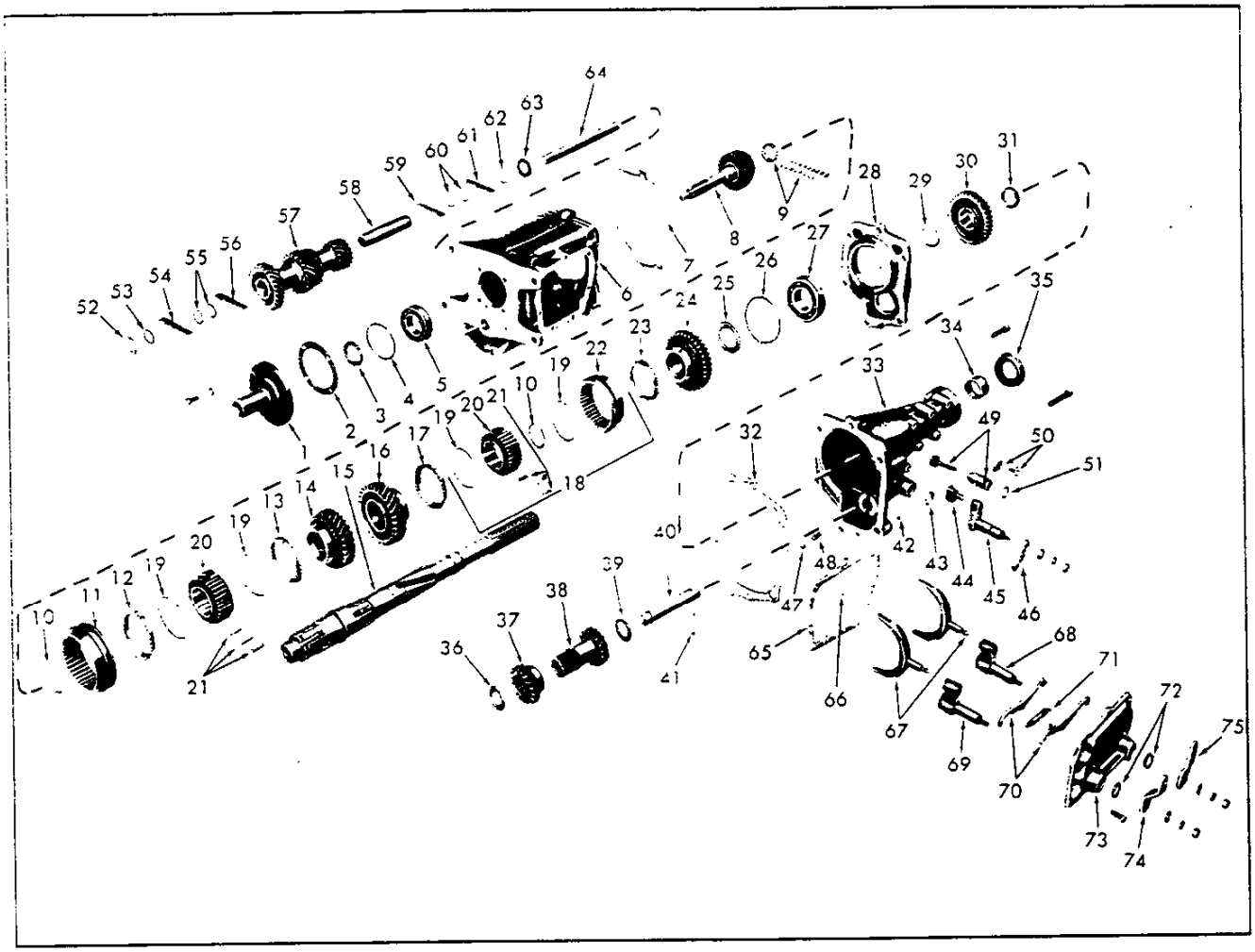


Fig. 5M—Four-Speed Transmission—Exploded View

1. Bearing Retainer
2. Gasket
3. Bearing Retaining Nut
4. Bearing Snap Ring
5. Main Drive Gear Bearing
6. Transmission Case
7. Rear Bearing Retainer Gasket
8. Main Drive Gear
9. Bearing Rollers (17) & Cage
10. Snap Ring
11. Third and Fourth Speed Clutch Sliding Sleeve
12. Fourth Speed Gear Synchronizing Ring
13. Third Speed Synchronizing Ring
14. Third Speed Gear
15. Mainshaft
16. Second Speed Gear
17. Second Speed Gear Synchronizing Ring
18. First and Second Speed Clutch Assembly
19. Clutch Key Spring
20. Clutch Hub
21. Clutch Keys
22. First and Second Speed Clutch Sliding Sleeve
23. First Speed Gear Synchronizing Ring
24. First Speed Gear
25. First Speed Gear Thrust Washer
26. Rear Bearing Snap Ring
27. Rear Bearing
28. Rear Bearing Retainer
29. Selective Fit Snap Ring
30. Reverse Gear
31. Speedometer Drive Gear
32. Rear Bearing Retainer to Case Extension Gasket
33. Case Extension
34. Extension Bushing
35. Rear Oil Seal
36. Reverse Idler Front Thrust Washer (Tanged)
37. Reverse Idler Gear (Front)
38. Reverse Idler Gear (Rear)
39. Flat Thrust Washer
40. Reverse Idler Shaft
41. Reverse Idler Shaft Roll Pin
42. Reverse Shifter Shaft Lock Pin
43. Reverse Shifter Shaft Lip Seal
44. Reverse Shift Fork
45. Reverse Shifter Shaft and Detent Plate
46. Reverse Shifter Lever
47. Reverse Shifter Shaft Detent Ball
48. Reverse Shifter Shaft Ball Detent Spring
49. Speedometer Driven Gear and Fitting
50. Retainer and Bolt
51. "O" Ring Seal
52. Tanged Washer
53. Spacer (.050")
54. Bearing Rollers (20)
55. Spacers (2—.050")
56. Bearing Rollers (20)
57. Countergear
58. Countergear Roller Spacer
59. Bearing Rollers (20)
60. Spacers (2—.050")
61. Bearing Rollers (20)
62. Spacer (.050")
63. Tanged Washer
64. Countershaft
65. Gasket
66. Detent Cams Retainer Ring
67. Forward Speed Shift Forks
68. First and Second Speed Gear Shifter Shaft and Detent Plate
69. Third and Fourth Speed Gear Shifter Shaft and Detent Plate
70. Detent Cams
71. Detent Cam Spring
72. Lip Seals
73. Transmission Side Cover
74. Third and Fourth Speed Shifter Lever
75. First and Second Speed Shifter Lever

SPECIFICATIONS

MANUAL TRANSMISSION

Number of forward speeds			3-Speed	4-Speed for 250 & 300 HP	4-Speed for 340 & 360 HP
Transmission ratios	In first		2.58	2.56	2.20
	In second		1.48	1.91	1.64
	In third		1.00	1.48	1.28
	In fourth		—	1.00	1.00
	In reverse		2.58	2.64	2.27
Synchronous meshing, specify gears			2nd & 3rd	All forward gears	
Shift lever location			Floor		
Lubricant	Capacity (pt.)		2	2.5	
	Type recommended		Meeting specifications of Mil-L-2105-B		
	SAE viscosity number	Summer	SAE 80		
		Winter	SAE 80		
		Extreme cold	SAE 80		

AUTOMATIC TRANSMISSION

Trade name		Powerglide
Type describe		Torque converter with planetary gears
Method of Selection (Lever, Push Button or other)		Lever (floor-mounted)
Selector Pattern		P R N D L
List gear ratios Selector Pattern and indicate which are used in each selector position		Drive 1.76:1 & 1:1 Low and Reverse 1.76:1
Torque converter	Number of elements	3
	Max. ratio at stall	2.10:1
	Type of cooling (air, water)	Air
Lubricant	Capacity—refill (pt.)	3
	Type recommended	Type A Suffix A

POWERGLIDE

The service procedures for the Powerglide remain as described in the 1963 Corvette Shop Manual except as noted below:

- LUBE PRESSURE RELIEF VALVE, spring and seat have been eliminated from the front cover assembly.
- HIGH CLUTCH PACKS incorporate 5 plates instead of 4 for added durability in 1964. Also 24 return springs are now used instead of the 21 used in 1963.
- REVERSE CLUTCH PACK no longer contains a selective thickness spacer plate and the checking of this running clearance is not required.

  The cushion spring is now a wave spring rather than a dished belleville type.
- THE CARRIER ASSEMBLY now has the pinion shafts flared at each end for retention into the carrier. At the time of this printing no approved method of service has been released for the carrier assembly.
- THE LOW SUN GEAR THRUST WASHER has been replaced by a needle thrust bearing.
- THE VALVE BODY to case attaching bolt torque is now 13-15 ft. lbs.
- AN OIL COOLER has been added to help reduce the operating temperature of the transmission oil. The cooler is mounted by 2 brackets to the lower front side of the radiator support.

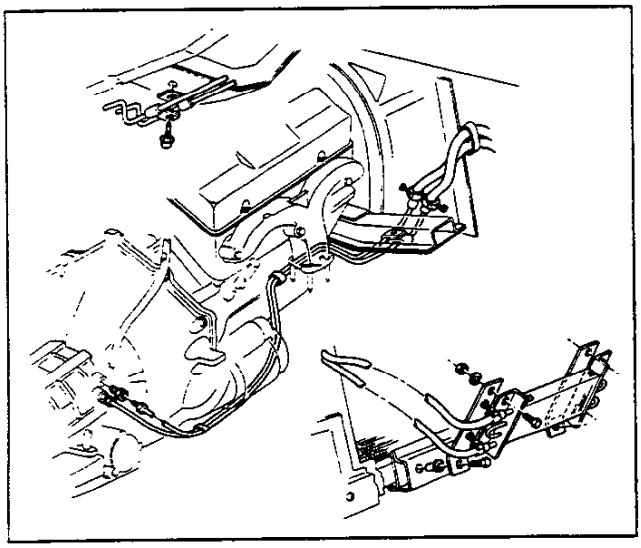


Fig. 1PG—Oil Cooler and Pipes

DIAGNOSIS

- The following basic pressure check mainline pressures have been revised:

- **Wide Open Throttle Upshift Pressure Check**

Wide open throttle upshift should occur at 106-117 psi as indicated on the low servo apply (main line) gauge. On Hi Performance Models upshift should occur between 86-105 psi.

- **Idle Pressure in "Drive" Range**

In addition to the oil pressure gauge, a vacuum gauge is needed for this check.

With the parking brake applied and the shift selector lever in "Drive," low servo apply (main line) pressure should be as follows:

Vacuum	Low Servo Apply (Mainline) Pressure
16" Hg.	63-72
10" Hg.	90-99

- **Manual "Low" Range Pressure Check**

Connect a tachometer, apply the parking brake, place the selector lever in "Low" range, and adjust the engine speed to 1000 rpm. with the car stationary.

Low servo apply (main line) pressure should be 127-136 psi.

- **Drive Range Overrun (Coast) Pressure**

With the vehicle coasting in "Drive" range at 20-25 mph with engine vacuum at approximately 20" Hg., low servo apply (main line) pressure should be 49-53 psi.

POWERGLIDE SHIFT POINTS

327 CU. IN. ENGINE	3.36:1	AXLE
Throttle Position	Up	Down
Closed	14-17	13-16
Detent Touch	48-61	17-24
Through Detent	61-69	58-65

NOTE: Shift points as indicated on the speedometer are not affected by tire size.

WIRING DIAGRAMS

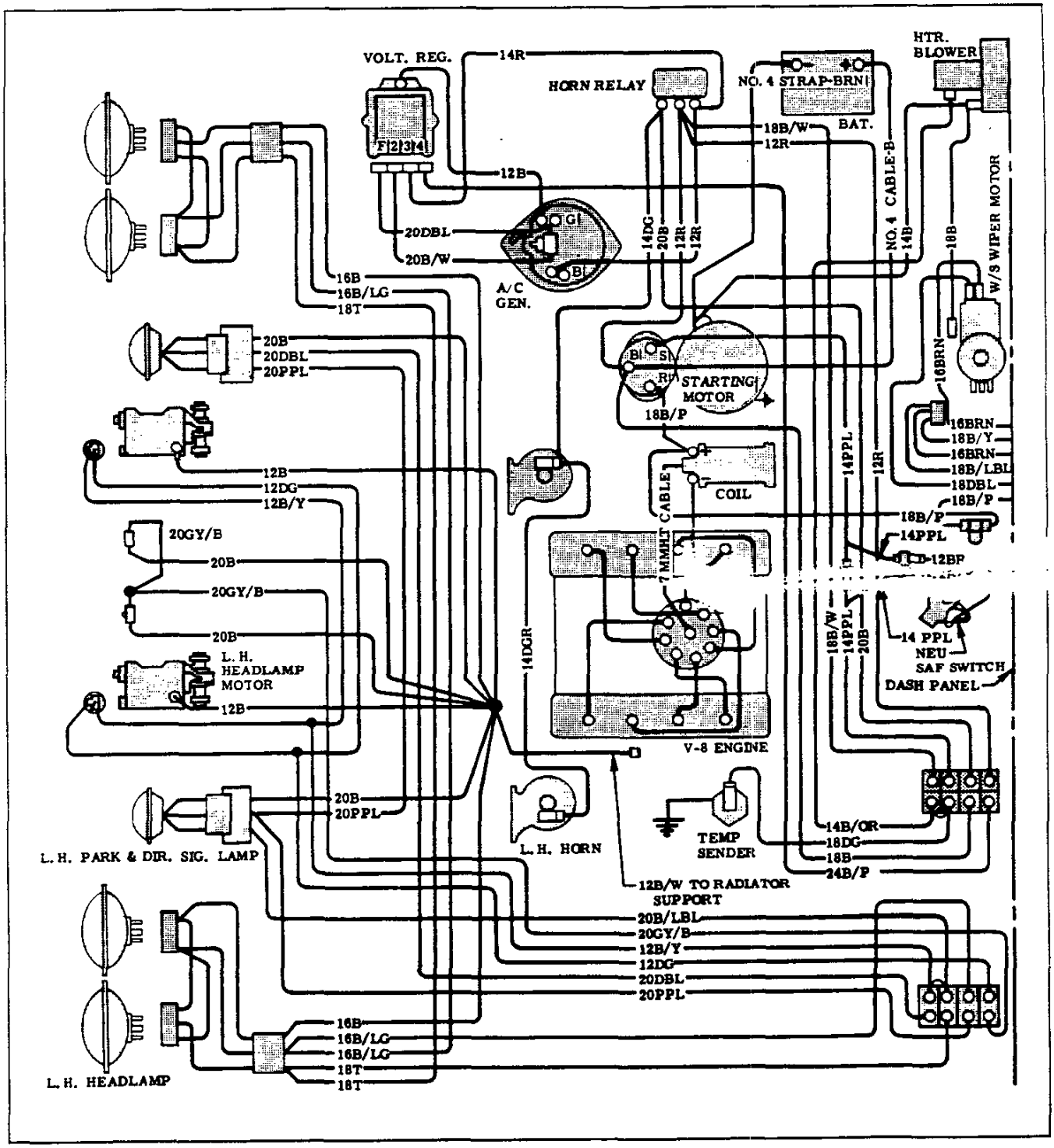


Fig. 7—Engine Compartment Wiring

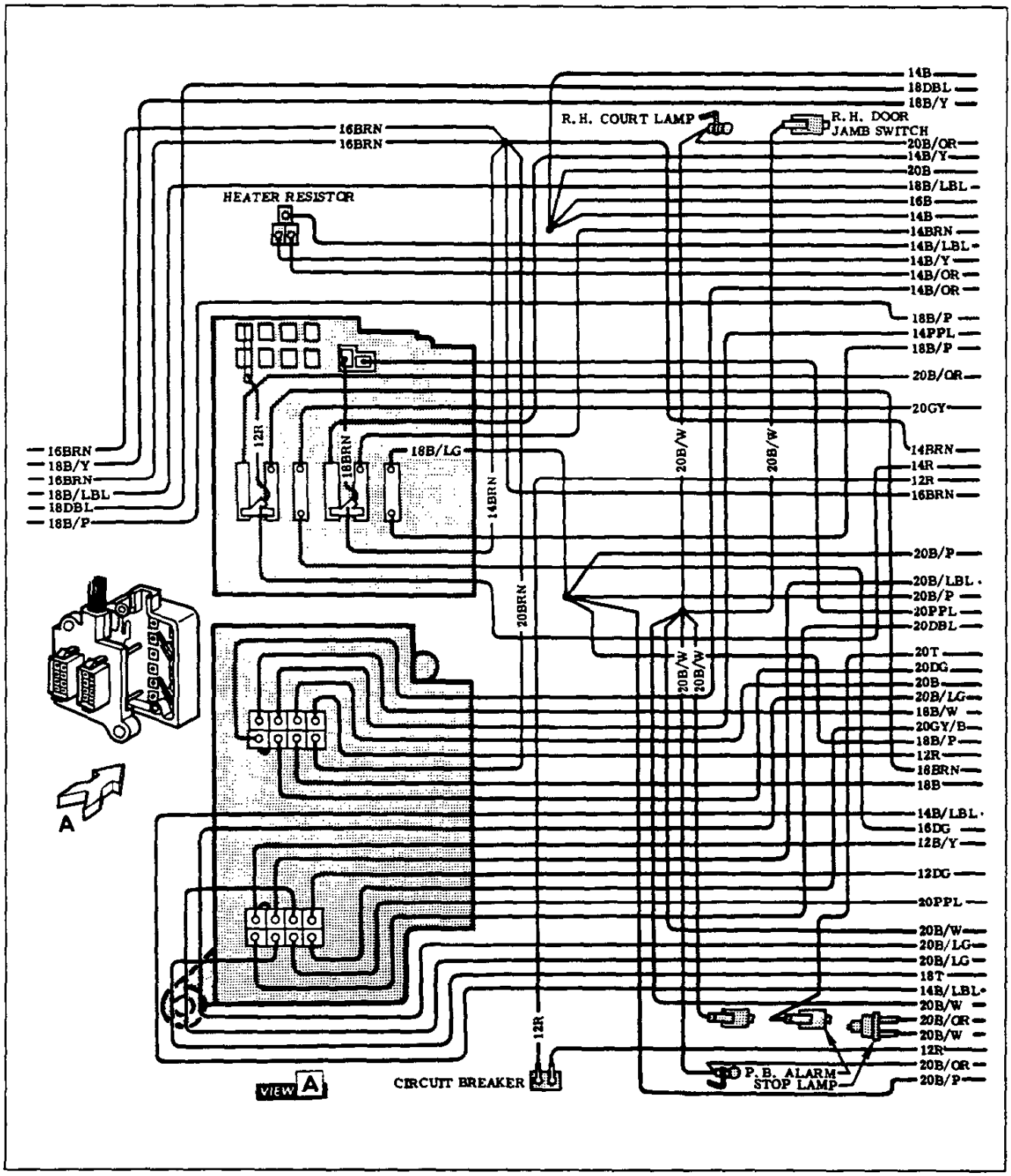


Fig. 8—Fuse Panel Wiring

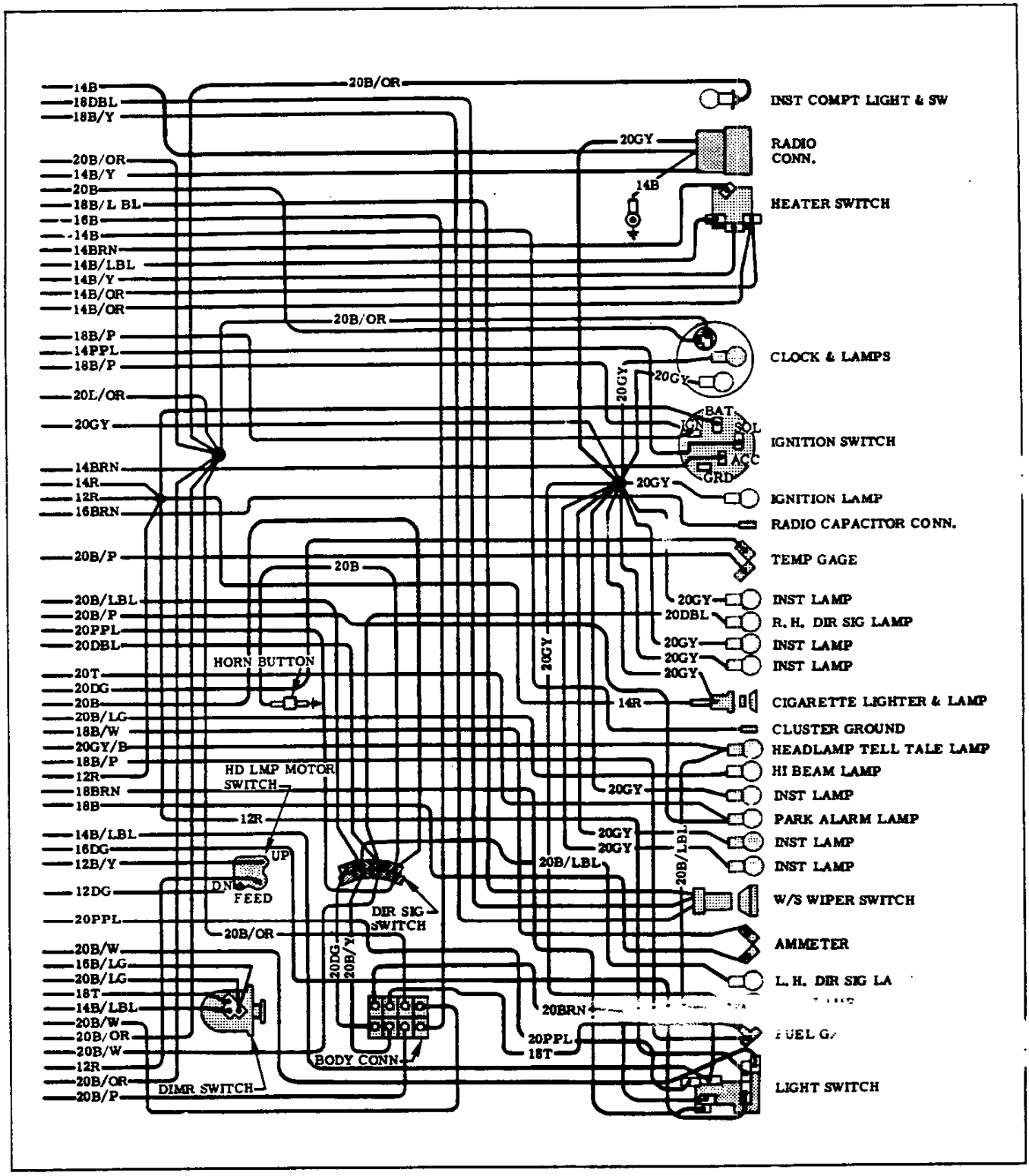


Fig. 9—Instrument Panel Wiring

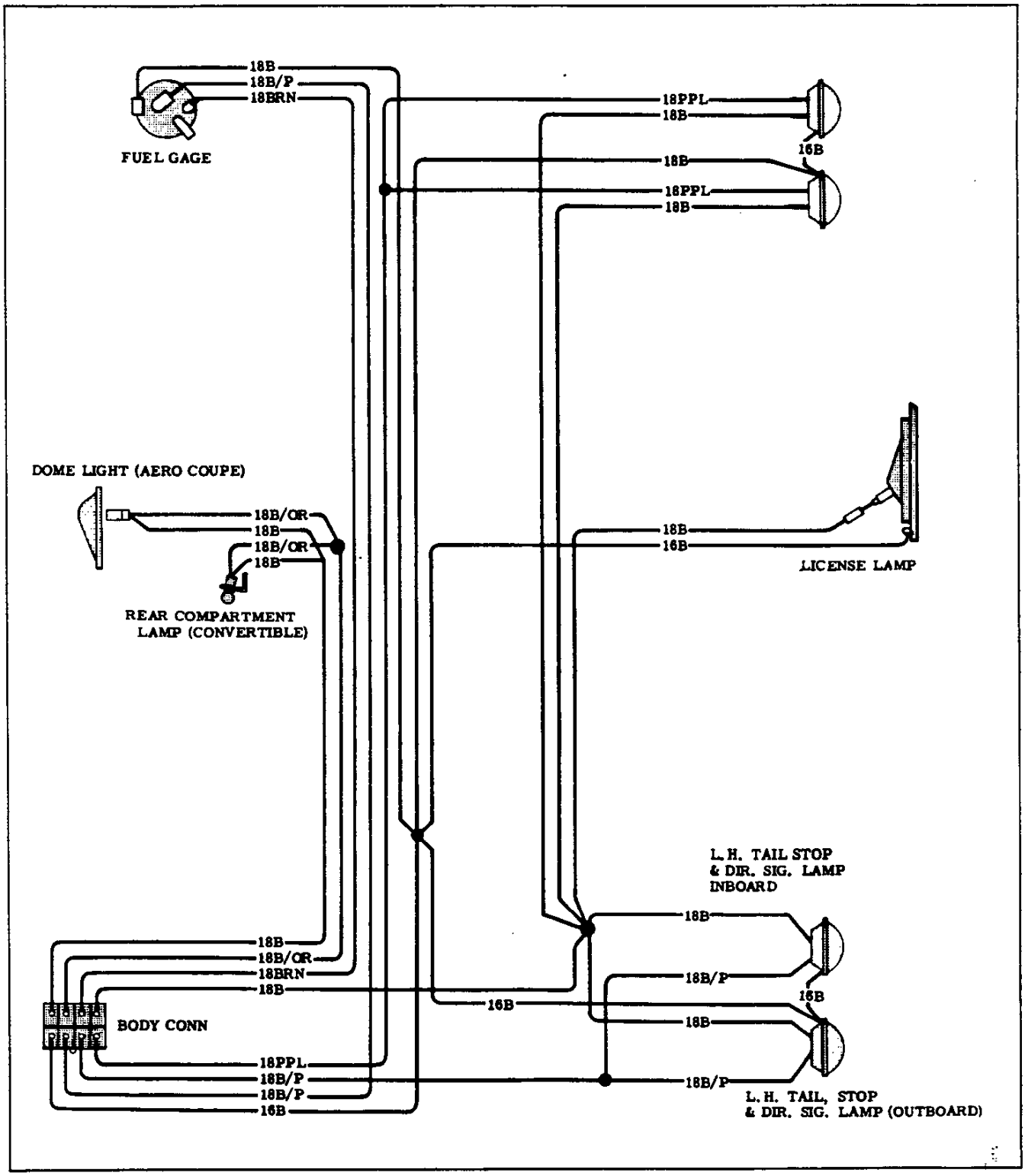


Fig. 10—Body and Tail Lamp Wiring

DRILL SIZES

Letter Sizes	Drill Diam. Inches	Wire Gage Sizes	Drill Diam. Inches	Wire Gage Sizes	Drill Diam. Inches	Wire Gage Sizes	Drill Diam. Inches
Z	0.413	1	0.2280	28	0.1405	55	0.0520
Y	0.404	2	0.2210	29	0.1360	56	0.0465
X	0.397	3	0.2130	30	0.1285	57	0.0430
W	0.386	4	0.2090	31	0.1200	58	0.0420
V	0.377	5	0.2055	32	0.1160	59	0.0410
U	0.368	6	0.2040	33	0.1130	60	0.0400
T	0.358	7	0.2010	34	0.1110	61	0.0390
S	0.348	8	0.1990	35	0.1100	62	0.0380
R	0.339	9	0.1960	36	0.1065	63	0.0370
Q	0.332	10	0.1935	37	0.1040	64	0.0360
P	0.323	11	0.1910	38	0.1015	65	0.0350
O	0.316	12	0.1890	39	0.0995	66	0.0330
N	0.302	13	0.1850	40	0.0980	67	0.0320
M	0.295	14	0.1820	41	0.0960	68	0.0310
L	0.290	15	0.1800	42	0.0935	69	0.0292
K	0.281	16	0.1770	43	0.0890	70	0.0280
J	0.277	17	0.1730	44	0.0860	71	0.0260
I	0.272	18	0.1695	45	0.0820	72	0.0250
H	0.266	19	0.1660	46	0.0810	73	0.0240
G	0.261	20	0.1610	47	0.0785	74	0.0225
F	0.257	21	0.1590	48	0.0760	75	0.0210
E	0.250	22	0.1570	49	0.0730	76	0.0200
D	0.246	23	0.1540	50	0.0	[illegible]	0.018[illegible]
C	0.242	24	0.1520	51	0.0670	[illegible]	[illegible]
B	0.238	25	0.1495	52	0.0635	79	0.0145
A	0.234	26	0.1470	53	0.0595	80	0.0135
...	.....	27	0.1440	54	0.0550	...	.....

DECIMAL EQUIVALENTS

1/64	.015625
1/32	.03125
3/64	.046875
1/16	.0625
5/64	.078125
3/32	.09375
7/64	.109375
1/8	.125
9/64	.140625
5/32	.15625
11/64	.171875
3/16	.1875
13/64	.203125
7/32	.21875
15/64	.234375
1/4	.25
17/64	.265625
9/32	.28125
19/64	.296875
5/16	.3125
21/64	.328125
11/32	.34375
23/64	.359375
3/8	.375
25/64	.390625
13/32	.40625
27/64	.421875
7/16	.4375
29/64	.453125
15/32	.46875
31/64	.484375
1/2	.5
33/64	.515625
17/32	.53125
35/64	.546875
9/16	.5625
37/64	.578125
19/32	.59375
39/64	.609375
5/8	.625
41/64	.640625
21/32	.65625
43/64	.671875
11/16	.6875
45/64	.703125
23/32	.71875
47/64	.734375
3/4	.75
49/64	.765625
25/32	.78125
51/64	.796875
13/16	.8125
53/64	.828125
27/32	.84375
55/64	.859375
7/8	.875
57/64	.890625
29/32	.90625
59/64	.921875
15/16	.9375
61/64	.953125
31/32	.96875
63/64	.984375
1	1.

AMA-40A

AMA Specifications – Passenger Car

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

MANUFACTURER Chevrolet Motor Division General Motors Corporation	CAR NAME CORVETTE
MAILING ADDRESS Owner Relations Service Dept. Chevrolet Motor Division General Motors Building Detroit 2, Michigan	MODEL YEAR 1964 ISSUED: 9-23-63 REVISED (e)

NOTES:

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

TABLE OF CONTENTS

BODY—TYPES AND STYLE NAMES—

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

Model 0867	2-Door Convertible, 2-Passenger
Model 0837	2-Door Sport Coupe, 2-Passenger

AMA Specifications — Passenger Car

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

GENERAL SPECIFICATIONS

(All dimensions in inches unless otherwise indicated)

MODEL 800			Additional Information Page No.	REG. PROD. ENGINE	RPO 2-L75 ENGINE	RPO 2-L76 ENGINE	RPO 2-L84 ENGINE
Wheelbase (L101)			23	98.0			
Tread	Front (W101)		22	56.3			
	Rear (W102)		22	57.0			
Maximum Overall Dimensions	Length (L103)		23	175.3			
	Width (W103)		22	69.6			
	Height (H101)		24	49.8			
Transmission—(Specify trade name - opt., not available)	Manual		15	Synchromesh: 3-speed std. on Reg. Prod. and RPO-2-L75 engines; 4-speed optional			
	Overdrive		16	Not offered			
	Automatic		16	Powerglide, Optional		--	
Axle ratio	Manual	3-speed	17	3.36:1		--	
		4-speed		3.36:1 and optional 3.08:1		3.70:1	
	Overdrive		17	Not offered			
	Automatic		17	3.36:1		---	
Tire size			18	6.70 x 15			
Engine	Type, no. cyl., valve arr.		2	90° V-8 valve-in-head			
	Fuel system (Carb., other)		8	Carburetor			Fuel Injectio
	Bore and stroke		2	4.00 x 3.25			
	Piston displ., cu.in.		2	327			
	Std. compression ratio		2	10.5:1		11.0:1	
	Max. bhp at engine rpm		2	250 @ 4400	300 @ 5000	365 @ 6200	375 @ 6200
	Max. torque at rpm		2	350 @ 2800	360 @ 3200	350 @ 4000	350@44-480

AMA Specifications—Passenger Car

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MODEL 800

ENGINE—GENERAL

		REG. PROD. ENGINE	RPO 2-L75 ENGINE	RPO 2-L76 ENGINE	RPO 2-L84 ENGINE
Type, no. cyls., valve arr.		90° V-8 Valve-in-head			
Bore and stroke (nominal)		4.00 x 3.25			
Piston displacement, cu. in.		327			
Bore spacing (C/L to C/L)		4.4			
No. system (front to rear)	L. Bank	1-3-5-7			
	R. Bank	2-4-6-8			
Firing order		1-8-4-3-6-5-7-2			
Compres. ratio (nominal)		10.5:1		11.0:1	
Cylinder Head Material		Cast iron alloy			
Cylinder Block Material		Cast iron alloy			
Cylinder Sleeve-Wet, dry, none		None			
Number of mounting points	Front	2			
	Rear	1			
Engine installation angle		+3°			
Taxable horsepower $\frac{Dia^2 \times No. Cyl.}{2.5}$		51.2			
Published max. bhp* @ eng. RPM		250 @ 4400	300 @ 5000	365 @ 6200	375 @ 6200
Published max. torque* (lb. ft. @ RPM)		350 @ 2800	360 @ 3200	350 @ 4000	350 @ 44-4800
Recommended fuel regular - premium		Premium			
Idle speed (spec. neutral or drive)	Manual	Neutral: 480-500 RPM		800 RPM	850 RPM
	Automatic	Drive: 450-500 RPM		---	

ENGINE—PISTONS

			REG. PROD. ENGINE	RPO 2-L75 ENGINE	RPO 2-L76 ENGINE	RPO 2-L84 ENGINE
Material			Aluminum alloy			
Description and finish			Flat head slipper skirt with machined relief for valve clearance		Impact extruded, domed	
Weight (piston only) oz.			21.6		20.2	
Clearance (limits)	Top land		.0365-.0455 (diametral)			
	Skirt	Top	.0005-.0011		.0039-.0045	
		Bottom	---		---	
Ring groove depth	No. 1 ring		.2218-.2283			
	No. 2 ring		.2218-.2283			
	No. 3 ring		.2038-.2103			
	No. 4 ring		---			

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

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POWER TEAMS
(Indicate whether standard or optional)

MODEL AVAILABILITY	ENGINE					TRANSMISSION	AXLE RATIO (Std. first)	
800	Displ. cu. in.	Carburetor	Compr. Ratio	BHP @ RPM	Torque @ RPM		Axle: Regular Production	Axle: Limited slip Optional
Regular Production 250 HP	327	4 BBL.	10.5:1	250 @ 4400	350 @ 2800	3-Speed Std.	3.36:1 Standard; 3.08:1 Optional with 4-Speed	3.36:1
						4-Speed Opt.		3.08:1 3.36:1
						Powerglide Opt.		3.36:1
Optional 2-L75 300 HP		Large 4 BBL. (AFB)		300 @ 5000	360 @ 3200	3-Speed Std.		3.36:1
						4-Speed Opt.		3.08:1 3.36:1
						Powerglide Opt.		3.36:1
Optional 2-L76 365 HP		Large 4 BBL.		365 @ 6200	350 @ 4000	4-Speed Opt.	3.70:1	3.08:1 3.36:1 3.55:1 3.70:1 4.11:1 4.56:1
Optional 2-L84 375 HP		Fuel Injection	11.0:1	375 @ 6200	350 @ 4400-4800	4-Speed Opt.	3.70:1	3.08:1 3.36:1 3.55:1 3.70:1 4.11:1 4.56:1

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MODEL 800			REGULAR PRODUCTION	2-L75	2-L76	2-L84
ENGINE—RINGS						
Function (top to bottom)	No. 1, oil or comp.		Compression			
	No. 2, oil or comp.		Compression			
	No. 3, oil or comp.		Oil			
	No. 4, oil or comp.		--			
Compression	Description - material, type, coating, etc.		(a)			
	Width		Upper - .0775-.0780; Lower - .0780			
	Gap		Upper - .013-.023; Lower - .013-.025			
Oil	Description - material, type, coating, etc.		Multi-piece (2 rails and spacer expander): Rail-spring steel, chrome plated OD; Spacer expander steel alloy			
	Width		.189 min.			
	Gap		.015-.0			
Expanders			For lower compression ring		--	
ENGINE—PISTON PINS						
Material			High chrome steel alloy			
Length			2.990-3.010			
Diameter			.9270-.9275			
Type	Locked in rod, in piston, floating, etc.		Locked in rod			
	Bushing	In rod or piston	None			
		Materic:	--			
Clearance	In piston		.00015-.00025		.00045-.00055	
	In rod		.000			
Direction & amount offset in pis			Major thrust side		On center	
ENGINE—CONNECTING RODS						
Material			Drop forged steel			
Weight (oz.)			20.32			
Length (center to center)			5.699-5.701			
Bearing	Material & Type		Premium aluminum, removable			
	Overall length		.807 (effective length)			
	Clearance (lim		.0007-.0028			
	End play		.008-.0			

(a) Upper for Regular Production and 2-L75 engines - cast iron alloy, inside bevel, chrome plated O.D.; for 2-L76 and 2-L84 engines - same except Molybdenum coated O.D.
Lower for Regular Production and 2-L75 engines - cast iron alloy, inside bevel, wear resistant coating; for 2-L76 and 2-L84 engines - same except Molybdenum coated O.D.

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MODEL 800

ENGINE—VALVE SYSTEM (cont.)

			REGULAR PRODUCTION	2-L75	2-L76	2-L84
Timing (a)	Intake	Opens (°BTC)	32° 30'		60° 50'	
		Closes (°ABC)	87° 30'		105° 23'	
		Duration - deg.	300°		346° 13'	
	Exhaust	Opens (°BBC)	74° 30'		108° 50'	
		Closes (°ATC)	45° 30'		57° 23'	
		Duration - deg.	300°		346° 13'	
	Valve opening overlap		78°		214° 13'	
Intake	Material		Carbon steel		Steel alloy	
	Overall length		4.902-4.922		4.870-4.889	
	Actual overall head dia.		1.715-1.725	1.935-1.945	2.017-2.023	
	Angle of seat & face		46° and 45°			
	Seat insert material		--			
	Stem diameter		.3410-.3417			
	Stem to guide clearance		.001-.0027			
	Lift (@ zero lash)		.3987		.48504	
	Outer spring press. and length	Valve closed (lb. @ in.)	78-86 @ 1.66			
		Valve open (lb. @ in.)	170-180 @ 1.26			
	Inner spring press. and length	Valve closed (lb. @ in.)	Valve Spring Damper			
		Valve open (lb. @ in.)	5-10 LB			
Exhaust	Material		Valve steel (aluminized faces)			
	Overall length		4.913-4.933		4.891-4.910	
	Actual overall head dia.		1.498-1.505		1.595-1.605	
	Angle of seat & face		46° and 45°			
	Seat insert material		None			
	Stem diameter		.3410-.3417			
	Stem to guide clearance		.001-.0027			
	Lift (@ zero lash)		.3987		.48504	
	Outer spring press. and length	Valve closed (lb. @ in.)	Same as intake			
		Valve open (lb. @ in.)	Same as intake			
	Inner spring press. and length	Valve closed (lb. @ in.)	Same as intake			
		Valve open (lb. @ in.)				

ENGINE—LUBRICATION SYSTEM

Type of lubrication (splash, pressure, nozzle)	Main bearings	Pressure
	Connecting rods	Pressure
	Piston pins	Splash
	Camshaft bearings	Pressure
	Tappets	Pressure
	Timing gear or chain	Nozzle Spray
	Cylinder walls	Pressure, Jet Cross Spray

(a) Values for 2-L76 and 2-L84 given with .025 Design Lash; Values for Reg. Prod. and 2-L75 Engines include Ramps.

(Continued)

AMA Specifications – Passenger Car

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MODEL 800	REGULAR PRODUCTION	2-L75	2-L76	2-L84

ENGINE—LUBRICATION SYSTEM (cont.)

Oil pump type	Gear		
Normal oil pressure (lb. @ engine rpm)	60 @ 2000		
Oil pressure sending unit (elect. or mech.)	Mechanical (direct pressure to Bourdon tube)		
Type oil intake (floating, stationary)	Stationary		
Oil filter system (full flow, partial, other)	Full Flow		
Filter replacement (element, complete)	Element		
Capacity of crankcase, less filter-refill (qt.)	4	5	
Oil grade recommended (SAE viscosity and temperature range)	32° F and warmer - SAE 20W, 20, 10W-30 0° F and warmer - SAE 10W, 10W-30 Colder than 30° F - SAE 5W, 5W-20 Sustained high speed warmer than 90° F - SAE 30		
Engine Service Requirement (MM, MS, etc.)	MS or DG		

ENGINE—EXHAUST SYSTEM

Type (single, single with cross-over, dual, other)	Dual		
Muffler No. & type (reverse flow, straight thru, separate resonator)	Two, reverse flow, no resonators		
Exhaust pipe dia. (O.D. wall thickness) Branch	Regular production engine, and 2-L75 engine with PG 2.00 and		
Exhaust pipe dia. (O.D. wall thickness) Main	----		
Tail pipe diameter (O.D. & wall thickness)	2.00 .023		

ENGINE—CRANKCASE VENTILATION SYSTEM (See Supplement to page 8 for Fuel Inj

Type (ventilates to atmos., induction system, other)		Standard	Induction system	---
		Optional	--	---
Control unit	Make and model		AC	---
	Location		Carburetor base	---
	Energy source (manifold vacuum, carburetor air stream, other)		Carburetor air stream	---
	Control method (variable orifice, fixed orifice, other)		Fixed orifice	---
Complete system	Discharge (to intake manifold, carb. air intake, air cleaner intake, other		Intake manifold	---
	Air inlet (breather cap, carburetor air cleaner, other)		Filtered side of air cleaner	---
	Flame arrestor (screen, check valve, other)		Screen	---

(a) 2-L75, 2-L76, and 2-L84 engines with manual transmissions, 2.50 and .06.

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MODEL 800	REGULAR PRODUCTION	2-L75	2-L76	2-L84

ENGINE—CRANKSHAFT

Material			Forged Steel
Vibration damper type			Inertial (Rubber Mounted)
End thrust taken by bearing (No.)			5
Crankshaft end play			.002-.006
Main bearing	Material & type		Except upper rear - premium aluminum, removable; Upper rear - steel backed babbit, removable
	Clearance		No's 1 thru 4, .0008-.0034, No. 5, .00[illegible]-.0036
	Journal dia. and bearing overall length	No. 1	2.3009, .752 (effective length)
		No. 2	2.3009, .752 (effective length)
		No. 3	2.3009, .752 (effective length)
		No. 4	2.3009, .752 (effective length)
		No. 5	2.3006, 1.1824 (effective length)
		No. 6	--
		No. 7	--
	Dir. & amt. cyl. offset		None
Crankpin journal diameter			1.999-2.000

ENGINE—CAMSHAFT

Location			In block above crankshaft
Material			Cast Iron Alloy
Bearings	Material		Extra life steel backed babbit
	Number		5
Type of Drive	Gear or chain		Chain
	Crankshaft gear or sprocket material		Sprocket, steel
	Camshaft gear or sprocket material		Cast Iron Alloy
	Timing chain	No. of links	40
		Width	.375
		Pitch	.500

ENGINE—VALVE SYSTEM

Hydraulic lifters (Std, opt, NA)		Hydraulic, Std.	Mechanical, Std.
Valve rotator, type (intake, exhaust)		None	
Rocker ratio		1.5:1	
Operating tappet clearance (Indicate hot or cold)	Intake	Zero	.025 Design Lash
	Exhaust	Zero	.025 Design Lash
Timing marks on flywheel, damper, other		Damper	

(Continued)

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SUPPLEMENTARY INFORMATION

MODEL 800

FUEL INJECTION - RPO 2-L84

GENERAL
- Make ---------- Rochester Products
- Model ---------- 7017380
- Type ---------- Mass air flow with continuous fuel injection

AIR INDUCTION
- Description ---------- Outside air ducted thru air cleaner to air meter
- Outside air ducting
  - Location ---------- Left side of engine
- Air cleaner
  - Type ---------- Oil-wetted, polyurethane element; conical
- Air meter
  - Flow control ---------- Throttle valve
  - Flow measurement ---------- Annular venturi
  - Cold enrichment
    - Type ---------- Choke
    - Action ---------- Automatic, bi-metallic spring and exhaust heat

FUEL METER
- Flow control ---------- Continuous flow pump with diaphragm controlled bypass; system feeds measured amounts of fuel directly to intake ports where orifice injection nozzles direct fuel to intake valves.
- Pump
  - Type ---------- Gear
  - Drive ---------- Flexible shaft from distributor
  - Output psi, maximum ---------- 200
- Bypass system
  - Control ---------- Diaphragm controlled spill valve - by vacuum from air meter annular venturi
- Injection nozzles
  - Quantity ---------- 8
  - Type ---------- Continuous flow
  - Material ---------- Brass
  - Location ---------- On intake manifold above intake ports
  - Orifice diameter ---------- .0118
  - Insulation ---------- Bakelite block

AMA Specifications— Passenger Car

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MODEL 800

		REGULAR PRODUCTION	2-L75	2-L76	2-L84
ENGINE—FUEL SYSTEM (See Supplement to Page 8 for Details of Fuel Injection, Supercharger, etc. if used)					
Induction type: Carburetor, fuel injection, supercharger.		Downdraft carburetor			
Fuel Tank	Capacity (gals.)	20 (a)			
	Filler location	Center of rear deck			
Fuel Pump	Type (elec. or mech.)	Mechanical			
	Location	Lower right front of engine			
	Pressure range	5.25 to 6.5 psi		6 to 7.5 psi	
Vacuum booster (std., optional, none)		None			
Fuel Filter	Type	Regular prod. Engine - Sintered bronze element (b)			
	Location	Regular prod. Engine - Carburetor fuel inlet (b)			
Carburetor	Choke type	Automatic			
	Intake manifold heat control (exhaust or water)	Exhaust			
	Air clnr. type — Standard	Oil wetted, polyurethane			
	Air clnr. type — Optional	----			

CARBURETOR SUPPLEMENTARY INFORMATION

Model Usage	Engine Displ.	Transmission	Carburetors Make	Carburetors Model	No. Used and Type	Barrel Size
Regular Production 250 HP	327 In. 3	3-Speed	Carter	3846247	1 WCFB, Downdraft	1.4375 (P) 1.4375 (S)
		4-Speed				
		Powerglide				
Optional 2-L75 300 HP		3-Speed		3826004	1 AFB, Downdraft	1.5625 (P) 1.6875 (S)
		4-Speed		3826004		
		Powerglide		3826006		
Optional 2-L76 365 HP		4-Speed	Holley	3849804	1, Downdraft	1.561 (P) 1.561 (S)

(a) 36 Gallon fiberglass tank available optionally.
(b) In line with paper element, between fuel pump and carburetor, for 2-L75 and 2-L76 engines.
(c) Additional plastic mesh filter in fuel tank.

Form Rev. 6-