SERVICE DEPARTMENT
CHRYSLER DIVISION
CHRYSLER CORPORATION

Service Bulletin

CHRYSLER APPROVED SERVICE IMPERIAL

Information for ☐ Service Mgr. ☐ Shop Foreman ☐ Parts Mgr. ☐ Mechanics

Jan. 6, 1958

No. 58-24

Miscellaneous

Data and Specifications

TO ALL CHRYSLER AND IMPERIAL DEALERS:

The enclosed bulletin covers the data and specifications of the 1958 Chrysler 300-D.

The information contained in this bulletin supplements the general service information in the 1958 Chrysler and Imperial Service Manual. This information covers in detail the specific data and specifications of the 1958 Chrysler 300-D Fire-Power Engine, and in particular, the two 4-barrel carburetors, the full race camshaft, mechanical valve tappets, adjustable valve rockers, double valve springs, exhaust valve seat inserts, heavy duty crankshaft and tri-metal bearings, as well as the other features exclusive with the 1958 Chrysler C-300-D.

C. T. McClure

C. T. McCLURE
Director of Service
CHRYSLER DIVISION

Chrysler
All 1958
C-300D
Models

20796

IMPORTANT: This bulletin contains valuable information and was prepared at considerable expense to be of service to you. Failure to use this information may cost you good will and money. We suggest that you insure it is read by all those concerned, and then filed for future reference in your Service Bulletin binder.

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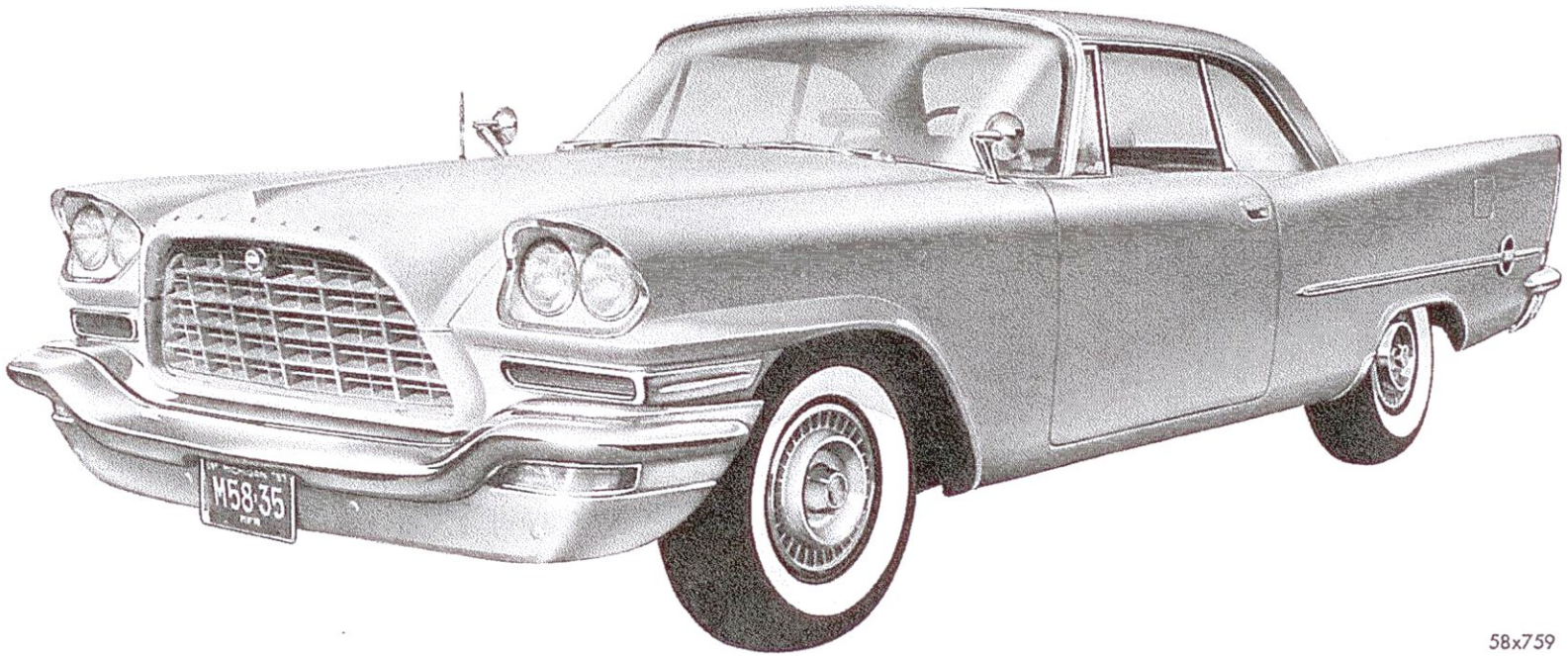

Fig. 1 - C-300D Sport Coupe Two Door Hardtop

1958 CHRYSLER C-300D

GENERAL DATA AND SPECIFICATIONS

Item	Body Style
Sports Coupe Two-Door HardTop and Convertible Coupe	
Wheel Base	126 inches
Tread (Front)	61.2 inches
Tread (Rear)	60.0 inches
Length with Bumper	219.2 inches
Width with Bumper	78.8 inches
Rear Axle Ratio with TorqueFlite	3.31
Tire Size	9.00 x 14

1. FRONT WHEEL SUSPENSION

The Front Wheel Suspension System is of the same basic design as used in Model LC-3, with the following exception:

THE FRONT SUSPENSION HEIGHT

The difference in the height between the floor and the two measuring points on each lower control arm (lowest point on ball joint housing and underside of bushing housing between flanges of arm) should be 1 3/4 inches. This height must be maintained ± 1/8 inch with a maximum differential from right to left of 1/8 inch.

For servicing, refer to the Front Wheel Suspension Section of the 1958 Chrysler Service Manual.

2. REAR AXLE

The rear axle is of the same basic design as used on Model LC-3, with the following exceptions:

DATA AND SPECIFICATIONS

Standard Ratio	3.31	(43-13)
Optional Ratios	2.93	(41-14)
	3.15	(41-13)
	3.54	(39-11)
	3.73	(41-11)

Available at Extra Cost		
"Sure-Grip"	3.15	(41-13)
	3.31	(43-13)
	3.73	(41-11)
Recommended for Air Conditioned Cars	3.31	(43-13)

3. BRAKES

The Brake System is of the same basic design as used on Model LC-3. For servicing the brakes, refer to the Brake Section of the 1958 Chrysler Service Manual.

4. ACCESSORY BELT DRIVES

The belt deflections remain the same as outlined in Accessory Belt Drives, Section IV, of the 1958 Chrysler Service Manual, with the exception of the fan pulley ratio which is as follows:

Standard - .95 to 1
Power Steering - .93 to 1
Air Conditioning - Early Production - 1.04 to 1
Late Production - 1.20 to 1

5. COOLING SYSTEM

The cooling system is the same design as used on Model LC-3 except the Silent Flite Fan Drive is standard equipment. No shroud is used, except when car is equipped with air conditioning. For servicing, refer to the Cooling System, Section V of the 1958 Chrysler Service Manual.

6. ENGINE

The 1958 C-300D Chrysler engine is a modified Chrysler FirePower engine which includes two four-barrel carburetors, (Figs. 2 and 3), a new "lower" intake

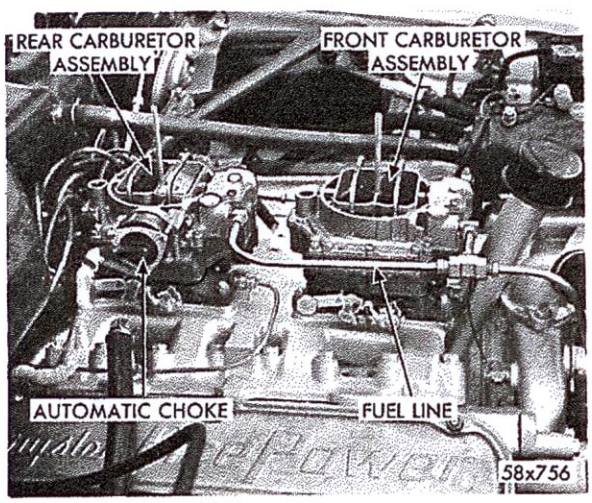

Fig. 2 - FirePower Engine (Right Side)

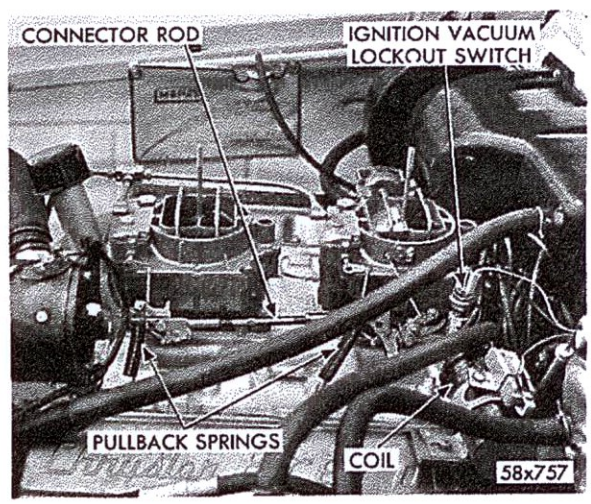

Fig. 3 - FirePower Engine (Left Side)

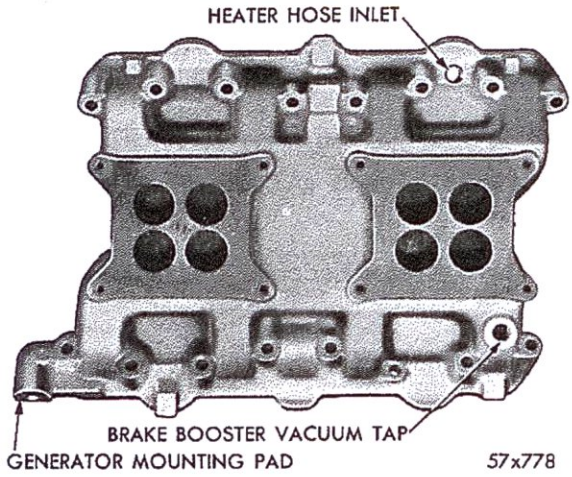

Fig. 4 - Intake Manifold C-300D Engine

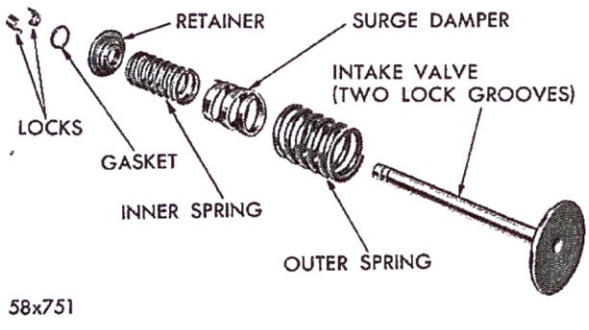

Fig. 5 - Intake Valve (Exploded View)

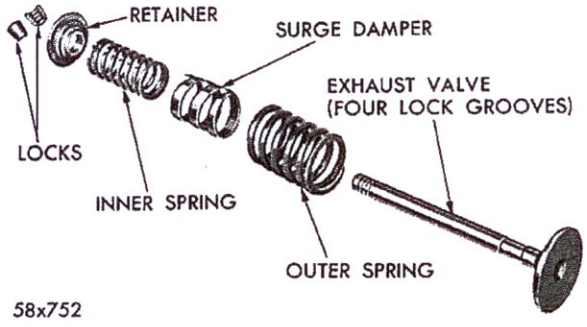

Fig. 6 - Exhaust Valve (Exploded View)

manifold, (Fig. 4), full race camshaft, special push rods and mechanical tappets with the adjusting screws at the push rod end of the rocker arms, inner and outer high load valve springs with a spiral type surge damper, as shown in Figures 5 and 6, removable exhaust valve seat inserts, special cylinder head covers, new air cleaners (Fig. 7), chrome top compression ring, and heavy duty main and rod bearings. The bearings should not be replaced with the crankshaft bearings other than those specified for the C-300D engine.

The valve tappet clearance is adjusted at the rocker arm as shown in Figure 8 to the following values:

	HOT	COLD
Intake	.015"	.015"
Exhaust	.024"	.028"

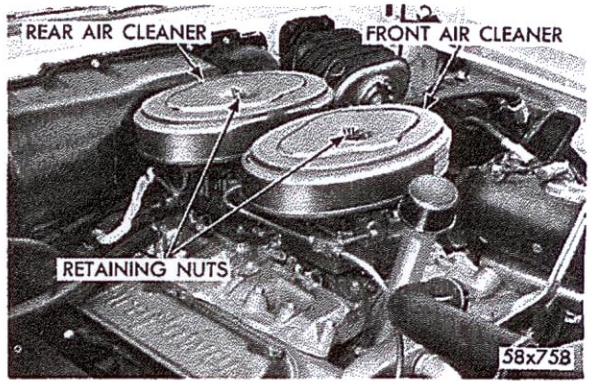

Fig. 7 - Carburetor Air Cleaner Installed

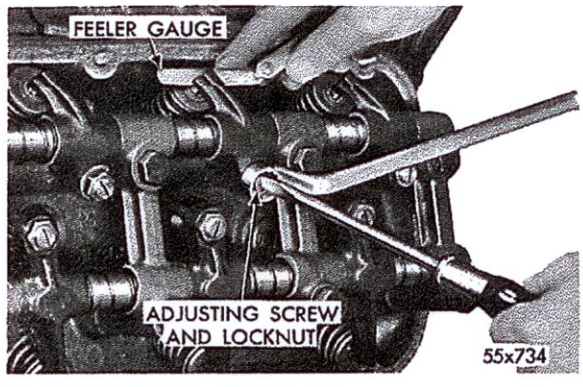

Fig. 8 - Adjusting Valve Clearance

Engine Idle Setting - Set idle adjustment to obtain a smooth idle at 650 rpm, as outlined in Fuel Section of this bulletin.

Ignition Timing - Disconnect distributor vacuum line, set ignition at 6 degrees BTDC, and reset engine idle back to 650 rpm.

VALVE TIMING PROCEDURE

Turn the crankshaft until the No. 1 intake valve is closed and the No. 1 piston is on TDC.

Turn the adjusting screw down until the valve train becomes solid and continue turning for one more complete turn.

Install a dial indicator so that the pointer contacts the valve spring retainer as nearly perpendicular as possible.

Turn crankshaft clockwise (normal running direction) until valve has lifted .110". The timing on the vibration damper should read from 5° BTDC to 7° ATDC. If the reading is not within specified limits; check the gear index marks, inspect the timing chain for wear, and check the accuracy of the TDC mark on the vibration damper.

Turn crankshaft counterclockwise until valve is reseated and then reset valve lash. Do not turn crankshaft any further clockwise as the valve spring might bottom and cause serious damage.

Service Procedure will be the same as outlined for the FirePower Engine, in the Engine Section VII of the 1958 Chrysler Service Manual, with the following exceptions: Dual valve springs with a surge damper are used in place of the conventional single springs to provide improved high speed valve operation. No intake valve stem cup seals are used with the dual springs. A fiber stem seal Part No. 861304 is used on intake valves only (use Part No. 1555781 with valve spring retainers) (longer).

Engine Specifications are the same as the LC-3 and LY-1 with the following exceptions:

DATA AND SPECIFICATIONS - ENGINE

BEARINGS

Material	Tri-Metal
Diameter Clearance (Desired)	.001 to .0025

BEARING SIZES

Diameter and Length.	2.688 x .905 2.688 x .905 2.688 x .997 2.688 x .905 2.688 x 1.625

TAPPETS

Type	Mechanical

TAPPETS - (Continued)

Clearance in Block	.0005 to .0015"
Body Diameter	.9040 to .9045"
Clearance Between Valve Stem and Rocker Arm	*Intake .015" *Exhaust .024"

* Engine Hot and Idling

VALVES -- (Intake)

Adjustment	At Rocker Arm
Lift	.435"

VALVES -- Exhaust

Adjustment	At Rocker Arm
Lift	.442"

VALVE SPRINGS - Outer

Number	16
Free Length	1-15/16"
Load When Compressed to (valve closed)	1-21/32" -- 60 to 65 lbs.
Load When Compressed to (valve open)	1-7/32" 154 to 166 lbs.
Valve Springs I.D.	1.012 to 1.034
Valve Spring Installed Height (spring seat to retainer)	1-5/8 to 1-11/16"
Recondition at	1-23/32"
Surge Damper	Spiral Type Between Springs

VALVE SPRINGS - Inner

Number	16
Free Length	1-25/32"
Load When Compressed to (valve closed)	1-17/32" -- 26 to 30 lbs.
Load When Compressed to (valve open)	1-3/32" -- 64 to 69 lbs.

DATA AND SPECIFICATIONS - ENGINE (Continued)

VALVE SPRINGS - Inner - (Continued)

Assemble with Closed Coils Toward. . .	Head
Valve Springs I.D.	.690 to .710"

CYLINDER HEAD

Valve Seat Insert Material	Alloy Iron

7. ELECTRICAL SYSTEM

Electric units are identical with those used on Model LC-3, with exceptions listed as follows:

DATA AND SPECIFICATIONS

Car Model	C-300D

GENERATOR

Gen. Model	Auto-Lite No.	Chrysler Production No.
Standard . . . . . Early Production	GJC-7013B;	1842601
Late Production	---	1842786
With Air Conditioning-Early Production	GHM-6011A;	1779959
- Late Production	---	1842782

Rotation.	Clockwise at Drive End
Voltage	12
Output.	Controlled by Vibrating Regulator
Rated Current Output	30 Amperes
Bearings	
Standard	Ball at drive end - Bushing at opposite end
With Air Conditioning	Ball - Both ends
Ground Polarity	Negative
Poles	2
Brushes	2

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Information for ☐ Service Mgr. ☐ Shop Foreman ☐ Parts Mgr. ☐ Mechanics

Nov. 5, 1958

No. 58-84

MISCEL-LANEOUS

300-D

DISTRIBUTOR

ADVANCE

SPECIFICA-TIONS

CHRYSLER

ALL 1958 300-D

MODELS

11007

TO ALL CHRYSLER AND IMPERIAL DEALERS:

This bulletin is to supplement the information contained in Chrysler Service Bulletin No. 58-24, dated January 6, 1958.

The 1958 Chrysler C-300D distributor advance specifications for the Auto-Lite No. IBS-4007 Distributor are as follows:

	Centrifugal (governor) Advance (Distributor r.p.m. and Degrees)	
No Advance	300-400 r.p.m.	0^{o}
Start	400 r.p.m.	0^{o} - 4^{o}
Intermediate	450 r.p.m.	2^{o} - 5^{o}
Maximum	1050 r.p.m.	5.5^{o} - 7.5^{o}
	Vacuum Advance (Distributor Degrees)	
Start	7.5" to 8.5" Hg.	0^{o}
Intermediate	12" Hg.	5.5^{o} - 7.5^{o}
Maximum	16" Hg.	10^{o} - 12^{o}

Please refer to this bulletin when servicing a 1958 Chrysler 300D distributor and attach this bulletin to Service Bulletin No. 58-24 when placing in file.

C. T. McClure

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Director of Service

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Car Model	C-300D

GENERATOR - (Continued)

Spring Tension.	18 to 36 oz.
Field Coil Draw (Arm. to Field Term.) . . .	1.2 to 1.3 amps at 10 volts
Motorizing Draw	3.4 to 3.9 amps at 10 volts
Test Bench Output Test (At 70 F).	20 amps, 14.3 Volts at 1750 Max. RPM 30 amps, 15 Volts at 2250 Max. RPM

DISTRIBUTOR

The Distributor used on the C-300D is as follows:

Chrysler Part No. 1838822 ---- Auto-Lite No. IBS-4007

Ignition Timing Breaker Points to open:

6° BTC at Vibration Damper.

SPARK PLUGS

Type.	Standard AGR 32 (Normal) Hi-Speed AGR 2 (H.S.)
Thread (mm)	14
Tightening Torque (ft. lbs.).	30 to 32
Gap	.035"

8. FUEL AND EXHAUST SYSTEMS

Carburetors WCFB 2741S - Front
Carburetors WCFB 2742S - Rear

NOTE: The Front and Rear Carburetors are not interchangeable.

The rear carburetor only, is equipped with a choke system. The carburetors have velocity control valves in the secondary throttle bores.

REMOVAL OF CARBURETORS FROM ENGINE

Remove air cleaners and gaskets. Disconnect fuel lines, choke heat tube and vacuum spark advance tube. Disconnect throttle linkage, remove carburetors from intake manifold. Discard mounting flange gaskets.

The carburetor must be disassembled and all parts carefully cleaned in

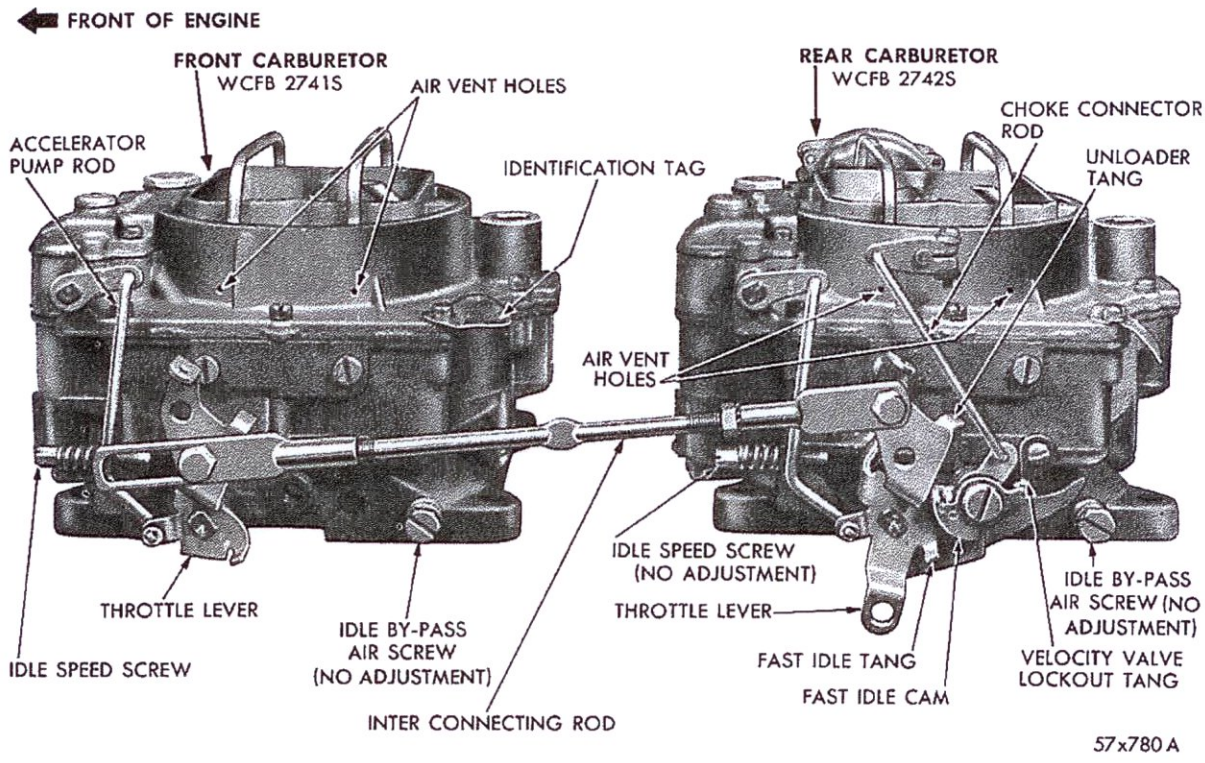

Fig. 9 - Dual Carburetors (Left Side View)

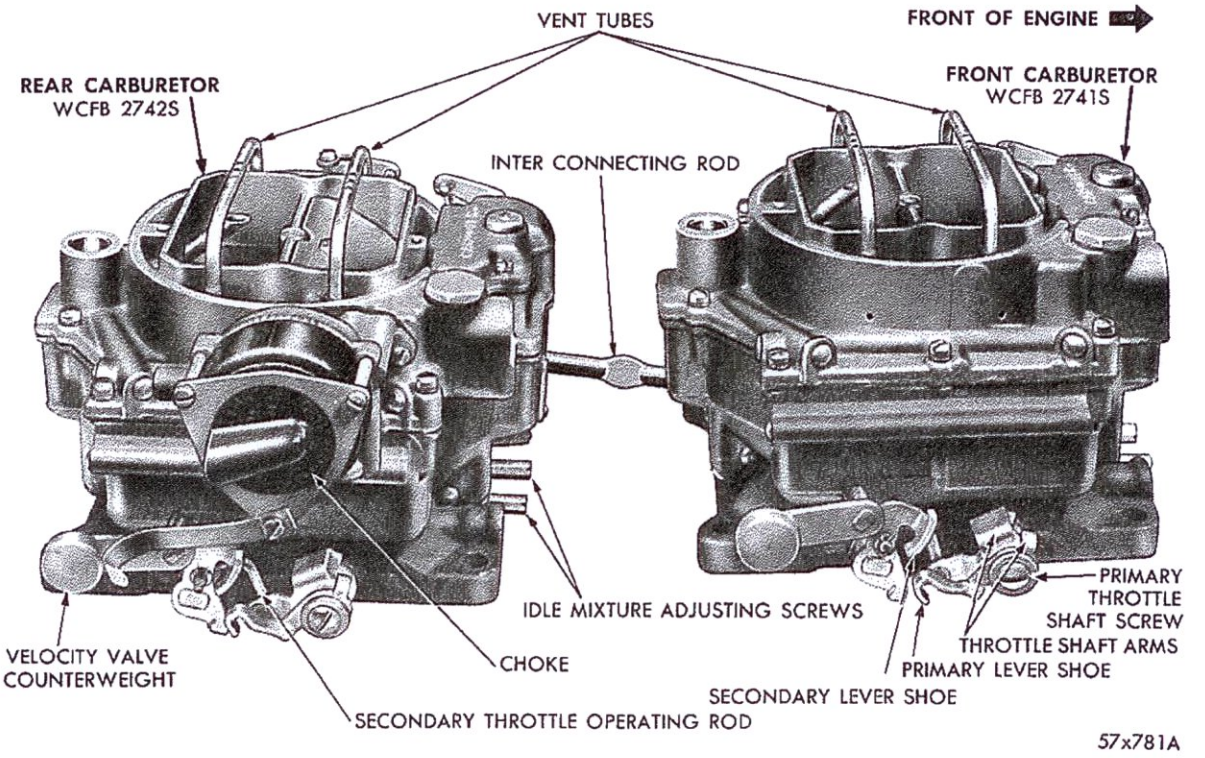

Fig. 10 - Dual Carburetors (Right Side View)

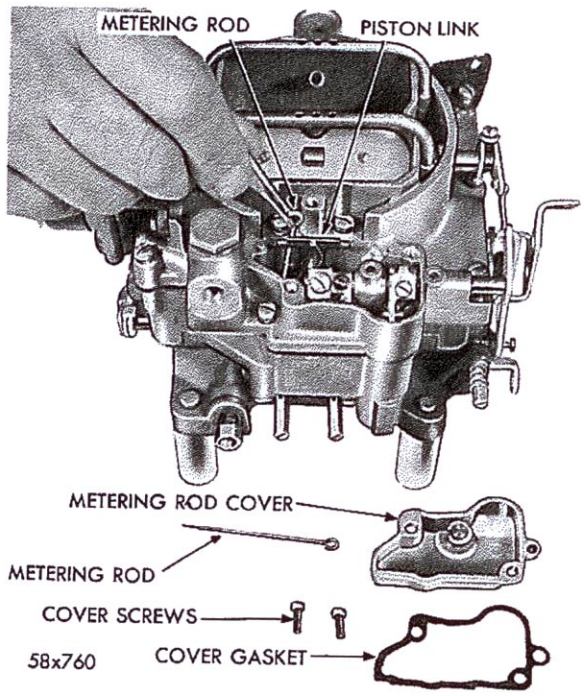

Fig. 11 - Removing or Installing Metering Rods

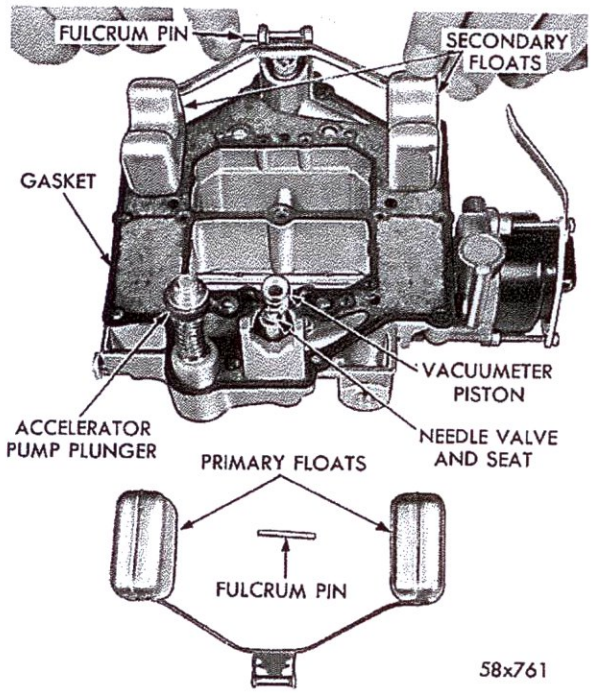

Fig. 12 - Removing or Installing Floats

solvent, such as Metaclene (or equivalent). Inspect all parts removed from carburetor and replace as necessary.

CARBURETOR DISASSEMBLY (FIGS. 9 and 10)

Place carburetor assembly on repair stand Tool C-3400, (if available). This tool is used to protect throttle valves from damage and to provide a suitable base for working. Remove hairpin clips, disengage choke connector and throttle operating rods. (When removing throttle operating rod, remove hairpin clip that holds rod to pump shaft lever, for ease in removal). Remove metering rod dust cover and gasket, then carefully unhook metering rods from vacuumeter link, as shown in Figure 11.

Sixteen screws are used to attach air horn to main body. Six of these are found around inside of air cleaner enclosure, nine around flange of air horn and one within metering rod and pump shaft enclosure. Remove screws. Using finger pressure only, lift air horn straight up and away from main body. This will prevent damage to floats, accelerator pump plunger or vacuumeter piston.

a. Air Horn Disassembly

Lay air horn on bench in an inverted position. Using suitable tool, remove float fulcrum pins, then lift primary and secondary floats up and away from air horn, as shown in Figure 12. It is advisable to keep parts from primary side of carburetor separated from those of secondary side. Remove primary and secondary float needle valve and seats. Rotate vacuumeter piston 90° to either side and remove from vacuumeter link. Remove hairpin clip and disengage accelerator pump connector link from plunger shaft and arm, as shown in Figure 13. Slide pump plunger, spring and spring guide washer out of air horn. Check leather on plunger for wear, cracking or stiffness. The leather must be soft and pliable. Install new pump plunger if any of these conditions are apparent. Place accelerator pump lunger in jar of clean gasoline to prevent leather from drying out. Remove air horn gasket.

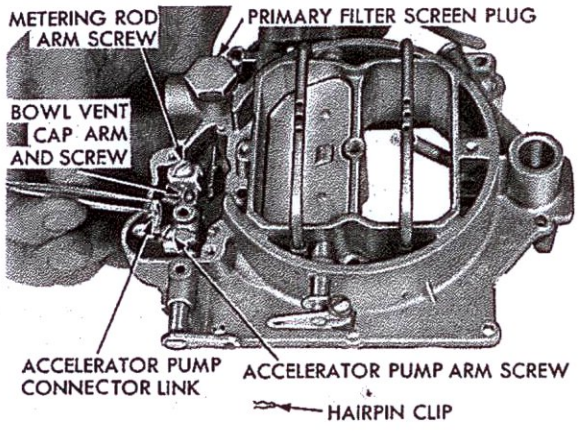

Fig. 13 - Removing or Installing Accelerator Pump Connector Link

Remove primary and secondary fuel inlet plugs, gaskets and screens. Loosen metering rod arm and accelerator pump arm screws. Remove bowl vent arm attaching screw. Lift out arm. Slide accelerator pump shaft out of air horn, and at same time, remove each arm as it is released, as shown in Figure 14. Slide vacuumeter piston link out of air horn.

b. Integral Automatic Choke Disassembly

Remove screws and retainer ring that attach thermostatic coil housing and heat tube cap to air horn. Lift off thermostatic coil housing, and gasket, as shown in Figure 15. Remove baffle plate to expose choke piston.

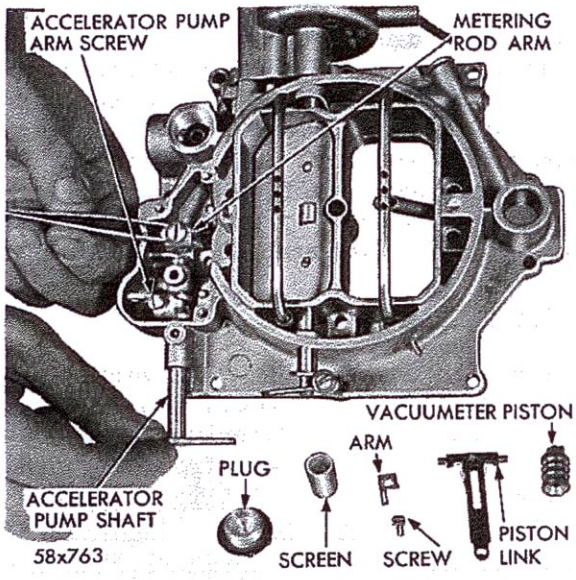

Fig. 14 - Removing or Installing Accelerator Pump Shaft

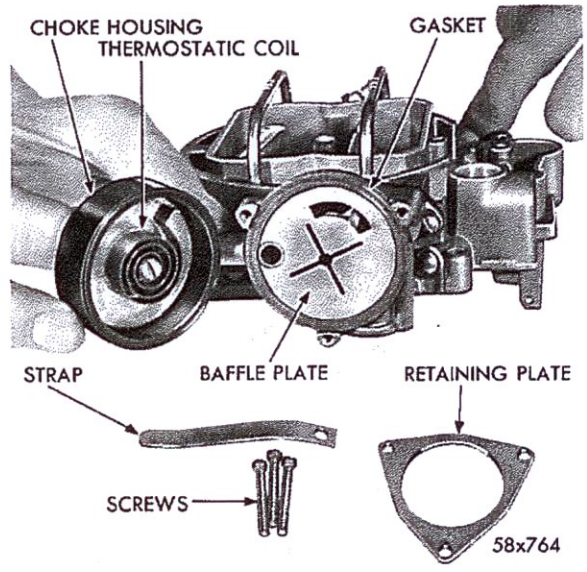

Fig. 15 - Removing or Installing Choke Housing

Loosen choke shaft lever clamp screw, then slide lever from end of shaft. Using file, remove staking that holds choke valve retaining screws. Remove screws and lift out choke valve, as shown in Figure 16. These screws are staked to prevent loosening and care should be used to avoid breaking off in choke shaft. Rotate choke shaft counter-clockwise far enough to withdraw choke piston out of its cylinder, as shown in Figure 17. As choke piston clears cylinder, withdraw choke shaft and piston out of air horn.

Using suitable tool, push out piston pin and separate piston front link (See Fig. 18). Remove screws that hold choke housing to air horn. Remove housing, discard gasket.

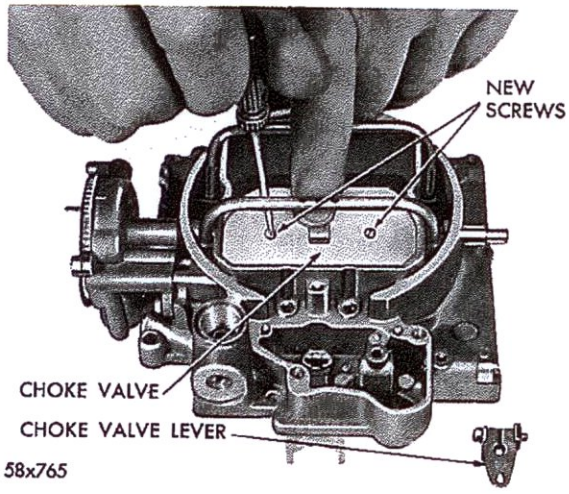

Fig. 16 - Removing or Installing Choke Valve

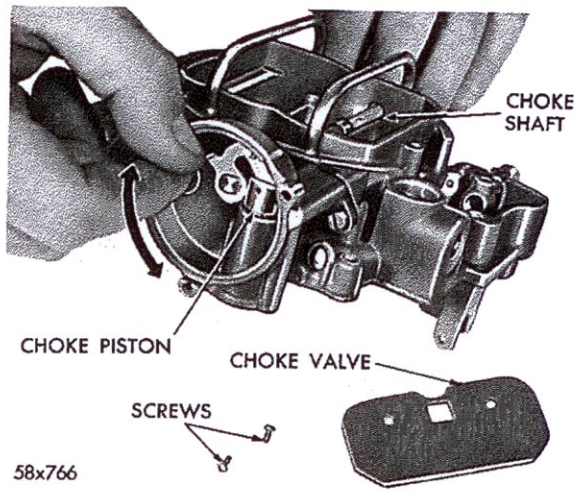

Fig. 17 - Removing or Installing Choke Shaft and Piston

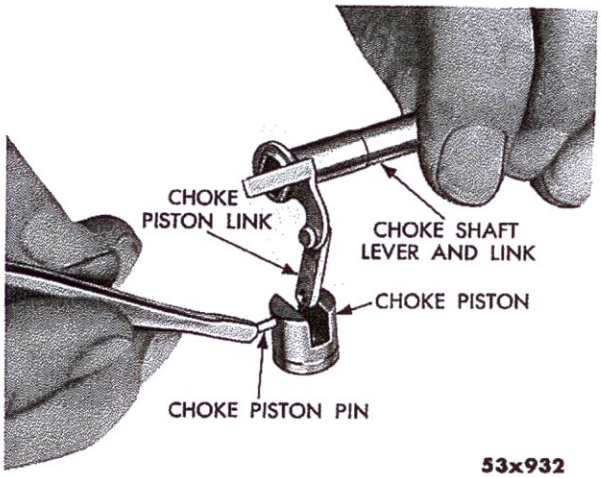

Fig. 18 - Removing or Installing Choke Piston Pin

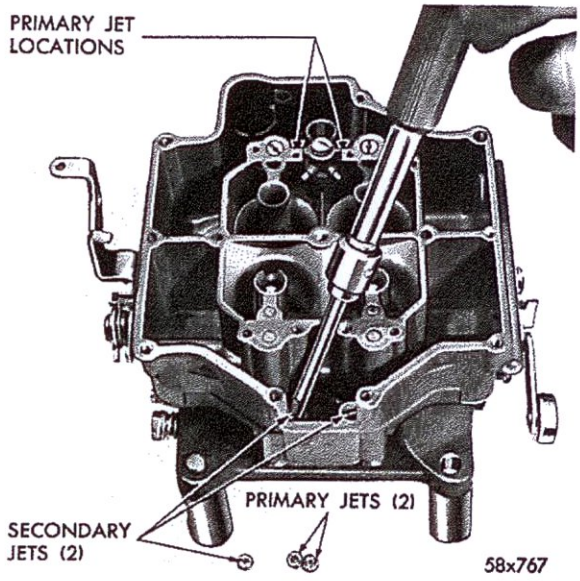

Fig. 19 - Removing or Installing Main Metering Jets

c. Main Body Disassembly

Remove vacuumeter piston spring, accelerator pump discharge cluster and gasket. Invert carburetor and drop out discharge check needle. Using Tool T-109-58, remove main metering jets (primary and secondary), as shown in Figure 19. (Be sure and keep primary and secondary jets separate, as they Are Not Interchangeable). Again using Tool T-109-58, remove primary idle jets, as shown in Figure 20.

Invert main and throttle bodies and remove throttle body attaching screws, (short screw on secondary side-center). Remove throttle body, discard gasket.

Remove 4 screws from velocity valves and remove valves, as shown in Fig. 21. Remove velocity valve lockout tang (Rear Carburetor) and remove velocity valve shaft from main body. (Fig. 22).

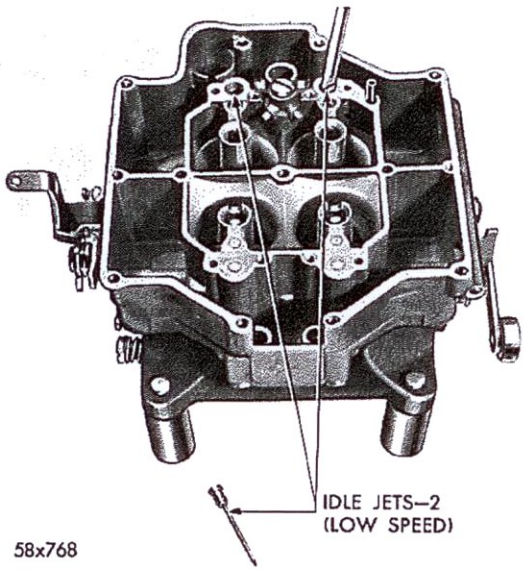

Fig. 20 - Removing or Installing Idle Jets

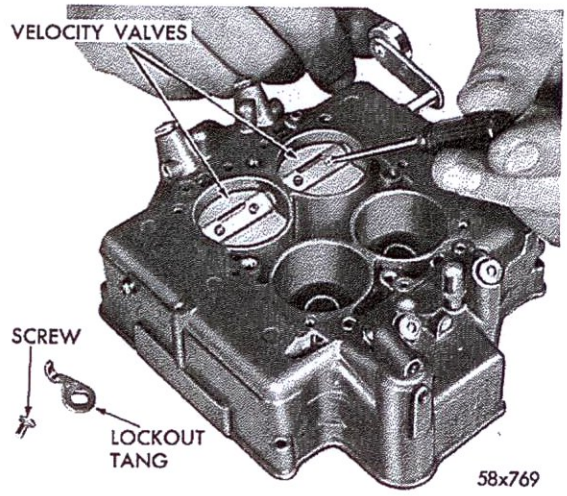

Fig. 21 - Removing or Installing Velocity Valves

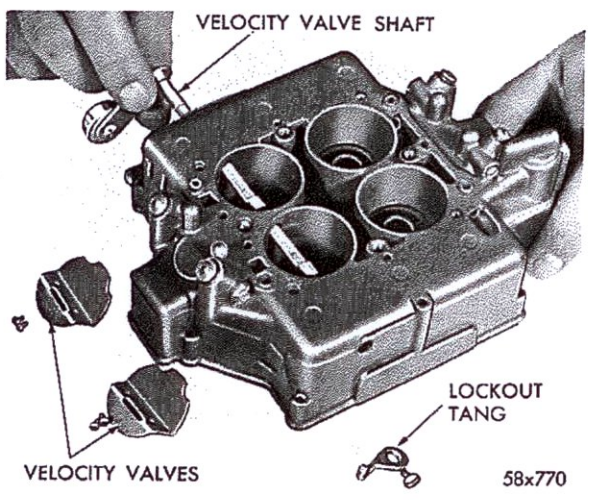

Fig. 22 - Removing or Installing Velocity Valve Shaft

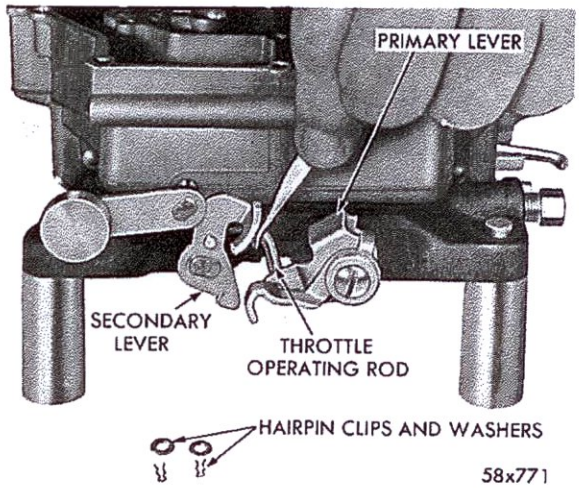

Fig. 23 - Removing or Installing Throttle Operating Rod

d. Throttle Body Disassembly

Remove hairpin clips that hold secondary throttle operating rod to primary and secondary levers. Slide rod in and away from levers and remove rod, as shown in Figure 23. (Don't lose washers). Remove primary throttle shaft screw, washer, outer and inner throttle shaft arms and spring washer, Figure 24.

Loosen screw that attaches fast idle cam assembly to throttle body boss, lift off fast idle cam assembly, cam trip lever, locknut arm and screws, as shown in Figure 25. When removing fast idle cam and trip lever, be sure and note position of fast idle cam spring and tangs on trip lever. It is usually not advisable to

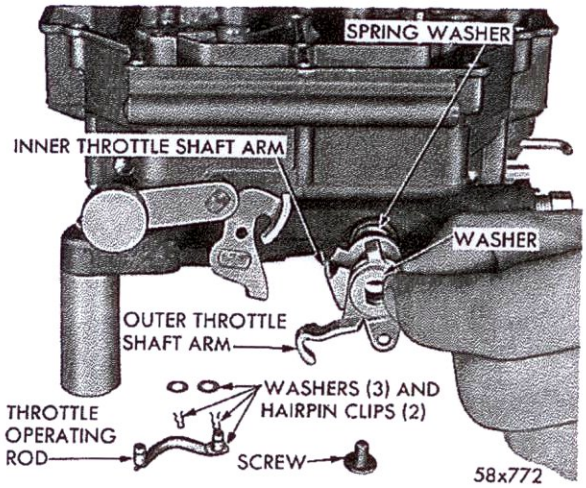

Fig. 24 - Removing or Installing Throttle Shaft Arms

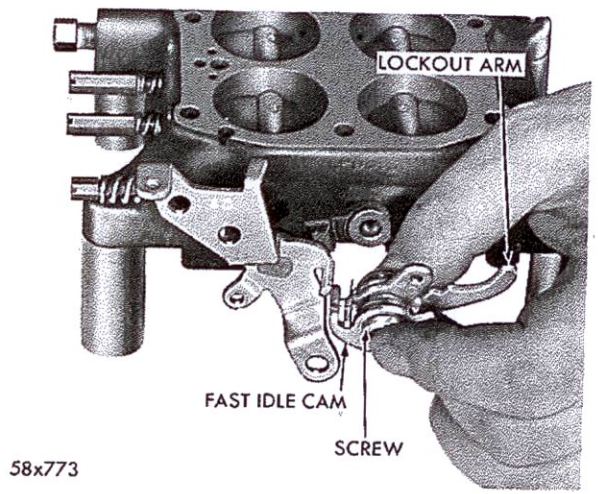

Fig. 25 - Removing or Installing Fast Idle Cam

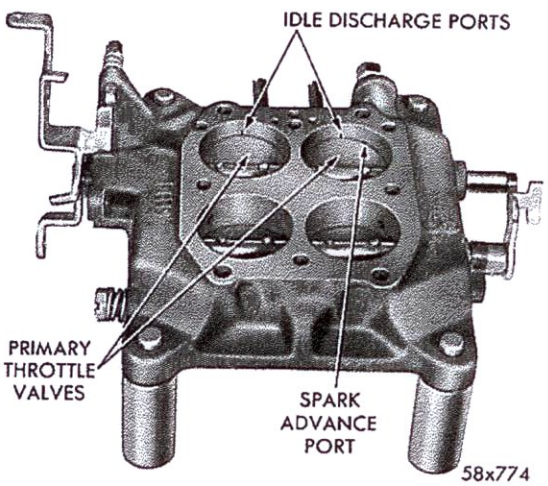

Fig. 26 - Ports in Relation to Primary Throttle Valve

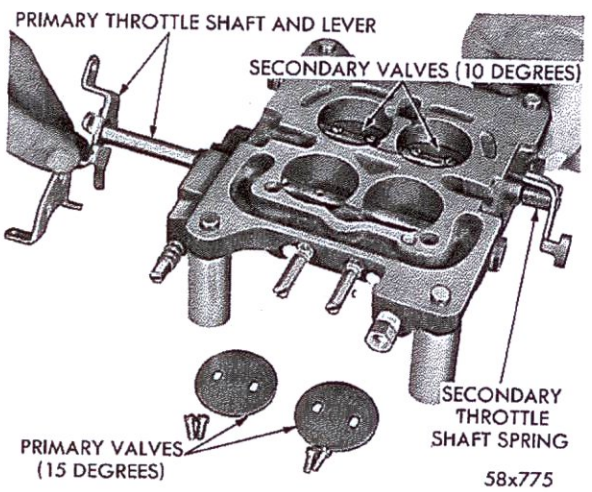

Fig. 27 - Removing or Installing Throttle Valves and Shaft

remove throttle shafts or valves, unless wear or damage necessitates installation of new parts.

During manufacture, location of idle transfer port and spark advance control port to valves is carefully established for one particular assembly. (See Figure 26). If new shaft should be installed in an old worn throttle body, it would be very unlikely that original relationship of these ports to valves would be obtained. Changing port relationship would adversely affect normal carburetor operation between speeds of 15 and 30 miles per hour. If it has been determined, however, that new shafts are to be installed, adhere closely to following instructions:

It is suggested that throttle valves be marked in order that each may be returned to same bore from which it was removed. The screws that attach the throttle

valves are staked on opposite side and care should be used in removal so as not to break screws in throttle shafts.

Remove screws that hold primary throttle valves to throttle shaft. Lift out valves, withdraw throttle shaft, using twisting motion, as shown in Figure 27. Remove screws that hold secondary throttle valves to throttle shaft. Lift out valves, withdraw throttle shaft and return spring, using twisting motion. The primary and secondary valves are not interchangeable and should be kept separate in order that they may be replaced in their original bores. (See Figure 27). Remove two idle mixture adjusting needles and springs from throttle body, as shown in Figure 28.

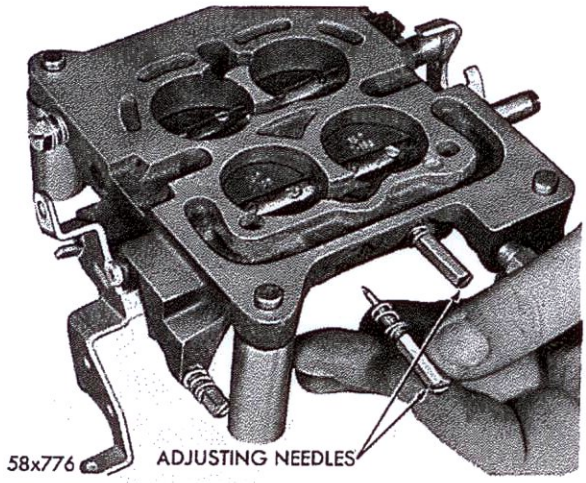

Fig. 28 - Removing or Installing Idle Mixture Adjusting Needles

The carburetor now has been disassembled into four units, namely, air horn, main body, throttle body and automatic choke and component parts disassembled as far as necessary for cleaning and inspection.

CLEANING CARBURETOR PARTS

The recommended solvent for gum deposits is denatured alcohol. There are other commercial solvents or cleaners which may be used with satisfactory results.

IMPORTANT

If the commercial solvent or cleaner recommends the use of water as a rinse, it should be hot. After rinsing, all trace of moisture must be blown from passages with air pressure. Never clean jets with wire, drill or other mechanical means as the orifices may become enlarged, making fuel mixture too rich for proper performance.

For automatic choke to function properly, it is important that all parts be clean and move freely. It is possible, under extremely dusty conditions, that fine particles of dirt may be found deposited on various choke parts. A heavy, black, hard carbon deposit on choke parts indicates possibility of leak in heat tube. Check tube in exhaust manifold and repair as required.

Examine all choke parts for wear or damage. Worn or damaged parts must be replaced with new, to insure proper operation of choke. Do not attempt to separate thermostatic coil from heat retainer plate. The thermostatic coil heat retainer plate and moulded bakelite housing are serviced as an assembly only. If housing is cracked or broken, replace with a completely new assembly, as index mark cut on rim of housing is only correct for one thermostatic coil originally installed.

To remove thermostatic coil and heat retainer plate from housing, hit housing sharply against palm of hand (coil side down). Clean any dirt, dust or other foreign material that may be present, from retainer plate and out of housing.

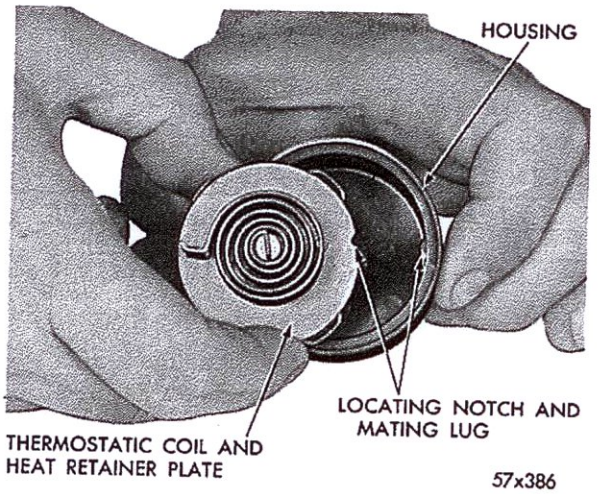

Fig. 29 - Installing Coil in Housing

Match notch in plate with lug in housing, as shown in Figure 29. Install plate and press down until seated in housing.

INSPECTION AND REASSEMBLY

a. Throttle Body

Check throttle shaft for excessive wear in throttle body. If wear is extreme, it is recommended that throttle body be replaced rather than installing a new throttle shaft in old body. Install return spring on secondary throttle shaft and slide secondary throttle shaft and lever into throttle body with lever in the horizontal position. Slide secondary valves into position (10° valves,) install new screws; do not tighten. Hold valves in place with fingers. (Fingers pressing on high side of valves). Now tap valves lightly with screwdriver to seat in bores. Holding valves in this position, tighten screws securely and stake by squeezing with pliers. Wind secondary throttle return spring 1 1/2 turns. (Figure 27).

Slide primary throttle shaft and lever in throttle body. (Refer to Figure 27). Slide primary valves into position (15° valves,) install new screws; do not tighten. Hold valves in place with fingers. (Fingers pressing on high side of valves). Tap the valves lightly with screwdriver to seat in throttle bores. Holding the valves in this position, tighten screws securely and stake by squeezing with pliers.

Install spring washer on primary shaft with concave side facing outward. Install inner and outer throttle shaft arms, washer and primary throttle shaft screw. Install throttle operating rod, washers and hairpin clips.

Install two idle mixture adjusting screws and springs in throttle body. (Refer to Figure 28). The tapered portion must be straight and smooth. If tapered portion is grooved or ridged a new idle mixture adjusting screw should be installed to insure having correct idle mixture control. DO NOT USE A SCREWDRIVER. The adjustment should be made with the fingers. Turn needles lightly against their seats, then back off one full turn for approximate adjustment.

Slide fast idle cam retaining screw through fast idle cam (the threaded shank of screw on spring side). Slide fast idle cam trip lever over shoulder on screw, guiding tang between fast idle spring and cam. Slide lockout arm over screw, with lockout detent pointing toward rear of carburetor. Insert pivot screw in position in throttle body and tighten securely. Be sure all parts move freely. (See Figure 25).

b. Main Body Assembly

Place main body upside down on bench. Install velocity valve shaft with counterweight on right side of the main body. Install velocity valve lockout tang and

screw. Install velocity valves with trade mark side facing upward and toward the front of the carburetor.

Install new throttle to main body gasket. Lower throttle body down on main body. Install screws and tighten securely.

NOTE: Be sure copper gasket is installed under screw on primary lever side where screw hole is close to carburetor bore. The accelerator pump well should be on same side as idle mixture adjusting needles. Remember, short attaching screw should be installed on secondary side. Invert carburetor and mount in repair stand, assemble main body as follows:

Install accelerator pump discharge check needle in discharge passage, as shown in Figure 30). Install primary and secondary idle jets (Refer to Figure 20). Tighten securely, using Tool T-109-58. Remove accelerator pump plunger from jar of gasoline and flex leather several times. Check to see if leather is hard, cracked or worn. If any aforementioned conditions exist, install a new accelerator pump plunger. Test operation of accelerator pump as follows:

c. Accelerator Pump Test

Pour clean gasoline into carburetor bowl (approximately 1/2 inch deep). Insert plunger into its cylinder, press lightly on plunger shaft to expel air from pump passages. Using a small clean brass rod, hold discharge check needle firmly down on its seat. Raise pump plunger and press downward. No fuel should be emitted from either intake or discharge passage (See Figure 31).

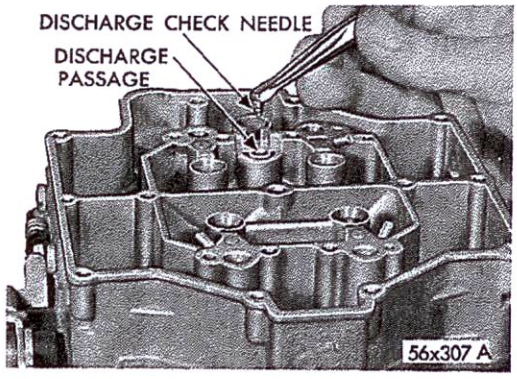

Fig. 30 - Installing Accelerator Pump Discharge Check Needle

If any fuel does emit from intake ball check, it should be cleaned and thoroughly blown out with compressed air. Fuel leakage at discharge needle indicates presence of dirt or a damaged needle or seat. Clean again and then install a new needle. Recheck for leakage. If either intake check ball or discharge needle leaks after above test, attempt to reseat as follows:

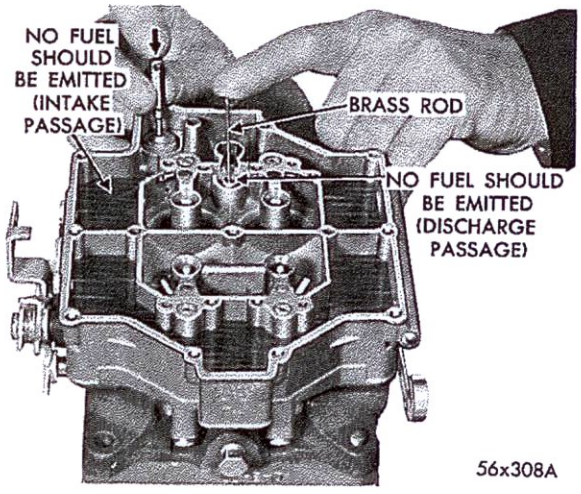

Fig. 31 - Accelerator Pump Test

d. Intake Check Ball

Remove check ball retainer from bottom of accelerator pump cylinder. Insert a piece of drill rod down on check ball. Lightly tap with a hammer to form new seat. Install new check ball and retainer, retest as described previously.

e. Discharge Check Needle

Insert small piece of drill rod down on needle. Lightly tap drill rod with hammer to form new seat. Discard old needle and install new one. Retest as described previously. If above instructions do not correct condition, a new carburetor main body assembly must be installed.

Install accelerator pump discharge cluster, gasket and screw. Tighten screw securely. Depress accelerator pump plunger. A clear straight stream should emit from each jet. If streams are not identical, (if either one is diverted or restricted) a new accelerator pump discharge cluster should be installed. After test, pour gasoline from carburetor bowl and remove accelerator pump plunger.

f. Air Horn Assembly

Place new gasket over sleeve on rear of choke housing, install housing in position on air horn. Tighten screws securely. Slide choke piston pin through piston and choke piston link (see Figure 18); slide assembly into air horn. Slide choke shaft into air horn far enough to allow choke piston to be aligned with center of cylinder, turn shaft slightly clockwise and allow piston to enter its cylinder, (see Figure 17). Slide choke valve down into position (numbered side up) and start NEW screws. Holding valve in closed position, tap gently with screw driver to center and locate valve. Tighten screws securely. With valve in open position, stake screws, using pliers. Do Not Lubricate any choke operating parts. Hold air horn in an upright position and close choke valve. The valve should open freely of its own weight.

Install choke baffle plate and gasket. Hold choke coil housing against gasket with index mark in down position.

Turn choke coil housing counter-clockwise until index mark lines up with one notch rich mark on carburetor. Install heat tube cap gasket. Install heat tube cap with inlet hole pointing toward rear of engine. Install retainer ring, heat tube strap and screws, tighten securely.

Invert air horn and install primary and secondary needle seats and gaskets. Tighten seat securely.

Slide accelerator pump shaft and lever into air horn, just far enough to allow installation of accelerator pump arm. (See Figure 14). Install pump arm with lever portion facing away from shaft. Continue to slide pump shaft into air horn until shaft protrudes from support boss. Install metering rod arm, (see Figure 13). The lifter portion must be aligned with vacuumeter piston link slot in air horn casting. Install bowl vent operating arm with lever portion facing away from pump shaft. (Refer to Figure 13). Install screw and lockwasher, but do not tighten.

Install fuel inlet filter screen, plug and gasket. Tighten securely. Slide vacuumeter piston link down into slot in air horn, with lifter lip facing away from pump shaft. Be sure metering rod tension spring is centered in hole at top of link. (As link is being lowered, engage lifter portion of arm in slot in link). Snug down clamp screws. Slide choke lever over end of choke shaft with lever pointing toward accelerator pump shaft. Snug down screw. (To be adjusted and positioned later).

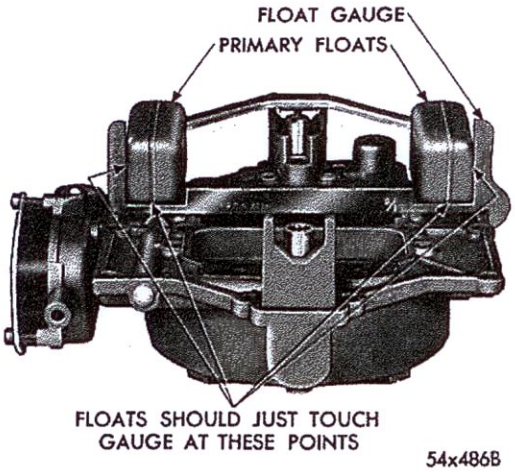

Fig. 32 - Checking Primary Float Setting

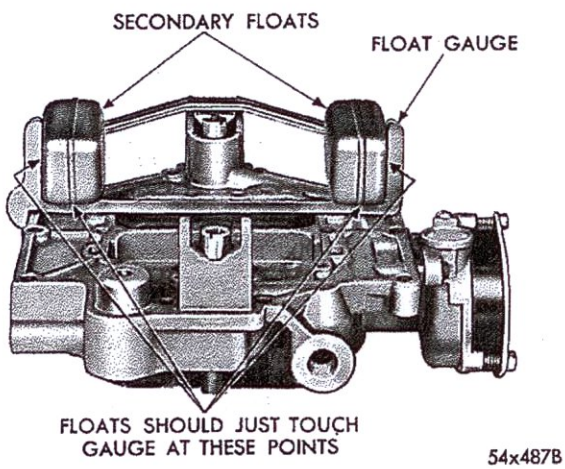

Fig. 33 - Checking Secondary Float Setting

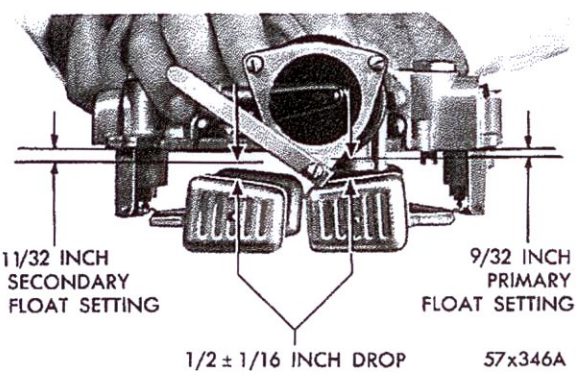

Fig. 34 - Checking Float Drop

Invert air horn and install primary needle valve in its seat. Slide primary float in position and install fulcrum in pin. Check float setting as follows: Be sure each needle is installed in its original seat.

g. Float Level Adjustment

When making float level adjustment, be sure air horn gasket is removed. The primary and secondary floats are set at different heights, using two separate gauges. Place primary float level gauge Tool T-109-284 (9/32 inch), in position, as shown in Figure 32. Both floats should just CLEAR horizontal section in gauge. Bend float arm as required to obtain correct setting. With notch end of gauge fitting against side of air horn casting, float arm should be bent for sideways adjustment, until floats barely touch the vertical upright of float gauge. (See Figure 32). Repeat above instructions for secondary floats, using Tool T-108-285 (11/32 inch) as shown in Figure 33. It should be noted that distance between float and casting machined surface is 9/32 inch for primary and 11/32 inch for secondary floats.

h. Float Drop Adjustment

After performing float level adjustment, hold air horn assembly in an upright position and note distance in which floats drop, as shown in Figure 34. Both primary and secondary floats should drop 1/2 inch from gauge setting (plus or minus 1/16 inch), when measured at center floats, as shown in Figure 34. Adjust as necessary by removing float, and bending small tang which contacts float needle seat. Bend tang which contacts float needle seat. Bend tang towards needle seat to lessen drop, or away from seat to increase drop.

Invert air horn and remove floats. Install new air horn gasket, reinstall primary and secondary floats, and

vacuumeter piston. Tilt piston approximately 90 degrees to either side. (Figure 35). For correct installation position on vacuumeter piston link. Install vacuumeter piston spring in main body, as shown in Figure 36.

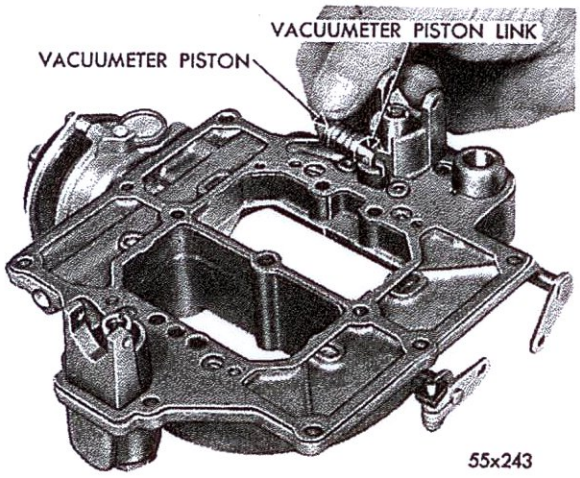

Fig. 35 - Installing Vacuumeter Piston

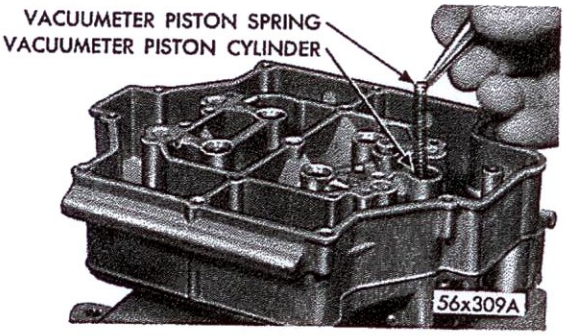

Fig. 36 - Installing Vacuumeter Piston Spring

Remove accelerator pump plunger from jar of gasoline and flex leather several times. Check to see if leather is hard, cracked or worn. If any afore-mentioned conditions exist, install new accelerator pump plunger. Slide accelerator pump plunger spring over plunger shaft followed by spring seat (shoulder on seat toward spring). With spring compressed, slide shaft end into opening in air horn. With pressure on bottom of plunger, invert air horn and install accelerator pump connector link in center hole in arm and plunger as shown in Figure 13. Install hairpin clip to secure. Before installing link, be sure hole in plunger shaft is parallel to pump shaft. Install link with hairpin clip groove end, entering hole in the pump arm. Carefully, lower air horn down on main body guiding accelerator pump plunger into its well.

CAUTION

Be sure leather on plunger does not curl, or wrinkle. Accelerator pump operation will be affected if this precaution is not taken.

Install air horn attaching screws as follows: Insert six 1 1/4 inch screws around inside diameter of air horn; tighten securely. Insert remaining 1 1/4 inch screw in its hole in metering rod chamber. Tighten securely. Insert the one inch screw in thick boss at corner of air horn casting, between automatic choke housing and fuel inlet port. Insert remaining screws (3/4 inch) around outside of air horn, tighten securely.

Install metering rods, being careful to engage in loops on metering rod tension spring. (See Figure 11). Install throttle connector rod and secure with clips. Engage keyed end of choke connector rod with slot in choke lever, rotate rod and engage in hole in cam trip lever. Install clip to secure. The carburetor now has been completely assembled with exception of metering rod cover, and is now ready to make following adjustments.

ACCELERATOR PUMP ADJUSTMENT (Figure 37).

Before making adjustment, be sure that pump connector link is installed in middle

hole (middle stroke of pump lever), with ends extending toward accelerator pump shaft arm. Back off idle speed adjusting screw until primary throttle valves are fully seated in their bores. (Make sure that fast idle tang is off the fast idle cam.)

Holding a straight edge across top of dust cover boss, as shown in Figure 37, adjust length of pump rod until the flat on top of pump arm (under set screw) is parallel with upper edge of straight edge. To adjust pump setting, bend throttle connector rod at the lower angle, using Tool T-109-213, as shown in Figure 38.

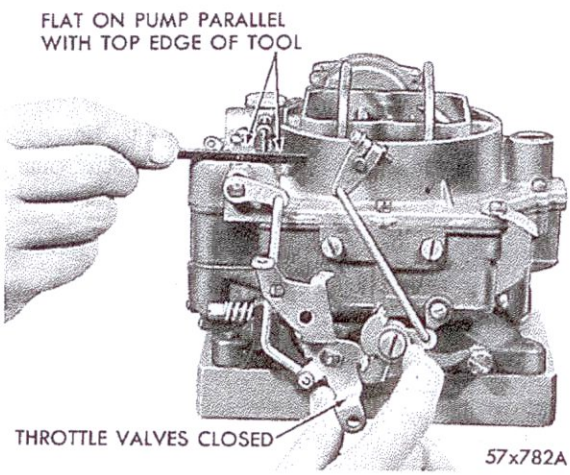

Fig. 37 - Accelerator Pump Adjustment

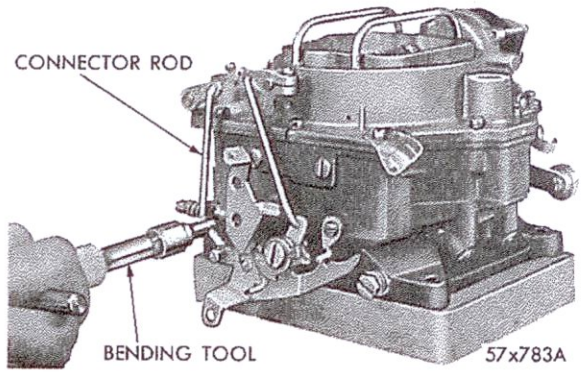

Fig. 38 - Bending Throttle Connector Rod

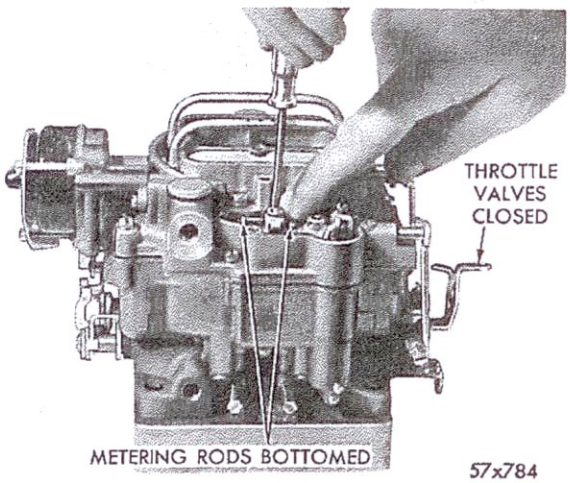

Fig. 39 - Metering Rod Adjustment

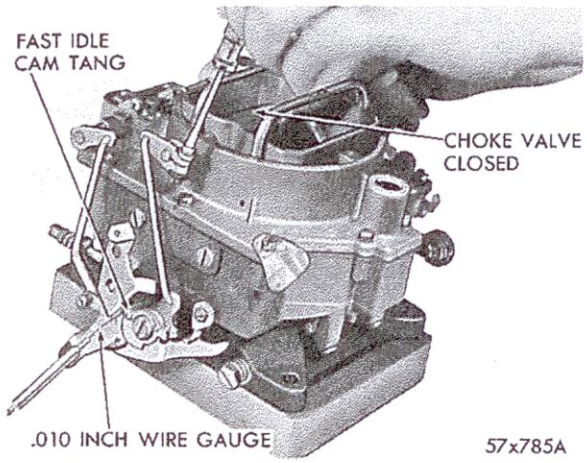

Fig. 40 - Choke Rod Adjustment

METERING ROD ADJUSTMENT

Loosen set screw in metering rod arm (if previously tightened) enough to obtain a slight bind on pump shaft. Lift lever slightly. With primary throttle valves seated in their bores, depress metering rod link until metering rods bottom, as shown in Figure 39. Keeping lever in contact with the metering rod link, tighten set screw securely.

CHOKE ROD ADJUSTMENT (Rear Carburetor Only)

Loosen choke lever clamp screw. Insert a .010 inch wire gauge, Tool T-109-200, between tang on fast idle cam and boss on throttle body casting. Hold gauge in place by pressure of screwdriver exerted on choke lever clamp screw, as shown in Figure 40. This will automatically take up all slack in the linkage. Hold choke valve tightly closed, and tighten clamp screw.

CHOKE UNLOADER ADJUSTMENT (Rear Carburetor Only)

With the primary throttle valves held in wide open position, insert 1/8 inch gauge, Tool T-109-36 between upper edge of choke valve and inner dividing wall of air horn, as shown in Figure 41. With finger pressing against upper part of choke valve, slight drag should be felt on gauge as it is being withdrawn.

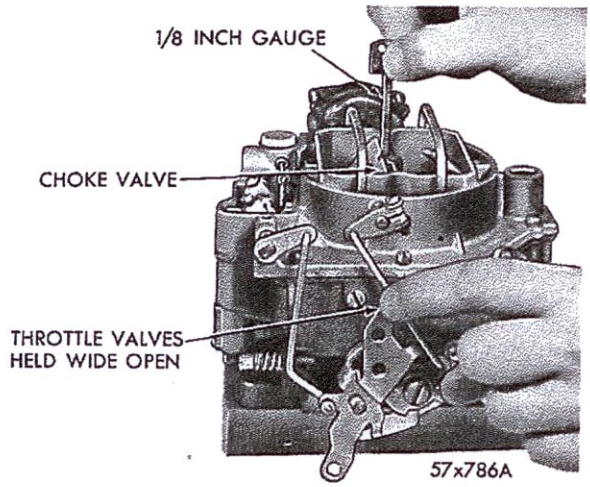

Fig. 41 - Choke Unloaded Adjustment (Rear Carburetor)

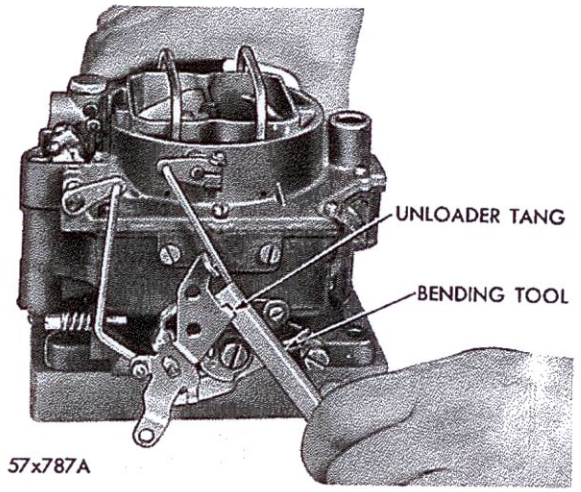

Fig. 42 - Bending Unloader Tang (Rear Carburetor)

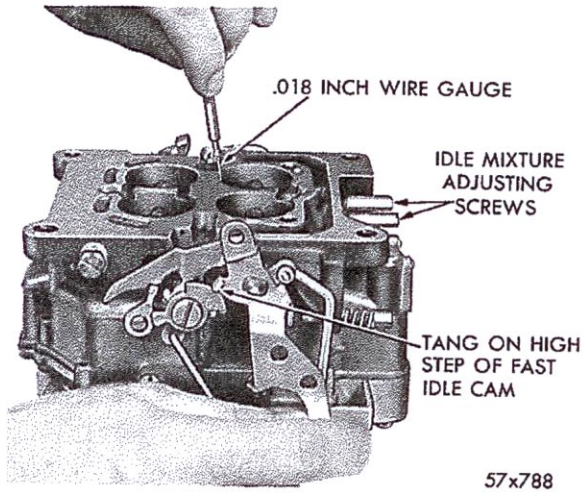

Fig. 43 - Checking Fast Idle Adjustment (Rear Carburetor)

If no drag is felt, or if too much drag is apparent, bend unloader tang on throttle lever, using Tool T-109-41, as shown in Figure 42.

FAST IDLE ADJUSTMENT -- (ON BENCH) (Rear Carburetor Only) (Figures 43 and 44)

Insert a .018 inch wire gauge, Tool T-109-44, between primary throttle valves and side of bore opposite idle adjusting screws. Move choke valve to fully closed position, and bend fast idle tang using Tool T-109-214 (Figure 44) to give a slight drag on gauge when tang is resting on high step of fast idle cam, as shown in Figure 43.

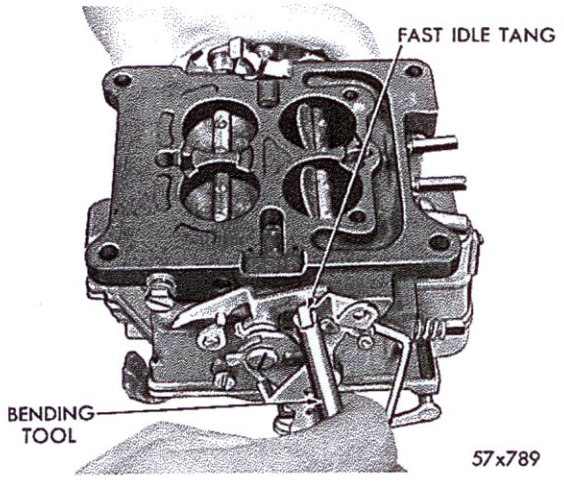

Fig. 44 - Fast Idle Adjustment (Rear Carburetor)

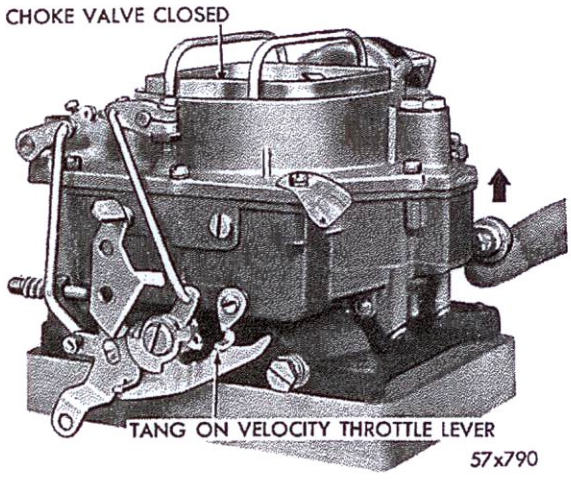

Fig. 45 - Checking Velocity Valve Lockout Adjustment (Rear Carburetor)

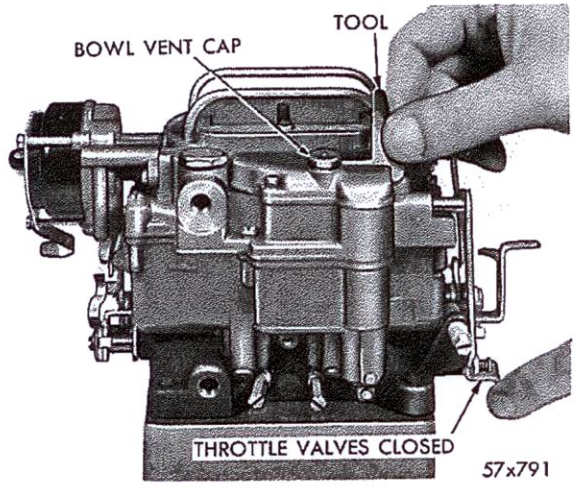

Fig. 46 - Checking Bowl Vent Cap Adjustment Using Tool T-109-197

SECONDARY THROTTLE LEVER ADJUSTMENT

Primary and secondary throttle valves should reach wide open position at the same time. To adjust, bend throttle operating rod at upper angle (Figure 10) using bending Tool T-109-213. With primary and secondary valves in tightly closed position, there should be .020 inch clearance between positive closing shoes on primary and secondary throttle levers. To adjust, bend shoe on primary lever (Figure 10).

VELOCITY VALVE LOCKOUT ADJUSTMENT (Rear Carburetor Only)

Make this adjustment after completing fast idle adjustment and secondary throttle lever adjustments. Slightly open throttle valves and manually open and close the choke valves. When finger pressure is exerted on velocity valve counterweight (Figure 45), tang on velocity throttle lever should fully engage in notch of lockout dog. If necessary to adjust, bend tang on velocity throttle lever.

BOWL VENT CAP ADJUSTMENT

With throttle valves closed, the bowl vent cap should lift approximately 1/16 inch off its seat.

Check the clearance using Tool T-109-197, as shown in Figure 46. To increase clearance, remove dust cover and bend actuating arm. To decrease clearance press down on cap until correct clearance has been obtained. After

adjustments have been checked and corrected, install metering rod dust cover and gasket. Install screws and tighten securely.

FAST IDLE ADJUSTMENT (On Car) (Figure 9)

Before setting fast idle, engine should be fully warmed and running at 600 to 650 rpm. Remove air cleaners. Remove air cleaners. Remove hairpin clip from choke connector rod. Stop engine and open throttles halfway. Close choke blade fully, while holding throttles open.

Let throttle close, making certain fast idle adjusting tang contacts highest step of fast idle cam. Remove lower end of choke connector rod from fast idle cam and allow choke blade to open fully.

Start engine without touching throttle and check engine rpm. Adjust fast idle adjusting tang (Figure 44) until the desired 1450 to 1500 rpm has been obtained as follows:

Open throttles until fast idle adjusting tang can be reached easily with Tool T-109-41. Bend tang and repeat above steps until desired fast idle speed is obtained. Install choke connector rod, hairpin clip and air cleaners.

IDLE SPEED AND MIXTURE ADJUSTMENT (Carburetors on Engine)

Close both idle by-pass air screws completely (no adjustment). Back off idle speed screw on rear carburetor (no adjustment). Turn in idle speed screw on front carburetor (2) two full turns. Start the engine and connect tachometer. Warm up engine thoroughly. Adjust idle mixture screws for best idle on both front and rear carburetors. Set idle speed to 650 - 700 rpm using idle speed screw on front carburetor only. Adjust all (4) four idle mixture screws for the best idle again. Reset idle speed to 650 - 700 rpm using idle speed screw on front carburetor only.

CARBURETORS INTER CONNECTING ROD ADJUSTMENT

The elongated hole of the rod is connected to the lower hole in the throttle lever of the front carburetor and the other end of the rod is connected to the top of the rear carburetor throttle lever (Figure 9).

To adjust, loosen the rod locknut, hold the throttle in the wide open position. Adjust the rod until the front carburetor throttle is in the wide open position. Tighten locknut.

DATA AND SPECIFICATIONS

CARBURETOR

Make	Carter
Type	4 Barrel Downdraft
Model	
Front carburetor.	WCFB 2741S
Rear carburetor	WCFB 2742S

DATA AND SPECIFICATIONS (Continued)

CARBURETOR (Continued)

Nominal Size	1 1/4 inch 4 Bore 4 Bolt

ADJUSTMENTS

Float Setting (casting to top of floats)	
Primary	9/32 inch
Secondary	11/32 inch
Choke Rod	.010 inch
Choke Unloader	3/16 inch
Fast Idle	.018 inch
Idle Speed	650 rpm
Idle Mixture (both screws, both carburetors)	Approximately 1-2 full turn open - Set for best idle
Accelerator Pump	Middle Stroke

CHOKE

Control	Integral Automatic
Choke Setting	1 Notch Rich

SPECIAL TOOLS

T-109-36	Gauge, Choke Unloader (1/8")
T-109-29	Gauge, Wire (.020")
T-109-41	Bending Tool, Tang
T-109-44	Gauge, Wire .018"
T-109-197	Bowl Vent Cap Gauge 1/16"
T-109-200	Gauge, Wire (Fast Idle)
T-109-213	Bending Tool, Rod
T-109-214	Bending Tool
T-109-284	Gauge, Float Level (Primary) 9/32"

DATA AND SPECIFICATIONS (Continued)

SPECIAL TOOLS (Continued)

T-109-285.	Gauge, Float Level (Secondary) 11/32"
C-3400	Stand, Carburetor Repair

9. FRAME, SPRINGS, SHOCK ABSORBERS

The frame is of the same basic construction as used in the LC3 models. The rear springs differ only in the rate of deflection. The shock absorbers are of the heavy-duty type. For servicing of the Frame, Rear Springs and Shock Absorber Assemblies, refer to Section IX of the 1958 Chrysler Service Manual.

10. STEERING

The "Constant Control" power steering gear assemblies are of the same design as used on Model LC-3. The steering assemblies are serviced as indicated in Section X of the 1958 Chrysler Service Manual.

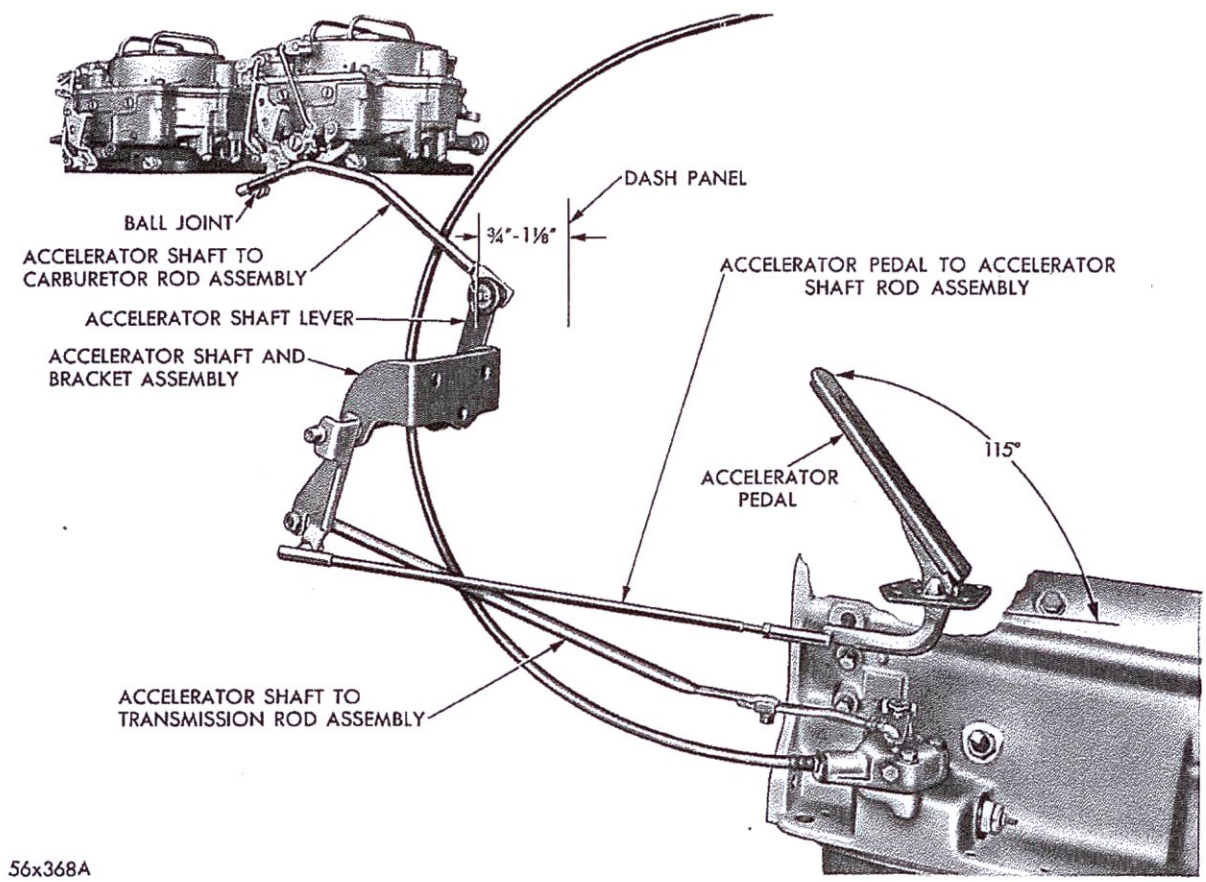

Fig. 47 - Transmission Throttle Linkage

11. TORQUEFLITE TRANSMISSION

Servicing procedures for the TorqueFlite transmission remain essentially the same as outlined in the 1958 Chrysler Service Manual, with the following exceptions:

TRANSMISSION THROTTLE LINKAGE ADJUSTMENT (Refer to Figure 47)

Run engine until normal operating temperature is reached. Remove rear carburetor air cleaner and check that the choke is in a fully opened position. Connect tachometer to coil and ground then proceed to adjust and set engine idle as described under "Idle Speed and Mixture Adjustment" and set carburetors inter-connecting rod as described under "Carburetors Inter-Connecting Rod Adjustment", of this bulletin. After completing engine idle and inter-connecting rod adjustments, proceed as follows:

Unsnap accelerator shaft to carburetor rod assembly from ball joint on rear carburetor throttle lever. Move the rod rearward until rod is stopped by the idle stop on the transmission idle cam. With rod lightly preloaded against transmission idle cam stop, ball joint (on rear carburetor throttle lever) should be in alignment with ball joint clip on accelerator shaft to carburetor rod. If not in alignment, lengthen or shorten rod adjustable end (threaded) until alignment is obtained, then engage ball joint with rod end clip.

Start engine and recheck idle setting (600-650 RPM) with N (neutral) push button engaged and handbrake applied. Check the accelerator pedal angle to make sure it is 115 degrees to the horizontal (Figure 47). Proper pedal angle is obtained by adjusting the accelerator pedal to accelerator shaft rod length at the ball joint located on the accelerator pedal end. Check for any binding in the throttle linkage and correct if present. All TorqueFlite transmission equipped cars have a throttle linkage adjustment at the transmission throttle operating lever. The purpose of this adjustment is to allow for permissible variations between body and engine locations in manufacturing and should not be used for making the throttle linkage adjustment.

If, after making adjustment, satisfactory performance is still not obtained, check to see if the correct accelerator shaft lever assembly has been used. The shaft lever must be 3 1/4 inches in length between center line of hole diameters (2 7/8 inches when used with two barrel carburetor).

When linkage is correctly installed, a clearance of 3/4 - 1 1/8 inch should exist between firewall and center of accelerator shaft to carburetor rod pin as shown in Figure 47.

GOVERNOR ASSEMBLY

Should it ever become necessary to replace either the governor weights (inner or outer) and/or weight spring (Figure 48), it is essential that the following parts be used:

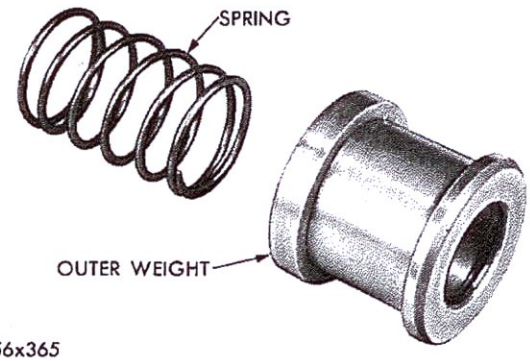

Fig. 48 - Governor Outer Weight and Spring

Part Name	Part Number
Outer weight	1823726
Inner Weight	1636462
Spring	1823709

Be sure to recheck governor pressure. See Governor Pressure Chart - next paragraph.

PRESSURE CHECKS

Pressure check procedures remain unchanged, except for governor values which are given in the following chart:

GOVERNOR PRESSURE CHART

Governor Pressure	Axle Ratio				
	2.93	3.15	3.31	3.54	3.73
	Vehicle Speed (In Miles Per Hour)				
15 psi.	24 - 26	22 - 24	21 - 23	19 - 22	18 - 21
50 psi.	54 - 60	50 - 56	48 - 53	45 - 50	42 - 47
75 psi.	80 - 87	74 - 81	71 - 77	66 - 72	63 - 69

NOTE: All shift speeds may vary somewhat due to production tolerances and rear axle ratios - which is not too important, however, the quality of the shifts is very important. All shifts should be smooth, responsive, and with no noticeable engine runaway. Slight variations in above pressures are permissable, and no corrective action should be taken unless a definite problem exists with shift pattern or shift quality. It is also assumed that no speedometer error exists.

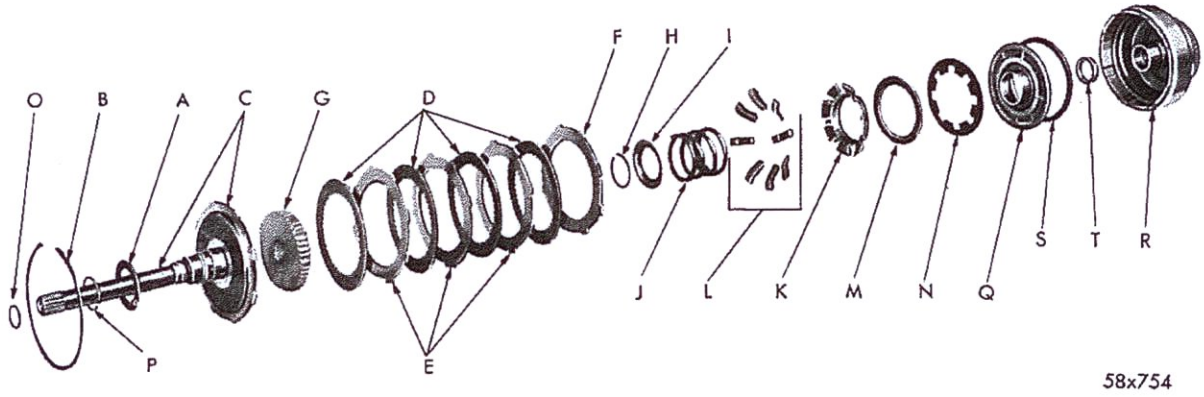

Fig. 49 - TorqueFlite Front Clutch (Exploded View)

12. UNIVERSAL JOINTS AND PROPELLER SHAFT

The universal joint is of the same basic design as the LC-3 except for an increase in the outside diameter of the shifts. A heavier ribbed front universal

joint dust cover boot is also used to prevent boot collapsing due to higher speed. Service procedures are the same as indicated in the 1958 Chrysler Service Manual.

13. WHEELS AND TIRES

The Hi Speed Super Cushion Nylon Special tubeless tires (white sidewall) (900 x 14) are standard equipment on the C-300-D. For Service Procedures, refer to Wheels and Tires in the 1958 Chrysler Service Manual.

14. BODY AND SHEET METAL

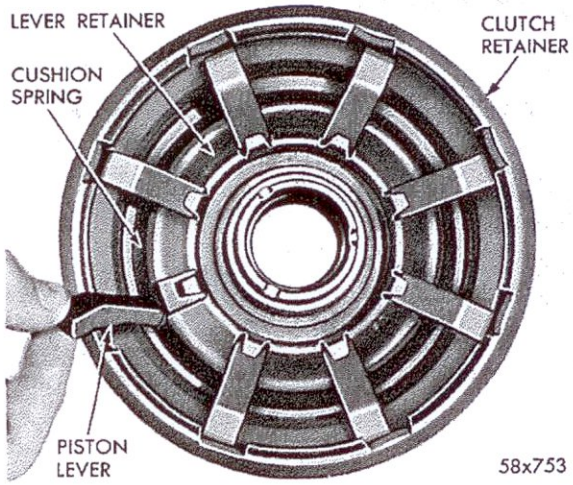

Fig. 50 - Levers Installed In Clutch Retainer

The basic body to frame assemblies are similar to the LC-3 standard body and are serviced in the usual manner. The hood panel, hood lock, front fender assembly and radiator grille are entirely different from other Chryslers, and the front bumper and chrome moulding have also been modified. The roof panel, compound windshield and rear glass, for the Special Club Coupe are the same as used on Chrysler Special Club Models. The Convertible Windshield, folding top and rear curtain are the same as used on the LC-3 Convertible.

The door and quarter glass and panels are the same as used on the LC-3 Special Club Coupe and Convertibles, respectively, except that new Chrome Moulding attaching holes must be drilled in panels to correspond with the body trim mouldings, therefore, doors and quarter panels should be obtained without moulding holes. The rear deck lid has been modified with standard deck latch and lock assembly. Use deck lid less holes, drill to suit.

Installation, removal and servicing of body components are similar to the procedures in the 1958 Chrysler Service Manual.

15. LUBRICATION

Lubrication requirements and Service Procedures remain the same as used on Model LC-3.

Refer to the Lubrication section of the 1958 Chrysler Service Manual.

16. RADIO AND HEATER

Radio and heater models are identical with those used on the LC3. For service procedures refer to the 1958 Chrysler Service Manual.

17. AIR CONDITIONING

The Air Conditioning Unit used in the C300-D is identical with the unit used in Model LC3.

Service Procedures are the same as outlined in the 1958 Chrysler Service Manual.