SECTION 3-H
STROMBERG 4-BARREL CARBURETOR

CONTENTS OF SECTION 3-H

SERVICE BULLETIN REFERENCE

Bulletin No.	Page No.	SUBJECT

3-32 DESCRIPTION AND OPERATION OF STROMBERG 4-BARREL CARBURETOR

a. General Description

The Stromberg Model 4AUV-267 carburetor used on the *Series 70* engine is a 4-barrel downdraft type which provides the advantages of a compound installation of two 2-barrel carburetors in one compact unit. See figure 3-82. To aid description and the proper identification of parts the carburetor is considered to be divided into a *primary section* and a *secondary section.*

The *primary section* covers the 2-barrelled forward half of the carburetor assembly. This section is essentially a complete 2-barrel carburetor containing a float system, idle system with adjustable needle valves, main metering system, power system, and accelerating system. This section also includes an accelerator vacuum switch for starting the engine, and the automatic choke mechanism.

The *secondary section* covers the 2-barrelled rearward half of the carburetor assembly. This section is essentially a supplementary 2-barrel carburetor which cuts in to assist the primary section when a pre-determined car speed or engine load is reached. This section contains a float system, idle system with fixed jets (non-adjustable), and a main metering system. It has a separate set of throttle valves and a set of auxiliary valves, which are located in the barrels above the throttle valves.

The *primary* throttle valves are operated by the accelerator pedal and the connecting throttle linkage. The *secondary* throttle valves are operated by the primary throttle valve shaft through delayed action linkage which permits a pre-determined opening of the primary valves

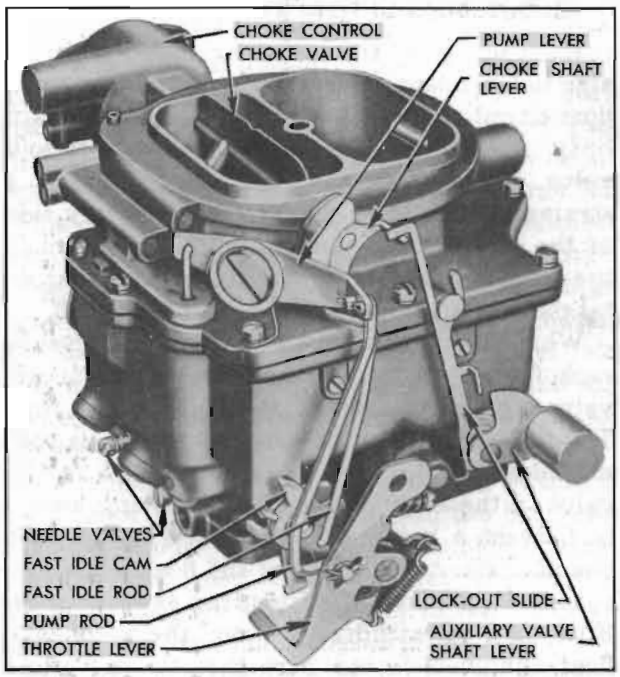

Figure 3-82—Stromberg 4-Barrel Carburetor

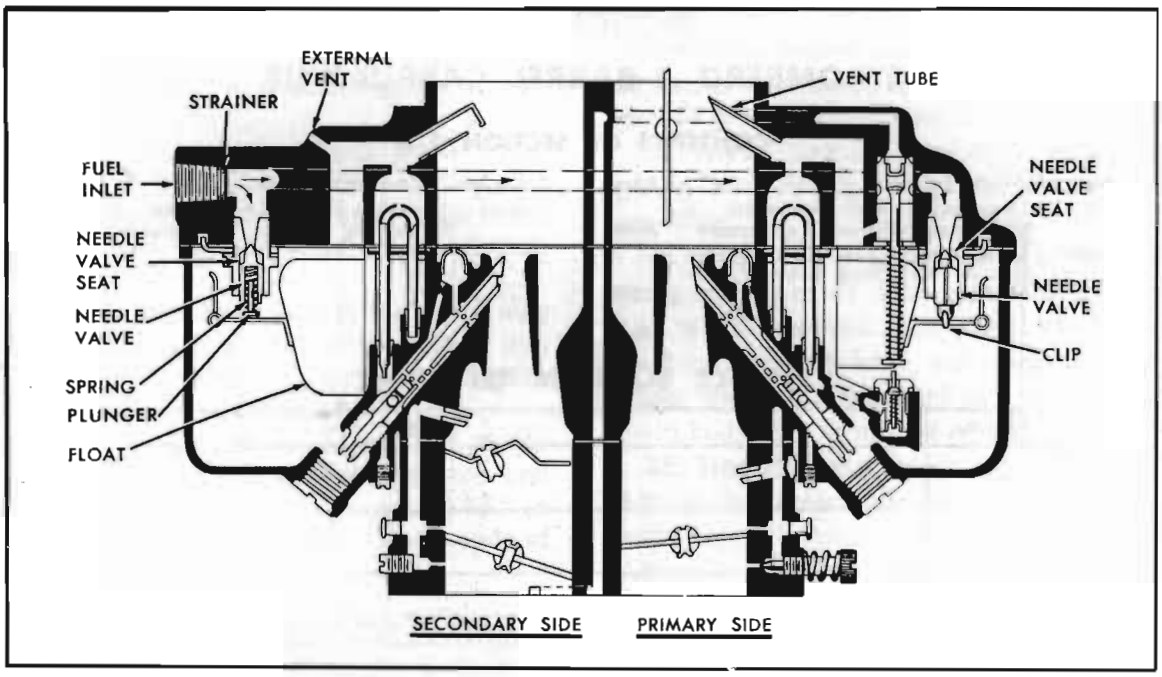

Figure 3-83—Primary and Secondary Float Systems

before the secondary valves start to open. Action of the linkage then causes both sets of throttle valves to reach the wide open position at the same time.

The accelerator vacuum switch, which is operated by a lever on the *primary* throttle valve shaft, is fully described in paragraph 10-33. The other systems of the carburetor are described in the following subparagraphs.

b. Operation of Float Systems

Each section of the carburetor has a separate and independent float system, consisting of a float chamber formed by a partition in the main body, a 2-pontoon float, needle valve seat and valve. Fuel enters the carburetor through a strainer in the inlet port in the secondary side of the air horn. From this point fuel flows to the separate float chambers through a horizontal passage in the air horn. See figure 3-83.

When the fuel reaches the prescribed level in each float chamber the float moves the needle valve against its seat to shut off flow of fuel. The needle valve in the *primary* section is connected to its float lever by a clip. The needle valve in the *secondary* section is spring loaded to prevent a build-up of fuel level in the float chamber due to bouncing of the float on bumpy roads. This feature is required because very little fuel is withdrawn from the secondary float chamber during part throttle operation.

The joint between the air horn and the main body is sealed by a gasket, and the float chambers are vented by passages which are calibrated to provide proper air pressure above the fuel under all operating conditions. These passages in the air horn lead into the air cleaner elbow, into the throat of air horn, and to outside atmosphere. The exterior vents permit fumes to escape from float chambers when the engine is stopped after extremely hot operation.

c. Operation of Idle (Low Speed) Systems

Each barrel of the carburetor has a separate idle system but the general operation is identical in all barrels. The idle system in each barrel supplies fuel to the engine whenever the position of the throttle valve is such that suction is created at the idle discharge holes in the throttle body.

Suction on an idle discharge hole causes fuel in the float chamber to flow through the main metering jet and upward into the idle tube which meters the fuel. A bleed hole permits air to enter at the top of the idle tube so that a mixture of fuel and air passes down the tube and idle channel to the idle discharge holes. Additional air is drawn into the fuel-air mixture in the idle channel through the secondary air bleed which is in the throttle body in primary section and in the main body in secondary section. See figure 3-84.

When the throttle valve is closed, the fuel-air

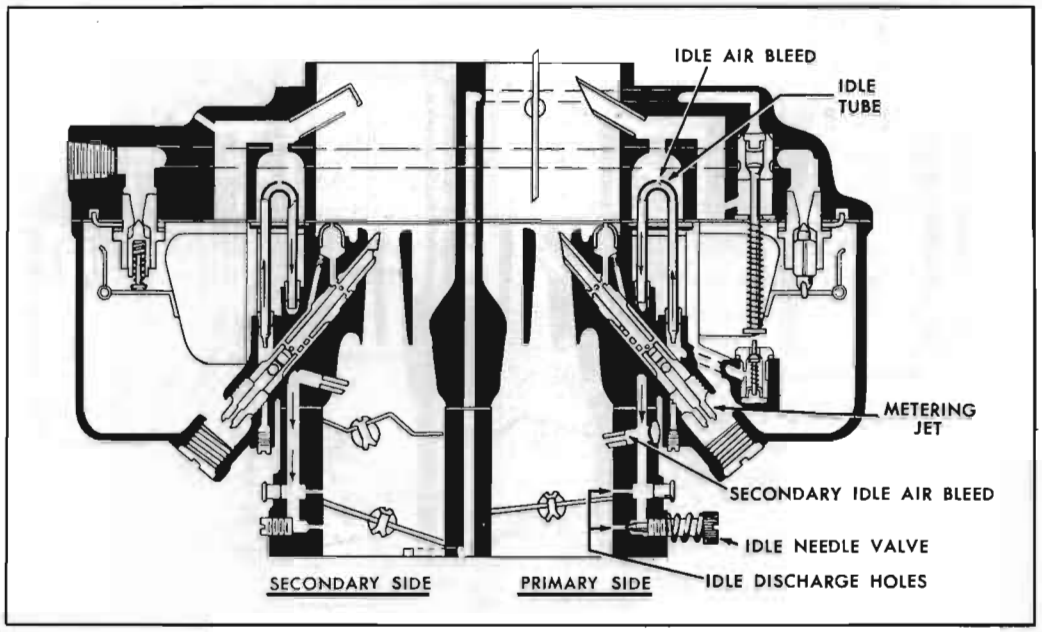

Figure 3-84—Primary and Secondary Idle Systems

mixture is supplied through the lower idle discharge hole only, since the upper hole is above the valve and not affected by suction. As the throttle valve is opened suction is also placed on the upper idle discharge hole which then feeds additional fuel-air mixture into the engine. With continued opening of throttle valve the suction on the idle discharge holes tapers off until a point is reached where the idle system no longer supplies fuel-air mixture. Before this point is reached however, the main metering system has begun to supply fuel, as described later.

The secondary air bleeds in all barrels discharge a negligible quantity of fuel after the idle systems cease to operate, thereby keeping fuel immediately available in the idle channels at a point very near the idle discharge holes.

In the *primary* section, the quantity of fuel-air mixture supplied through the lower idle discharge holes is controlled by the idle needle valves, which may be adjusted to provide smooth engine idle operation. In the *secondary* section, the quantity of fuel-air mixture is controlled by the fixed size of the discharge holes.

The *secondary* throttle valves remain closed during normal idle and intermediate speeds of the engine, until the primary throttle valves are opened to approximately 35-42 degrees. While the secondary valves are closed, fuel-air mixture is continuously delivered from the secondary lower idle discharge holes. As the secondary valves are opened additional fuel-air mixture is supplied through the upper idle discharge holes as previously described.

d. Operation of Main Metering Systems

Each barrel of the carburetor has a separate main metering system; however, the operation of all systems are identical. The main metering system in each barrel supplies fuel to the engine whenever the position of the throttle valve is such that the incoming air stream creates suction on the main discharge jet.

Air entering the barrel through the air horn passes through the primary and auxiliary venturi tubes which increase the velocity of the air and create a suction on the main discharge jet. This causes fuel to flow from the float chamber through the main metering jet into the main discharge jet. Air is drawn in through the high speed bleeder so that a mixture of fuel and air is discharged from the main discharge jet into the air stream passing through the auxiliary venturi in the barrel of the carburetor. See figure 3-85.

The main discharge jet is designed so that if any vapor bubbles are formed in the hot gasoline the vapors will follow the outside channel around the main discharge jet and escape through the high speed bleeder instead of passing through the main discharge jet.

The main metering systems in the *primary* section control the flow of fuel during the inter-

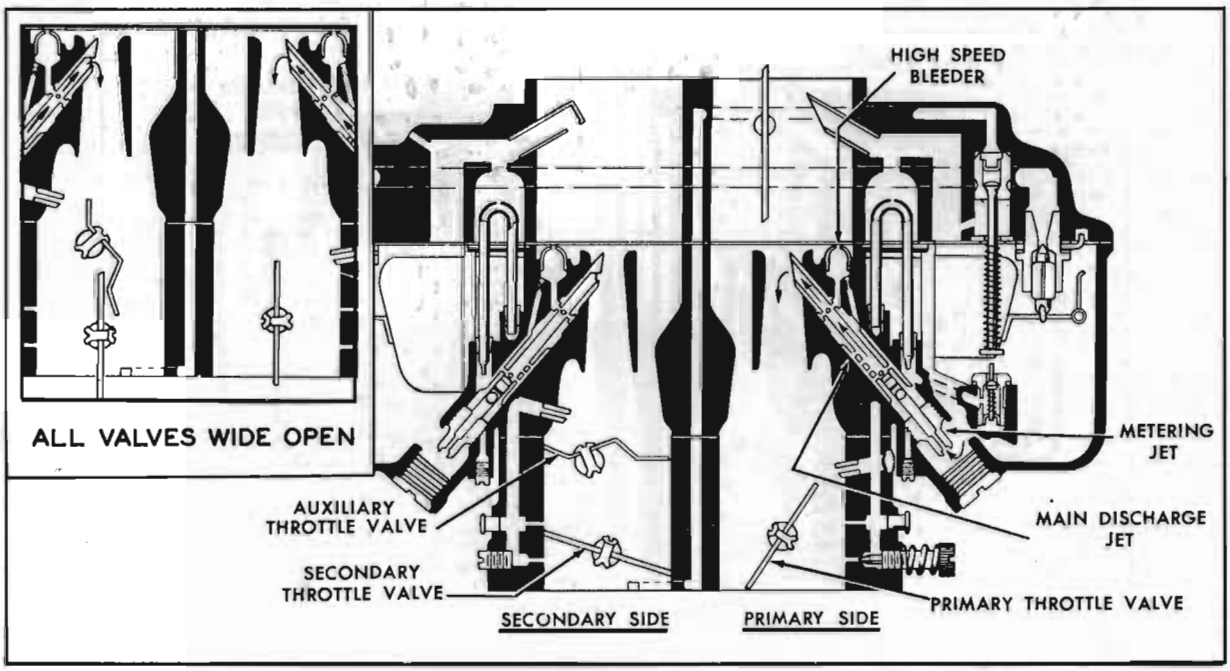

Figure 3-85—Primary and Secondary Main Metering Systems

mediate or part throttle range of operation and up to approximately 80 MPH. The *secondary* throttle valves remain closed until the primary valves have opened approximately 35-42 degrees, after which they are opened proportionately so that all valves reach the wide open position at the same time. While the secondary throttle valves are closed, the auxiliary valves located above them are held closed by the weight on the auxiliary valve shaft lever (fig. 3-82); therefore there is not sufficient air flow through the barrels to operate the main metering systems in the *secondary* section.

When the *secondary* throttle valves are open and engine speed is at least 1200-1400 RPM, the resulting air flow through the secondary barrels forces the auxiliary valves open because their supporting shaft is located off-center in the barrels. When the auxiliary valves are open the main metering systems in the *secondary* section also supply fuel to the engine.

e. Operation of the Power System

For maximum power under load or extremely high speeds (85-90) MPH operation, a richer mixture is required than that necessary for normal throttle opening. This additional fuel is provided by one power system connected to the main metering systems in the primary section of the carburetor. See figure 3-86.

The power piston cylinder in the air horn of the carburetor is connected by a channel to the face of the mounting flange so it is subject to intake manifold vacuum. At part throttle position the vacuum is sufficient to hold the power piston in its "up" position against the tension of the piston spring. When the throttle valves are opened to a point where manifold vacuum drops to approximately 4 to 5½ inches of mercury and additional fuel is required for satisfactory operation, the piston spring moves the power piston down to open the power by-pass jet. This allows additional fuel to enter the main discharge jets in the primary section

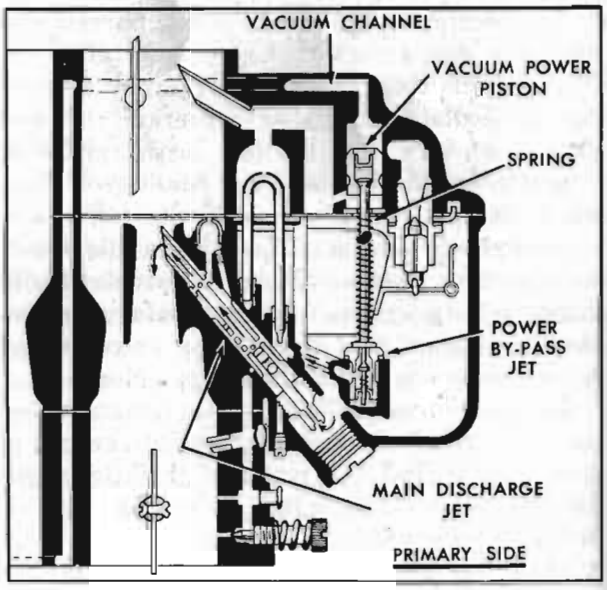

Figure 3-86—Power System

through a channel which by-passes the metering jet. See figure 3-86.

f. Operation of the Accelerating System

For smooth and rapid acceleration it is necessary to supply an extra quantity of fuel momentarily when the throttle is opened suddenly. This is accomplished by one accelerating pump piston which is directly connected to the primary throttle shaft lever by means of a rod and pump lever.

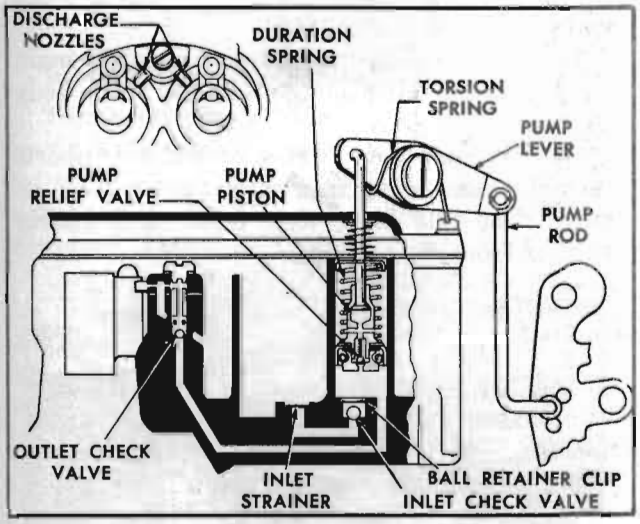

Figure 3-87—Accelerating System

When the throttle is closed, the pump piston moves up and draws a supply of fuel from the float chamber through the inlet strainer, past the inlet ball check valve and into the pump cylinder. When the throttle is opened, the piston on its downward stroke exerts pressure on the fuel which closes the inlet check valve and opens the outlet check valve. A metered quantity of fuel is then discharged through the pump discharge nozzles into each barrel in the primary section of the carburetor. This occurs only momentarily during the accelerating period. The pump duration spring which is compressed by the downward movement of the piston against the resistance of the fuel provides a follow-up action so that the discharge carries out over a brief period of time. The spring loaded relief valve in the pump piston prevents an excessive build-up of pressure in the system when the throttle is snapped open suddenly, by providing an outlet through the piston for a small quantity of fuel when there is sufficient pressure to open the valve. See figure 3-87.

When the desired speed is reached and the throttle is held in fixed position, the pressure on the fuel decreases sufficiently so that the outlet check valve closes and fuel ceases to discharge from pump nozzles. Thus a quantity of fuel is maintained in the channel adjacent to the outlet check valve where is is immediately available for future requirements.

g. Operation of the Automatic Choke

The automatic choke mechanism is contained in the *primary* section of the carburetor. It is identical with the choke mechanism used on the 2-barrel carburetor, which is described and illustrated in paragraph 3-28.

The *secondary* section does not have a choke valve in the air horn. In order to prevent air entering the carburetor through the secondary side during the engine warm-up period it is necessary to block the movement of the auxiliary valves by means of the lock-out slide shown in figure 3-82.

When the choke valve is closed, the lock-out slide remains in the down position resting in a groove in the end of the auxiliary valve shaft. Movement of the auxiliary valves to an open position is then blocked by an ear on the lock-out slide which extends into the line of travel of the auxiliary valve shaft lever. When the choke valve opens, the choke lever arm raises the lock-out slide until the ear on slide is clear of the valve shaft lever and the valves are no longer restricted to a closed position.

3-33 DISASSEMBLY, CLEANING, INSPECTION OF STROMBERG 4-BARREL CARBURETOR

a. Disassembly of Carburetor

1. Disconnect spring from secondary throttle shaft lever, then remove accelerator vacuum switch and gasket.

2. Disconnect fast idle rod from choke shaft lever and disconnect pump rod from pump lever.

3. Remove pump lever fulcrum screw *(left hand thread)*, anti-rattle washer and torsion spring washer, then disconnect pump lever from stem of accelerating pump piston.

4. Remove all air horn screws, lift air horn far enough to remove the auxiliary valve lock-out slide, then carefully lift air horn straight up from main body to avoid damaging the float, pump piston, and vacuum power piston which are attached to air horn. Remove pump piston from air horn. See figure 3-88.

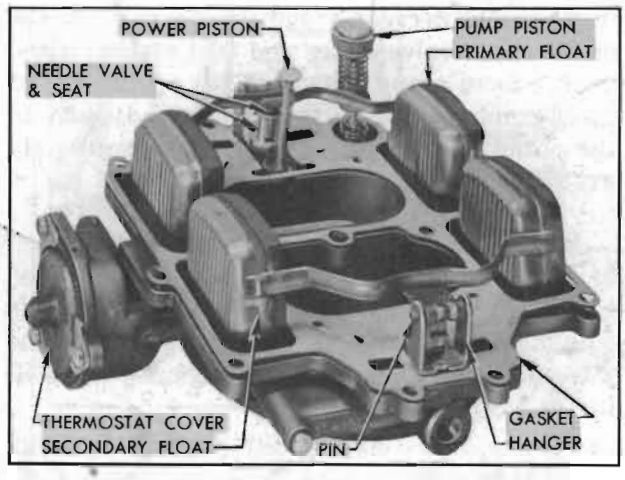

Figure 3-88—Parts on Air Horn (Inverted)

5. Tap end of primary float lever fulcrum pin which is not serrated to remove the pin, then remove float and needle valve. Remove secondary float in same manner. Shake floats to see whether they are "loaded" with gasoline due to a leak.

6. Remove needle valve seats using Wrench T-20140. Remove float hangers, seat gaskets, and the air horn gasket. See figure 3-88.

7. Remove vacuum power piston from air horn by pushing spring down and applying pliers to outer end of piston stem, then using a 1" block of wood as a fulcrum for pliers; pull piston straight up to avoid bending stem. See figure 3-69. CAUTION: *Do not apply pliers to inner portion of stem because any nicks may cause later striking of piston.*

8. Remove thermostat cover (figure 3-88). Use Wrench T-25047 to remove nut from choke stem, then remove lockwashers and serrated washer.

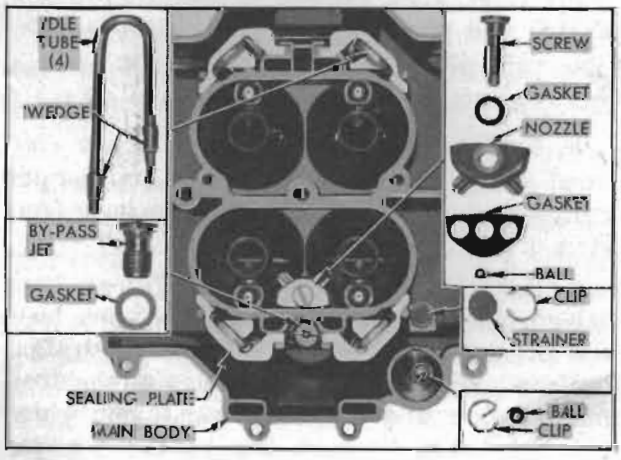

Figure 3-89—Parts in Main Body

9. Remove screws and take choke valve out of shaft. Remove choke shaft and the choke vacuum piston assembly from air horn.

10. Remove the four idle tube sealing plates to avoid loss, and remove the power by-pass jet. See figure 3-89.

11. Remove pump discharge nozzle screw, nozzle and gaskets. Place hand on top of main body and invert body to catch the check valve ball located in discharge channel. See figure 3-89.

12. Remove pump check valve ball retainer clip, using long nosed pliers, then remove check valve ball. See figure 3-89.

13. Remove attaching screws and lift main body from throttle body. Remove main body gasket.

14. Pry snap ring from post which supports fast idle cam, using thin screwdriver, then remove fast idle cam, look lever, and spacer washer from main body.

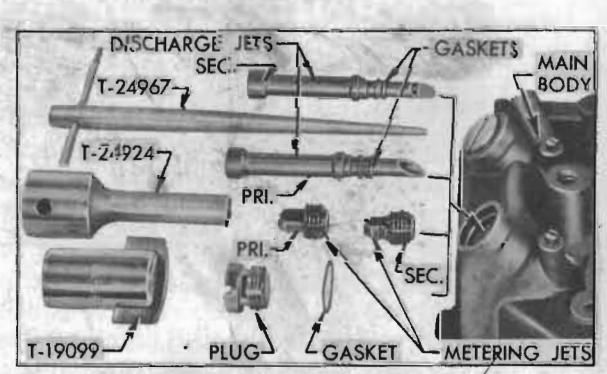

Figure 3-90—Main Metering and Discharge Jets and Tools

15. Remove main discharge jet plugs using Screw Driver T-19099, remove copper gaskets, then remove main metering jets using Jet Socket T-24924. See figure 3-90.

16. Remove main discharge jets by screwing Jet Remover T-24967 (R.H. thread) into base of jet, then pulling jets from main body. See figure 3-90. The threads formed in the main discharge jet by the tool will not affect the metering characteristics of the jet. NOTE: *Make sure that main discharge jet lead gaskets are removed from main body.*

17. Remove idle needle valves and springs from throttle body.

18. Remove auxiliary throttle valves from shaft, pry washer from end of shaft and remove the lever and shaft from throttle body.

19. Before the primary and secondary throttle valves are removed, they should be marked so that each valve may be reinstalled in the barrel from which it was removed and may be ac-

curately positioned in the barrel of throttle body. Using a sharp scriber, lightly scratch lines on valves along both sides of the shaft; and also scratch a suitable identification mark on each valve and its barrel of throttle body. Remove screws and slide the valves out of shafts.

20. Disconnect control rod from secondary throttle shaft lever and remove shaft from throttle body.

21. Remove nut, lockwasher, switch lever, and loose lever from end of shaft, then remove primary throttle lever and shaft assemblies from throttle body.

b. Cleaning and Inspection of Parts

The procedure for cleaning and inspection of parts is the same as the procedure given for the 2-barrel carburetor in paragraph 3-30 (b, c), except that the idle tubes are cleaned by a different method.

Under normal service conditions it should not be necessary to remove the idle tubes because the small plugs in the under side of main body may be removed for thorough cleaning of the idle tubes while installed in main body.

If it becomes necessary to remove an idle tube for any reason, pry it out with a screwdriver placed under the loop, *being sure to place a piece of wood under point of screwdriver to avoid marring the surface of main body.* Discard the old parts and install a new tube with wedges as follows:

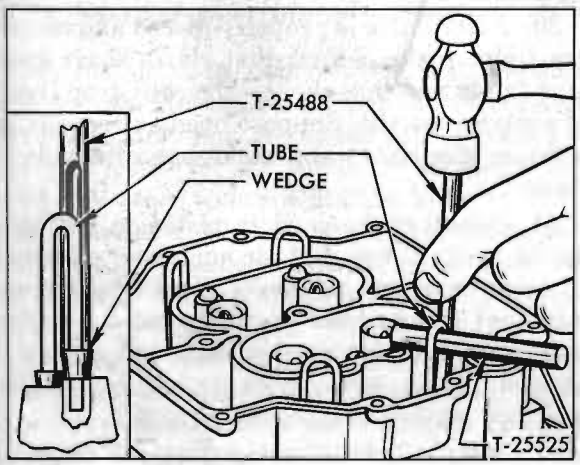

Figure 3-91—Installing Idle Tube

(1) Place Tool T-25525 on top surface of main body with flat sides vertical and place the idle tube with wedges in position over the tool. See figure 3-91. Make certain that the small diameter end of idle tube is in the hole directly above the main discharge jet passage.

(2) While holding the loop of idle tube down against Tool T-25525, slide wedges down into their respective holes and seat them snugly with Wedge Driver T-25488 and a light hammer. See figure 3-91.

3-34 ASSEMBLY AND ADJUSTMENT OF STROMBERG 4-BARREL CARBURETOR

a. Assembly of Carburetor

When assembling the carburetor use all new gaskets and any additional new parts found to be necessary during inspection. *Calibrated parts must be as specified for carburetor* CODE *number.*

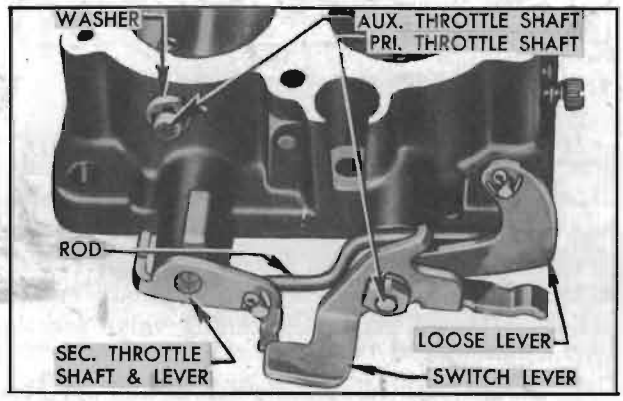

Figure 3-92—Throttle Shaft Levers and Control Rod

1. Install primary throttle lever and shaft assembly in throttle body, then install throttle control loose lever, switch lever, lockwasher, and nut as shown in figure 3-92.

2. Install secondary throttle shaft in throttle body, connect control rod to lever and install cotter pin. See figure 3-92.

3. Reinstall each throttle valve in the same barrel of throttle body from which it was removed, as shown by identification marks made before removal. The dash mark on the *primary* valves and the crescent mark on the *secondary* valves must be toward top of body and on same side as the idle ports in barrel. See figure 3-93. Loosely install *new* valve screws and carefully align the valves with the scribe marks previously made along edges of valve shaft, then tighten screws.

4. With valves held in closed position, hold throttle body to the light and check for even clearance between each valve and the barrel. Shift valve as required to fit it in the barrel with the least amount of light showing around the edge, then tighten screws firmly and re-

check clearance.

5. When valves are properly set and all screws are securely tightened support heads of screws on suitable steel block and stake opposite ends of screws.

6. Install auxiliary throttle valve shaft in throttle body and push a new retainer washer over end of shaft far enough to remove excessive end play while leaving shaft free to turn.

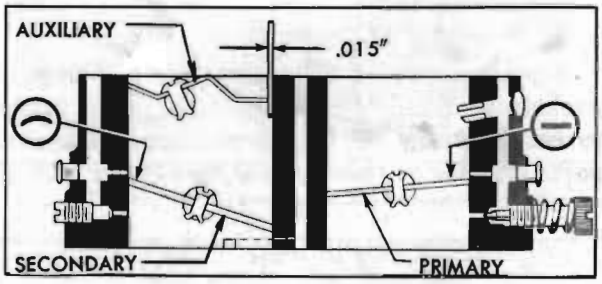

Figure 3-93—Installation of Throttle Valves

7. Install auxiliary valves on shaft with *new* screws and position them so that when fully closed the middle of inner edge of each valve has .015" clearance with wall of barrel, measured with a wire gauge. See figure 3-93. Valves must be free of binding throughout entire range of travel. After tightening valve screws stake the ends.

8. Install both idle needle valves and springs in throttle body. Seat both idle needle valves *lightly*, and then turn both valves out 1⅛ turn off seats, which will provide an average starting adjustment. *Forcing valves hard against seats will score the valves and ruin them for service.*

9. Place *new* lead gaskets on upper ends of all main discharge jets and use Jet Remover T-24967 to install jets in main body. See figure 3-90. *Upper flat surface of secondary jets only are notched.* Flat surface of all jets must be parallel with direction of air flow when installed.

10. Install main metering jets, using Jet Socket T-24924. The *secondary* jets are marked "051" and have a groove on the shank. The *primary* jets are marked "049," and the shank is not grooved. See figure 3-90.

11. Install main discharge jet plugs, using new copper plug gaskets if available; otherwise make sure that plugs and seats are clean to insure tight joint. Tighten plugs with screw driver T-19099.

12. Install flat washer, start aid lock lever, fast idle cam and spring on post of main body and retain in place with a snap ring.

13. Attach fast idle rod to fast idle cam with washer and hook the cam spring into groove in rod. Install spacer washer, loose lever lock lever, and fast idle cam on post on main body, then install snap ring in groove of post.

14. Install a *new* gasket and the throttle body on main body, install screws with lockwashers and tighten securely.

15. Place check valve ball in bottom of pump cylinder and install retainer clip, using Replacer T-25360 (fig. 3-75) or long nosed pliers. Inner end of clip must point down towards ball. See figure 3-89.

16. Install pump discharge channel check ball, then install *new* nozzle gasket, discharge nozzle, and nozzle screw with *new* gasket. See figure 3-89.

17. Install power by-pass jet with *new* gasket, and install the four idle tube sealing plates in main body. See figure 3-89.

18. Install choke shaft and lever assembly in air horn, then install choke valve in shaft, using *new* screws.

19. Close choke valve and check for uniform clearance between edges of valve and wall of air horn. Valve and shaft should also have a slight end play. If clearance is not uniform, or valve sticks in air horn at any point, loosen screws and shift valve to obtain uniform clearance and freedom from sticking. It is important to have the choke valve fit properly, otherwise hard starting may result.

20. After valve is properly placed and screws are tight, make certain that choke shaft operates freely and that choke valve will drop freely of its own weight. Support heads of screws on suitable steel block and stake opposite ends of screws.

21. Install choke vacuum piston in its cylinder in choke housing of air horn, and place end of lever over end of choke shaft. *Do not use lubricant of any kind on piston or in cylinder.* Install adjustment washer with serrated side toward piston lever, then install lockwasher and nut, leaving nut fingertight.

22. Install Piston Setting Gauge T-25367 in choke housing so that the small hole fits over pin on the vacuum piston lever, and the two indicator lines on face of gauge are centered on the end of indicator boss on housing. Install two thermostat cover washers to hold gauge at this setting. See figure 3-94.

23. Hold choke valve tight against the small end of Gauge T-25086 (or a No. 29 drill)

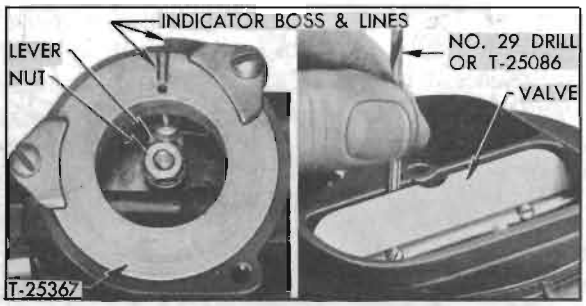

Figure 3-94—Choke Valve and Vacuum Piston Adjustment

placed between upper edge of valve and wall of air horn (fig. 3-94), then lightly tighten lock nut.

24. Remove gauge or drill, close choke valve and securely tighten lock nut. Recheck the setting to make certain that adjustment did not change. If readjustment is necessary be sure to loosen lock nut to free the serrated adjusting washer.

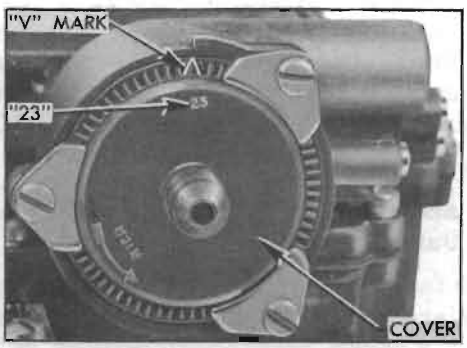

Figure 3-95—Choke Thermostat Standard Setting

25. Install thermostat cover with washers and screws. Note: *The correct thermostat and cover assembly has the figure "23" stamped on cover adjacent to "V" mark. Do not use a part with any other number.* Rotate cover in direction of arrow until choke valve just closes, then align the "V" punch mark on cover with end of indicator boss on choke housing and tighten screws. See figure 3-95.

26. Install vacuum power piston in air horn and carefully stake in place at three points. See figure 3-88. Piston must operate freely in cylinder but *do not apply lubricant of any kind.*

27. Place a *new* gasket on the air horn, then install both float hangers and needle valve seats, placing *new* gaskets above and below the hangers. *The hole in the primary seat is larger than the hole in secondary seat.* Tighten seats securely with Wrench T-20140.

28. Attach the primary (solid) needle valve to clip on primary float, which is stamped "522" on lever at the clip, then attach the assembly to float hanger adjacent to power piston. See figure 3-96. Lightly tap fulcrum pin to seat serrated end into hanger leg. Make certain that float moves freely in hanger.

29. Install spring loaded secondary needle valve and float (stamped "520") in the opposite seat and hanger.

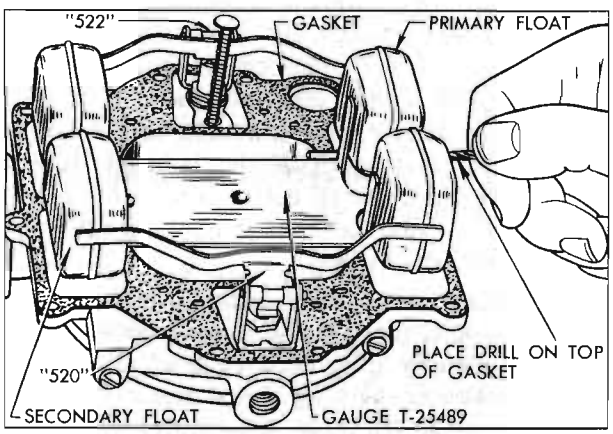

Figure 3-96—Float Adjustment

30. Adjust primary and secondary floats for proper fuel level as follows:

(a) Place Float Setting Gauge T-25489 flat and secure on top of the air horn gasket, with bosses on gauge in the two holes along centerline of air horn. See figure 3-96.

(b) Using Tool T-24733 (or pliers) bend float lever as required to obtain $\frac{3}{64}$" clearance between center of each *primary* float pontoon and the gasket surface, using a No. 56 twist drill as a clearance gauge. See figure 3-96.

(c) Bend the *secondary* float lever as required to obtain $\frac{1}{32}$" clearance between air horn gasket and center of each float pontoon, using a No. 68 drill as a gauge.

(d) Bend float levers as required so that the sides of all float pontoons are parallel with, and just clear of, the uprights of Gauge T-25489. Floats must move freely with gauge in place, and float height setting must not be changed by this adjustment.

31. Install new felt washer on stem of pump piston and install pump piston assembly in air horn.

32. Install air horn assembly on main body, using care to avoid distortion of float assemblies and making certain that pump piston leather washer does not have any creases or curled edges when it is inserted into the cylinder in main body.

33. Raise air horn just enough to install the

auxiliary valve lock-out slide, then install air horn screws and lock washers. Attach the accelerator vacuum switch wire clip with corner screw to rear of choke mounting. Attach pump lever torsion spring with screw adjacent to pump piston stem. Tighten all cover screws evenly.

34. Attach pump lever to pump piston stem and install cotter pin. Engage hooked end of torsion spring under edge of lever and install fulcrum screw with cupped washer and anti-rattle washer toward head of screw.

35. With pump rod connected to the *upper* hole in throttle shaft lever, connect rod to pump lever and install cotter pin.

36. Attach fast idle rod to choke shaft lever and install cotter pin.

37. Install accelerator vacuum switch with a *new* gasket, placing the long grooved screw on the *primary* side, then connect the return spring between the long screw and the secondary throttle shaft lever. Check switch timing as described in paragraph 10-33.

38. Adjust the throttle valves as described in the following subparagraph (b) and adjust the fast idle cam, choke unloader, and lock-out slide as described in subparagraph (c).

b. Adjustment of Primary and Secondary Throttle Valves

It is important that the opening of the secondary throttle valves be properly coordinated with the opening of the primary throttle valves. This should be checked as follows:

1. Turn *primary* throttle valves to wide open position, where they must be parallel with walls of barrel. The *secondary* throttle valves should likewise be wide open and the inner end of secondary throttle shaft lever should bear against the stop boss on throttle body.

2. If the primary valves cannot be fully opened because the secondary shaft lever strikes the stop boss too early, or the secondary valves do not reach the wide open position, an adjustment of the vacuum switch lever is necessary.

3. Hold the switch lever by applying a suitable wrench to the flat surface below the loose lever, then bend the curved end of switch lever up or down with pliers as required to obtain the results specified in step 1. See figure 3-97. CAUTION: *Do not place torque on the throttle shaft.*

4. Hold secondary throttle valves closed and

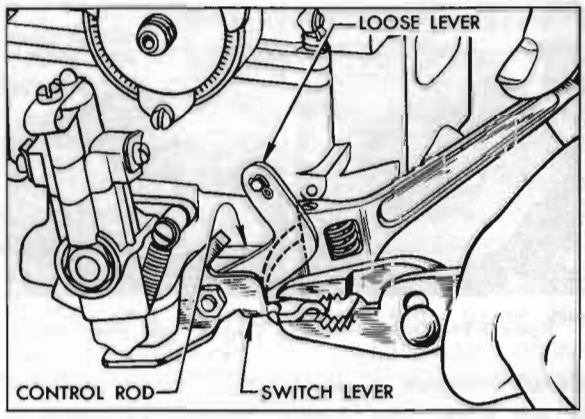

Figure 3-97—Adjustment of Secondary Throttle Linkage

open the primary throttle valves until all linkage play is taken up and secondary throttle valves are just ready to open. At this point the clearance between the barrel wall and the middle of lower edge of primary throttle valves should be between .125" and .180"

(e) If primary valve opening is not within these limits bend the throttle control rod at the large curve back of the loose lever as required. The control rod ends should measure $2\frac{11}{16}$" $\pm \frac{1}{32}$" between centers.

c. Adjustment of Fast Idle Cam, Choke Unloader, and Lock-Out Slide

The fast idle cam and choke unloader adjustments are identical with the same adjustments as the 2-barrel carburetor, covered in paragraph 3-29 except that a No. 2 drill is used instead of a No. 29 drill when adjusting the choke unloader in Step 8.

In addition to these adjustments it is also necessary to have proper adjustment of the auxiliary throttle valve lock-out slide which is operated by the choke shaft lever.

1. Fully close the choke and auxiliary throttle

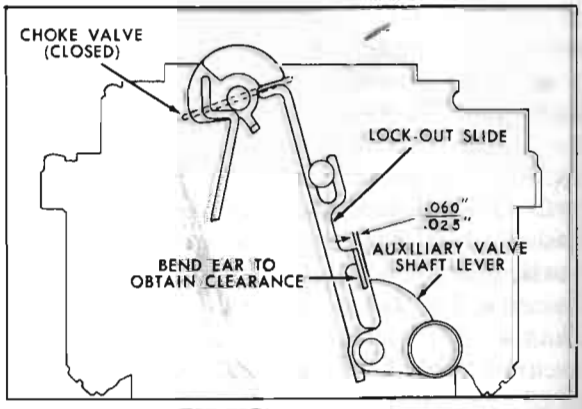

Figure 3-98—Lock-Out Slide Clearance With Choke Valve Closed

valves, which must permit the lock-out slide to move to the "down" position. The clearance between the ear on the slide and the auxiliary valve shaft lever should then be .025" to .060" when measured with a feeler gauge. Bend ear as required to obtain this clearance. See figure 3-98.

2. Fully open choke valve and partially open auxiliary throttle valves. The clearance between lower end of ear on slide and top edge of auxiliary valve shaft lever should then be 3/64" (.047") to 5/64" (.078"). Bend choke lever arm to obtain this clearance. See figure 3-99.

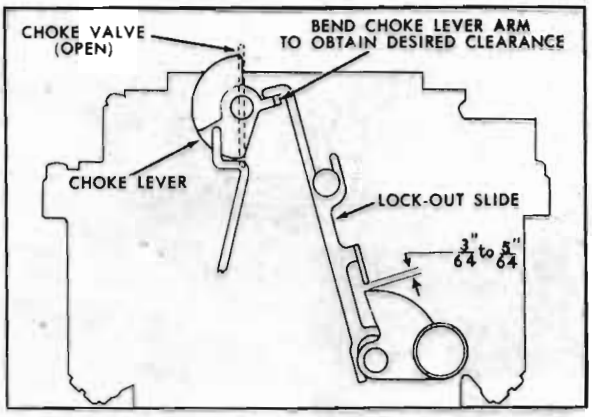

Figure 3-99—Lock-Out Slide Clearance with Choke Valve Open

MODEL 52

MODEL 56C

MODEL 56R