

4. To adjust, bend the float operating lever away from the fuel inlet needle to decrease the setting and toward the needle to increase the setting.
5. Check and/or adjust the float drop.

NOTE: The float pontoon must be parallel with the gasket.

FLOAT DROP

1. Fabricate a gauge to the specified dimension.
2. With the upper body assembly held in the upright position, place the gauge against the cast surface of the upper body (NOT ON THE GASKET) and measure the vertical distance between the cast surface of the upper body and the bottom of the float (Fig. 22).
3. To adjust, bend the stop tab on the float lever away from the hinge pin to increase the setting and toward the hinge pin to decrease the setting.
4. Reinstall the upper body assembly.

VENTURI VALVE LIMITER

1. Remove the carburetor.
2. Remove the venturi valve cover and roller bearings.
3. Remove the expansion plug located at the rear of the main body on the throttle side of the carburetor (CENTER PUNCH TILL LOOSE).
4. Using an allen wrench, remove the venturi valve wide open throttle stop screw (Fig. 23).
5. Block the throttle plates wide open.
6. Apply light closing pressure on the venturi valve and check the gap between the valve and the air horn wall (if not to specification it must be adjusted).
7. Manually move the venturi valve to the wide open position and insert an allen wrench into the hole from which the stop screw was removed. Turn the limiter adjusting screw clockwise to increase the gap and counterclockwise to decrease.
8. Remove the allen wrench and apply light closing pressure to the valve. Recheck the gap.
9. Reinstall the venturi valve wide open stop screw and turn clockwise until it contacts the valve.
10. Push the venturi valve to the wide open position and check the gap between the valve and the air horn wall.
11. Turn the stop screw until the gap is to specification.
12. Install a new expansion plug in the access hole.
13. Reinstall the venturi valve cover and roller bearings.
14. Reinstall the carburetor.

CONTROL VACUUM REGULATOR (CVR) ADJUSTMENT

NOTE: The cold enrichment metering rod adjustment must be checked and/or set before making this adjustment.

1. After adjusting the cold enrichment metering rod, leave the dial indicator in place but remove the stator cap (Tool T77L-9848-A).

NOTE: Do not reset the "O" reading on the indicator after removing the stator cap.

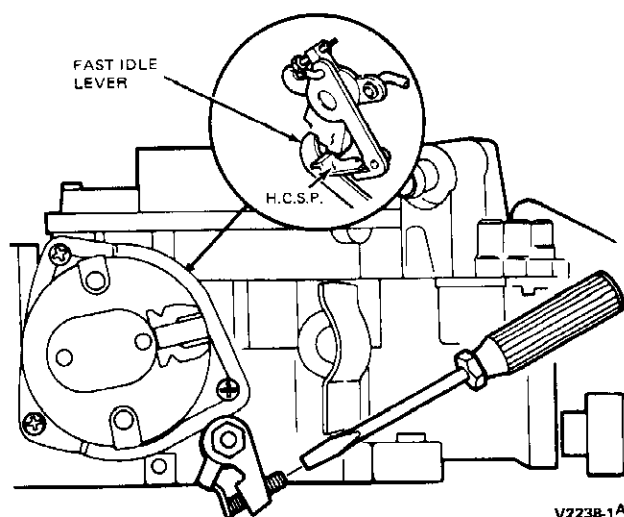


FIG. 19 Fast Idle Speed Adjustment

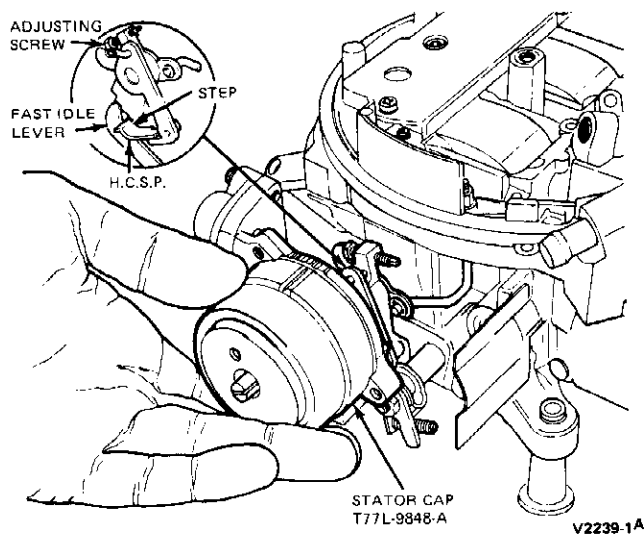


FIG. 20 Setting Fast Idle Cam

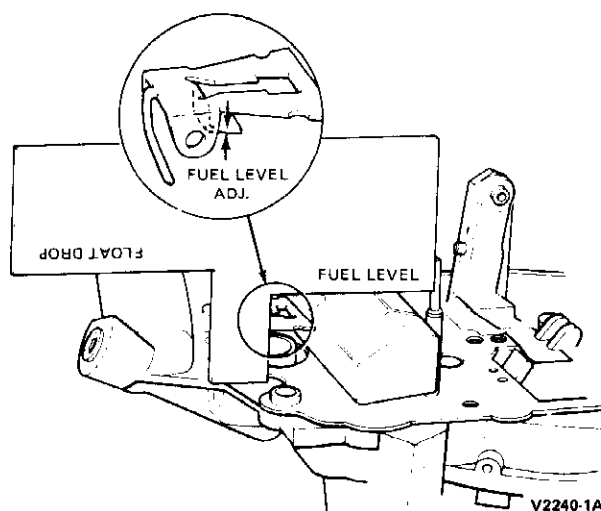


FIG. 21 Fuel Level Adjustment

2. Press down on the CVR rod until it bottoms on its seat (Fig. 24). Read the downtravel on the dial indicator. If it is not within specification adjust as follows:
3. Place a 3/8" box end wrench over the CVR adjusting nut to prevent turning.
4. Using a 3/32" Allen wrench turn the CVR rod counterclockwise to increase the travel and clockwise to decrease.

HIGH CAM SPEED POSITIONER (H.C.S.P.)

1. Place the high cam speed positioner (H.C.S.P.) in the corner of the specified cam step (counting the highest step as the first). See Fig. 25.
2. Place the fast idle lever in the corner of the H.C.S.P.

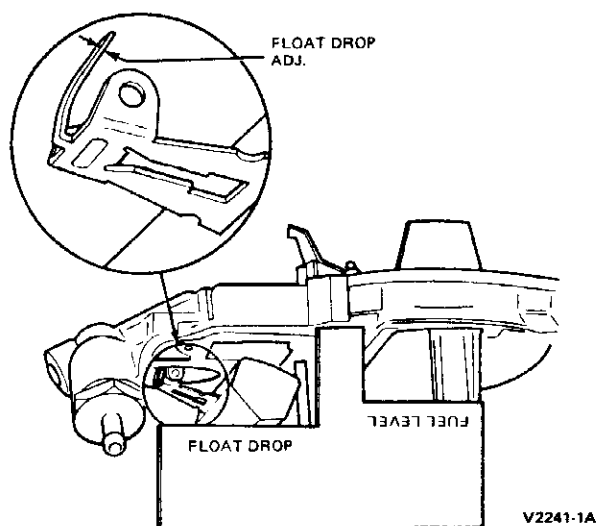


FIG. 22 Float Drop Adjustment

3. Hold throttle closed firmly to maintain Steps 1 and 2.
 4. Remove diaphragm cover and adjust diaphragm assembly clockwise until lightly bottomed on casting, then rotate counterclockwise 1/2 to 1-1/2 turn, until the vacuum port and diaphragm hole line up.
 5. Install the diaphragm cover.
- NOTE:** For adjustments not shown in this part, refer to Part 29-02.

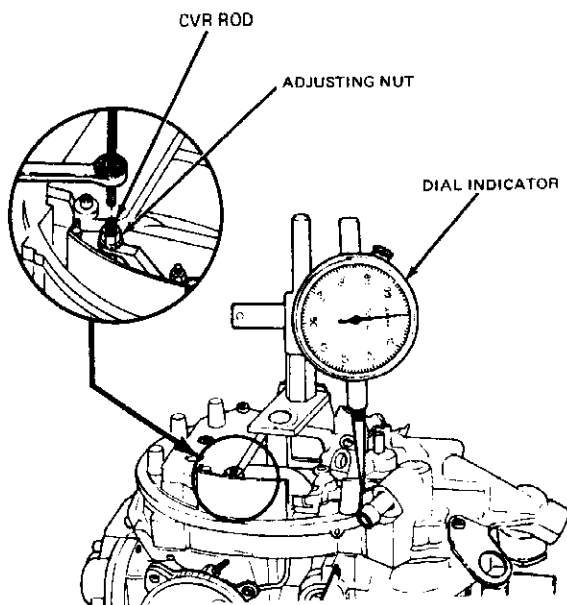


FIG. 24 Control Vacuum Regulator (CVR) Adjustment

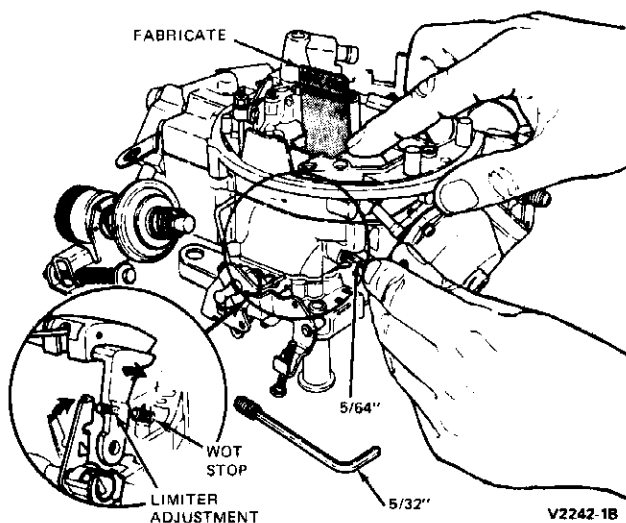


FIG. 23 Venturi Valve Limiter Adjustment

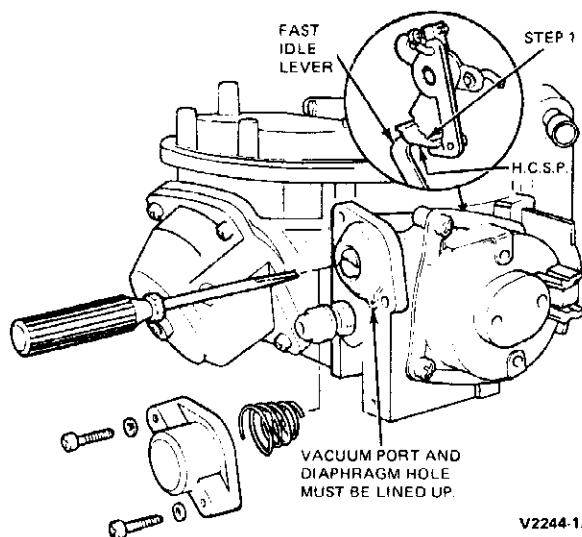


FIG. 25 High Cam Speed Positioner (H.C.S.P.) Adjustment

DISASSEMBLY AND ASSEMBLY

To facilitate working on the carburetor and prevent damage to the throttle plates, the carburetor should be placed on a carburetor stand. If a proper stand is not available use four (4) bolts 5/16 x 2-1/2 inch as legs. Install nuts on the bolts above and below the throttle body.

The following is a step-by-step sequence of operations for completely overhauling the carburetor. However, most components may be serviced without a complete disassembly of the unit. To replace individual components of the carburetor follow only the applicable steps.

NOTE: Use a separate container for the component parts of each sub-assembly to insure proper assembly. See Figs. 26, 27 and 28 for a disassembled view of the major sub-assemblies. Numbers in parenthesis refer to the parts indicated on the disassembled views.

DISASSEMBLY

Upper Body (Fig. 26)

1. Remove the fuel inlet fitting, fuel filter, gasket and spring. (1, 2, 3, 4)
2. Remove the E rings on the accelerator pump rod and the choke control rod and disengage the rods. (5, 6, 7)
3. Remove the air cleaner stud. (Not Shown)
4. Remove the seven screws retaining the upper body assembly, remove the upper body and place it inverted on a clean work surface. (8, 8A). Note position of 2 long screws for re-assembly.
5. Remove the float hinge pin and the float assembly. (10, 11)
6. Remove the float bowl gasket. (12)
7. Remove the fuel inlet valve, seat and gasket. (13, 14, 15)
8. Remove the accelerator pump rod and the dust seal. (6, 16)
9. Remove the accelerator pump link retaining pin and the link. (17, 18)
10. Remove the accelerator pump swivel and adjusting nut (19, 20)
11. Remove the choke control rod. Remove the dust seal by lifting the retainer carefully and sliding the seal out. (7, 16)
12. Remove the E ring on the choke hinge pin and slide the pin out of the casting. (5, 21)
13. Remove the cold enrichment rod adjusting nut, lever, adjusting swivel, control vacuum regulator, and adjusting nut as an assembly (Fig. 27); disassemble as required. (20, 22, 23, 24, 25)
14. Slide the cold enrichment rod out of the upper body casting and nylon seal. (26)
15. Remove the venturi valve cover plate screws, the plate and the roller bearings. (27, 28, 29)
16. Remove the venturi air bypass screw. (30)
17. Using special Tool T77P-9928-A, press the tapered plugs out of the venturi valve pivot pins. (31) See Fig. 28.

18. Push the venturi pivot pins out and slide the venturi valve to the rear until it is free of the casting. (32, 33)
19. Remove the venturi valve pivot pin bushings. (34)
20. Remove the metering rod pivot pins (on the outboard sides of the venturi valve), the metering rods and the springs. (35, 36, 37)

NOTE: Identify the rods, "throttle" or "choke" side, for proper assembly.

CAUTION: Always block the venturi valve wide open when working on the jets.

21. Using the jet plug removal Tool (T77L-9533-B) remove the cup plugs recessed in the upper body casting. (38)

NOTE: The main metering jet setting is an important factor in the overall carburetor calibration. For this reason the following steps must be carefully followed:

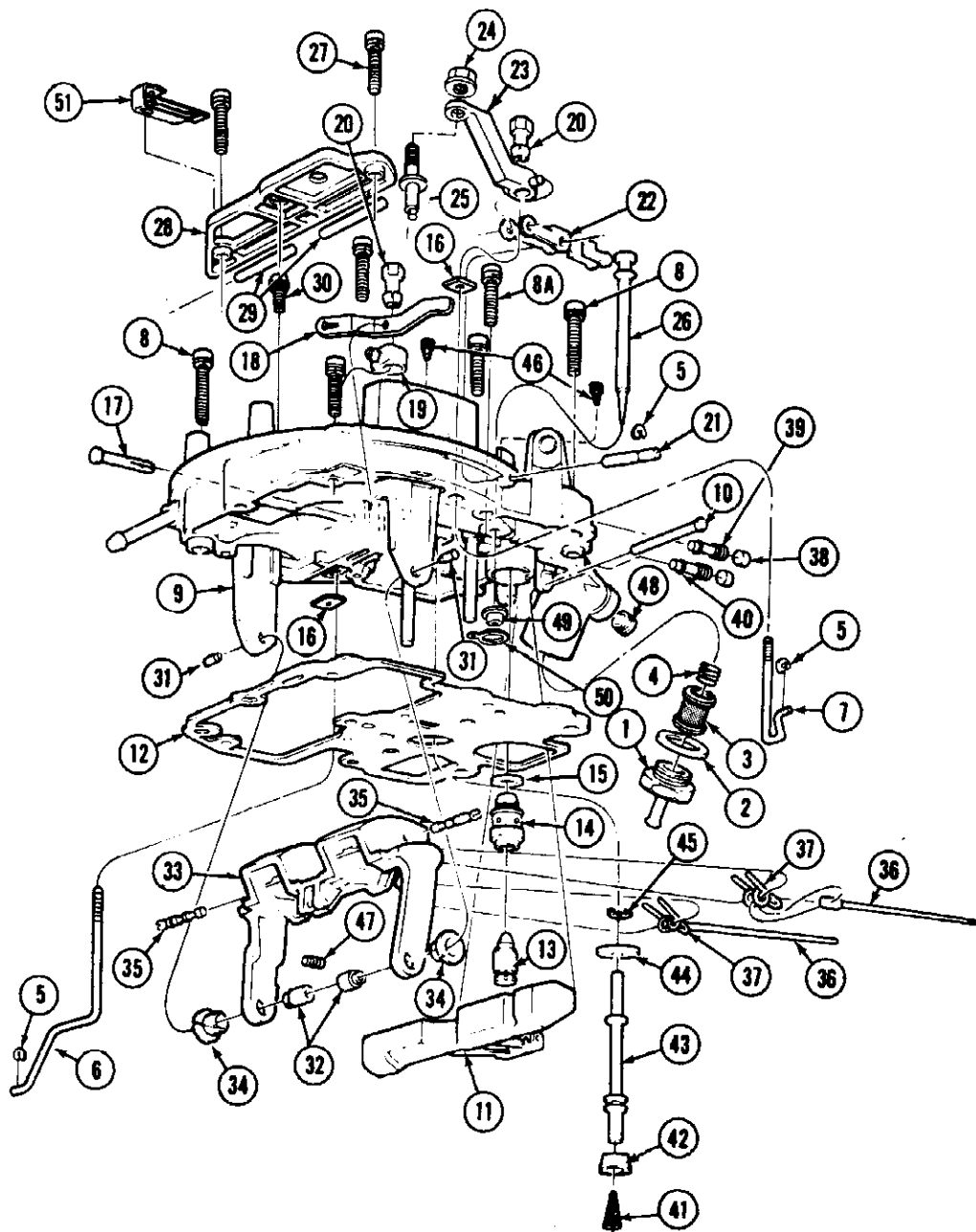
22. Using the special jet wrench (T77L-9533-A) turn each main metering jet clockwise counting the number of turns, until they bottom in the casting. Record the number of turns to the nearest 1/4 turn.
23. Turn the jet assembly counterclockwise to remove. Remove "O" rings and identify the jets, "throttle" or "choke" side, for proper assembly. (39, 40)
24. Remove the accelerator pump plunger assembly and disassemble as required. (41, 42, 43, 44, 45)
25. Remove the idle trim screws. (46)
26. Remove the venturi valve limiter adjusting screw from the throttle side of the venturi valve. (47)
27. Remove the 1/8" pipe plug in the fuel inlet boss if required for cleaning (48)

Main Body (Fig. 31)

1. Remove the cranking enrichment solenoid and remove the "O" ring seal. (1, 2)
2. Remove the venturi valve diaphragm cover retaining screws, cover, spring guide and spring. (3, 4, 5, 6) (Tap lightly to loosen the cover, do not pry)
3. Carefully loosen the diaphragm and slide it out of the main body. (7)
4. Remove the venturi valve diaphragm adjusting screw. (9)
5. Remove the venturi valve wide open stop screw (Note: center punch the access hole cover plug until loose). (10, 11)
6. Remove the cranking fuel control assembly from the bottom of the fuel bowl. (12)

CAUTION: This part should not be removed unless there is evidence of physical damage. If control is damaged, bend the bi-metal enough to expose the discharge port and use the jet plug removal Tool (T77L-9533-B) to extract the control assembly (Fig. 32).

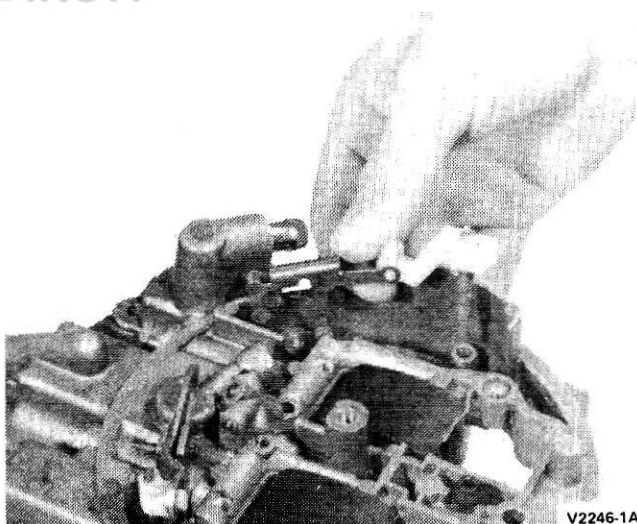
7. Place the carburetor inverted on a clean surface (hold your hand in position to catch the accelerator pump check ball and weight while turning the carburetor over). (13, 14)



1. FUEL INLET FITTING.	18. ACCELERATOR PUMP LINK.	35. METERING ROD PIVOT PIN.
2. FUEL INLET FITTING GASKET.	19. ACCELERATOR PUMP SWIVEL.	36. METERING ROD.
3. FUEL FILTER.	20. NUT - NYLON.	37. METERING ROD SPRING.
4. FUEL FILTER SPRING.	21. CHOKE HINGE PIN.	38. CUP PLUG.
5. 1/8 RETAINING E-RING.	22. COLD ENRICHMENT ROD LEVER.	39. MAIN METERING JET ASSEMBLY.
6. ACCELERATOR PUMP ROD.	23. COLD ENRICHMENT ROD SWIVEL.	40. "O" RING.
7. CHOKE CONTROL ROD.	24. CONTROL VACUUM REGULATOR ADJUSTING NUT.	41. ACCELERATOR PUMP RETURN SPRING.
8. SCREW (2) 8-32 X .88	25. CONTROL VACUUM REGULATOR.	42. ACCELERATOR PUMP CUP.
8A. SCREW (5) 8-32 X .75	26. COLD ENRICHMENT ROD.	43. ACCELERATOR PUMP PLUNGER.
9. UPPER BODY.	27. SCREW (2) 8-32 X .75	44. INTERNAL VENT VALVE.
10. FLOAT HINGE PIN.	28. VENTURI VALVE COVER PLATE.	45. 3/16 RETAINING E-RING.
11. FLOAT ASSEMBLY.	29. ROLLER BEARING.	46. IDLE TRIM SCREW.
12. FLOAT BOWL GASKET.	30. VENTURI AIR BYPASS SCREW.	47. VENTURI VALVE LIMITER ADJUSTING SCREW.
13. FUEL INLET VALVE.	31. VENTURI VALVE PIVOT PLUG.	48. PIPE PLUG.
14. FUEL INLET SEAT.	32. VENTURI VALVE PIVOT PIN.	49. COLD ENRICHMENT ROD SEAL.
15. FUEL INLET SEAT GASKET.	33. VENTURI VALVE.	50. SEAL RETAINER.
16. DUST SEAL.	34. VENTURI VALVE PIVOT PIN BUSHING.	51. HOT IDLE COMPENSATOR.
17. PIN .12 X .69		

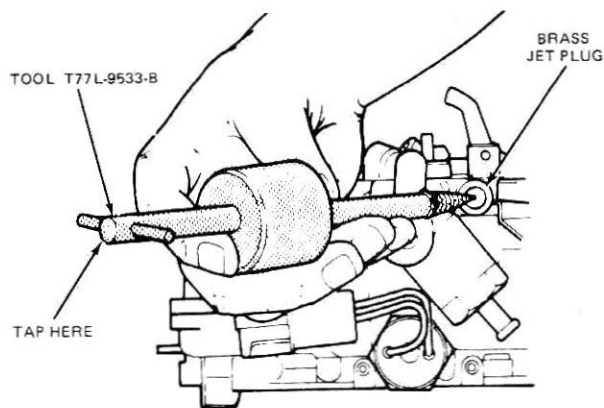
V2247-2B

FIG. 26 Upper Body



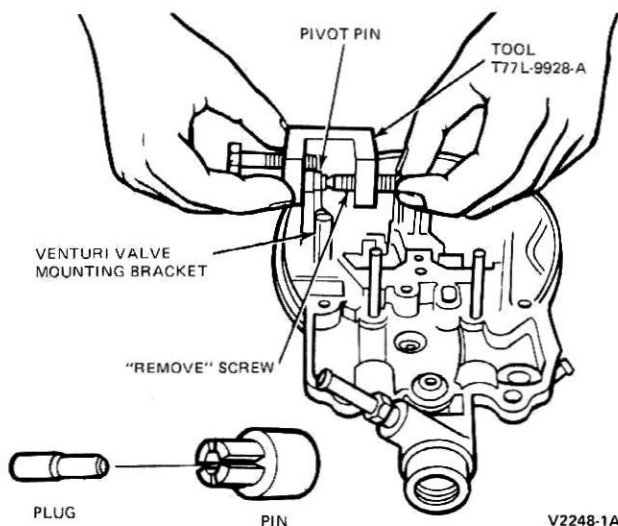
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FIG. 27 Removing Cold Enrichment Rod Assembly and CVR Assembly



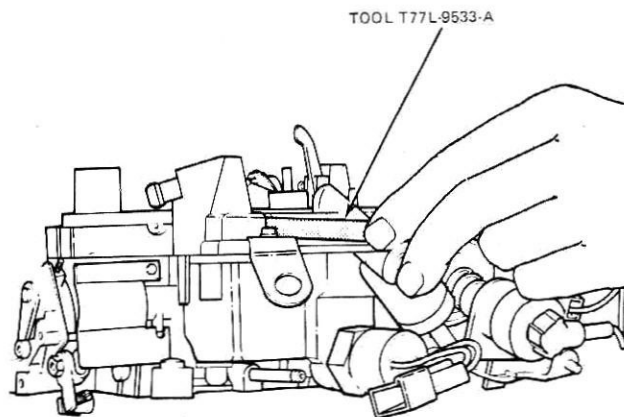
V2249-1A

FIG. 29 Removing Cup Plugs



V2248-1A

FIG. 28 Pressing Out Tapered Pins



V2250-1A

FIG. 30 Removing Main Jets

8. Remove the five screws retaining the throttle body and remove the throttle body and gasket. (15)
9. Remove the choke heat shield screw and the shield. (16, 17)

Throttle Body (Fig. 33)

1. Remove the throttle return control device sol-a-dash, solenoid, dashpot and bracket (Disengage the kickdown return spring). (1, 2, 3, 4, 5, 37, 38)
2. Remove the choke thermostatic housing screws, retainer ring, housing, and gasket. (6, 7, 8, 9)
3. Remove the choke thermostatic lever screw and lever. (10, 11)
4. Slide the choke shaft and lever assembly out of the casting and remove the fast idle cam. (12, 13, 35, 36)
5. Remove the high cam speed positioner assembly. (14)

6. Remove the high cam speed positioner cover screws, cover and return spring. (15, 16, 17)
7. Remove the high cam speed positioner diaphragm and rod (disassemble if necessary). (18, 19)
8. The choke housing bushing is pressed into the casting and staked in place. Should replacement be required, it will have to be carefully pressed out. While pressing the casting must be supported to prevent damage. (20)

CAUTION: Before pressing, file or grind off the staked areas.

9. Remove the choke heat tube fitting. (21)
10. Remove the (T.S.P. Off) idle speed adjusting screw. (22)
11. Remove the throttle shaft retaining nut, the fast idle adjusting lever, the fast idle lever and the fast idle adjusting screw. (23, 24, 25, 26)

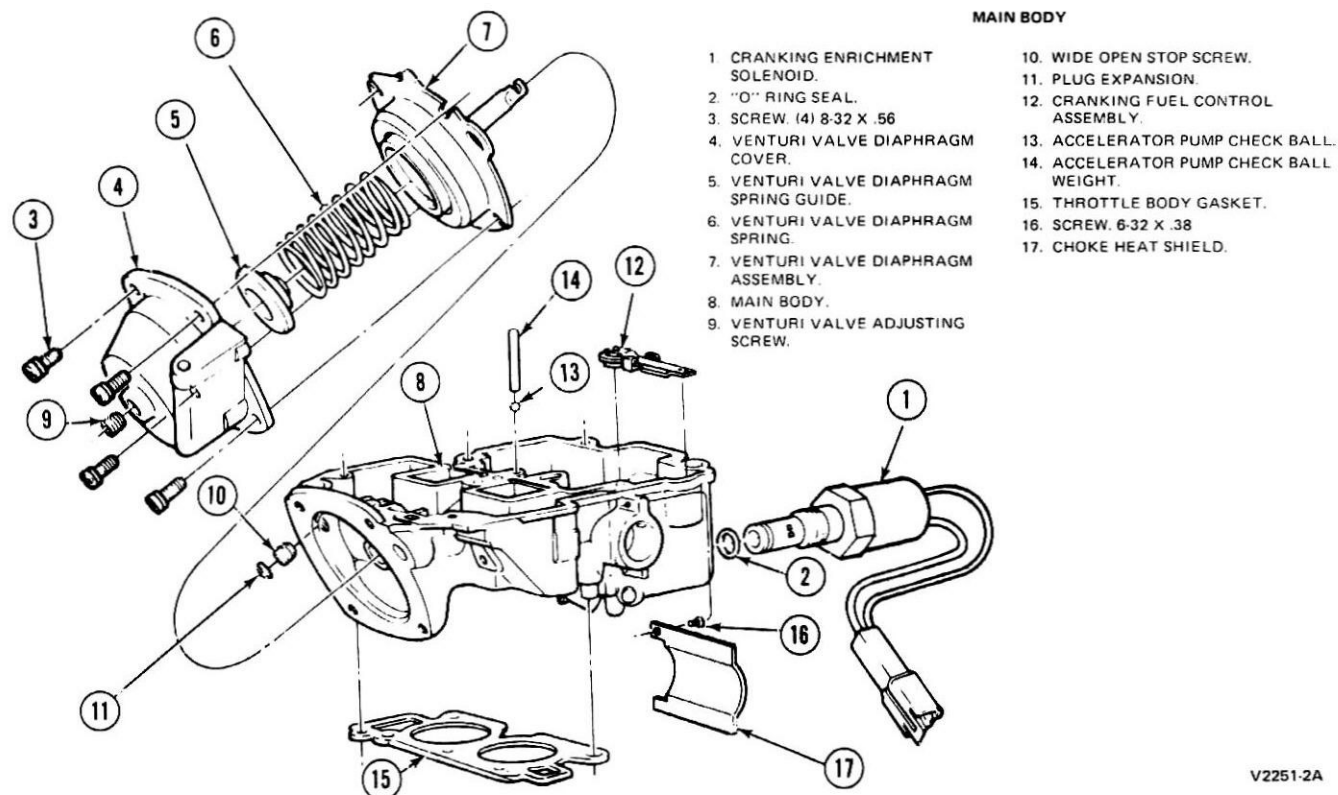


FIG. 31 Main Body

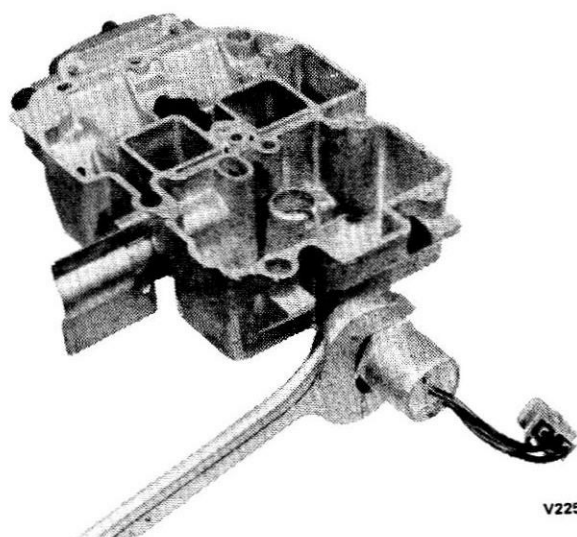


FIG. 32 Removing Cranking Enrichment Solenoid Assembly

12. If necessary to remove the throttle plates lightly scribe a line along the shaft and mark the plates T or C for throttle or choke side to insure proper assembly.

CAUTION: The throttle plate screws are staked at assembly, the staked ends should be filed before removal. The old screws should be discarded.

Remove the throttle plate screws and the plates. (27, 28)

13. In order to remove the throttle shaft assembly it is necessary to drive the limiter lever stop pin down until it is flush with the shaft. (29)

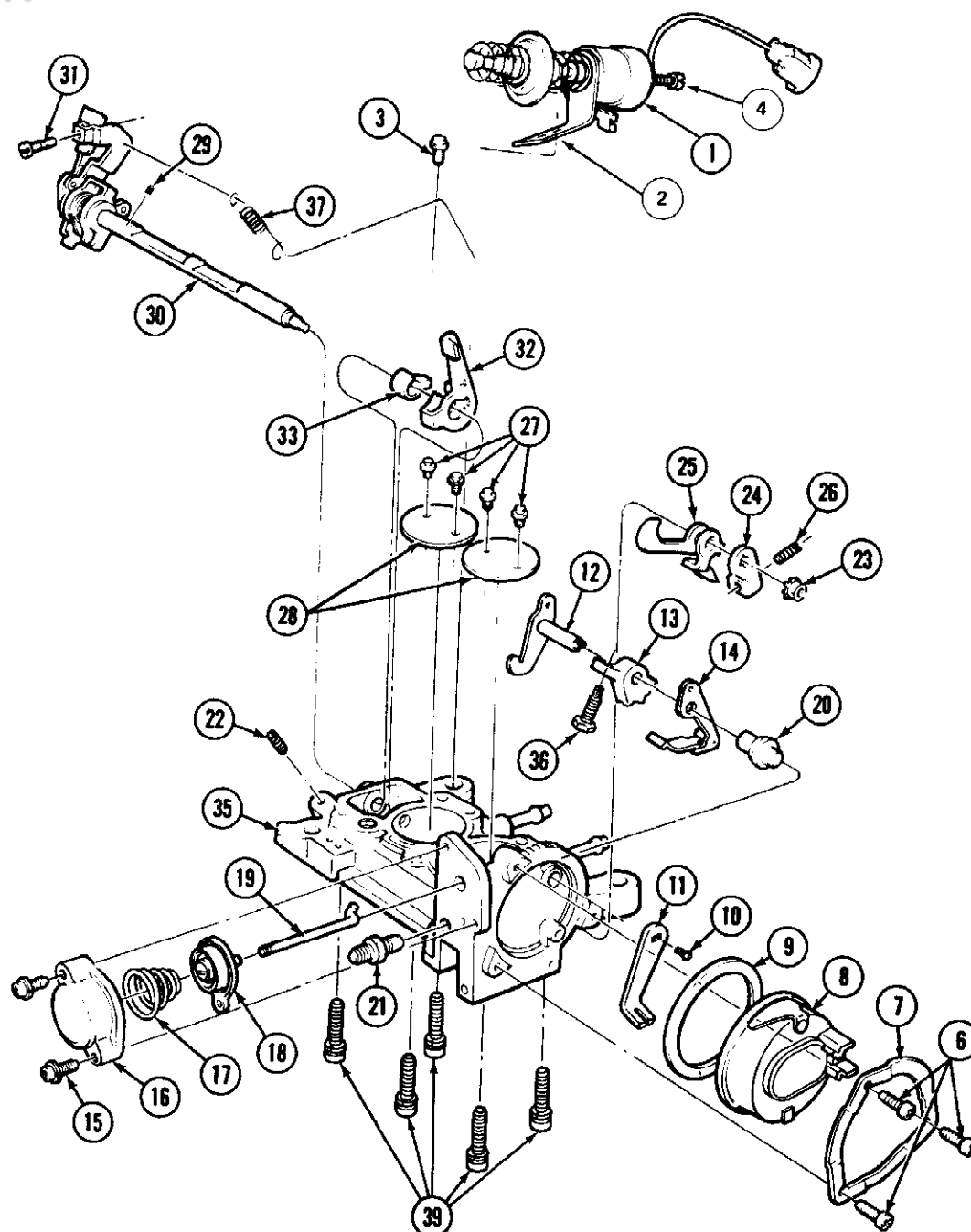
14. Slide the throttle shaft assembly out of the casting and remove the transmission kickdown adjusting screw if necessary. (29, 30)
15. Remove the venturi valve limiter lever and bushing, disassemble if necessary. (32,33)

ASSEMBLY

Throttle Body (Fig. 33)

NOTE: Before installing, carefully support the throttle shaft assembly and drive the venturi valve limiter stop pin out of the shaft. (Discard the Pin.)

1. Place the venturi valve limiter assembly in the throttle body and slide the throttle shaft into place. (30, 31, 32, 33)



- | | |
|---|--|
| 1. THROTTLE RETURN CONTROL DEVICE. | 21. CHOKE HEAT TUBE FITTING. |
| 2. THROTTLE RETURN CONTROL DEVICE BRACKET. | 22. CURB IDLE ADJUSTING SCREW (TSP OFF). |
| 3. MOUNTING SCREW. 10-32 X .50 | 23. RETAINING NUT. 10-32 |
| 4. ADJUSTING SCREW (TSP ON) | 24. FAST IDLE ADJUSTING LEVER. |
| 5. (NOT APPLICABLE 1978) | 25. FAST IDLE LEVER. |
| 6. SCREW (3). 8-32 X .50 | 26. FAST IDLE ADJUSTING SCREW. |
| 7. CHOKE THERMOSTATIC HOUSING RETAINER. | 27. THROTTLE PLATE SCREWS (4). |
| 8. CHOKE THERMOSTATIC HOUSING. | 28. THROTTLE PLATES. |
| 9. CHOKE THERMOSTATIC HOUSING GASKET. | 29. VENTURI VALVE LIMITER STOP PIN. |
| 10. SCREW. 6-32 X .50 | 30. THROTTLE SHAFT ASSEMBLY. |
| 11. CHOKE THERMOSTATIC LEVER. | 31. TRANSMISSION KICKDOWN ADJUSTING SCREW. |
| 12. CHOKE LEVER AND SHAFT ASSEMBLY. | 32. VENTURI VALVE LIMITER LEVER. |
| 13. FAST IDLE CAM. | 33. VENTURI VALVE LIMITER BUSHING. |
| 14. HIGH CAM SPEED POSITIONER ASSEMBLY. | 34. (NOT APPLICABLE 1978) |
| 15. SCREW (2). 8-32 X .75 | 35. THROTTLE BODY. |
| 16. HIGH CAM SPEED POSITIONER DIAPHRAGM COVER. | 36. FAST IDLE CAM ADJUSTING SCREW. |
| 17. HIGH CAM SPEED POSITIONER DIAPHRAGM SPRING. | 37. TRANSMISSION KICKDOWN LEVER RETURN SPRING. |
| 18. HIGH CAM SPEED POSITIONER DIAPHRAGM ASSEMBLY. | 38. (NOT APPLICABLE 1978) |
| 19. HIGH CAM SPEED POSITIONER ROD. | 39. SCREW (5) 8-32 X .75 |
| 20. CHOKE HOUSING BUSHING. | |

FIG. 33 Throttle Body

2. Place the throttle plates in the proper position (NOTE: The scribed marks) and turn the new screws in until they are snug but not tight. With the throttle closed, tap the plates lightly to insure proper centering and tighten the screws. Stake the screws carefully. (27, 28)
3. Drive the new venturi valve limiter stop pin into the shaft. Leave approximately 1/8 inch exposed. (29)
4. Install the fast idle lever, the fast idle adjusting lever, the throttle shaft retaining nut, and the fast idle adjusting screw. (23, 24, 25, 26)
5. Install the T.S.P. Off idle speed adjusting screw. (22)
6. If the bushing was removed, it must be carefully pressed into the housing and staked in place. The casting must be carefully supported while pressing and staking.
7. Install the cam speed positioner assembly and the fast idle cam (13, 14, 36).
8. Slide the high cam speed positioner diaphragm and rod into position and engage the rod. (18, 19)
9. Slide the choke shaft and lever assembly into the casting and install the choke thermostatic lever and screw. (10, 11, 12)

NOTE: Refer to the adjustment section and adjust the high cam speed positioner diaphragm before installing the cover.

10. Install the high cam speed positioner diaphragm spring, cover and screws. (15, 16, 17)
11. Install the choke thermostatic gasket, housing, retainer and attaching screws. (6, 7, 8, 9)
12. Install the throttle return control device and bracket. (1, 2, 3, 4, 5)
13. Install the choke heat tube fitting. (21)

Main Body (Fig. 31)

1. Position the throttle body gasket on the main body and assemble the main body to the throttle body. (15)
2. Drop the accelerator pump check ball and weight into the pump discharge channel. (13, 14)
3. If the cranking fuel control has been removed install a new assembly. Place the control assembly on its cavity and tap lightly using a brass drift and small hammer alternating from side to side until it is firmly seated. (12)
4. Do not install the venturi valve wide open stop screw and plug at this time. They should be installed after complete assembly. (10, 11) (Refer to the venturi valve limiter adjustment.)
5. Slide the venturi valve diaphragm into the main body. (7)
6. Install the venturi valve diaphragm spring, spring guide, cover and retaining screws. (3, 4, 5, 6)
7. Install the venturi valve diaphragm adjusting screw. (9) The final adjustment of the screw is made on the vehicle.
8. Place the cranking enrichment solenoid "O" ring seal on the solenoid and install the assembly. (1, 2)

NOTE: "O" rings should be lubricated with a mild solution of soapy water before installation.

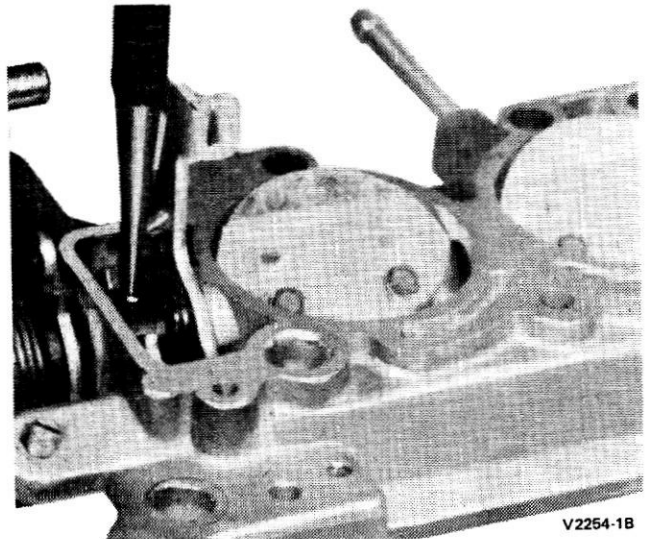


FIG. 34 Positioning Stop Pin For Throttle Shaft Removal

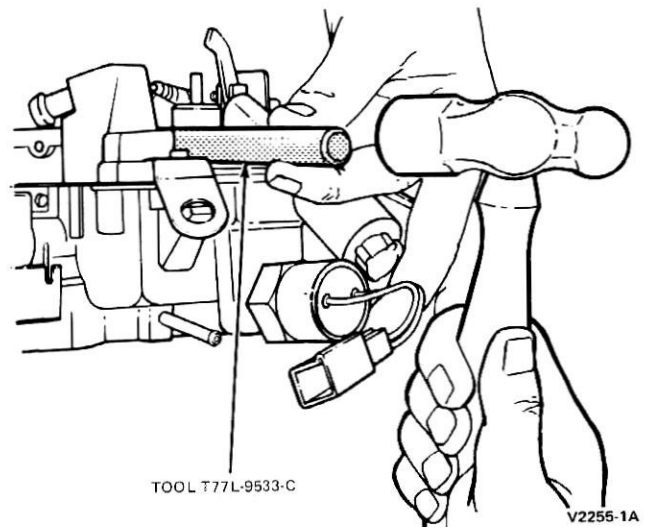


FIG. 35 Installing Main Jet Plugs

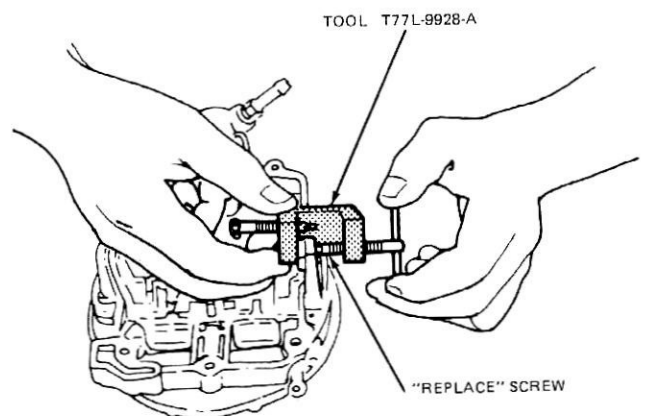


FIG. 36 Installing Tapered Plugs

9. Install the choke heat shield and attaching screw. (16, 17)

Upper Body (Fig. 26)

1. Install the 1/8 inch pipe plug in the fuel inlet boss. (48)
2. Install the venturi valve limiter screw in the venturi valve. (47)
3. Install the idle trim screws. (46)
4. Install the "O" ring seals on the main metering jets. (40)

NOTE: "O" ring seals should be lubricated with a mild solution of soapy water before installation.

5. Using the special jet wrench (T77L-9533-A) turn each main metering jet clockwise until it is seated in the casting. Then turn each jet counterclockwise the number of turns recorded during disassembly. (39)
6. Using the special jet plug driver (T77L-9533-C) install the jet plugs. Tap lightly until the tool bottoms on the face of the casting. (38) See Fig. 35.
7. Install metering rods, the metering rod springs and the metering rod pivot pins on the venturi valve. (35, 36, 37)
8. Install the venturi valve, carefully guide the metering rods into the main metering jets. (33) Press down on the metering rods. If the springs are properly assembled they will spring back.
9. Install the venturi valve pivot pin bushings and the pivot pins. (32, 34)
10. Carefully press the tapered plugs into the venturi valve pivot pins with Special Tool T77P-9928-A (Fig. 36).
11. Install the venturi air bypass screw. Turn clockwise four turns to provide clearance for installing the cover plate. (30)
12. Install the venturi valve cover plate roller bearings, the plate and attaching screws. (27, 28, 29)
13. Insert the accelerator pump swivel and adjusting nut into the pump link.. (19, 20)

14. Install the accelerator pump link and the retaining pin. (17, 18)
15. Install the accelerator pump operating rod and the dust seal. (6, 16)
16. Install the fuel inlet valve seat gasket, the seat and the valve. (13, 14, 15)
17. Install the float bowl gasket. (12)
18. Install the float assembly and the float hinge pin. (10, 11)
19. Assemble the accelerator pump return spring, cup, plunger, internal vent valve and retainer. Place the pump piston assembly in position in the hole in the upper body. (41, 42, 43, 44, 45)
20. Assemble the upper body to the main body. Hold the pump piston assembly with your finger and guide it into the pump cavity in the main body. (8, 8A)

CAUTION. Make sure that the venturi valve diaphragm stem engages the venturi valve.

21. Install the fuel filter spring, the filter, the inlet fitting gasket and the inlet fitting. (1, 2, 3, 4)
22. Install the air cleaner stud. (Not Shown)
23. Install the choke control rod dust seal and tap gently to straighten the retainer. (16)
24. Slide the cold enrichment rod into the upper body. (26)
25. Assemble the cold enrichment rod adjusting nut, lever, adjusting swivel, the control vacuum regulator and adjusting nut. Install the assembly. (20, 22, 23, 24, 25)
26. Install the choke hinge pin and the "E" ring. (5, 21)
27. Install the choke control rod. For final adjustment, see cold enrichment rod and control vacuum regulator adjustment. (7)
28. Engage the accelerator pump operating rod and the choke control rod and install the "E" ring retainers. (5, 6, 7)
29. Install the wide open stop screw (omitted when assembling the main body) and follow the venturi valve limiter adjusting procedure. (Main Body 10, 11)

SPECIFICATIONS

Refer to Ford Car Performance Specifications book on all carburetor specifications not contained in this Part.

SPECIAL TOOLS

Description	Number
Pivot Pin Remover and Installer	T77L-9928-A
Choke Adjustment Tool (Stator Cap)	T77L-9848-A
Vacuum Test Tool	T77L-9510-A
Jet Plug Remover	T77L-9533-B
Jet Plug Installer	T77L-9533-C
Metering Jet Adjustment Tool	T77L-9533-A

CV2258-1A