

### SPECIFICATION CHART

Year	Application	Float Level		Pump Rod Adjustment		Choke Pull-down	Fast Idle Cam	Unloader	Auto Choke
		Primary	Secondary	Pump Lever Hole	Overtravel Lever Hole				

#### EDSEL

1960	361 Eng.	29/64	29/64	Outside <sup>1</sup>	4-W <sup>7</sup>	5/32	—	1/16	3NL
1959-58	361 Eng.	29/64	29/64	Inside	3 <sup>2</sup>	—	—	1/16	Index

#### FORD, MERCURY

1968-67	289 Eng. —S/E	1/2	17/32	Inside	3	1/4	—	1/16	Manual
	—T/E	17/32	11/16	Inside	3	1/4	—	1/16	Manual
1966	428 Eng. —Police	17/32	11/16	Inside	3	5/32 <sup>3</sup>	1/8	1/16	1NR
	289 Eng. —S/E	17/32	17/32	Inside	3	1/8	1/8	1/16	2NR
1965	—T/E	1/2	5/8	Inside	3	1/8	1/8	1/16	2NR
	—Hi-Perf.	1/2	5/8	Inside	3	1/4	—	1/16	Manual
	352 Eng. —S/E	17/32	17/32	Inside	3	9/64	1/8	1/16	Index
	—T/E	1/2	5/8	Inside	3	1/8	1/8	1/16	1NR
	390 Eng. —S/E	17/32	11/16	Inside	3	5/32	1/8	1/16	1NR <sup>5</sup>
	—T/E	1/2	5/8	Inside	3	1/8 <sup>4</sup>	1/8	1/16	1NR
	410, 428, Police Special —S/E	17/32	11/16	Inside	3	5/32	1/8	1/16	1NR <sup>5</sup>
	—T/E	1/2	5/8	Inside	3	1/8	1/8	1/16	1NR
	289 Eng. —S/E	29/64	29/64	Inside	3	1/4	—	1/16	Manual
	—Hi. Perf.	29/64	29/64	Inside	3	1/8	1/8 <sup>6</sup>	1/16	2NR
1964	352, 390 Eng.	29/64	29/64	Inside	3	5/32	1/8	1/16	Index
	<b>FORD</b>								
1963	289 Eng. —Early	21/32	21/32	Inside	4-W <sup>8</sup>	3/16	1/16	1/16	3NL
	289 Eng. —Late C40F-AL —M/T	29/64	29/64	Outside	3	7/32	—	1/16	Manual
	C40F-AT —A/T	29/64	29/64	Inside	2	7/32	—	1/16	—
	352 Eng. —M/T	21/32	21/32	Inside	2	3/16	1/16	1/16	1NL
	—A/T	21/32	21/32	Inside	3	5/32	1/16	1/16	3NL
	390 Eng. —M/T	21/32	21/32	Inside	4-W <sup>8</sup>	3/16	1/16	1/16	1NR
1962	—A/T	21/32	21/32	Inside	4-W <sup>8</sup>	5/32	1/16	1/16	1NL
	<b>MERCURY</b>								
	289 Eng. —210 H.P.	21/32	21/32	Inside	4-W <sup>8</sup>	5/32	1/16	1/16	1NL <sup>9</sup>
1961	—271 H.P.	21/32	21/32	Inside	4-W <sup>8</sup>	3/16	1/16	1/16	Manual
	390 Eng.	21/32	21/32	Inside	4-W <sup>8</sup>	3/16	1/16	1/16	1NR <sup>10</sup>
1960	All —Exc.	47/64	47/64	Inside	3-W <sup>11</sup>	3/16	—	1/16	2NL <sup>12</sup>
	T-Bird —390 Eng. (Early)	21/32	21/32	Inside	3-W <sup>11</sup>	5/32	—	1/16	2NL
1962	Galaxie —352 Eng.	47/64	47/64	Inside	3-W <sup>11</sup>	5/32	—	1/16	2NL
	T-Bird —390 Eng. (Late)	47/64	47/64	Inside	3-W <sup>11</sup>	5/32	—	1/16	2NL
1961	All	21/32	21/32	Inside	3-W <sup>11</sup>	3/16	—	1/16	2NL <sup>12</sup>
	All	21/32	21/32	Outside <sup>1</sup>	4-W <sup>7</sup>	5/32	—	1/15	2NL <sup>12</sup>
1960	All	29/64	29/64	Outside <sup>1</sup>	4-W <sup>7</sup>	5/32	—	1/16	3NL
	Ford	29/64	29/64	Inside	3-W <sup>7</sup>	—	—	1/16	Index
1959	Mercury, T-Bird	29/64	29/64	Inside	4-W <sup>8</sup>	—	—	1/16	Index
	All	29/64	29/64	Inside	3-W <sup>7</sup>	—	—	1/16	Index <sup>13</sup>

#### FOOTNOTES:

<sup>1</sup> After pump rod is positioned as indicated, back out throttle stop screw. Measure plunger's travel (5/32") from closed to wide open throttle. To adjust, move pump rod to inside hole and recheck. If adjustment is needed, push overtravel lever forward and bend tang slightly toward throttle lever.

<sup>2</sup> 1959 model set in hole no. 4.

<sup>3</sup> Models with A/T set 9/64".

<sup>4</sup> Mercury models with A/T set 9/64".

<sup>5</sup> Mercury models with M/T set 2NR.

<sup>6</sup> Models with A/T set 7/64".

<sup>7</sup> Summer setting hole no. 2.

<sup>8</sup> Summer setting hole no. 3.

<sup>9</sup> Models with A/T set 3NL.

<sup>10</sup> Models with A/T set 1NL.

<sup>11</sup> Summer setting hole no. 1.

<sup>12</sup> Models with M/T set Index.

<sup>13</sup> Mercury models set 4NR.

#### ABBREVIATIONS:

A/T - Automatic Transmission  
 Exc. - Except  
 Hi-Perf. - Hi-Performance  
 H.P. - Horsepower  
 NL - Notch Lean  
 NR - Notch Rich  
 S/E - Standard Engine  
 T/E - Thermocor Exhaust Emission

# FUEL SYSTEM SERVICE INSTRUCTION WORKSHEET

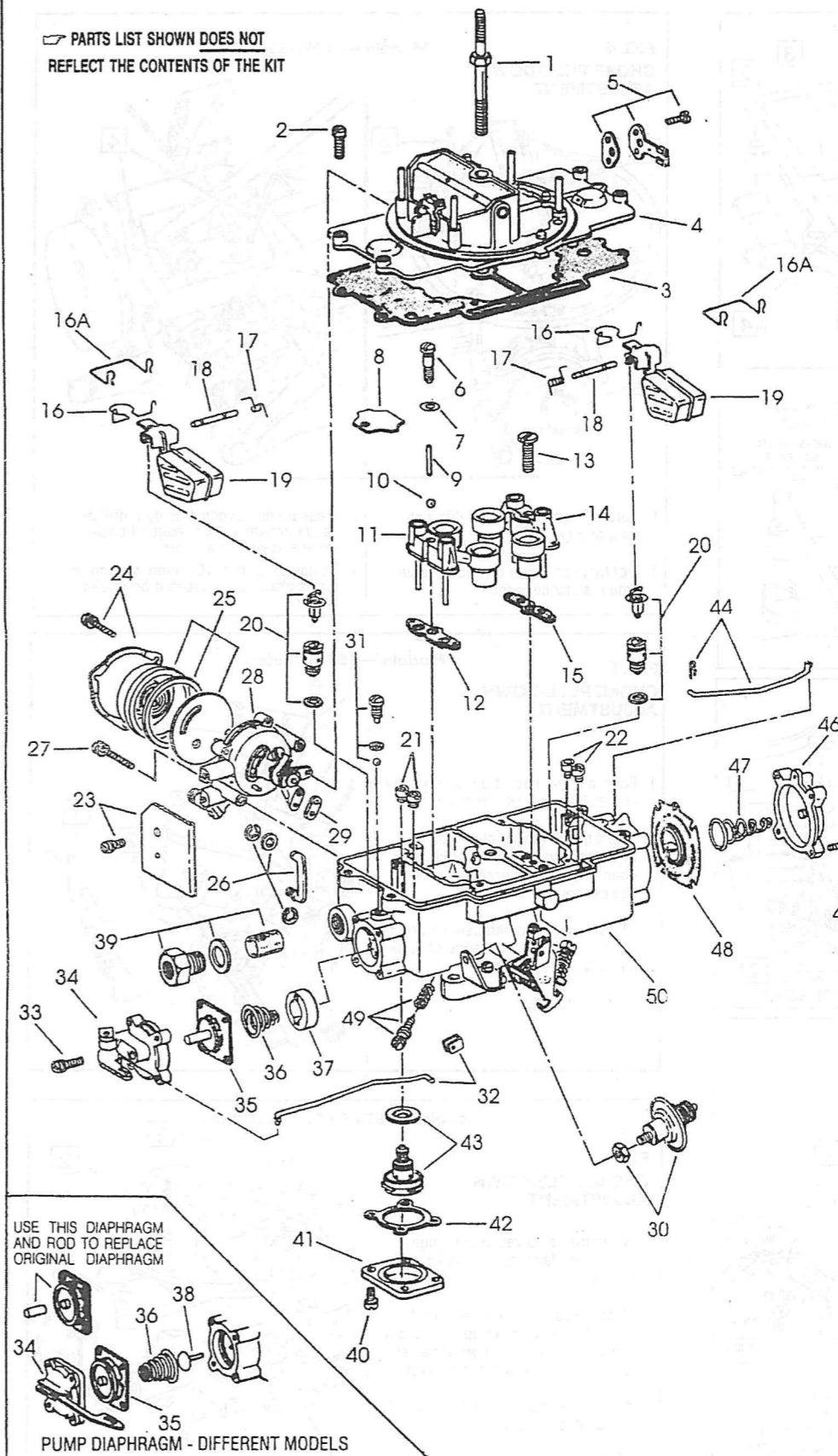
TO REPAIR

GF3491-4

FORD CARBURETOR

4 BARREL—MODEL 4100, F4

PARTS LIST SHOWN DOES NOT REFLECT THE CONTENTS OF THE KIT



- Carefully read the text in the following pages before performing carburetor overhaul.
- The exploded view is typical of the model carburetor kit will service. The view may differ slightly from actual carburetor being overhauled.
- Use the exploded view as a guide. The number sequence of the parts list may generally be followed to disassemble the carburetor far enough to permit clean and inspection.
- Parts list shown DOES NOT reflect the contents of the kit. Kit may contain extra parts intended for other carburetors within this group. Substitute identical replacement parts for original worn parts found in carburetor.

**CLEANING**  
 Cleaning must be done with carburetor disassembled. Use spray cleaner and a stiff bristle brush to remove dirt and carbon deposits. Do not use abrasives and wires to clean parts and passageways. Wash off in suitable solvent. Clear all passageways with compressed air. **Caution:** Do not clean with solvent do not soak or spray parts containing rubber, leather, plastic and electrical components.

#### PARTS LIST

- Stud, air cleaner
- Screw, air horn (8)
- Gasket, air horn
- Air horn assembly
- Hot idle compensator assembly
- Screw, pump discharge nozzle
- Washer, screw
- Plate (air distribution)
- Weight, discharge check ball
- Ball, discharge check
- Venturi cluster assembly, primary
- Gasket, primary venturi
- Screw, secondary venturi
- Venturi cluster assembly, secondary
- Gasket, secondary venturi
- Retainer, float pin (pri. & sec.)
- Retainer (service replacement)
- Spring, float dampner (pri. & sec.)
- Pin, float hinge (pri. & sec.)
- Float assembly (pri. & sec.)
- Needle & seat assy. (pri. & sec.)
- Jet, primary main metering
- Jet, secondary main metering
- Screw & air shield
- Screw & retainer, stat cover
- Thermostatic coil & cover assy.
- Fast idle link & retainers
- Screw, choke housing
- Choke housing assembly
- Gasket, choke housing
- Dashpot assembly
- Pump inlet screw, washer & check ball
- Pump link & retainer
- Screw, pump cover (4)
- Cover, pump diaphragm
- Pump diaphragm assembly
- Spring, diaphragm return
- Cavity filler, pump
- Valve, pump inlet check
- Fitting, washer & filter, fuel inlet
- Screw, cover (4)
- Cover, economizer valve
- Gasket, cover
- Economizer valve & washer assembly
- Secondary throttle link & retainer
- Screw, cover (4)
- Cover, secondary diaphragm
- Spring, diaphragm return
- Secondary diaphragm assembly
- Idle mixture adjusting screw & spring (2)
- Main body assembly

## REMOVAL & INSTALLATION NOTES

Working on intake manifold after carburetor is removed.  
 Removing similar parts from primary and secondary sides, mark them for proper re-assembly.  
 Parts are not interchangeable. Note their sizes.  
 Removing idle mixture screw (49), turn in until lightly seated, counting number of turns. Record for proper installation.  
 Reinstall parts and components in reverse order of removal.

- When installing economizer valve (43), tighten securely. Do not over-tighten.
- When installing cover assembly (25), make sure coil loop is hooked onto tang of choke lever, or in slot of lever on some models.
- Before installing pump inlet check valve (38), lubricate stem at retainer shoulder and push into casting until fully seated. Cut off stem at retaining shoulder.
- When installing idle mixture screw (49), turn in until lightly seated, then back out number of turns recorded earlier.
- Be sure to install large open end of spring (36) over pump inlet check.

## ADJUSTMENT DATA

### LEVEL ADJUSTMENTS

#### SETTING (BENCH)

Perform this initial adjustment, then bend float tab to gently seat float.

NOTE: Do not exert pressure on float needle valve.

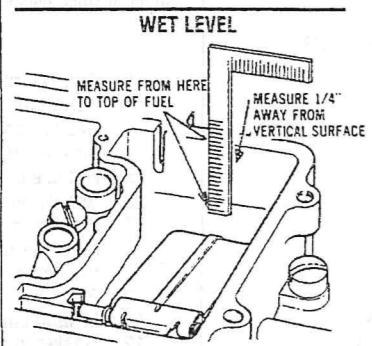
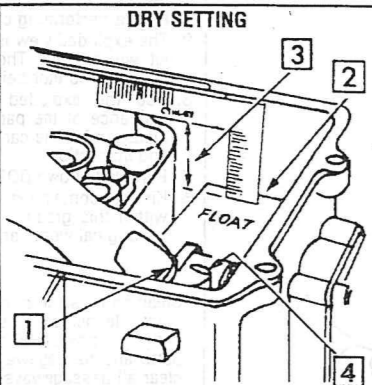
Adjust float to size (see spec. chart) and bend (allow for zero line) and locate at 1/8" from end of float.

Measure distance as shown from surface (gasket removed) to face of float.

First, bend tab on float arm.

#### WET LEVEL (ON CAR)

With engine idling at normal operating temperature for a few seconds, remove air horn and measure from parting line of main body to top of fuel level. Measure 1/4" away from any vertical surface. See car shop manual for wet level setting, if adjustment is required, bend float arm as needed.



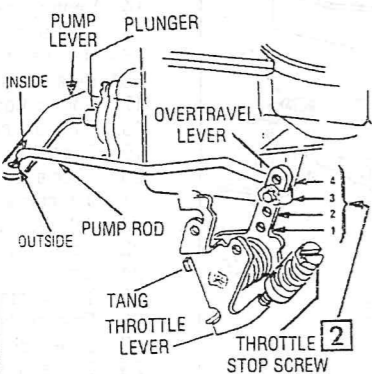
### ROD ADJUSTMENT

Insert pump rod in specified hole (inside or outside) of pump lever (see specification chart).

Opposite end pump rod in end hole of hole of overtravel assembly.

In winter, increase length of stroke (holes 3, 4).

In summer, decrease length of stroke (holes 1, 2).



### CHOKE PULL-DOWN ADJUSTMENT

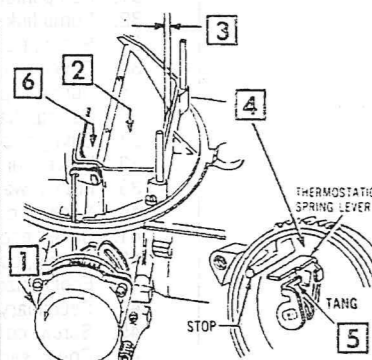
Turn thermostat cover 90° rich temporarily. Next, hold throttle at half-open position.

Push down on choke valve until resistance is felt.

Measure as specified using a drill or gauge between lower edge of choke valve and wall of air horn.

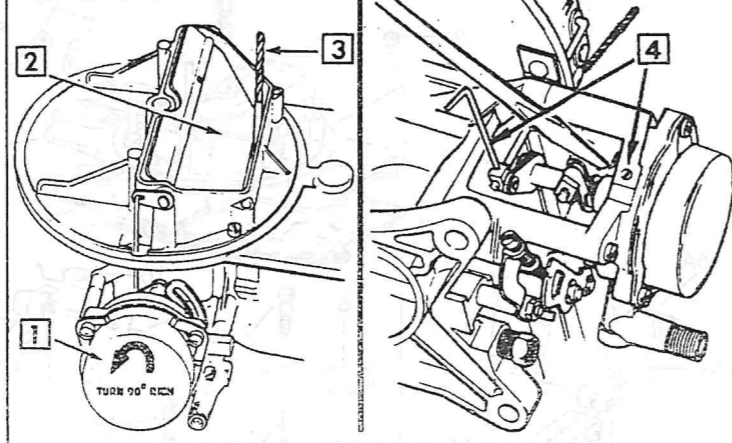
Increase clearance, remove thermostat cover and position thermostatic spring lever firmly in stop in housing.

Push down on choke plate toward closed position with enough force to bend tang on choke shaft.



### FIG. 4 CHOKE PULL-DOWN ADJUSTMENT

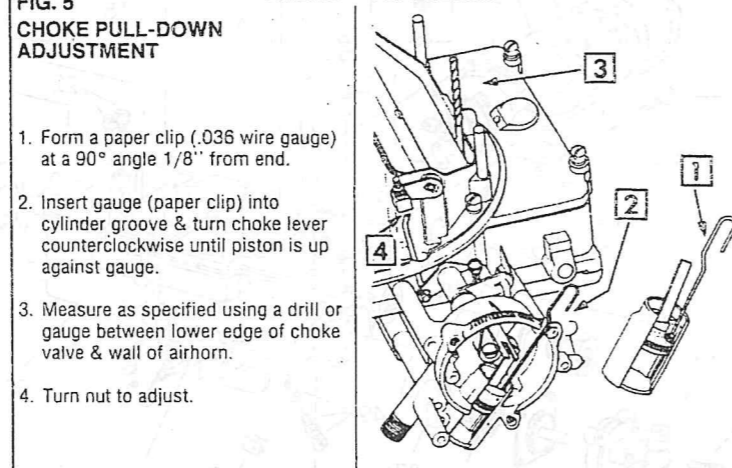
Models — 1962-63



- Rotate thermostat cover 90° rich temporarily.
- Lightly push down on choke valve until resistance is felt.
- Measure as specified using a drill or gauge between lower edge of choke valve and wall of air horn.
- To adjust, turn 1/16" allen wrench or turn slotted screw located on choke housing.

### FIG. 5 CHOKE PULL-DOWN ADJUSTMENT

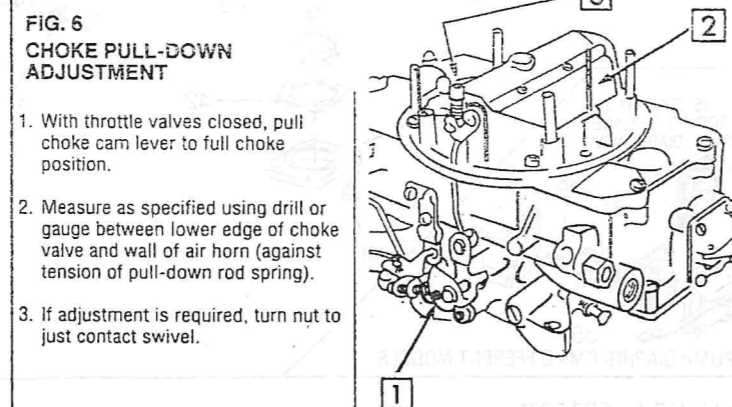
Models — 1964 & Later



- Form a paper clip (.036 wire gauge) at a 90° angle 1/8" from end.
- Insert gauge (paper clip) into cylinder groove & turn choke lever counterclockwise until piston is up against gauge.
- Measure as specified using a drill or gauge between lower edge of choke valve & wall of airhorn.
- Turn nut to adjust.

### FIG. 6 CHOKE PULL-DOWN ADJUSTMENT

Models — 1964-67 Manual Choke



- With throttle valves closed, pull choke cam lever to full choke position.
- Measure as specified using drill or gauge between lower edge of choke valve and wall of air horn (against tension of pull-down rod spring).
- If adjustment is required, turn nut to just contact swivel.

## ADJUSTMENT DATA (Cont'd)

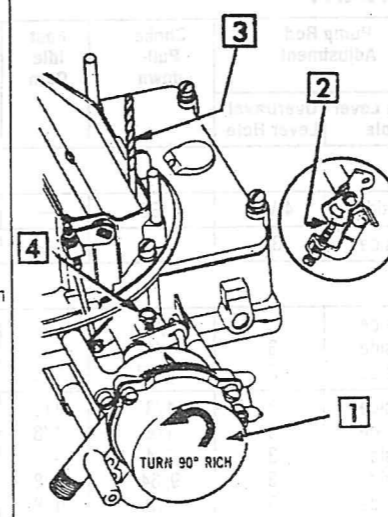
### FIG. 7 FAST IDLE CAM ADJUSTMENT

MODELS - 1964 & LATER

NOTE: Choke valve pull-down adjustment must be made prior to adjusting fast idle cam.

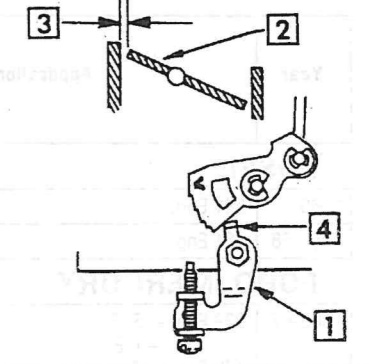
- Temporarily turn choke cover 90° rich.
- Position screw on index mark of fast idle cam. Other models with 351C" or 400" engine; fast idle cam must be aligned with tang of intermediate cam lever.
- Measure clearance as specified between air horn wall and lower edge of choke valve.
- Adjust screw as required.

NOTE: After completion, recheck and adjust auto choke setting if needed.



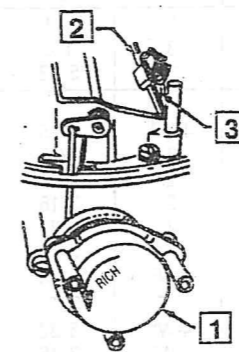
### FIG. 8 CHOKE UNLOADER ADJUSTMENT

- Hold throttle valves in wide open position.
- Maintain a light closing pressure on choke valve.
- Measure as specified between upper edge of choke valve and wall of air horn.
- To adjust, bend tang on fast idle speed lever as required.



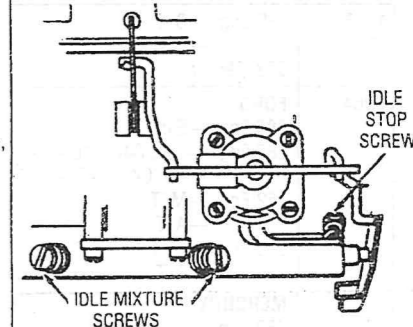
### FIG. 9 CHOKE MAGNET & BRACKET ADJUSTMENT

- Temporarily turn choke cover 90° rich beyond index mark.
- Place a .010 filler gauge between choke valve and air horn wall.
- Loosen screws and adjust magnet to just touch choke plate. Retighten and stake screws.



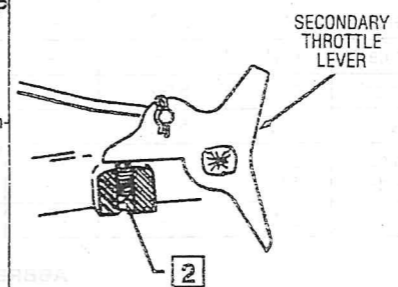
### FIG. 10 SLOW IDLE ADJUSTMENT

- With engine at normal operating temperature and choke fully open, adjust idle mixture screws for a smooth idle and adjust idle stop screw for proper R.P.M. (see service manual for R.P.M.)
- NOTE: If carburetor has hot idle compensator valve, it must be closed when idle is adjusted.



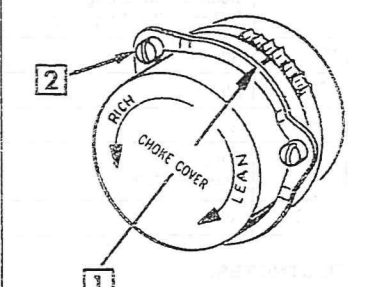
### FIG. 11 SECONDARY THROTTLE STOP ADJUSTMENT

- Keep secondary throttle valves closed.
- Turn stop screw in until it just contacts the secondary throttle lever, then turn screw in 3/4 turn more.



### FIG. 12 AUTO CHOKE ADJUSTMENT

- Loosen three choke cover screws.
  - Rotate and align index mark on choke cover with specified line graduation on choke housing. Retighten screws after setting is made.
- NOTE: Permissible variation— 2 notches either way from initial setting.



### FIG. 13 DASHPOT ADJUSTMENT

NOTE: Perform this adjustment after slow idle adjustment (Fig. 10).

- Depress plunger stem and measure clearance between end of stem and throttle valve lever. Clearance should indicate as specified ("1/16 - 1/8")
- To adjust, loosen locknut and turn dashpot in or out as required. Retighten locknut.

