

# Holley Carburetor Model 4160 Instruction Sheet 199R8339

## TYPICAL VIEW

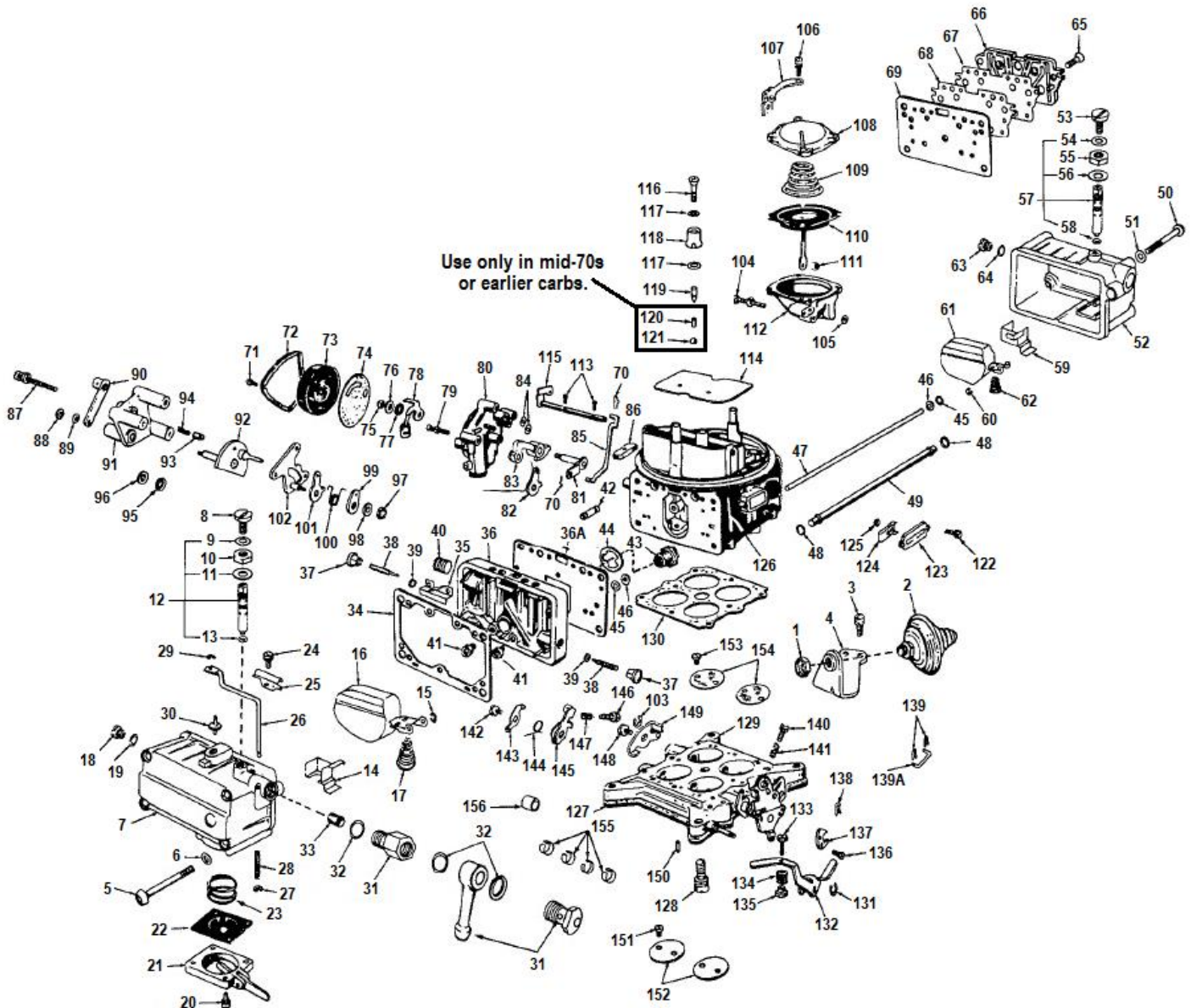
The exploded view shown is typical of the model carburetor this kit will service. The view may differ slightly from the actual carburetor being renewed.

This kit may contain more parts than are actually required to service a given carburetor. When similar gaskets or parts are included in the kit, compare with the original parts.

### DISASSEMBLY:

Rest the carburetor on a repair stand to avoid damage to the throttle plates during the renew procedures. Use the exploded view as a guide, and follow the numerical sequence in general to disassemble the unit far enough to permit cleaning and inspection. Do not remove the throttle plates or shaft. Idle limiter: turn the idle limiter caps to its leanest (clockwise) position and remove the cap. Observe and record the initial position of the needle slot. Turn the idle needs until lightly seated, recording the number of turns required to seat the needles. This procedure is necessary to reinstall the idle needles after renewing.

Use care not to damage the idle adjusting needles when removing the idle limiter caps.



Ref. No.	Desc	Ref. No.	Desc	Ref. No.	Desc
1	Dashpot nut	53	Fuel valve seat lockscrew sec.	105	Secondary diaphragm housing gasket
2	Dashpot assembly	54	Fuel valve seat lockscrew gasket sec.	106	Sec housing cover screw & lockwasher
3	Dashpot bracket screw & washer	55	Fuel valve seat adjusting nut sec.	107	Choke control wire bracket
4	Dashpot bracket	56	Fuel valve seat adjust nut gasket sec.	108	Secondary housing cover
5	Fuel bowl to main body screw pri.	57	Fuel inlet valve/seat assy secondary	109	Secondary diaphragm spring
6	Fuel bowl screw gasket	58	Fuel valve seat o-ring seal sec.	110	Secondary diaphragm & rod assy
7	Fuel bowl assembly primary	59	Baffle plate secondary	111	Diaphragm housing check ball
8	Fuel valve seat lock screw	60	Float retainer	112	Secondary diaphragm housing
9	Fuel valve seat lock screw gasket	61	Float assembly secondary	113	Choke plate screw
10	Fuel valve seat adjusting nut	62	Float spring secondary	114	Choke plate
11	Fuel valve seat adjusting nut gasket	63	Fuel level check plug	115	Choke shaft assy
12	Fuel inlet valve & seat assembly	64	Fuel level check plug gasket	116	Pump discharge nozzle screw
13	Fuel valve seat "O" ring seal	65	Secondary metering body screw	117	Pump discharge nozzle screw gasket
14	Baffle plate primary	66	Secondary metering body	118	Pump discharge nozzle
15	Float retainer	67	Secondary metering body plate gasket	119	Pump discharge needle
16	Float assembly primary	68	Secondary metering body plate	120	Pump discharge ballw eight
17	Float spring primary	69	Secondary metering body gasket	121	Pump discharge check ball
18	Fuel level check plug	70	Choke rod retainer	122	H.I.C. cover screw
19	Fuel level check plug gasket	71	Therm housing clamp screw	123	H.I.C. cover
20	Acc pump cover assy screw /w washer	72	Therm housing clamp	124	Hit idle compensator assy
21	Acc pump cover assy	73	Therm housing assembly	125	H.I.C. seal
22	Acc pump diaphragm assy	74	Therm housing gasket	126	Main body assy
23	Diaphragm return spring	75	Therm shaft nut	127	Flange gasket
24	Air vent clamp screw & washer	76	Therm shaft nut lockwasher	128	Throttle body screw & lockwasher
25	Air vent rod clamp	77	Therm lever spacer	129	Throttle body
26	Air vent rod	78	Therm lever, link, piston assy	130	Throttle body gasket
27	Air vent spring retainer	79	Choke housing screw /lockwasher	131	Pump operating lever retainer
28	Air vent rod spring	80	Choke housing assy	132	Pump operating lever
29	Air vent valve retainer	81	Choke housing shaft & lever assy	133	Pump lever adj screw
30	Air vent valve	82	Choke therm lever	134	Pump lever adj screw spring
31	Fuel inlet fitting	83	Fast idle cam assy	135	Pump lever adj screw fitting
32	Fuel inlet fitting gasket	84	Choke housing gasket	136	Pump cam lock screw
33	Filter screen	85	Choke rod	137	Pump cam
34	Fuel bowl gasket	86	Choke rod seal	138	Throttle connector pin retainer
35	Metering body vent baffle	87	Fast idle cam plate screw /lockwasher	139	Throttle connector cotter pin
36	Metering body assembly primary	88	Choke control lever nut	140	Throttle stop screw
37	Idle needle limiter cap	89	Choke control lever nut lockwasher	141	Throttle stop screw spring
38	Idle adjusting needle	90	Choke lever & swivel assy	142	Fast idle cam lever screw & washer
39	Idle adjusting needle seal	91	Fast idle cam plate	143	Fast idle pick up lever
40	Spark fitting or plug	92	Fast idle cam & shaft assy	144	Fast idle cam lever spring
41	Main metering jet	93	Fast idle cam plunger	145	Fast idle cam lever
42	Tube & o-ring assembly	94	Fast idle cam plunger spring	146	Fast idle cam lever adjusting screw
43	Power valve assembly	95	Choke oper lever spring washer	147	Fast idle cam lever screw spring
44	Power valve assembly gasket	96	Choke oper lever washer	148	Diaphragm lever assy screw /w washer
45	Balance tube washer	97	Back up plate stud nut	149	Diaphragm lever assy
46	Balance tube o-ring seal	98	Back up plate stud nut lockwasher	150	Diaphragm lever adjusting screw
47	Balance tube	99	Choke spring washer	151	Throttle plate screw primary
48	Fuel line tube o-ring seal	100	Choke spring	152	Throttle plate primary
49	Fuel line tube	101	Choke rod lever & bushing assy	153	Throttle plate screw secondary
50	Fuel bowl to main body screw sec.	102	Back up plate & stud assy	154	Throttle plate secondary
51	Fuel bowl screw gasket sec.	103	Sec diaphragm retainer	155	Throttle shaft bearing (ribbon) pri & sec
52	Fuel bowl assy sec.	104	Diaphragm housing screw & lockwasher	156	Throttle shaft bearing (solid) primary

## CLEANING:

Cleaning must be done with the carburetor disassembled. Soak parts long enough to soften and remove all foreign material. Use a carburetor solvent, lacquer thinner, or denatured alcohol. Make certain the throttle body is free of all hard carbon deposits. Wash off in suitable solvent. Blow out all passages in castings with compressed air and check carefully to insure thorough cleaning of obscure areas.

**CAUTION:** Do not soak parts containing rubber or plastic material. Serious damage could result. Fuel bowls, should only be exposed to carburetor cleaner long enough to permit removal of gum and varnish deposits with a brush.

**NOTE:** Some fuel bowls have internal O-ring seals which are not removable, but can be damaged by prolonged exposure to some carburetor cleaning solvents.

## REASSEMBLY:

Reassemble in reverse order to disassembly. Note special instructions and follow outline in making adjustments.

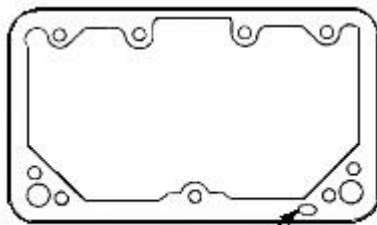
Manually operate the throttle lever and choke mechanism, checking for binding or malfunction. Any binding or interference could cause throttle to stick during operation and result in loss of carburetor throttle control (or uncontrolled engine speed).

Check carburetor to be sure there are no leaks. Flooding could cause a fire.

## SPECIAL INSTRUCTIONS:

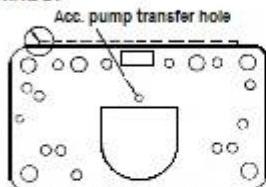
**IDLE ADJUSTING NEEDLES** – Tapered portion of needle must be straight and smooth. If grooved or ridged, a new needle should be installed.

**PUMP INLET CHECK VALVE** – Lubricate tip of new valve and insert in center hole in pump cavity. Pull thru from fuel bowl side until seated.

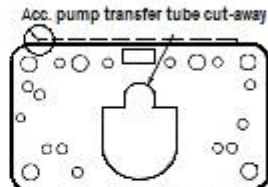


Accelerator Pump Passage

The primary fuel bowl gasket must be installed with the accelerator pump passage on the right side of the main jets. Fuel bowl screws must be torqued to 40 in./lbs.



Use on primary without pump transfer tube.



Use on primary pump transfer tube.



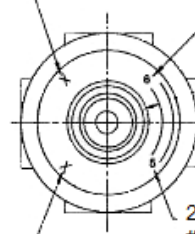
Some 4160™ models use primary metering body gaskets with additional stock in this area. Applications using this gasket have the top bead or lip of the metering body removed.

## POWER VALVE IDENTIFICATION

Example: Power Valve Assembly  
25R591-65

65 - which designates the stamped # - also identifies the opening point of the power valve (i.e. 6.5" vacuum)

Code Letter A thru M  
for Month (omitting letter  
I (use J for Sept)

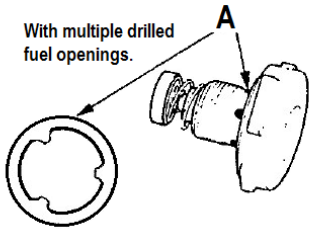


1st digit of stamped  
# identification

2nd digit of stamped  
# identification

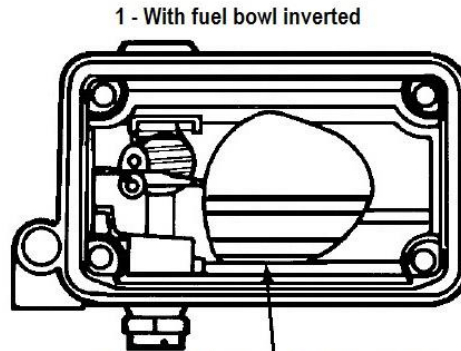
Code Number  
0 thru 9 for Year

**CARBURETOR ADJUSTMENTS:**



NOTE: Proper power valve gasket must be used as shown. Use of improper gasket will result in fuel leakage around the power valve. Torque both to 40-50 in./lbs.

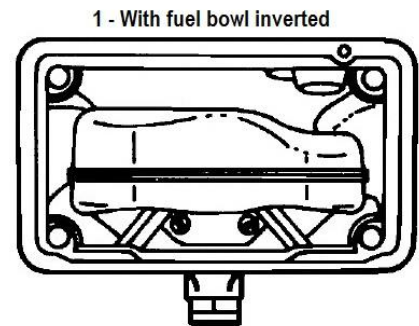
**Figure 1**



1 - With fuel bowl inverted

2 - Adjust float parallel to bowl floor

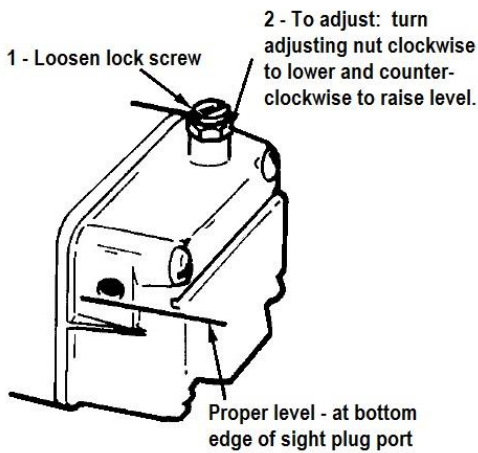
**Figure 2**



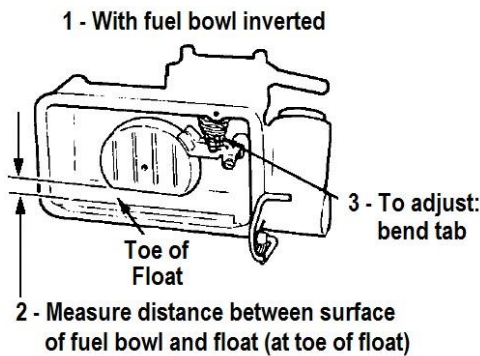
1 - With fuel bowl inverted

2 - Adjust float so that it is centered in the center of the fuel bowl

**Figure 3**



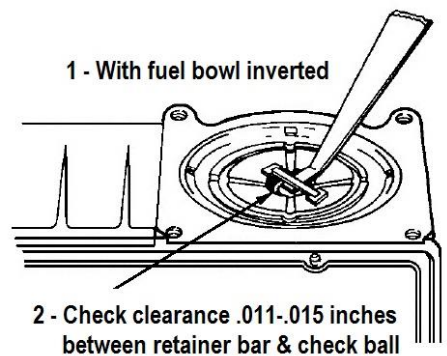
**Figure 4**



1 - With fuel bowl inverted

2 - Measure distance between surface of fuel bowl and float (at toe of float)

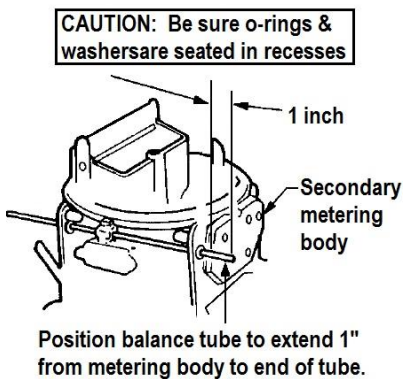
**Figure 5**



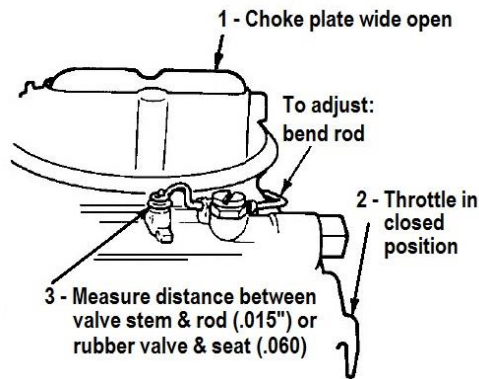
1 - With fuel bowl inverted

2 - Check clearance .011-.015 inches between retainer bar & check ball

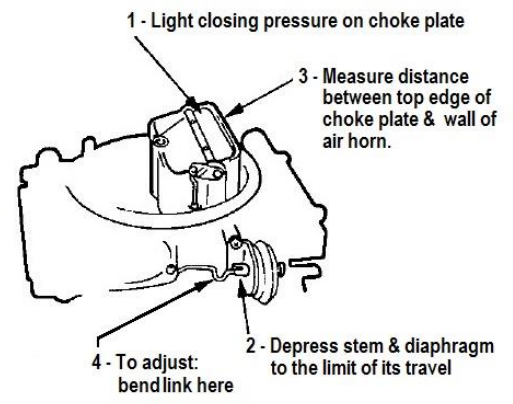
**Figure 6**



**Figure 7**



**Figure 8**



**Figure 9**

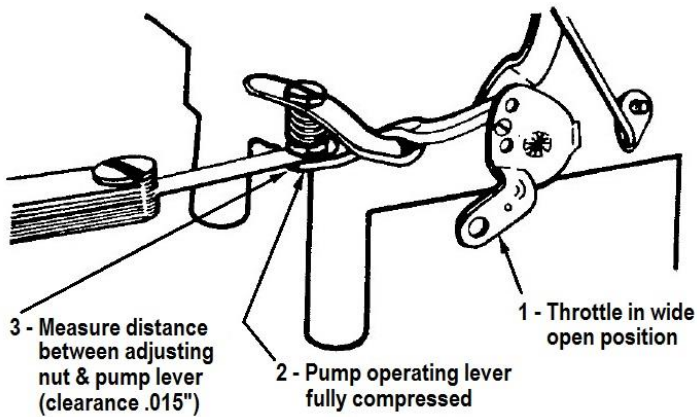
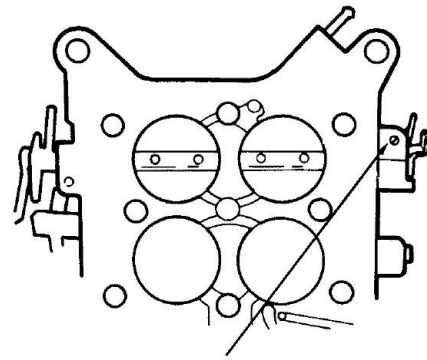


Figure 10



Back the secondary throttle stop screw out until the secondary throttle plates are closed in the throttle bore. Turn the screw in (clockwise) until it just touches the stop on the lever, then give it an additional 1/4 turn.

Figure 11

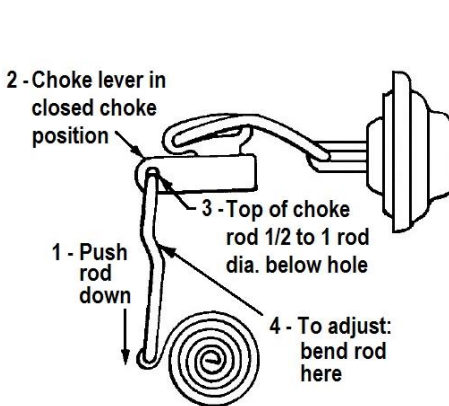


Figure 12

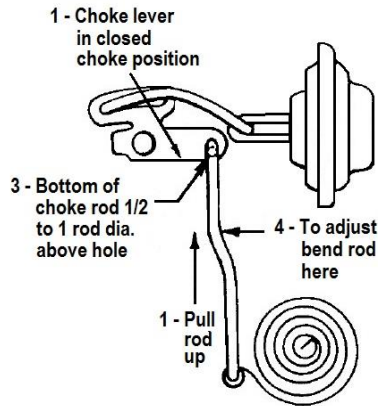


Figure 13

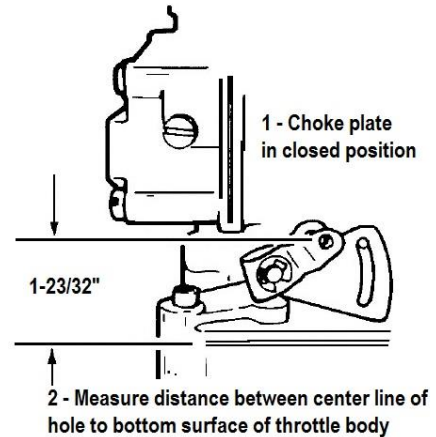


Figure 14

**NOTE:** Bend a paper clip (.030 to .036 dia.) as show to provide end no longer than 1/8" long.

1 - Insert paper clip into piston bore until end of bore slot is hooked as shown

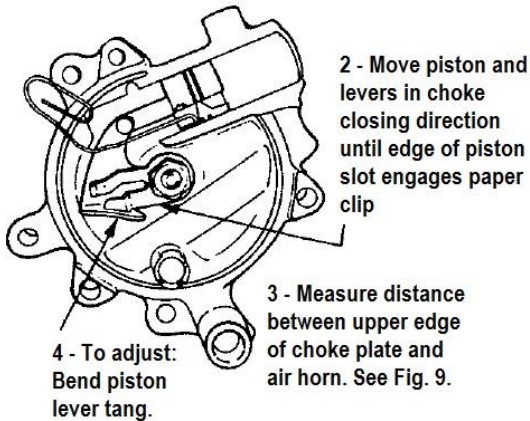


Figure 15

Rotate cover to align ref. mark on cover with specified mark on choke housing

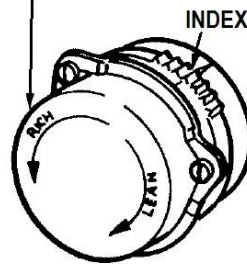


Figure 16

1 - With choke in wide open position

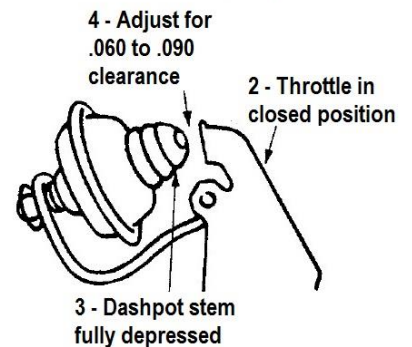


Figure 17

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**199R8339**

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