

## ACADIAN

### ADJUSTMENT and TUNE UP SPECIFICATIONS

**BULLETIN 9AC-1**  
DATE NOVEMBER, 1964  
PAGE 1  
REPLACES PAGES 1 & 2  
DATED MARCH, 1963  
FILE AFTER ACADIAN  
SPEC. & ADJ. DIVIDER

YEAR	1962		1962		1963-64		1964		1964		
CARBURETOR MODEL	B		BC		BV		BV		2GV		
CARBURETOR NO.	7020103 7020104 7020114 7020115		7020105 7020108		7023105 7023108		7024000 7024001		7024100 7024102 7024106 7024108		
ADJUSTMENT SPECIFICATIONS											
ADJUSTMENT BULLETIN NO.		9-AC-2		9-AC-2		9-AC-2		9-AC-2		9-AC-3	
ADJUSTMENT		SPEC.	FIG.NO.	SPEC.	FIG.NO.	SPEC.	FIG.NO.	SPEC.	FIG.NO.	SPEC.	FIG.NO.
FLOAT LEVEL	PRIMARY	1-9/32	1	1-9/32	1	1-9/32	1	1-9/32	1	3/4	2
	SECONDARY	-	-	-	-	-	-	-	-	-	-
FLOAT TOE	PRIMARY	-	-	-	-	-	-	-	-	-	-
	SECONDARY	-	-	-	-	-	-	-	-	-	-
FLOAT DROP	PRIMARY	1-3/4	2	1-3/4	2	1-3/4	2	1-3/4	2	1-3/4	3
	SECONDARY	-	-	-	-	-	-	-	-	-	-
FLOAT ALIGNMENT		-	-	-	-	-	-	-	-	-	-
VACUUM ASSIST SPRING		-	-	-	-	-	-	-	-	-	-
PUMP ROD LOCATION		-	-	-	-	-	-	-	-	-	-
PUMP ROD		-	-	-	-	-	-	-	-	1-1/8	4
IDLE VENT		-	-	-	-	.050	7	.050	7	1	5
INTERMEDIATE CHOKE ROD		-	-	-	-	-	-	-	-	-	-
VACUUM BREAK		-	-	-	-	See Note	3	.260	3	.090	8
AUTOMATIC CHOKE		-	-	Index	4	-	-	-	-	-	16
CHOKE ROD		-	-	.040	5	.060	5	.100	5	.070	11
FAST IDLE		Turn screw in to contact low step of cam. Check tune-up spec. for proper RPM									
UNLOADER		-	-	.230	6	.350	6	.350	6	.200	13
SECONDARY LOCKOUT		-	-	-	-	-	-	-	-	-	-
SECONDARY CONTOUR		-	-	-	-	-	-	-	-	-	-
THROTTLE RETURN CHECK		-	-	-	-	-	-	-	-	-	-
TUNE UP SPECIFICATIONS											
IDLE R.P.M.	A/T-500-D	S/T-475-N	A/T-600-D	S/T-550-N	A/T-500-D	S/T-450-N	A/T-500-D	S/T-500-N	A/T-450-D	S/T-475-N	
IDLE R.P.M. - AIR COND.	-		-		-		-		-		
FAST IDLE	-		-		-		-		-		
DWELL	30°		32°		32°		31° - 34°		28° - 32°		
POINT GAP	.016		.016		.016		.016		.016		
SPARK PLUG GAP	.035		.035		.035		.035		.035		
TIMING - Vacuum advance line MUST be disconnected and fitting plugged.	4° - BTDC @ Idle		8° - BTDC @ Idle		6-10° -BTDC @ Idle		4-8° -BTDC @ Idle		4-8° -BTDC @ Idle		

Note: 7023105 - .160

7023108 - .140



# Delco Rochester

## ACADIAN

### ADJUSTMENT and TUNE UP SPECIFICATIONS

YEAR	1964-65	1963-64	1964	1964-65	1965
CARBURETOR MODEL	2GV	4GC	4GC	2GV	BV
CARBURETOR NO.	7024101 7025103	7024120 7024122 7024125 7024126	7024220 7024225 7024226	7024110 7024112	7025000 7025108

### ADJUSTMENT SPECIFICATIONS

ADJUSTMENT BULLETIN NO.		9-AC-3		9-AC-4		9-AC-4		9-AC-3		9-AC-2	
ADJUSTMENT		SPEC.	FIG.NO.	SPEC.	FIG.NO.	SPEC.	FIG.NO.	SPEC.	FIG.NO.	SPEC.	FIG.NO.
FLOAT LEVEL	PRIMARY	3/4	2	1-17/32	1	1-17/32	1	3/4	2	1-9/32	1
	SECONDARY	—	—	1-19/32	1	1-19/32	1	—	—	—	—
FLOAT TOE	PRIMARY	—	—	—	—	—	—	—	—	—	—
	SECONDARY	—	—	—	—	—	—	—	—	—	—
FLOAT DROP	PRIMARY	1-3/4	3	2-1/4	4-A	2-1/4	4-A	1-3/4	3	1-3/4	2
	SECONDARY	—	—	2-1/4	4-A	2-1/4	4-A	—	—	—	—
FLOAT ALIGNMENT		—	—	—	3	—	3	—	—	—	—
VACUUM ASSIST SPRING		—	—	—	—	—	—	—	—	—	—
PUMP ROD LOCATION		—	—	—	—	—	—	—	—	—	—
PUMP ROD		1-1/8	4	1-1/16	6	1-1/16	6	1-1/8	4	—	—
IDLE VENT		1	5	31/32	7	31/32	7	1	5	.050	7
INTERMEDIATE CHOKE ROD		—	—	Flush	8	Flush	8	—	—	—	—
VACUUM BREAK		.120	8	—	—	—	—	.090	8	.140	3
AUTOMATIC CHOKE		—	16	Index	10	Index	10	—	16	—	—
CHOKE ROD		.060	11	.055	12	.055	12	.060	11	.090	5
FAST IDLE		Turn screw in to contact low step of cam. Check tune-up spec. for proper RPM									
UNLOADER		.200	13	.230	14	.230	14	.200	13	.350	6
SECONDARY LOCKOUT		—	—	.015	15	.015	15	—	—	—	—
SECONDARY CONTOUR		—	—	.015	16	.015	16	—	—	—	—
THROTTLE RETURN CHECK		—	—	—	—	—	—	—	—	—	—

### TUNE UP SPECIFICATIONS

IDLE R.P.M.	A/T-450-D   S/T-475-N	A/T-500-D   S/T-500-N	A/T-500-D   S/T-500-N	A/T-450-D   S/T-475-N	A/T-450-D   S/T-475-N
IDLE R.P.M. - AIR COND.	—	—	—	—	—
FAST IDLE	—	—	—	—	—
DWELL	28° - 32°	30°	30°	28° - 32°	32°
POINT GAP	.016	—	—	.016	.016
SPARK PLUG GAP	.035	.035	.035	.035	.035
TIMING - Vacuum advance line MUST be disconnected and fitting plugged.	8° - BTDC @ Idle	4° - BTDC @ Idle	4° - BTDC @ Idle	4°-8°-BTDC @Idle	194-Cu.In.-6°-10° 230-Cu.In.-4°-8° BTDC@Idle



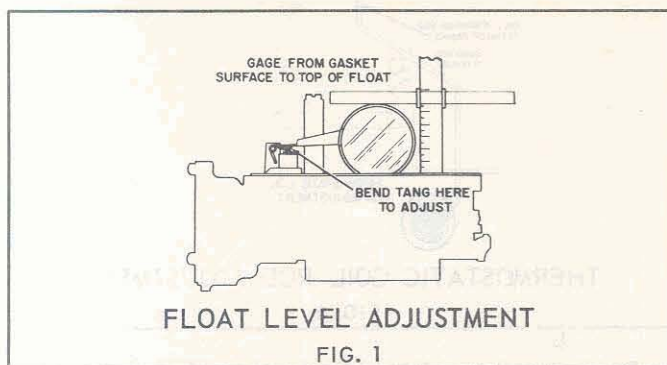
## ACADIAN ADJUSTMENT and TUNE UP SPECIFICATIONS

YEAR		1965		1965							
CARBURETOR MODEL		BV		4GC							
CARBURETOR NO.		7025003 7025105		7025126 7025127 7025128							
ADJUSTMENT SPECIFICATIONS											
ADJUSTMENT BULLETIN NO.		9-AC-2		9-AC-4							
ADJUSTMENT		SPEC.	FIG.NO.	SPEC.	FIG.NO.	SPEC.	FIG.NO.	SPEC.	FIG.NO.	SPEC.	FIG.NO.
FLOAT LEVEL	PRIMARY	1-9/32	1	1-17/32	1						
	SECONDARY	—	—	1-19/32	1						
FLOAT TOE	PRIMARY	—	—	—	—						
	SECONDARY	—	—	—	—						
FLOAT DROP	PRIMARY	1-3/4	2	2-1/4	4A						
	SECONDARY	—	—	2-1/4	4A						
FLOAT ALIGNMENT		—	—	—	3						
VACUUM ASSIST SPRING		—	—	—	—						
PUMP ROD LOCATION		—	—	SEE NOTE	6						
PUMP ROD		—	—	1-1/16	6						
IDLE VENT		.050	7	21/32	7						
INTERMEDIATE CHOKE ROD		—	—	FLUSH	8						
VACUUM BREAK		.160	3	—	—						
AUTOMATIC CHOKE		—	—	Index	10						
CHOKE ROD		.100	5	.055	12						
FAST IDLE		Turn screw in to contact low step of cam. Check tune-up spec. for proper RPM.									
UNLOADER		.350	6	.250	14						
SECONDARY LOCKOUT		—	—	.015	15						
SECONDARY CONTOUR		—	—	.015	16						
THROTTLE RETURN CHECK		—	—	—	—						
TUNE UP SPECIFICATIONS											
IDLE R.P.M.		A/T-450	S/T-475-N	A/T-450-D	S/T-475-N						
IDLE R.P.M. - AIR COND.		—		—							
FAST IDLE		—		—							
DWELL		32°		30°							
POINT GAP		.016		.016							
SPARK PLUG GAP		.035		.035							
TIMING — Vacuum advance line MUST be disconnected and fitting plugged.		194-Cu.In-6°-10° 230-Cu.In-4°-8° BTDC @ Idle		4°-8°-BTDC@Idle							

NOTE: 7025127-Inner Hole — Others outer Hole

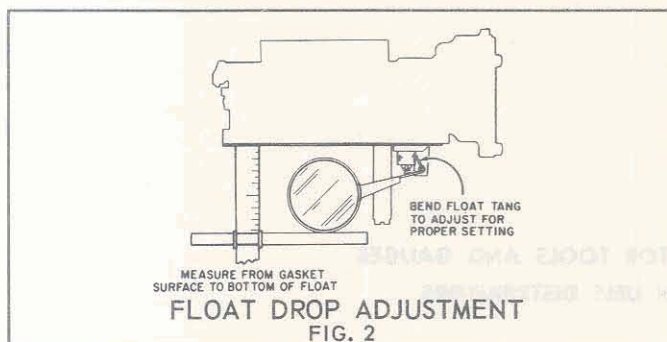




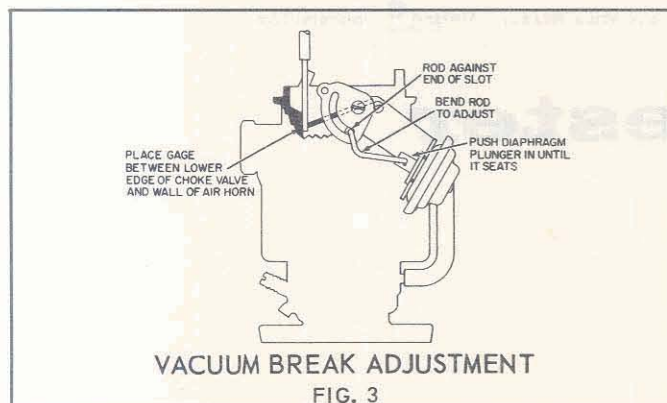


With the air horn inverted and the gasket in place, check height of each float as shown. Bend tang which contacts needle seat until each pontoon is set to specified dimension. Align floats to avoid interference in bowl.

NOTE: Model using spring loaded needle and seat assembly only. Place .030" shim between head of float needle pin and float arm. With float arm resting freely on shim, check float height with gauge. Bend float arms until each pontoon is set to specified dimension. Remove shim from between float needle and float arm after adjustment.



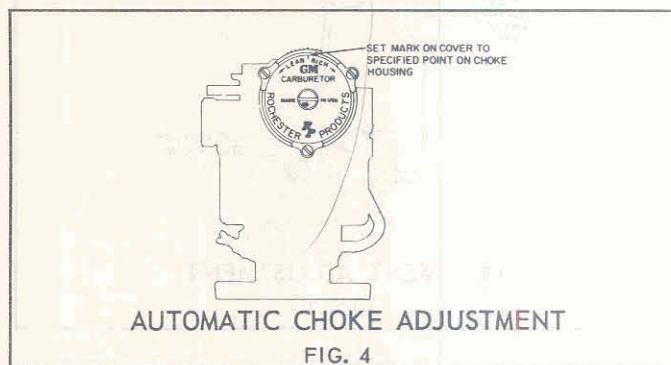
With the air horn assembly held upright and floats suspended freely, carefully bend the float tang at the rear of the float arm so that the bottom of the float pontoon is set as specified.



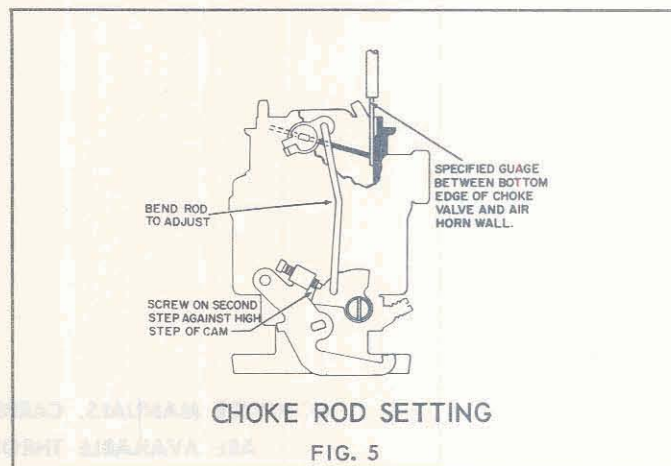
To insure correct initial choke valve opening, adjust vacuum break as follows.

Push the vacuum break diaphragm plunger in until seated, making sure choke valve is closed so that the connecting rod is at end of the slot. In this position, adjust rod so that specified gauge will fit between lower edge of choke valve and inside of air horn casting.

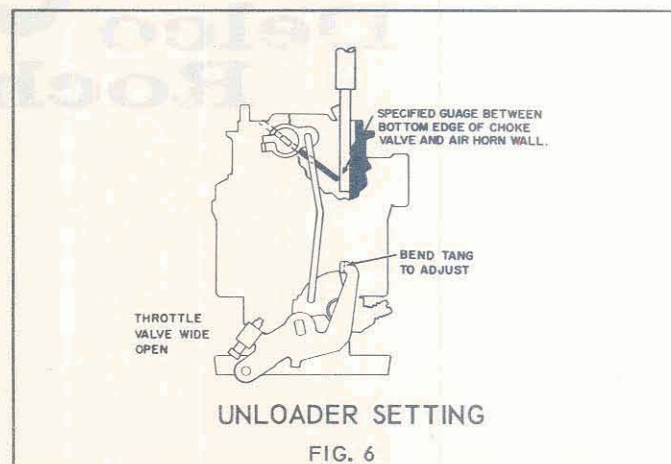
To adjust, bend the connecting rod at point shown.



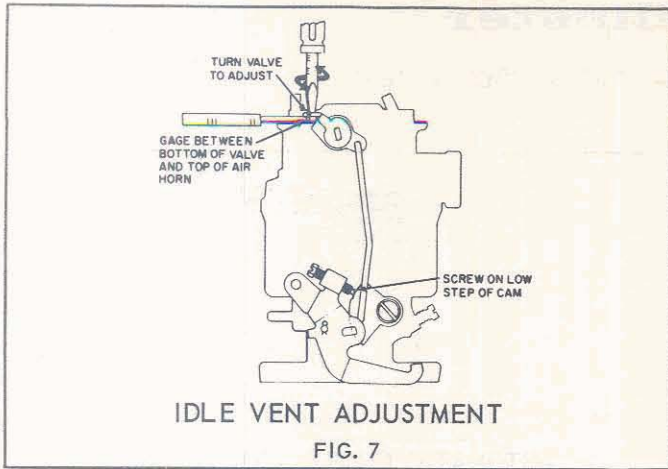
Loosen the three-retaining screws and rotate choke cover against coil tension until index mark on the cover is in the specified position with the index mark on the housing.



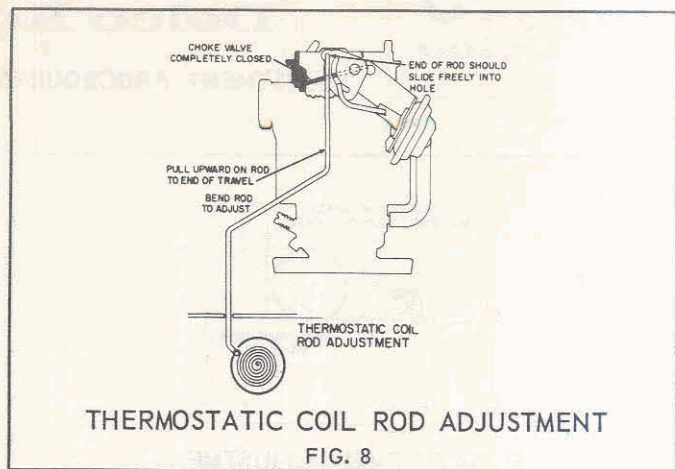
With the idle screw on the second step and against the high step of the fast idle cam, bend the choke rod to obtain specified dimension between the lower edge of the choke valve and the air horn wall.



Bend the unloader tang on the throttle lever as necessary to obtain specified clearance between the lower edge of the choke valve and the air horn wall, with the throttle valves wide open.





With idle RPM set to specification, and screw on low step of cam, the idle vent valve should be open as specified. Adjust by turning valve on top of air horn as needed.

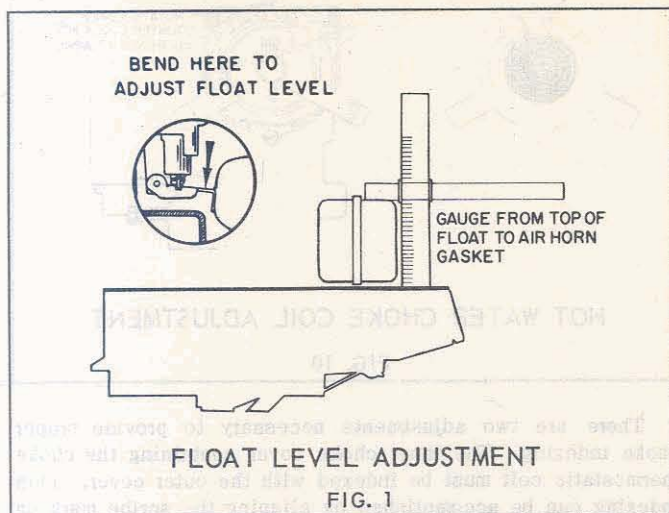


Disconnect thermostat rod from upper end of choke lever. Pull upward on rod to the end of its travel. Holding choke valve closed, the end of the rod should slide freely in hole in choke lever. Bend rod to adjust.

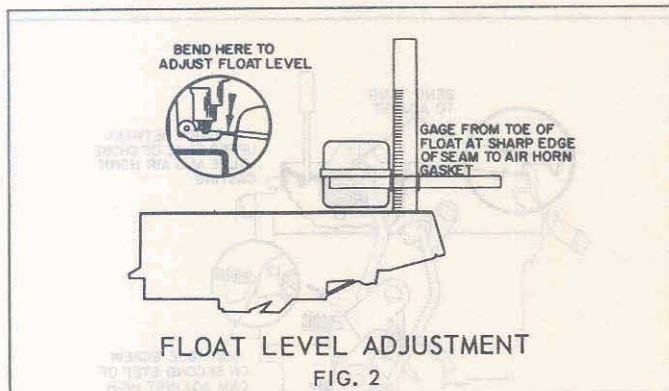
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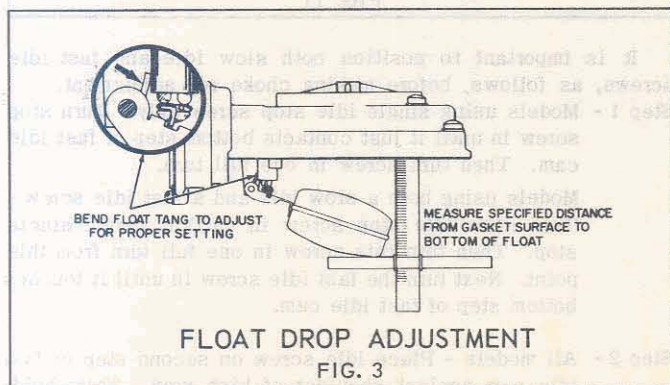




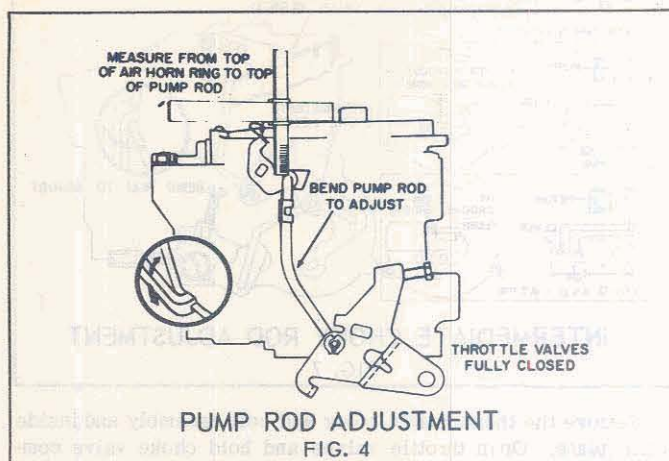
With the air horn inverted and the gasket in place, measure the dimension from gasket surface to top of float. This dimension should be as specified in adjustment specification for model being serviced. To adjust, bend float arm, as shown in inset.



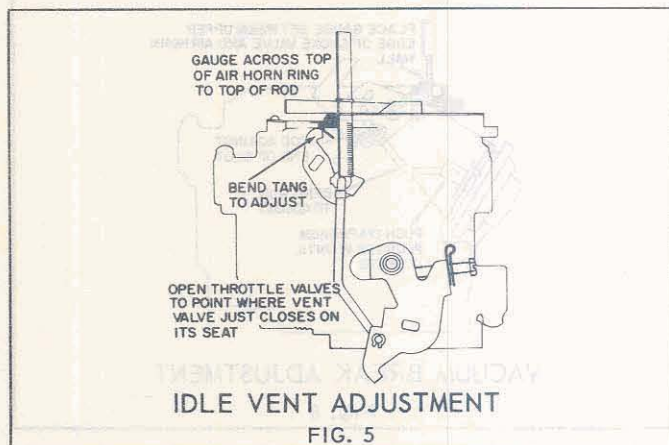
With air horn inverted and air horn gasket installed measure the distance from the air horn gasket to the lower edge (sharp edge) of the float seam at the outer end of the float pontoon. To adjust, bend the float arm at rear, as shown in inset.



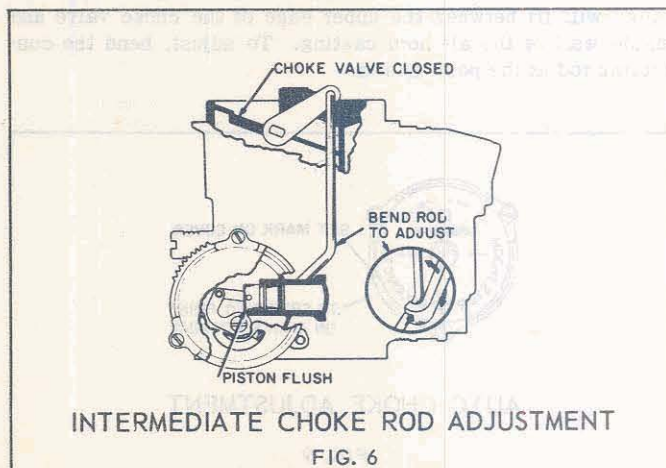
With the air horn assembly held upright and floats suspended freely, measure dimension from air horn gasket to bottom of float pontoon at toe, adjust to specified dimension by bending tang which contacts seat at rear of float arm.



Back out idle stop screw and completely close throttle valves in bore. Place gauge on top of air horn ring. Bend the pump rod at lower angle to obtain specified dimension, to top of pump rod.

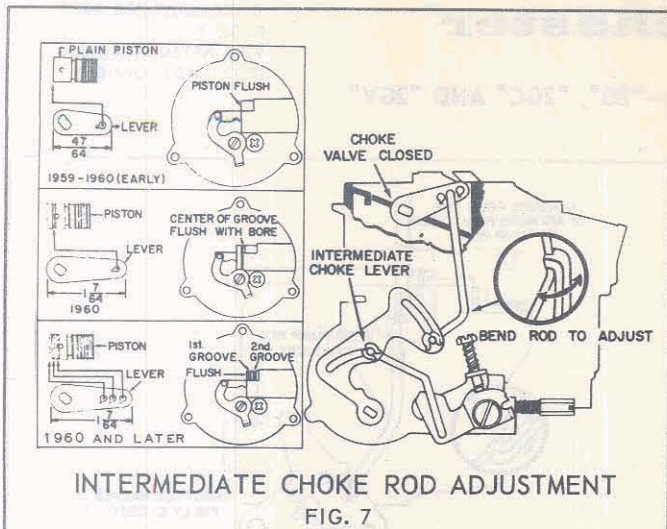


Open throttle until vent valve just closes. Place gauge on top of air horn ring. Dimension to top of pump rod should be as specified. Adjust by bending tang on pump lever.

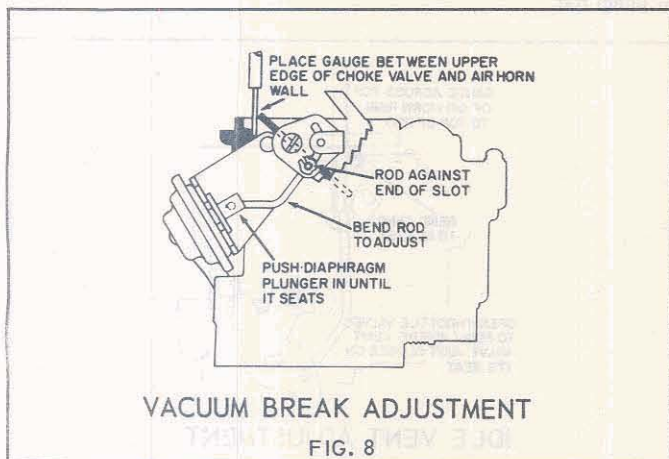


Remove the thermostat cover and coil assembly and inside baffle plate. Hold the choke valve completely closed and bend the intermediate choke rod as necessary so that the end of the choke piston is as specified, with the end of choke piston bore.

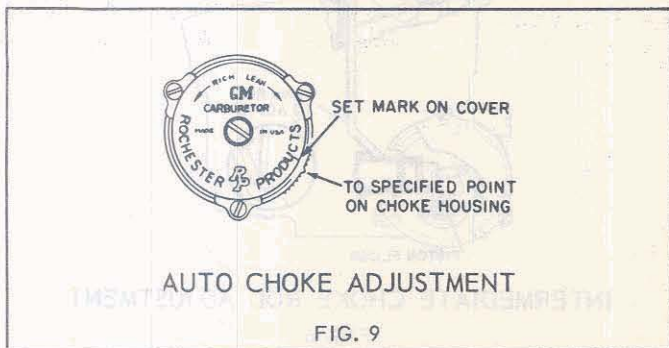




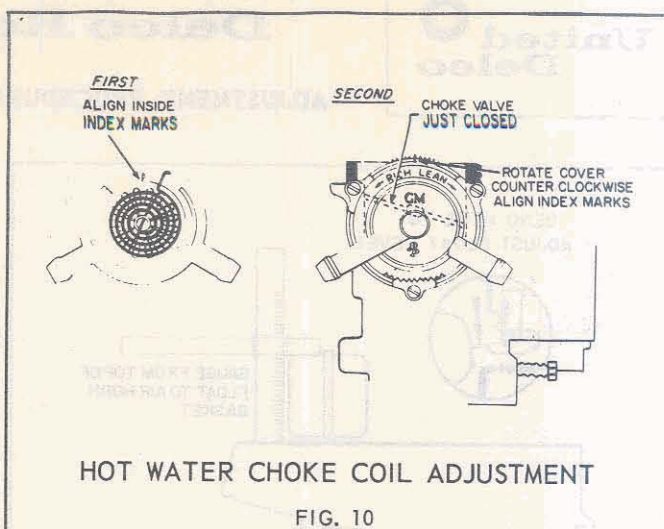
Remove the thermostatic cover and coil assembly and inside baffle plate. Open throttle valves and hold choke valve completely closed by pushing upward on intermediate choke lever. Adjust intermediate choke rod as necessary by bending so that choke piston is in the location shown above.



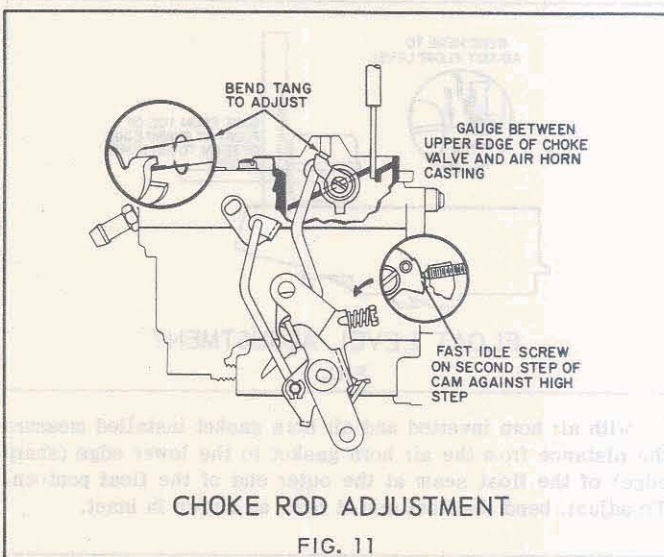
Push the vacuum break diaphragm plunger in until it is seated and make sure the choke valve is closed so the connecting rod is at the end of the slot in the choke shaft lever. In this position, adjust the rod by bending so that the specified gauge will fit between the upper edge of the choke valve and inside wall of the air horn casting. To adjust, bend the connecting rod at the point shown.



Loosen the three retaining screws and rotate the choke cover against coil tension until the index mark is in line with the specified point on the choke housing.



There are two adjustments necessary to provide proper choke indexing. The inner choke cover containing the choke thermostatic coil must be indexed with the outer cover. This indexing can be accomplished by aligning the scribe mark on the inner cover with the index point on the outer cover, as shown. The complete choke cover assembly has a scribe mark on the outside which must be aligned with the proper index point on the choke housing.



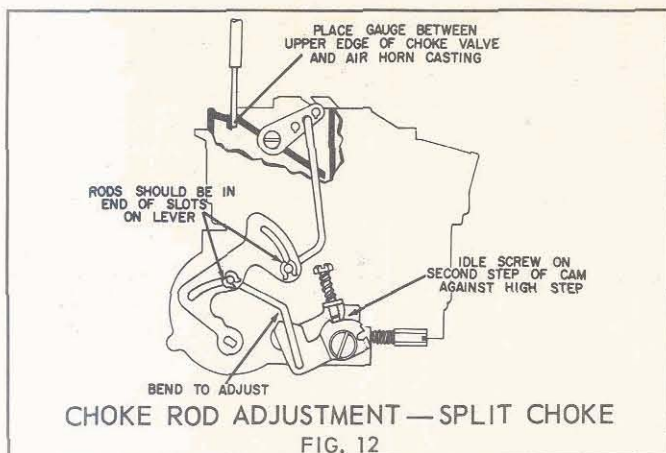
It is important to position both slow idle and fast idle screws, as follows, before making choke rod adjustment.

Step 1 - Models using single idle stop screw only - Turn stop screw in until it just contacts bottom step of fast idle cam. Then turn screw in one full turn.

Models using both a slow idle and a fast idle screw - Turn slow idle screw in until it just contacts stop. Then turn this screw in one full turn from this point. Next turn the fast idle screw in until it touches bottom step of fast idle cam.

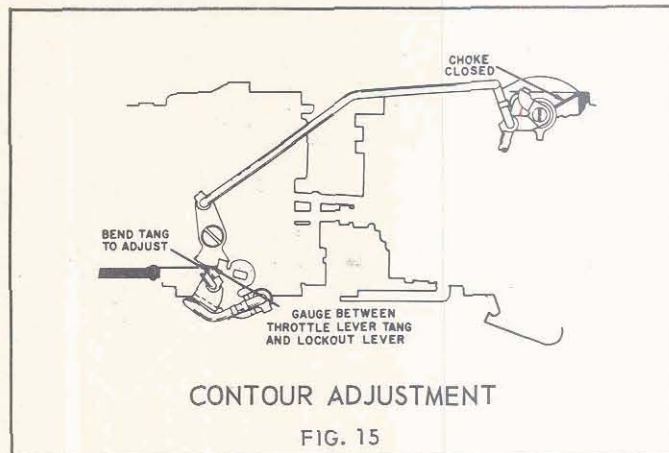
Step 2 - All models - Place idle screw on second step of fast idle cam against shoulder of high step. While holding screw in this position, check clearance between upper edge of choke valve and air horn wall, as shown. Adjust to specified dimension by bending tang on choke lever and collar assembly, as shown above.



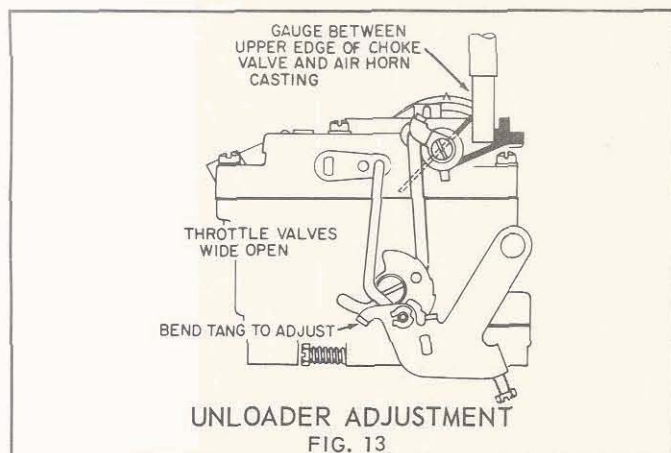


Position slow idle and fast idle screws as described in Step 1, Fig. 11, then place fast idle screw on the second step of the fast idle cam next to the high step as shown. Make sure intermediate choke rod and choke rod are in the ends of slots in the intermediate choke lever by pushing upward on lever.

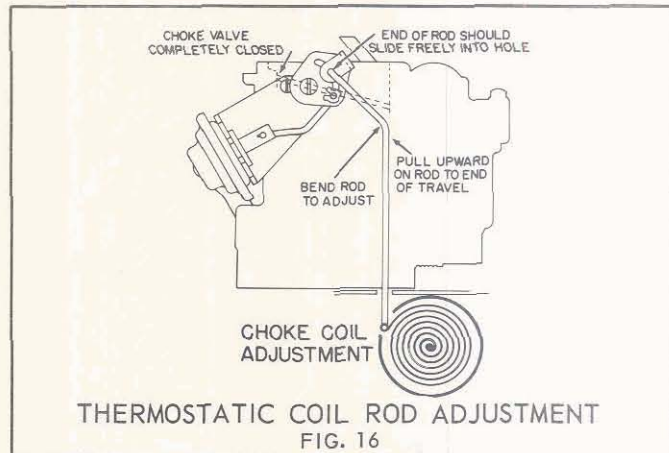
Bend the choke rod until the proper gauge will just fit between the upper edge of the choke valve and air horn wall.



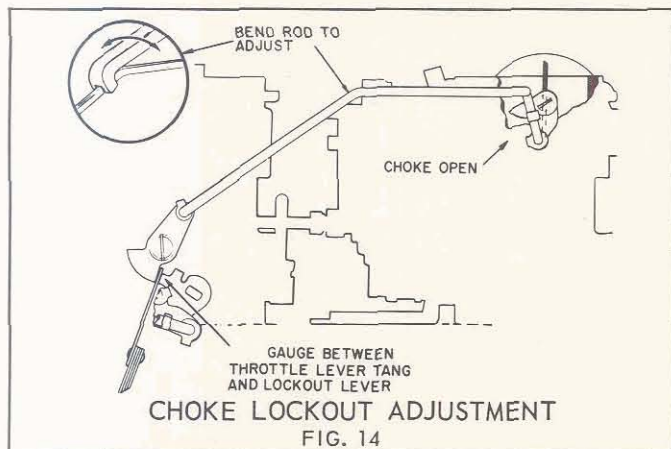
To adjust, hold the throttle valves completely closed. With the choke valve on the center carburetor in the closed position and the choke lockdown lever rod connected, bend the lockdown tang on the throttle lever to obtain specified clearance between the lockdown lever and tang on the throttle lever of the carburetor to which the diaphragm assembly is attached.



With the throttle valves held wide open the choke valve should be open just enough to admit the specified gauge between the upper edge of the choke valve and inner air horn wall. Bend the tang on the throttle lever as shown to adjust.



To adjust, disconnect the upper end of choke thermostatic coil rod from choke lever. Hold the choke valve completely closed and pull upward on the thermostatic coil rod to the limit of its travel. The end of the rod should slide freely into the hole in the choke shaft lever. To adjust, bend rod.



To adjust, hold the choke valve in the wide open position. With the throttle valves slightly open on the carburetor to which the diaphragm is attached, there should be a clearance, as specified, between the lockdown lever and the throttle lever as shown. Measure clearance with a feeler gauge and bend the lockdown rod to adjust.





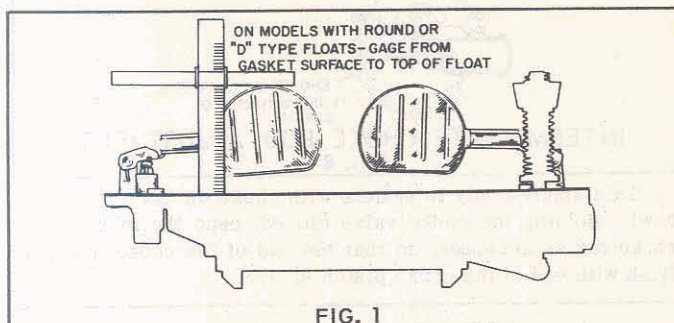


FIG. 1

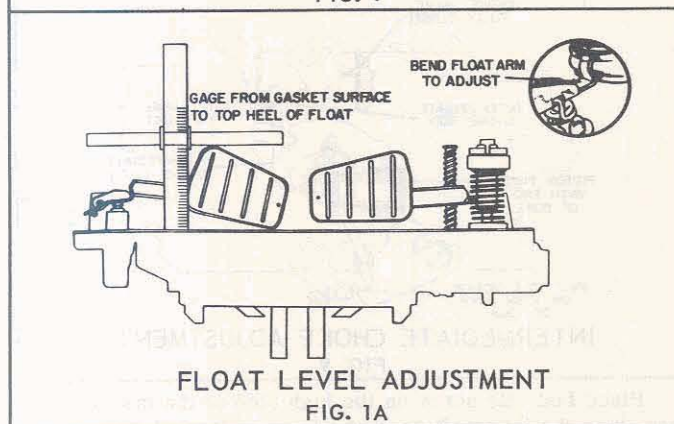


FIG. 1A

Check for proper float level adjustment as follows: With air horn inverted and gasket in place, gauge from gasket surface to the top of each float next to seam. Adjust to specified dimension by bending float arms at junction point near needle and seat, as shown in inset.

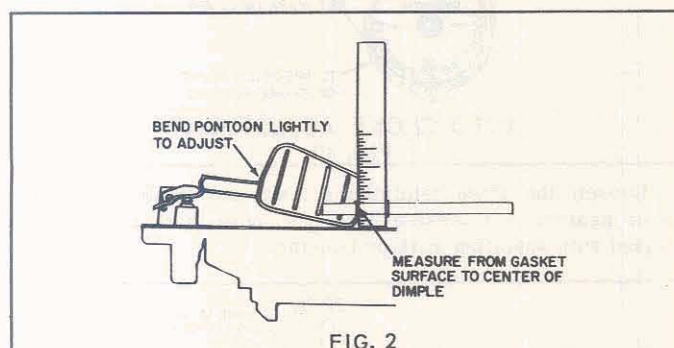


FIG. 2

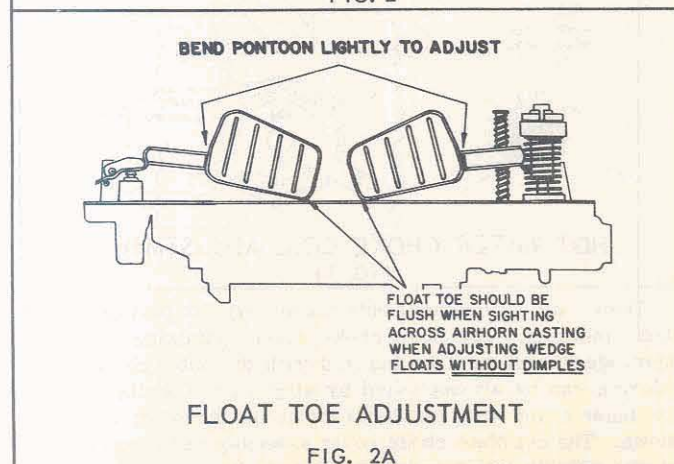


FIG. 2A

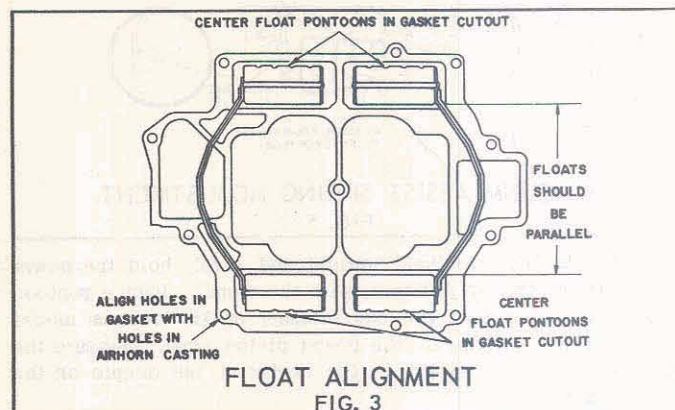


FIG. 3

Align screw holes in air horn gasket with screw holes in air horn. Then make sure the floats are centered in the cut out section of the gasket and the sides of the float pontoons are parallel with the adjacent edges of the gasket. Bend float arms as necessary to adjust.

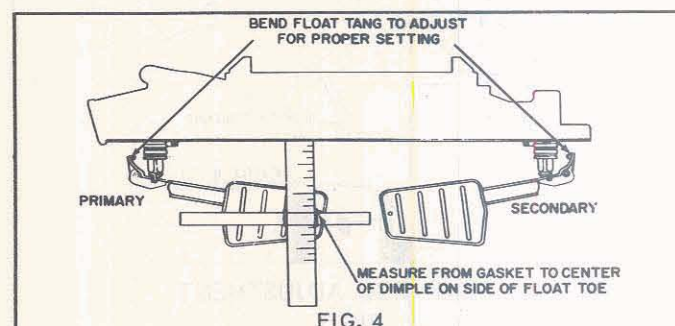


FIG. 4

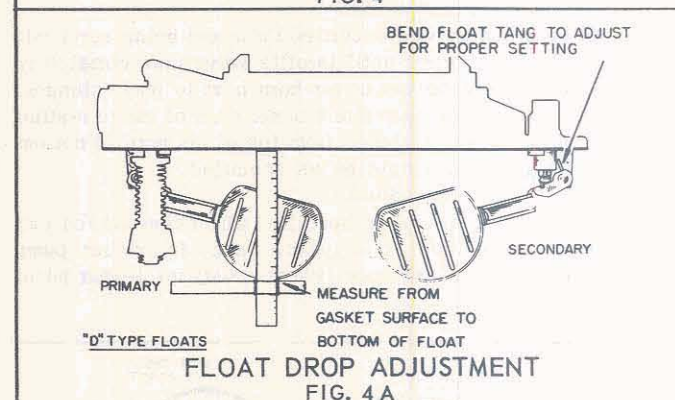


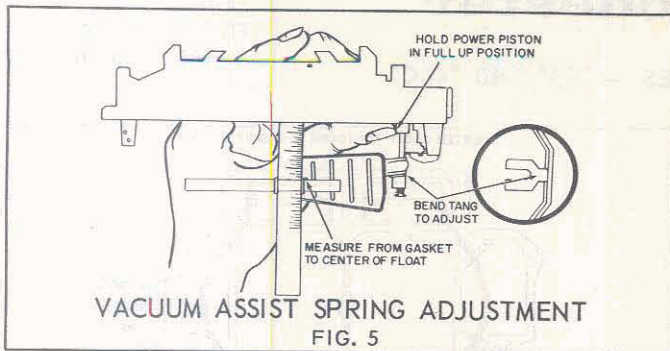
FIG. 4A

With the air horn upright and level, gasket in place and the floats hanging freely, measure the distance on each float from the gasket surface to the center of the dimple, (wedge floats). Measure to lower end of toe for wedge floats without dimple. Measure to the lowest point on "D" or round pontoon floats. Adjust to specified dimension by bending tang which contacts seat or spring.

With air horn inverted and gasket in place, measure the distance from the gasket to the center of the dimple of each float at toe (small end). Adjust to specified dimension by bending the toe of each float up or down, as required.

Note: Wedge type floats which do not have dimples in sides of floats should be adjusted so lower tip of the float toe is flush with air horn casting when sighting across air horn casting, as shown in illustration - 2A.

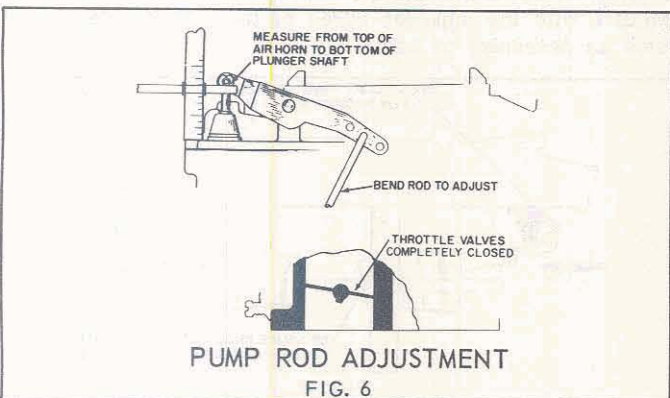




With the air horn held upright and level, hold the power piston in the full up position, with the thumb. Jounce pontoon lightly to make sure the cup retainer on the vacuum assist spring is not binding on the power piston stem. Measure the distance from the gasket to the center of the dimple on the float pontoon at toe.

Note: Always hold power piston in "up" position.

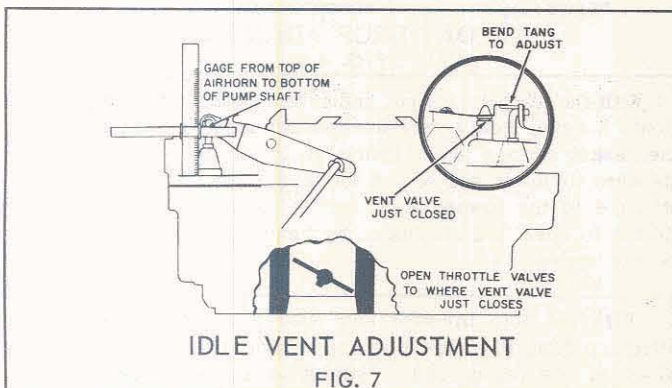
To adjust, bend tang at center of float arms.



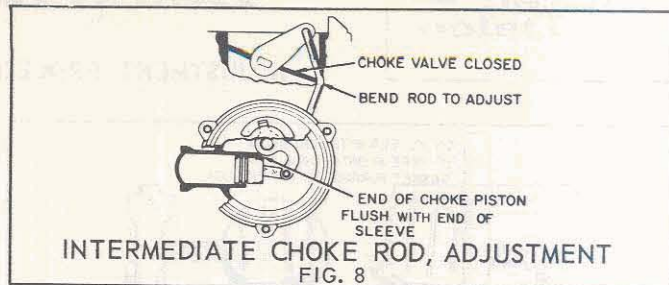
Install pump rod in hole specified for model being serviced. Back out slow idle screw until throttle valves are completely closed. Place gauge on top of air horn next to pump plunger. With the throttle valves closed and lower edge of gauge resting on top of air horn, the distance from top of air horn to bottom of pump plunger shaft should be as specified.

Bend the pump rod to adjust.

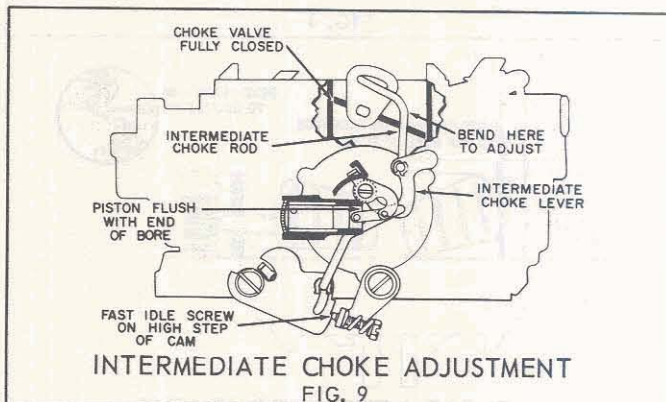
After adjusting pump rod to specified dimension the rod can be moved to the inboard hole (where used) for richer pump action or to the outboard hole (where used) for leaner pump action.



After making pump adjustment, adjust idle vent as follows: Open throttle valves enough to obtain the specified measurement from air horn to bottom of pump plunger shaft. At this point the idle vent should just close. To adjust, bend tang on pump lever as shown. On older models adjust by bending tang that contacts face of valve under pump lever.

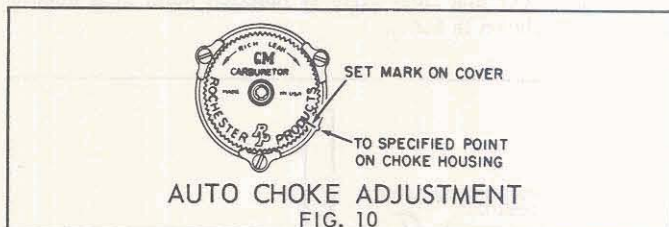


This applies only to models with choke on throttle body or bowl. Holding the choke valve closed, bend the intermediate choke rod as necessary so that the end of the choke piston is flush with end of the choke piston sleeve.

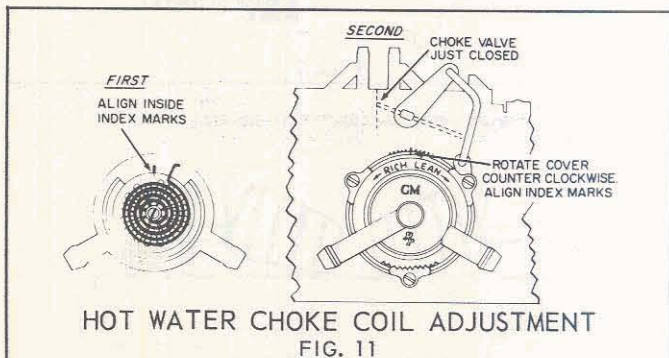


Place fast idle screw on the high step of the fast idle cam and raise the intermediate choke lever to its full up position. Be sure all lash is removed from rods in slots. The choke piston should be flush with the end of the choke piston bore.

Bend the intermediate choke rod to correctly position the choke piston.

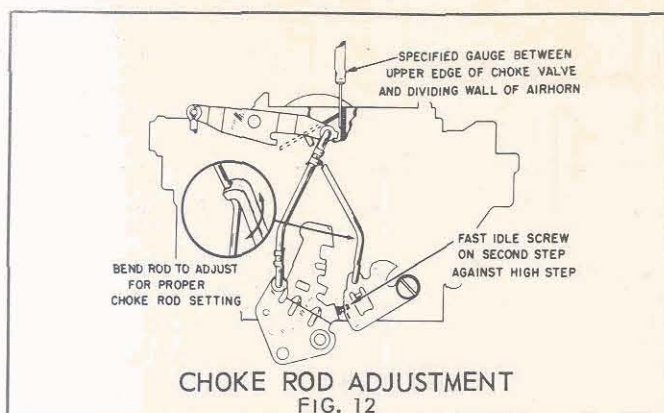


Loosen the three retaining screws and rotate the choke cover against coil tension until the index mark on cover is aligned with specified mark on housing.



There are two adjustments necessary to provide proper choke indexing. The inner choke cover containing the choke thermostatic coil must be indexed with the outer cover. This indexing can be accomplished by aligning the scribe mark on the inner cover with the index point on the outer cover, as shown. The complete choke cover assembly has a scribe mark on the outside which must be aligned with the proper index point on the choke housing.



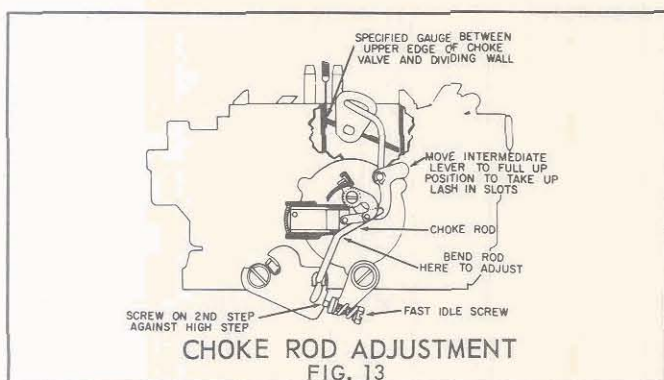


It is important to position both slow idle and fast idle as follows before making choke rod adjustment:

**Step 1** Models using single idle stop screw — Turn stop screw in until it contacts bottom step of fast idle cam. Then turn screw in one full turn.

Models using separate fast idle screw — Turn slow idle stop screw in until it touches stop, then turn one full turn. Then turn the fast idle screw in until it touches bottom step of fast idle cam.

**Step 2** After positioning slow idle and fast idle screws as described above, position idle screw on second step of fast idle cam against the shoulder of the high step. Then check clearance between upper edge of choke valve and air horn wall. Bend choke rod, to adjust.



Position slow idle and fast idle screws as described in Figure 2, then check the choke rod adjustment as follows:

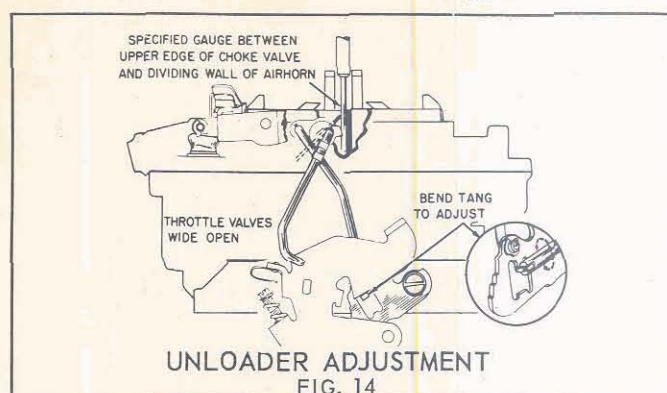
Position the fast idle screw on the second step of the fast idle cam and raise the intermediate choke lever to the full up position. Be sure the intermediate rod and the choke rod are at the upper limit of travel in the slots. Adjust the choke rod by bending to obtain the specified clearance between the choke valve and the dividing wall of the air horn.

To adjust, push the diaphragm plunger in until it seats. While holding the plunger seated, close the choke valve to the point where the vacuum diaphragm connecting rod is in the end of the plunger. At this point, the proper gauge should just fit between the upper edge of the choke valve and the dividing wall in the air horn.

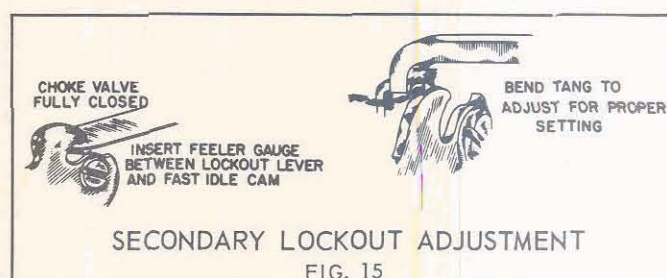
Bend rod to adjust for proper clearance.

**Idle adjustment** — After engine has reached normal operating temperature adjust idle speed to correct RPM, with transmission in neutral or drive, as specified. Use accurate tachometer. Adjust idle mixture screws for best quality idle (highest RPM). A more stable idle will result if idle speed and mixture are rechecked after road test.

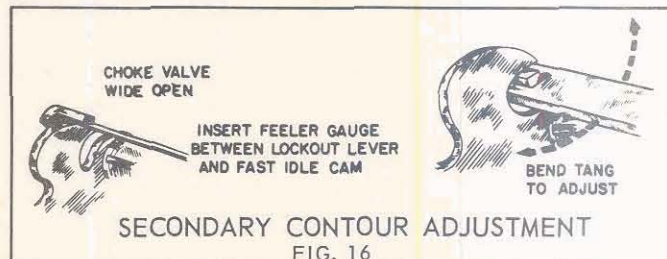
**Fast idle adjustment** — Adjust fast idle screw to give specified RPM with fast idle screw on the specified step of fast idle cam, engine at normal operating temperature, transmission in neutral.



Open primary throttle valve to wide open position. While holding lever in this position, check for specified clearance between upper edge of choke valve and air horn wall. Adjust by bending unloader tang on fast idle cam. On a few models, this adjustment is made by bending unloader tang on pump lever.



With the choke valve fully closed, bend the lockout lever as shown to obtain specified clearance between the cam and the widest surface of the lockout lever.



With the choke valve wide open, bend the lockout lever to obtain specified clearance between the cam and the narrowest surface of the lockout lever at the point shown.

