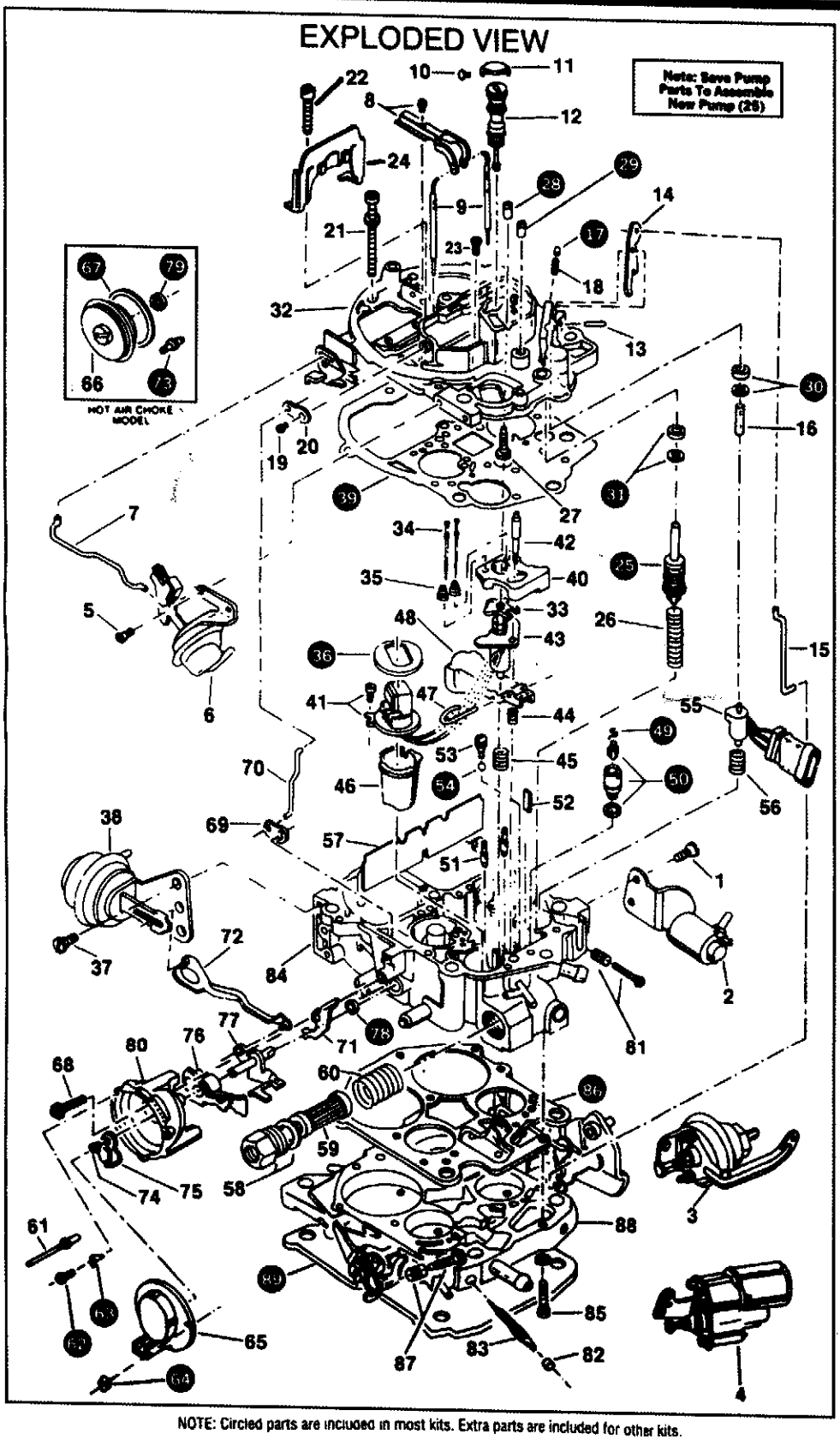
FUEL SYSTEM
SERVICE INSTRUCTION WORKSHEET

TO REPAIR

GF4176-13

ROCHESTER CARBURETOR

4 BARREL---Model E4ME-E4MC



NOTE: Circled parts are included in most kits. Extra parts are included for other kits.

☞ **PARTS LIST SHOWN DOES NOT REFLECT THE CONTENTS OF THE KIT.**

1. Carefully read the text in the following pages to become familiar with the contents of this worksheet before performing carburetor overhaul.
2. The exploded view shown is typical of the model carburetor this kit will service. The view may differ slightly from the actual carburetor being overhauled.
3. Use the exploded view as a guide. The numerical sequence may generally be followed to disassemble the carburetor far enough to permit cleaning and inspection.
4. Parts List shown DOES NOT reflect the contents of the kit.

CLEANING & INSPECTION

Place carburetor parts (after disassembly) in cleaning solvent. Soak parts long enough to remove foreign materials. Use a stiff bristle brush. Do not use any abrasives to clean carburetor parts. Do not insert wires to clean out passageways and jets. Wash off in suitable solvent. Clear out all passages and jets with compressed air and check to ensure thorough cleaning of obscure areas. Inspect casting for damages and stripped threads.

CAUTION: Do not soak parts containing rubber, plastic, leather, and electrical parts, in cleaning solvent.

PARTS LIST

1. Screw, mounting, idle speed solenoid*
2. Idle speed solenoid assy.
3. Idle-load compensator assy. (I.L.C.)*
4. Idle speed control assy. (I.S.C.)*
5. Screw, vacuum break, front (2)
6. Vacuum break assy., front
7. Rod, connecting, air valve
8. Carrier & screw, sec. metering rod
9. Metering rod, secondary (2)
10. Rivet, air bleed valve cover (2)
11. Cover, air bleed valve
12. Air bleed valve & "o" ring assy.
13. Pin, pump lever, fulcrum
14. Lever, pump
15. Rod, pump
16. Pin, actuator
17. Plug, adjusting screw, T.P.S. # †
18. Screw, adjusting T.P.S. # †
19. Screw, choke lever
20. Lever, choke shaft
21. Screw, air horn long (2)
22. Screw, air horn short (9)
23. Screw, air horn countersunk (2)
24. Baffle, air, secondary
25. Pump piston assy.
26. Spring, pump return
27. Screw, stop, rich mixture adjusting†
28. Plug, rich mixture, stop screw†
29. Plug, lean mixture screw
30. Retainer & seal T.P.S. #
31. Retainer & seal, pump rod
32. Air horn assy.
33. Plunger, mixture control solenoid
34. Rod, metering (2)
35. Spring, metering rod (2)
36. Gasket, electrical connector
37. Screw, vacuum break, rear (2)
38. Vacuum break assy., rear
39. Gasket, air horn to main body
40. Insert, plastic block, fuel bowl
41. Screw & electrical connector
42. Screw, adjusting, lean mixture
43. Solenoid assy., mixture control
44. Spring, screw adjusting, lean mixture
45. Spring, solenoid assy., tension
46. Insert, plastic, aneroid cavity
47. Hinge pin, float
48. Float
49. Lift hook, float needle
50. Needle, seat & gasket assy.
51. Jet, main, primary (2)
52. Baffle, fuel pump well
53. Screw cover, pump discharge ball
54. Ball, pump discharge
55. Throttle position sensor (T.P.S.)
56. Spring, tension (T.P.S.)
57. Baffle, secondary, bore
58. Fitting & gasket, fuel inlet
59. Filter, fuel
60. Spring, by-pass, fuel filter
61. Rivet, stat cover (3)*
62. Screw, stat cover (3)
63. Retainer (2)
64. Retainer, locating tab
65. Stat cover, electric choke
66. Stat cover, hot air choke*
67. Gasket, stat cover*
68. Screw, choke housing to main body
69. Lever, choke, lower
70. Rod, choke
71. Lever, secondary lockout
72. Link, connecting, aux. vacuum break
73. Seal, choke housing (hot air)
74. Screw, lever, stat control
75. Lever, inter. # shaft, stat coil
76. Cam, fast idle
77. Choke shaft & lever assy., inter. #
78. Seal, inter. # choke shaft
79. Seal, inter. # choke shaft (hot air)
80. Housing, choke
81. Screw & spring, idle speed
82. Plug (hardened) idle mixture screw (2)
83. Screw & spring, idle mixture (2)
84. Main body
85. Screw, throttle body to main body (3)
86. Gasket, throttle to main body
87. Screw & spring, fast idle
88. Throttle flange assy.
89. Gasket, throttle flange

* Some Models. # See List of Abbreviations, Page 7.
† Do not remove unless required.

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REMOVAL & INSTALLATION NOTES

1. Cover opening on intake manifold after carburetor is removed.
2. For removal and installation of choke cover, refer to Fig. 3.
3. Air horn screws (23) are located inside the air horn. Do not remove brass tubes from air horn assy.
4. Air bleed valve cover (11) may be riveted. Drill out rivets and discord cover. (not replaced).
5. Before removing air bleed valve (12), turn clockwise until lightly seated counting number of turns. Record for proper installation. (If not known, turn back 4 turns).
6. Main jets (51) can be removed with proper tool. See service manual.
7. For removal of idle mixture screw plugs (82), refer to Fig. 1.
8. Before removing idle mixture screws (83), turn clockwise until lightly seated counting number of turns. Record for proper installation. Also see spec. chart.
9. Install parts in reverse order of removal.
10. Refer to Fig. 4 for proper float installation.
11. Make sure to install seals, (30) & (31), with lip facing upward. Lightly stake retainers in three places.
12. For models with electrical choke do not install choke cover gasket.
13. Refer to Fig. 2 for proper installation of air horn assy.
14. If angle gauge tool is not available, use standard gauge (provided in kit) along with conversion table on last page.
15. Before removing T.P.S., (55), mark height location then remove staking around sensor. Lift out sensor but do not disturb the sealed adjusting screw. Refer to Fig. 16.
16. Adjustments for idle air bleed valve and mixture control system require precise settings. Refer to service manual for these procedures.

ADJUSTMENT DATA

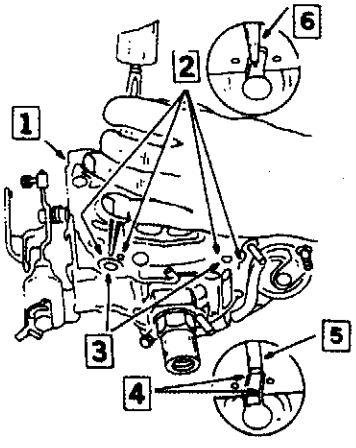
FIG. 1

REMOVAL OF SEALED MIXTURE SCREWS (IF REQUIRED)

1. INVERT THROTTLE BODY AS SHOWN.
2. PLACE PUNCH BETWEEN 2 LOCATION MARKS OVER ISLE MIXTURE NEEDLE PLUG.
3. BREAK OUT THROTTLE BODY TO PROVIDE ACCESS TO HARDENED STEEL PLUG. NEXT, DRIVE OUT PLUG EXPOSING MIXTURE NEEDLE.

NOTE: BEFORE REMOVING MIXTURE NEEDLE, CAREFULLY MARK POSITION THEN, USING A SOCKET WRENCH, TURN NEEDLE IN COUNTING NUMBER OF TURNS TO LIGHTLY SEAT. NEXT, TURN OUT COUNTING NUMBER OF TURNS TO ORIGINAL INDEX MARK, RECORD SETTING & REMOVE NEEDLE REPEAT PROCEDURE FOR OTHER MIXTURE NEEDLE.

4. LATE MODELS: CUT 2 PARALLEL SLOTS ON EITHER SIDE OF LOCATION MARKS USING A HACKSAW. SLOTS SHOULD NOT EXTEND BEYOND 1/8" OF LOCATION POINTS.
5. POSITION A FLAT PUNCH AT A 45° ANGLE BETWEEN ENDS OF SAW MARKS IN THROTTLE BODY. DRIVE PUNCH BETWEEN SLOTS CAUSING SLUG TO BREAK OFF.



6. NEXT, HOLD CENTER PUNCH IN A VERTICAL POSITION & DRIVE IT INTO STEEL PLUG. RE-POSITION PUNCH TO 45° ANGLE & DRIVE PLUG OUT OF CASTING EXPOSING MIXTURE NEEDLE.
7. REPEAT NOTE OF STEP 3 TO INDEX MIXTURE NEEDLES.

FIG. 2

SCREW TIGHTENING SEQUENCE - AIR HORN COVER

CAUTION: EXERCISE CARE WHEN INSTALLING AIR HORN ASSY. TO MAIN BODY. CHECK FOR PROPER ALIGNMENT OF T.P.S. (50) PLUNGER PIN WITH ACTIVATOR ROD (13). INCORRECT ALIGNMENT CAN CAUSE BREAKAGE OF PLUNGER PIN.

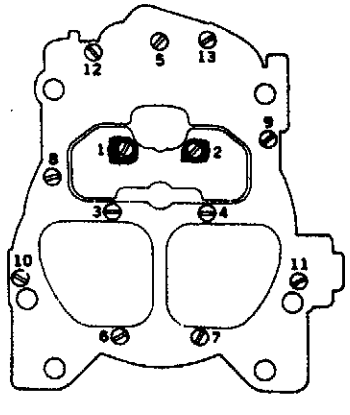


FIG. 3-A

REMOVAL & INSTALLATION OF CHOKE COVER

1. CAREFULLY DRILL AND REMOVE ALL RIVET HEADS. USE #21 DRILL BIT.
2. USE A SMALL DRIFT PUNCH AND HAMMER TO DRIVE REMAINDER OF RIVETS OUT.

NOTE: EXERCISE CARE IN DRILLING. DO NOT DAMAGE OR ENLARGE THE HOLES IN THE CHOKE HOUSING.

3. WHEN INSTALLING CHOKE COVER, MAKE SURE THAT COIL PICK-UP LEVER IS IN COIL SPRING LOOP END. ALIGN NOTCH IN COVER WITH RETAINER TAB AND TIGHTEN NEW SCREWS (SELF TAPPING SCREWS ARE IN KIT) EVENLY AND SECURELY. NOTE: IN SOME APPLICATIONS, INSTALL COVER WITH NEW POP RIVETS.

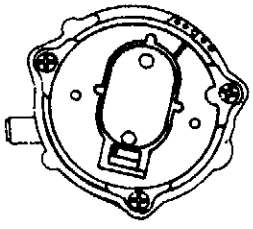


FIG. 3-B

KITS WITH PUMP CUP ONLY

REMOVE OLD CUP (WITH GARTER SPRING IF USED) FROM PUMP HEAD. INSTALL NEW CUP (WITH NEW GARTER SPRING, IF USED) IN SAME POSITION ON PUMP HEAD.

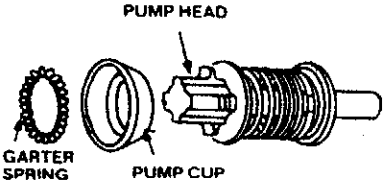
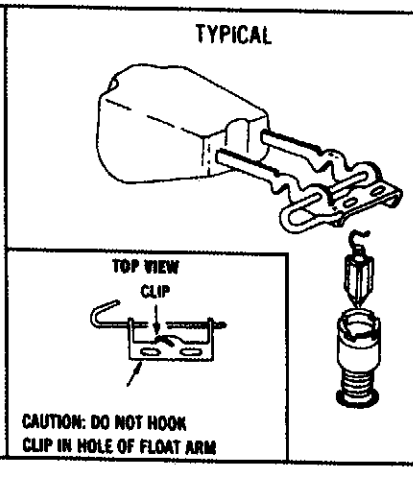


FIG. 4

FLOAT NEEDLE & CLIP LOCATION

NOTE: HOOK CLIP OVER EDGE OF FLAT ON FLOAT ARM IN OPPOSITE DIRECTION OF PONTOON (AS SHOWN).

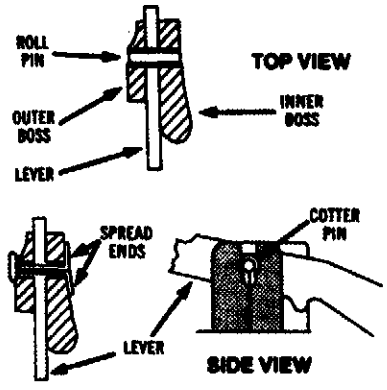


ADJUSTMENT DATA (Cont'd)

FIG. 5 — METHOD OF RETAINING PUMP LEVER PIN (SOME MODELS)

INSTALLATION REQUIRES THE USE OF A SPECIAL COTTER PIN BEFORE INSTALLING. CHECK TO SEE THAT THE ROLL PIN, WHEN INSTALLED, IS FLUSH OR SLIGHTLY BELOW SURFACE OF OUTSIDE BOSS. HOWEVER, AT THE SAME TIME IT MUST NOT PROJECT OUTSIDE OF INNER BOSS SURFACE.

PROCEED BY INSERTING SPECIAL BENT COTTER PIN WITH LOOPED END FACING UP (AS SHOWN) THROUGH ROLL PIN IN PUMP LEVER. SPREAD ENDS OF COTTER PIN USING A SCREWDRIVER. NEXT, SADDLE PLIER JAWS OVER COTTER PIN ENDS AS SHOWN AND SQUEEZE, FORCING SPREAD ENDS FLUSH AGAINST INNER CASTING BOSS.



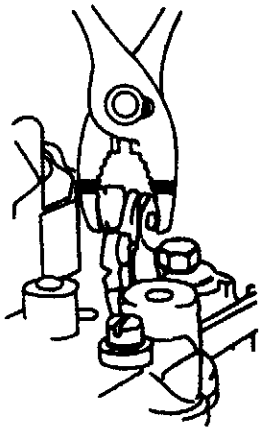
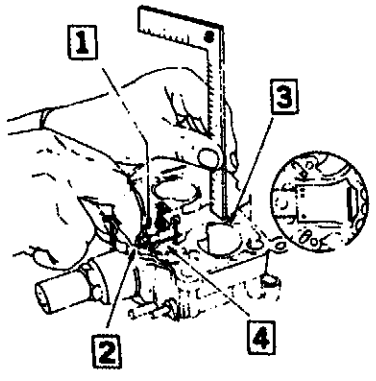


FIG. 6
FLOAT LEVEL ADJUSTMENT

1. HOLD FLOAT RETAINER FIRMLY IN PLACE.
2. PUSH FLOAT HINGE DOWN LIGHTLY AGAINST NEEDLE.
3. MEASURE FROM TOP OF FLOAT TO TOP OF CASTING. NOTE: MEASURING POINT IS 3/16" BACK FROM TOE OF FLOAT.
4. TO ADJUST, BEND FLOAT ARM.

NOTE: ON CCC* CARBURETORS, IF FLOAT LEVEL VARIES ±1/16" FROM SPECS., CORRECT HIGH LEVEL AS FOLLOWS: HOLD RETAINER, PUSH DOWN ON CENTER OF FLOAT PONTOON TO ADJUST.
CAUTION: DO NOT PRESS FLOAT NEEDLE INTO SEAT.
TO CORRECT LOW LEVEL, REMOVE METERING RODS & SOLENOID CONNECTOR SCREW. INDEX LEAN MIXTURE SCREW & TURN IN UNTIL IT LIGHTLY BOTTOMS. TURN OUT, COUNTING NUMBER OF TURNS TO INDEX MARK, RECORD & REMOVE. LIFT CONNECTOR & SOLENOID FROM MAIN BODY. NEXT, BEND FLOAT ARM UP TO ADJUST.



CHECK FLOAT ALIGNMENT AFTER ADJUSTMENT. RE-INSTALL PARTS IN REVERSE ORDER.

*COMPUTER COMMAND CONTROL

FIG. 8
FAST IDLE CAM (CHOKE ROD) ADJUSTMENT

NOTE: PLACE DEGREE SCALE ON CLOSED CHOKE VALVE AND CENTER LEVELING BUBBLE ON GAUGE.

MOVE DEGREE SCALE ONLY TO SPECIFIED ANGLE.

2. PLACE CAM FOLLOWER ON SECOND STEP OF CAM (NEXT TO HIGH STEP).
3. CLOSE CHOKE BY PUSHING UPWARD ON CHOKE COIL LEVER.

NOTE: DO NOT REMOVE CHOKE COVER TO PERFORM THIS ADJUSTMENT. USE RUBBER BAND ON VACUUM BREAK LEVER TANG TO HOLD CHOKE VALVE CLOSED.

4. TO ADJUST, BEND TANG ON FAST IDLE CAM UNTIL BUBBLE IS CENTERED.

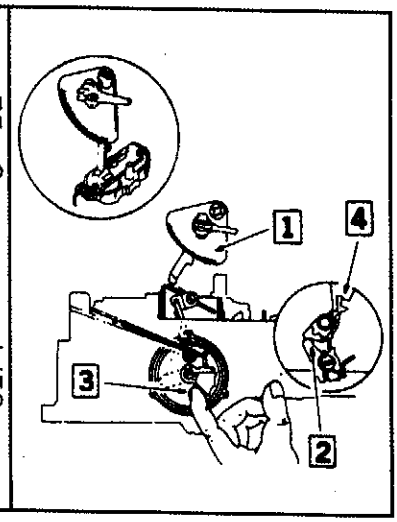


FIG. 9
AIR VALVE ROD ADJUSTMENT -FRONT

1. USE OUTSIDE VACUUM SOURCE TO SEAT CHOKE DIAPHRAGM.
2. COMPLETELY CLOSE AIR VALVE.
3. INSERT SPECIFIED GAUGE OR DRILL BETWEEN ROD & END OF SLOT IN LEVER.
4. TO ADJUST, BEND ROD.

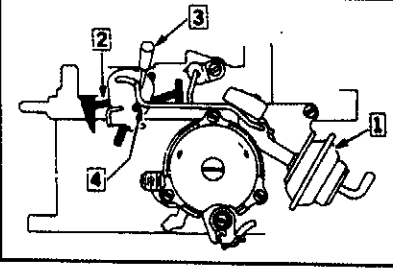


FIG. 7
CHOKE COIL LEVER ADJUSTMENT

NOTE: REMOVE THERMOSTATIC COVER & COIL ASSY. FROM CHOKE HOUSING. IF NECESSARY, DRILL OUT RIVETS USING #21 DRILL (.159") OR EQUIVALENT. AFTER ADJUSTMENT REASSEMBLE USING SIMILAR RIVETS OR SELF-TAPPING SCREWS.

1. PUSH UP ON CHOKE COIL LEVER UNTIL CHOKE VALVE IS CLOSED.
2. INSERT SPECIFIED GAUGE.
3. LOWER EDGE OF LEVER SHOULD JUST CONTACT SIDE OF GAUGE.
4. TO ADJUST, BEND CHOKE ROD.

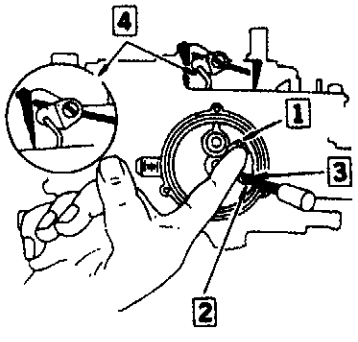


FIG. 10
FRONT VACUUM BREAK ADJUSTMENT

NOTE: PLACE DEGREE SCALE ON CLOSED CHOKE VALVE AND CENTER LEVELING BUBBLE ON GAUGE.

1. MOVE DEGREE SCALE ONLY TO SPECIFIED ANGLE.
2. SEAT DIAPHRAGM BY APPLYING AN OUTSIDE VACUUM SOURCE. SOME MODELS (VIEW 1) LEAF BUCKING SPRING MUST BE SEATED AGAINST LEVER.
   NOTE: ON DELAY MODELS, COVER AIR BLEED HOLE WITH A PIECE OF TAPE. REMOVE TAPE AFTER ADJUSTMENT.
3. TURN CHOKE VALVE TOWARD CLOSED POSITION BY ROTATING CHOKE COIL LEVER COUNTER-CLOCKWISE (HOLD WITH RUBBER BAND).
4. TO ADJUST, REMOVE VACUUM BREAK, THEN GRIND OFF WELD THAT HOLDS ADJUSTING SCREW COVER. REMOVE COVER & REPLACE VACUUM BREAK.
5. NEXT, TURN ADJUSTING SCREW UNTIL BUBBLE IS CENTERED.

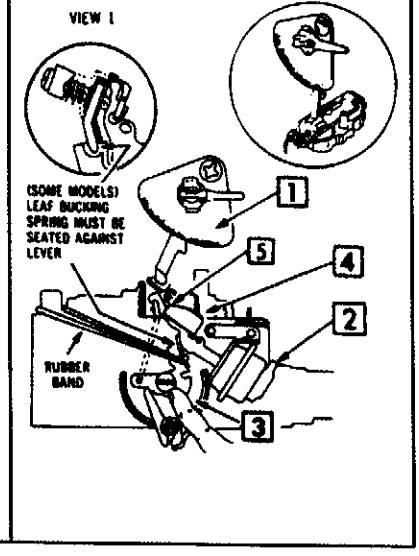


FIG. 11
REAR VACUUM BREAK ADJUSTMENT (SCREW ADJ. TYPE)

NOTE: PLACE DEGREE SCALE ON CLOSED CHOKE VALVE AND CENTER BUBBLE ON GAUGE.

1. MOVE DEGREE SCALE ONLY TO SPECIFIED ANGLE.
2. SEAT DIAPHRAGM BY APPLYING AN OUTSIDE VACUUM SOURCE. SOME MODELS: PLUNGER BUCKING SPRING MUST BE COMPRESSED & SEATED.
   NOTE: ON DELAY MODELS, PLUG END COVER THEN SEAT VACUUM DIAPHRAGM. UNPLUG END COVER AFTER ADJUSTMENT.
3. TURN CHOKE VALVE TOWARD CLOSED POSITION BY ROTATING CHOKE COIL LEVER COUNTER-CLOCKWISE. (HOLD WITH RUBBER BAND).
4. TO ADJUST, REMOVE VACUUM BREAK, THEN GRIND OFF ADJUSTING SCREW CAP. REPLACE VACUUM BREAK.
5. NEXT, TURN SCREW AT REAR COVER UNTIL BUBBLE IS CENTERED. APPLY SEALER TO SEAL SETTING.

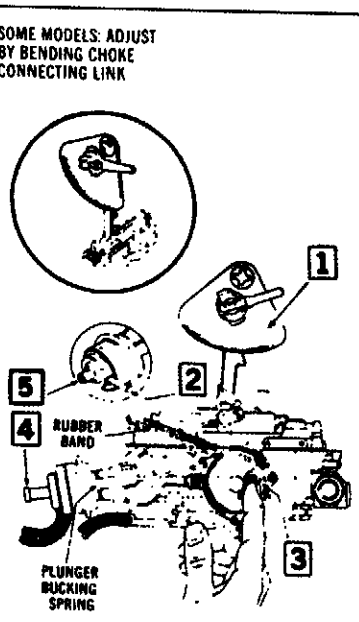


FIG. 12
UNLOADER ADJUSTMENT

NOTE: PLACE DEGREE SCALE ON CLOSED VALVE AND CENTER LEVELING BUBBLE ON GAUGE.

1. MOVE DEGREE SCALE ONLY TO SPECIFIED ANGLE.

   NOTE: INSTALL CHOKE COVER ASSY. IF REMOVED.

2. CLOSE CHOKE VALVE BY PUSHING UP ON TANG OF VACUUM BREAK LEVER. (HOLD WITH RUBBER BAND). NEXT, MAINTAIN THROTTLE VALVES IN WIDE OPEN POSITION.

3. IF ADJUSTMENT IS REQUIRED, BEND TANG UNTIL BUBBLE IS CENTERED.

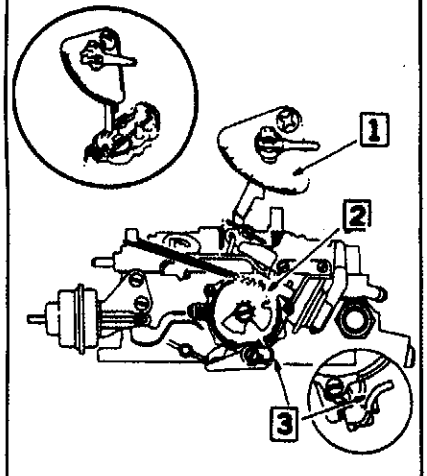


FIG. 13
AIR VALVE SPRING ADJUSTMENT

1. LOOSEN LOCK SCREW USING AN ALLEN WRENCH.
2. TURN TENSION ADJUSTING SCREW OUT UNTIL AIR VALVE OPENS PART WAY, THEN TURN SCREW IN UNTIL AIR VALVE JUST CLOSES. THEN CONTINUE TURNING SCREW IN (CLOCKWISE) TO NUMBER OF TURNS AS SPECIFIED.
3. RE-TIGHTEN LOCK SCREW.
4. NOTE: BE SURE TO APPLY A LIBERAL COATING OF LITHIUM BASE GREASE TO SHAFT PIN TO PREVENT SPRING HANG-UP ON SHAFT PIN.

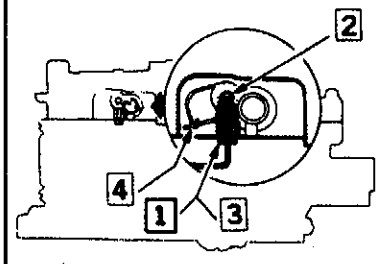


FIG. 14
RICH MIXTURE STOP SCREW ADJUSTMENT

NOTE: THIS IS A BENCH ADJUSTMENT WITH LEAN MIXTURE SCREW SET PROPERLY AND AIR HORN REINSTALLED.

1. INSERT GAUGE INTO "D" SHAPED VENT HOLE TO CONTACT MIXTURE CONTROL SOLENOID PLUNGER.
2. MEASURE THE SOLENOID PLUNGER TRAVEL BY PRESSING DOWN ON GAUGE AND RELEASING. IT SHOULD BE AS SPECIFIED.
3. TO ADJUST, INSERT TOOL (¤ CT11 or PART ¤ BT-7928) TO HOLE "A" AS SHOWN AND TURN IN OR OUT TO OBTAIN DIMENSION.
4. INSTALL NEW PLUGS TO HOLE "A" (RICH MIXTURE STOP SCREW) AND HOLE "B" (LEAN MIXTURE SCREW) TO RETAIN SETTINGS AND PREVENT FUEL VAPOR LOSS.

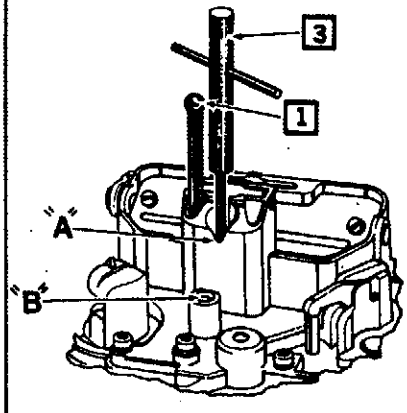
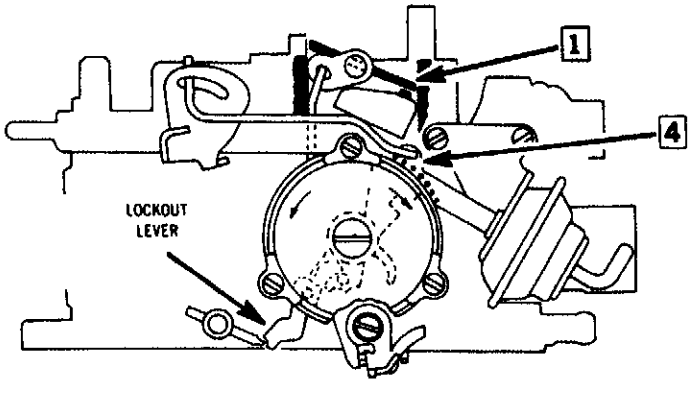
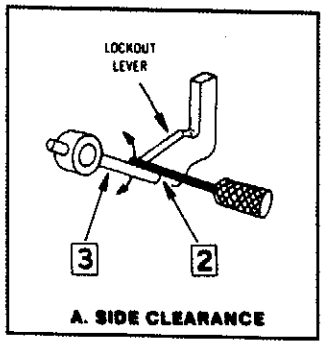


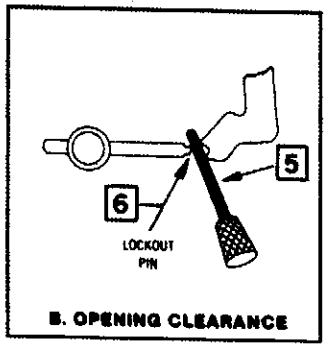
FIG. 15
SECONDARY LOCKOUT ADJUSTMENT





A. SIDE CLEARANCE

1. MOVE BOTH CHOKE VAALVE & THROTTLE VALVES (THROTTLE VALVES NOT SHOWN) TO CLOSED POSITION.
2. INSERT GAUGE OR DRILL & MEASURE SPECIFIED CLEARANCE (.015") BETWEEN LOCKOUT LEVER & PIN.
3. TO ADJUST, BEND PIN.



B. OPENING CLEARANCE

4. HOLD CHOKE VALVE WIDE OPEN BY PUSHING DOWN ON FAST IDLE CAM.
5. INSERT GAUGE OR DRILL & CHECK LOCK OUT PIN FOR CLEARANCE.
6. TO ADJUST, FILE END OF PIN FOR CLEARANCE.

ADJUSTMENT DATA (Cont'd)

FIG. 16

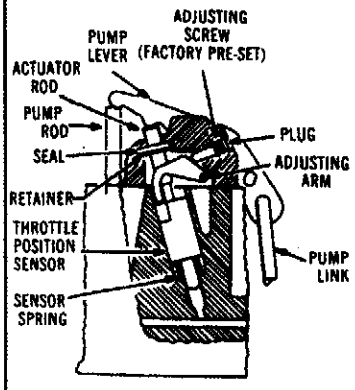
THROTTLE POSITION SENSOR ADJUSTMENT (ON CAR)

NOTE: DO NOT REMOVE SEAL PLUG UNLESS IN DIAGNOSIS. T.P.S. SENSOR IS ADJUSTED CORRECTLY. SINCE THIS IS A CRITICAL ADJUSTMENT, IT MUST BE PERFORMED VERY CAREFULLY & ACCURATELY TO ENSURE PROPER PERFORMANCE & COMPLIANCE WITH EXHAUST EMISSIONS.

1. IF ADJUSTMENT IS REQUIRED (SEE FIGS. 16-1, 16-2), REMOVE PLUG COVERING T.P.S. ADJUSTING SCREW BY DRILLING A 5/64" HOLE IN PLUG TO DEPTH OF 1/16" TO 1/8".
2. TURN IN NO. 8 x 1/2" SELF TAPPING SCREW, DEEP ENOUGH TO GET A GOOD THREAD BITE IN HOLE.
3. USING A SCREWDRIVER, PRY SCREW HEAD AGAINST CASTING TO REMOVE PLUG.
4. REMOVE ADJUSTING SCREW & CONNECT A 10 MEG OHM DIGITAL VOLTMETER WITH A 0-2 VOLT RANGE (3 DIGIT READ-OUT) ACROSS (USING JUMPER WIRES WITH TERMINALS ACESS) CENTER & BOTTOM TERMINALS OF T.P.S. CONNECTOR.
5. WITH ENGINE STOPPED & IGNITION **ON**, REINSTALL T.P.S. ADJUSTING SCREW. TURN SCREW TO OBTAIN SPECIFIED VOLTAGE AT SPECIFIED THROTTLE POSITION WITH A/C **OFF**. REFER TO MANUFACTURER'S SERVICE MANUAL FOR VOLTAGE SPECIFICATION.

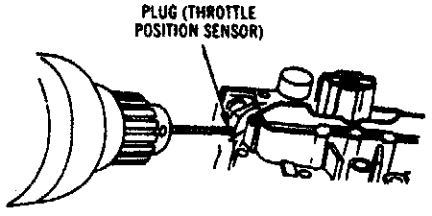
NOTE: NEW PLUG MUST BE INSTALLED TO MAINTAIN T.P.S. ADJUSTMENT SCREW SETTING.

FIG. 16-1



LOCATION THROTTLE POSITION SENSOR

FIG. 16-2



T.P.S. SCREW PLUG—REMOVAL

SPECIFICATIONS BY APPLICATION

Year	MODEL	Float Level Fig. 6	Choke Coil Lever Fig. 7	Choke Rod Cam Fig. 8	Air Valve Rod Fig. 9	Vacuum Break Front Fig. 10	Vacuum Break Rear Fig. 11	Unloader Fig. 12	Air[1] Valve Spring Fig. 13	Rich Mixture Screw Fig. 14	Idle[1] Mixture Screw
CADILLAC — SPECIFICATION I.D.-A											
1983; 80	Carb. No. 17080530	17/32	120	16°	.025	25°	47°	40°	1/2	1/8	5
PONTIAC — SPECIFICATION I.D.-B											
1981	301 Eng. -Carb. No. 17081270	7/16	.120	14.5°	.025	24°	36°	35°	5/8	1/8	3
	-Carb. No. 17081272	7/16	.120	14.5°	.025	24°	40°	35°	5/8	1/8	—
PONTIAC — SPECIFICATION I.D.-C											
1981	301 Eng. -Carb. No. 17081273	7/16	.120	16°	.025	24°	34°	35°	5/8	1/8	3¾
BUICK, CADILLAC, CHEVROLET, OLDSMOBILE, PONTIAC — SPECIFICATION I.D.-D											
1984	4.1L Eng.	5/16	.120	24.5°	.025	24°	—	32°	1	1/8	3[2]
	-Carb. No. 17084246	5/16	.120	24.5°	.025	22°	24°	32°	1	1/8	3[2]
1983	231 Eng. -Carb. No. 17083242	9/32	.120	24.5°	.025	25°	—	38°	9/16	1/8	3[2]
	-Carb. No. 17083244	1/4	.120	24.5°	.025	21°	16°	32°	9/16	1/8	3[2]
1983-82	4.1L Eng.	3/8	.120	24.5°[3]	.025	26°	26°	32°	5/8	1/8	3[2]
1981	4.1L Eng.	3/8	.120	24.5°	.025	28°	24°	38°	5/8	1/8	5¼[4]
	-Carb. No. 17081289	13/32	.120	24.5°	.025	28°	24°	38°	5/8	1/8	4½
1980	231 Eng. -Cal.	3/8	.120	14.5°	.025	19°	23°[5]	38°	9/16	1/8	5¾[6]
BUICK & CHEVROLET — SPECIFICATION I.D.-E											
1982	231 Eng.	9/32	.120	24.5°	.025	21°	16°	32°	9/16	1/8	3[2]
	-Carb. No. 17082249	9/32	.120	24.5°	.025	20°	15°	38°	9/16	1/8	3[2]
1981	231 Eng. -Carb. No. 17081242	5/16	.120	24.5°	.025	17°	15°	38°	9/16	1/8	3½
	-Carb. No. 17081243	1/4	.120	24.5°	.025	19°	17°	38°	9/16	1/8	4½
CHRYSLER CORP. — SPECIFICATION I.D.-G											
1987-85	318 Eng.	7/16	.120	20°	.025	25°	—	30°	7/8	1/8	—
GM TRUCKS											
1986-85	4.3L Eng. -Cal.	9/16[15]	.120	20°	.025	26°	36°	39°	7/8	—	3[2]
	305 Eng.	7/16	.120	20°	.025	25°	36°	36°	1	—	—
	350 Eng.	7/16	.120	20°	.025	27°	36°	36°	1	—	—
BUICK, CADILLAC, CHEVROLET, OLDSMOBILE & PONTIAC — SPECIFICATION I.D.-I											
1988-86	307 Eng. -Carb. No. 17086008	11/32	.120	14°	.025	25°	43°	35°	1/2	—	3[2]
1987-86	5.0L Eng. -Carb. No. 17086009	7/16	.120	14°	.025	25°	43°	35°	1/2	—	3[2]
1985	307 Eng. -Carb. No. 17085282	11/32	.120	14°	.025	25°	43°	35°	1/2	—	—
BUICK, CHEVROLET, OLDSMOBILE & PONTIAC											
1987-86	305, 350 Eng. -U.S.	11/32	.120	20°[7]	.025	27°	—	38°[8]	7/8	1/8	3¾
1985-83	305, 305H, 350	11/32	.120	20°[9]	.025	27°	—	38°	7/8	1/8	3⅜[10]
1982	305, 305H, 350	11/32	.120	20°[11]	.025	27°	—	38°	7/8	1/8	2½
1981[23]		11/32	.120	20°	.025	26°[12]	—	38°	7/8	1/8	3[13]
1980	305 Eng. -Cal.	1/2	.120	20°	.025	24°	30°	38°	7/8	1/8	1¼[14]

SPECIFICATIONS BY APPLICATION (Cont'd)

Year	MODEL	Float Level Fig. 6	Choke Coil Lever Fig. 7	Choke Rod Cam Fig. 8	Air Valve Rod Fig. 9	Vacuum Break Front Fig. 10	Vacuum Break Rear Fig. 11	Unloader Fig. 12	Air[1] Valve Spring Fig. 13	Rich Mixture Screw Fig. 14	Idle[1] Mixture Screw
SPECIFICATION I.D. - I (Cont'd)											
BUICK, OLDSMOBILE & PONTIAC											
1985-82	307 Eng.	7/16	.120	14°	.025	27°	41°[20]	35°	1/2	1/8	3[2]
	-Carb. No. 17084256, 258	11/32	.120	14°	.025	25°	41°	35°	1/2	1/8	3[2]
1981[24]		15/32	.120	14°	.025	25°	36°	35°	1/2	1/8	4[21]
1980	350 Eng.	15/32	.120	17°	.025	25°	35°[22]	35°	1/2	1/8	4¾
GM TRUCKS											
1986-85	4.3L Eng. -Cal.	9/16[15]	.120	20°	.025	26°	36°	39°	7/8	—	3[2]
1984-83	305 Eng. -Exc. Caballero	7/16	.120	20°	.025	25°	36°	36°	1[16]	1/8	3[2]
	-Carb. No. 17084201; 83204	11/32	.120	20°	.025	27°	—	38°	7/8	1/8	3 3/32[27]
	350 Eng.	7/16	.120	20°	.025	27°	36°	36°	1[16]	1/8	3[2]
1982-81	305 Eng.	11/32	.120	20°	.025	26°[18]	—	38°	7/8	1/8	3[19]
1980		1/2	.120	20°	.025	24°	30°	38°	7/8	1/8	1¼[14]

FOOTNOTES:

[1] Number of turns.
[2] Final adjustment on vehicle.
[3] Carb. No. 17082247, 248, 267, 268, 298, 299 set 18°.
[4] Carb. No. 17081248 set 4½ turns.
[5] Carb. No. 17080542 set 13°.
[6] Carb. No. 17080540 set 5¼ turns.
[7] Carb. No. 17087131, 86005, 040 set 38°.
[8] Carb. No. 17087129, 130, 131 set 32°.
[9] Carb. No. 17085203 (with AD stamped on fast idle cam), 17085207; 84205, 209; 83205, 207 set 38°.
[10] Carb. No. 17084201 set 3 3/32 turns.
[11] Carb. No. 17082203, 207 set 38°.
[12] Carb. No. 17081219, 222, 224, 228 set 28°.
[13] Carb. No. 17081204, 222 set 3¼ turns; 81216, 224, 228 set 3½ turns; 81217, 218 set 3¾ turns.
[14] Carb. No. 17080516 set 2¼ turns; 1708517 set 1¾ turns.
[15] Carb. No. 17085502, 503 set 7/16.
[16] Carb. No. 17083506, 508, 524, 526 set ⅞ turns.
[17] Carb. No. 17083204 set 3⅜ turns.
[18] Carb. No. 17082202, 204 set 27°.
[19] Carb. No. 17082202, 204 set 2½ turns; 17081204 set 3¼ turns.
[20] Carb. No. 17083250 set 42°.
[21] Carb. No. 17081254 set 3¾ turns.
[22] Carb. No. 17080554 set 34°.
[23] Carb. no. 17059320; 17067294, 296, 298, 300, 302, 304, 444; 17068823, 828, 829, 830; 17081202, 203, 204, 207, 216, 217, 218, 219, 222, 224, 228, 17110638
[24] Carb. no. 17059321; 17067318; 17068013, 17081253, 254; 17110639

ABBREVIATIONS:

Cal.	California
Exc.	Except
Inter.	Intermediate
T.P.S.	Throttle Position Sensor

ANGLE DEGREE TO DECIMAL CONVERSION

THE RELATION BETWEEN DECIMAL AND ANGLE READINGS IS NOT DUE TO MANUFACTURING TOLERANCES. THIS CHART IS SUPPLIED FOR THOSE WHO HAVE ACCESS TO DRILL BITS OR PLUG GAUGES ONLY. **NOTE: BE SURE TO MEASURE BETWEEN UPPER EDGE OF CHOKE VALVE & WALL OF AIR HORN.** GENERAL MOTORS RECOMMENDS USING AN ANGLE GAUGE FOR BEST OVERALL PERFORMANCE AND ACCURACY

ANGLE DEGREES	DECIMAL EQUIV. TOP OF VALVE	ANGLE DEGREES	DECIMAL EQUIV. TOP OF VALVE
5	.023	33	.203
6	.028	34	.211
7	.033	35	.220
8	.038	36	.227
9	.043	37	.234
10	.049	38	.243
11	.054	39	.251
12	.060	40	.260
13	.066	41	.269
14	.071	42	.277
15	.077	43	.287
16	.083	44	.295
17	.090	45	.304
18	.096	46	.314
19	.103	47	.322
20	.110	48	.332
21	.117	49	.341
22	.123	50	.350
23	.129	51	.360
24	.136	52	.370
25	.142	53	.379
26	.149	54	.388
27	.157	55	.400
28	.164	56	.408
29	.171	57	.418
30	.179	58	.428
31	.187	59	.439
32	.195	60	.449