

INSTRUCTION SHEET

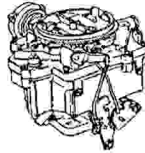
ROCHESTER CARBURETOR—MODELS 4G-4GC

50-367

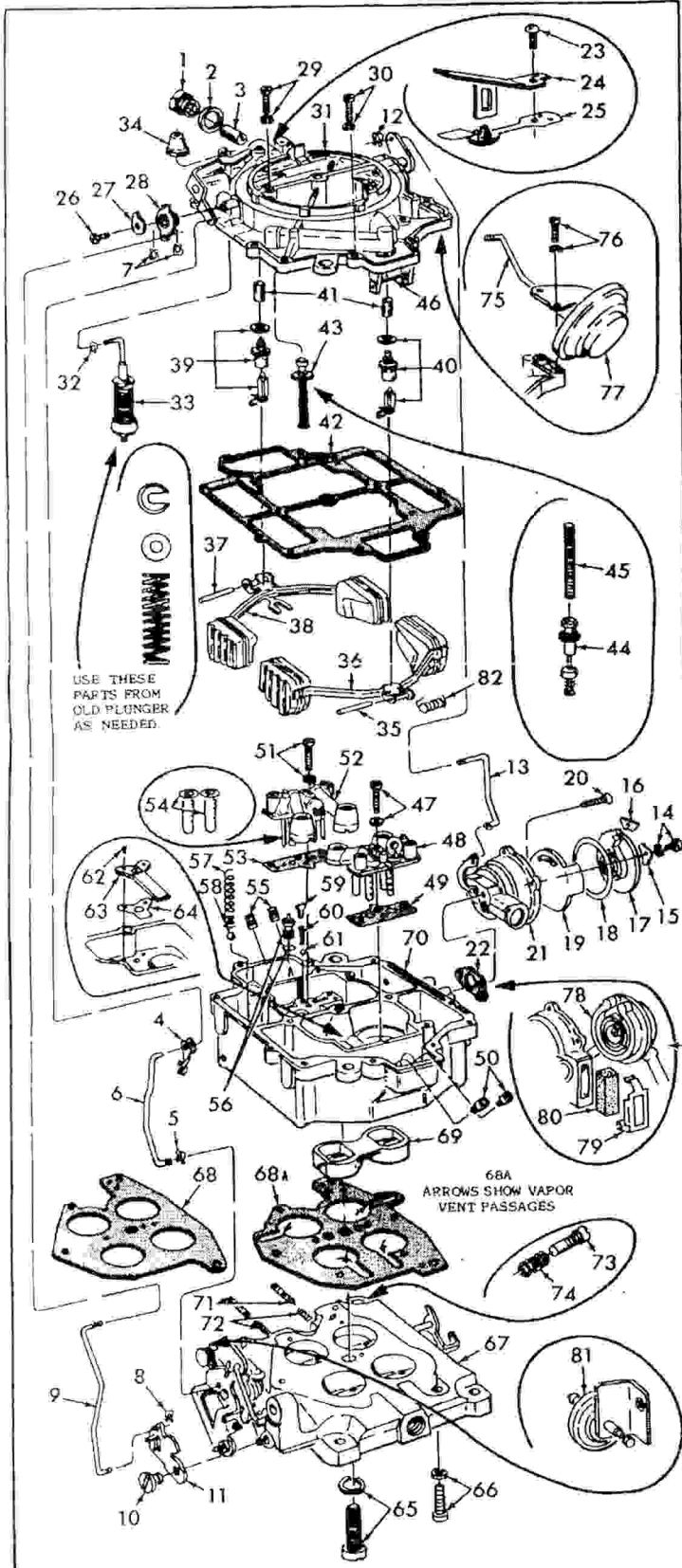
DISASSEMBLY

GENERAL EXPLODED VIEW

THE GENERAL DESIGN AND PARTS SHOWN WILL VARY TO INDIVIDUAL UNITS COVERED ON THIS INSTRUCTION SHEET



USE EXPLODED VIEW AS A GUIDE. THE NUMERICAL SEQUENCE MAY GENERALLY BE FOLLOWED TO DISASSEMBLE UNIT FAR ENOUGH TO PERMIT CLEANING AND INSPECTION. NOTE: BOWL COVER MOUNTED AUTOMATIC CHOKE MODELS USUALLY ONLY REQUIRE REMOVAL OF STAT COVER OR VACUUM UNIT. CAUTION: IF CHOKE SHAFT REQUIRES REMOVAL, CHOKE VALVE SCREWS ARE STAKED OVER, AND STAKING MUST BE FILED OFF BEFORE SCREWS ARE TURNED. HOT WATER TYPE STAT COVERS SHOULD NOT BE DISASSEMBLED UNLESS PARTS ARE BEING REPLACED, AND SHOULD NOT BE IMMERSSED IN CLEANER OR SOLVENT. REMOVE STAKING FROM BOWL COVER FOR EASY REMOVAL OF POWER PISTON ASSEMBLY (43) OR (44). WHEN REMOVING FLOATS (36) AND (38), MARK EACH ONE AS TO THE SIDE IT BELONGS. NOTE: (PRIMARY SIDE HAS PUMP CIRCUIT AND CHOKE VALVE). IF MAIN METERING JETS (50) AND (55) ARE REMOVED, NOTE SIZE NUMBER STAMPED ON JETS AND TO WHICH BOWL THEY ARE REMOVED. THE JETS MUST BE INSTALLED IN PAIRS.



NOMENCLATURE

REF. NO.	REF. NO.
1. FITTING-FUEL INLET	45. SPRING-POWER PISTON
2. GASKET-FUEL INLET FITTING	46. SPRING-FLOAT BALANCE
3. SCREEN-FUEL INLET	47. SCREW & LOCKWASHER-SECONDARY VENTURI CLUSTER
4. RETAINER-PUMP ROD UPPER	48. SECONDARY VENTURI CLUSTER
5. RETAINER-PUMP ROD LOWER	49. GASKET-SEC. VENTURI CLUSTER
6. ROD-PUMP	50. JETS-SECONDARY MAIN METERING
7. RETAINER-CHOKE ROD UPPER	51. SCREW & LOCKWASHER-PRIMARY VENTURI CLUSTER
8. RETAINER-CHOKE ROD LOWER	52. PRIMARY VENTURI CLUSTER
9. ROD-CHOKE	53. GASKET-PRI. VENTURI CLUSTER
10. SCREW-FAST IDLE CAM	54. INSERTS-MAIN WELL
11. CAM-FAST IDLE	55. JETS-PRIMARY MAIN METERING
12. RETAINER-INTERMEDIATE CHOKE ROD	56. VALVE & GASKET ASSY.-POWER
13. ROD-INTERMEDIATE CHOKE	57. SPRING-PUMP RETURN
14. SCREW AND LOCKWASHER-STAT RETAINER	58. BALL-PUMP INTAKE (USED IN TYPES WITH SEAT IN CASTING)
15. RETAINER-STAT COVER PLAIN	59. GUIDE-PUMP DISCHARGE BALL
16. RETAINER-STAT COVER TOOTHED	60. SPRING-PUMP DISCHARGE BALL
17. STAT COVER AND SPRING ASSY.	61. BALL-PUMP DISCHARGE
18. GASKET-STAT COVER	62. SCREW-IDLE COMPENSATOR VALVE
19. PLATE-CHOKE BAFFLE	63. VALVE-IDLE COMPENSATOR
20. SCREW-CHOKE HOUSING	64. GASKET-IDLE COMPENSATOR VALVE
21. HOUSING-CHOKE & PISTON ASSY.	65. SCREW & LOCKWASHER-THROTTLE BODY ATTACHING (CENTER HOLE)
22. GASKET-CHOKE HOUSING	66. SCREW & LOCKWASHER-THROTTLE BODY ATTACHING
23. SCREW-IDLE VENT VALVE	67. THROTTLE BODY ASSEMBLY
24. SHIELD-IDLE VENT VALVE	68. GASKET-BODY FLANGE
25. VALVE-IDLE VENT	68A. GASKET-BODY FLANGE WITH VAPOR VENT SLOTS, WILL REPLACE #68
26. SCREW-TRIP LEVER	69. AUXILIARY THROTTLE VALVE ASSY.
27. LEVER-TRIP	70. BOWL ASSEMBLY-FLOAT
28. LEVER AND COLLAR-CHOKE	71. NEEDLES-IDLE ADJUSTING
29. SCREW & LOCKWASHER-BOWL COVER	72. SPRINGS-IDLE ADJ. NEEDLE
30. SCREW & LOCKWASHER-BOWL COVER	73. NEEDLE-IDLE AIR ADJUSTING (FOR BY-PASS IDLE SYSTEM)
31. BOWL COVER ASSEMBLY	74. SPRING-IDLE AIR ADJ. NEEDLE
32. RETAINER-PUMP PLUNGER	75. ROD-VACUUM CONTROL
33. PUMP PLUNGER	76. SCREW & LOCKWASHER-VACUUM CONTROL ATTACHING
34. BOOT-PUMP PLUNGER	77. VACUUM BREAK CONTROL ASSEMBLY
35. PIN-SECONDARY FLOAT HINGE	78. STAT COVER & SPRING ASSEMBLY HOT WATER TYPE CHOKE
36. FLOAT & LEVER ASSY. SECONDARY	79. RETAINER-FILTER
37. PIN-PRIMARY FLOAT HINGE	80. FILTER-AIR INTAKE
38. FLOAT & LEVER ASSY. PRIMARY	81. THROTTLE RETURN CHECK ASSEMBLY
39. NEEDLE, SEAT & GASKET ASSY. PRIMARY	82. TORSION SPRING-FLOAT
40. NEEDLE, SEAT & GASKET ASSY. SECONDARY	
41. SCREEN-NEEDLE & SEAT STRAINER	
42. GASKET-BOWL COVER	
43. POWER PISTON ASSEMBLY	
44. POWER PISTON WITH FLOAT ASSIST SPRING ASSEMBLY	

CLEANING

CLEANING MUST BE DONE WITH CARBURETOR DISASSEMBLED. SOAK PARTS LONG ENOUGH TO SOFTEN AND REMOVE ALL FOREIGN MATERIAL. USE (1) A CARBURETOR CLEANING SOLVENT, (2) LACQUER THINNER OR (3) DENATURED ALCOHOL. MAKE CERTAIN THE THROTTLE BODY IS FREE OF ALL HARD CARBON DEPOSITS. RINSE OFF IN SUITABLE SOLVENT. BLOW OUT ALL PASSAGES IN CASTING WITH COMPRESSED AIR AND CHECK CAREFULLY TO INSURE THOROUGH CLEANING OF OBSCURE AREAS. CAUTION: DO NOT SOAK RUBBER, LEATHER OR PLASTIC PARTS IN SOLVENT.

NOTE: WATER HEATED TYPE CHOKE STAT COVER MAY BE REMOVED FROM CARBURETOR OR ENGINE TO ELIMINATE DRAINING OF COOLANT. (LEAVE WATER HOSES CONNECTED).

REASSEMBLY

REASSEMBLE IN REVERSE ORDER OF DISASSEMBLY. NOTE SPECIAL INSTRUCTIONS AND FOLLOW NUMERICAL OUTLINE IN MAKING ADJUSTMENTS. SEE OTHER SIDE.

SPECIAL INSTRUCTIONS

PLUNGER (33). REMOVE PAPER SLEEVE FROM LEATHER CUP IF USED. FLEX LEATHER OUTWARD SLIGHTLY. SOAK CUP IN GASOLINE, KEROSENE OR OIL FOR A FEW MINUTES PRIOR TO PLACING IN CARBURETOR.

NEEDLE AND SEAT SELECTION WHERE TWO PART NUMBERS ARE SUPPLIED - USE ASSY. WITH LARGER HOLE ON THE PRIMARY SIDE.

NEEDLE AND SEAT GASKET SELECTION - REFER TO FIGURE (1) - PAGE 2

POWER PISTON INSTALLATION (43) OR (44) LIGHTLY STAKE CASTING AROUND WASHER

WHEN INSTALLING FLOATS THAT USE A FLOAT BALANCE SPRING (46), BE SURE SPRING IS BETWEEN FLOAT TANG AND NEEDLE SEAT. SEE FIG. 6, PAGE 2

VENTURI CLUSTER (48) (52) INSTALLATION. THE PRIMARY CLUSTER CONTAINS THE PUMP DISCHARGE NOZZLES AND IS INSTALLED ON THE SIDE WITH THE PUMP WELL

IDLE ADJUSTING NEEDLES (71). TURN EACH NEEDLE IN TO SEAT LIGHTLY AND THEN BACK OUT 1 1/2 - 2 TURNS

IDLE AIR SCREW (73) IF USED, TURN IN TO SEAT AND BACK OUT 1 1/2 - 2 TURNS

ADJUSTMENTS

① WITH GASKET IN PLACE, GAUGE FROM GASKET SURFACE TO TOP OF EACH FLOAT. (SEE DATA TABLE FOR MEASUREMENT).

CAUTION
DO NOT EXERT PRESSURE ON RESILIENT NEEDLE VALVE

① BEND HERE TO ADJUST

② BEND HERE TO ADJUST

NOTE: WHEN TWO NEEDLE SEAT GASKETS ARE SUPPLIED, USE THIN GASKET FIRST. IF FLOAT MEASUREMENT IS EXTREMELY LOW, THEN REPLACE WITH THICKER GASKET.

ROUND OR "D" TYPE FLOAT

WEDGE TYPE FLOAT METAL OR PLASTIC

FLOAT LEVEL ADJUSTMENT

Fig. 1

② CAREFULLY BEND PONTOONS SLIGHTLY TO ADJUST

HEEL

TOE

① BOWL COVER GASKET RAISED. TOE OF FLOATS SHOULD BE FLUSH WITH BOWL COVER SURFACE

FLOAT TOE ADJUSTMENT WITHOUT DIMPLE

Fig. 2

② CAREFULLY BEND PONTOON SLIGHTLY TO ADJUST

① MEASURE FROM GASKET SURFACE TO CENTER OF DIMPLE ON EACH FLOAT. (SEE DATA TABLE FOR MEASUREMENT).

FLOAT TOE ADJUSTMENT WITH DIMPLE

Fig. 3

CAUTION: DO NOT BEND PLASTIC FLOATS WHERE THEY ARE MOLDED TO FLOAT ARMS.

① ALIGN GASKET ON BOWL COVER

FLOATS SHOULD BE PARALLEL

② CENTER FLOAT PONTOONS IN GASKET CUTOUT OR PARALLEL TO EDGE OF COVER.

FLOAT ALIGNMENT

Fig. 4

① HOLD POWER PISTON IN FULL UP POSITION WITH THUMB

BEND FORKED TANG TO ADJUST

② BOUNCE FLOAT LIGHTLY. FLOAT HANGING FREELY, MEASURE FROM GASKET SURFACE TO CENTER OF DIMPLE OR END OF SCRIBED LINE ON PLASTIC FLOAT.

VACUUM ASSIST SPRING ADJUSTMENT

Fig. 5

BEND TANG TO ADJUST

FLOAT HANGING FREELY, MEASURE FROM GASKET SURFACE TO BOTTOM OF FLOAT. (SEE DATA TABLE FOR MEASUREMENT).

ROUND OR "D" TYPE FLOAT

POSITION OF FLOAT BALANCE SPRING WHEN USED.

BEND TANG TO ADJUST

FLOAT HANGING FREELY, MEASURE FROM GASKET SURFACE (A) TO BOTTOM OF FLOAT OR (B) TO CENTER OF DIMPLE (SEE DATA TABLE FOR MEASUREMENT)

WEDGE TYPE FLOAT
A-WITHOUT DIMPLE
B-WITH DIMPLE

BEND TANG TO ADJUST

FLOAT HANGING FREELY, MEASURE FROM GASKET SURFACE TO BOTTOM OF SCRIBED LINE. (SEE DATA TABLE FOR MEASUREMENT).

PLASTIC TYPE FLOAT

FLOAT DROP ADJUSTMENTS

Fig. 6

③ MEASURE FROM TOP OF BOWL COVER TO BOTTOM OF PLUNGER SHAFT. (SEE DATA TABLE FOR MEASUREMENT)

INSTALL PUMP ROD IN PROPER HOLE. (SEE DATA TABLE)

② BACK OUT THROTTLE STOP SCREW. THROTTLE HELD CLOSED.

BEND ROD TO ADJUST

PUMP ROD ADJUSTMENT

Fig. 7

NOTE: OLDER MODELS ADJUST TANG THAT CONTACTS VALVE UNDER PUMP LEVER.

② MEASURE FROM TOP OF BOWL COVER TO BOTTOM OF PLUNGER SHAFT. (SEE DATA TABLE FOR MEASUREMENT)

BEND TANG TO ADJUST

① OPEN THROTTLE VALVE UNTIL VENT VALVE JUST CLOSURES

IDLE VENT ADJUSTMENT

Fig. 8

CHOKE VALVE HELD CLOSED

BEND ROD TO ADJUST

END OF CHOKE PISTON SHOULD BE FLUSH WITH END OF PISTON SLEEVE

(FOR BOWL AND THROTTLE BODY MOUNTED CHOKE HOUSING)

INTERMEDIATE CHOKE ROD ADJUSTMENT

Fig. 9

③ RAISE THE INTERMEDIATE CHOKE LEVER TO ITS FULL UP POSITION. ALL LASH REMOVED FROM RODS IN SLOTS.

CHOKE VALVE FULLY CLOSED

BEND ROD TO ADJUST

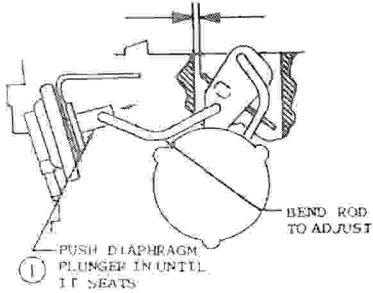
CHOKE PISTON SHOULD BE FLUSH WITH END OF BORE

② PLACE FAST IDLE SCREW ON HIGH STEP OF CAM

INTERMEDIATE CHOKE ADJUSTMENT

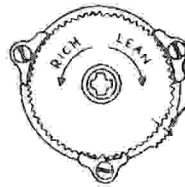
Fig. 10

- ② HOLD CHOKE VALVE TOWARD CLOSED POSITION, MEASURE BETWEEN UPPER EDGE OF CHOKE VALVE AND DIVIDING WALL OF AIR HORN. (SEE DATA TABLE FOR MEASUREMENT).



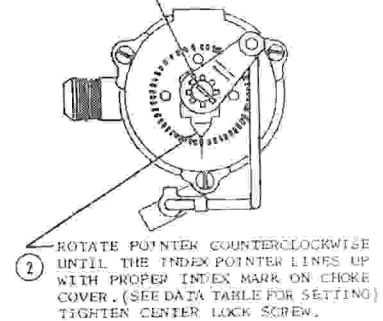
VACUUM BREAK ADJUSTMENT Fig.11

- ROTATE STAT COVER AGAINST SPRING TENSION, SET MARK ON COVER TO SPECIFIED POINT ON CHOKE HOUSING. (SEE DATA TABLE FOR SETTING)



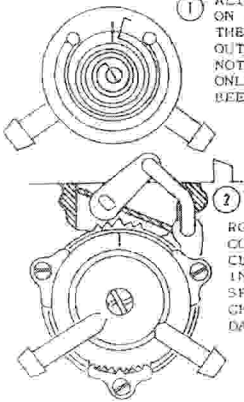
AUTOMATIC CHOKE ADJUSTMENT Fig.12

- ① HOLD THROTTLE VALVES CLOSED, LOOSEN CENTER LOCK SCREW



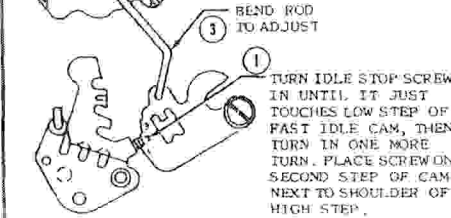
CHOKE MODIFIER ADJUSTMENT Fig.13

- ① ALIGN INSIDE INDEX MARK ON THE INNER COVER WITH THE INDEX POINT ON THE OUTER COVER. NOTE: THIS ADJUSTMENT ONLY NEEDED IF UNIT HAS BEEN DISASSEMBLED.



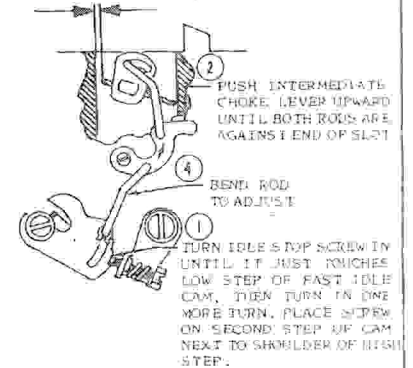
HOT WATER CHOKE COIL ADJUSTMENT Fig.14

- ② HOLD CHOKE VALVE TOWARD CLOSED POSITION, MEASURE BETWEEN UPPER EDGE OF CHOKE VALVE AND DIVIDING WALL OF AIR HORN. (SEE DATA TABLE FOR MEASUREMENT).



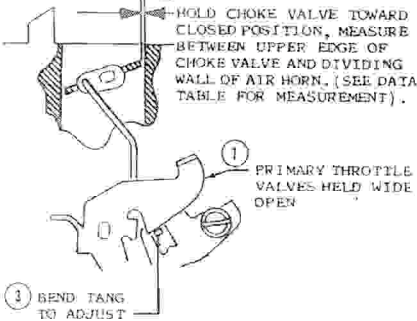
CHOKE ROD ADJUSTMENT Fig.15

- ③ MEASURE BETWEEN UPPER EDGE OF CHOKE VALVE AND DIVIDING WALL. (SEE DATA TABLE FOR MEASUREMENT).



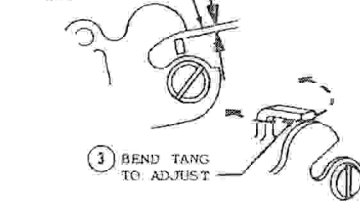
CHOKE ROD ADJUSTMENT Fig.16

- ② HOLD CHOKE VALVE TOWARD CLOSED POSITION, MEASURE BETWEEN UPPER EDGE OF CHOKE VALVE AND DIVIDING WALL OF AIR HORN. (SEE DATA TABLE FOR MEASUREMENT).



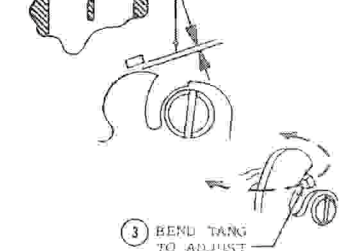
CHOKE UNLOADER ADJUSTMENT Fig.17

- ① CHOKE VALVE FULLY CLOSED
- ② MEASURE BETWEEN LOCKOUT LEVER AND FAST IDLE CAM. (SEE DATA TABLE FOR MEASUREMENT).



SECONDARY LOCKOUT ADJUSTMENT Fig.18

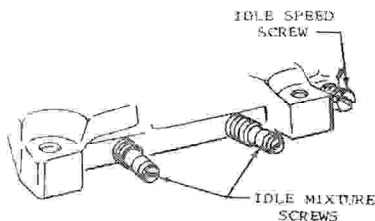
- ① CHOKE VALVE WIDE OPEN
- ② MEASURE BETWEEN LOCKOUT LEVER AND FAST IDLE CAM. (SEE DATA TABLE FOR MEASUREMENT).



SECONDARY CONTROL ADJUSTMENT Fig.19

ENGINE AT OPERATING TEMP. CHOKE FULLY OPEN, ADJUST IDLE MIXTURE SCREWS IN OR OUT FOR A SMOOTH IDLE AND ADJUST IDLE STOP SCREW FOR PROPER R.P.M. (SEE DATA TABLE FOR R.P.M.)

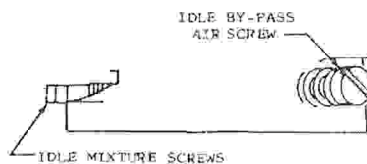
NOTE: WHERE HOT IDLE COMPENSATOR IS USED, BE SURE IT IS HELD CLOSED WHEN ADJUSTING IDLE.



(FIRST TYPE) SLOW IDLE ADJUSTMENT Fig.20

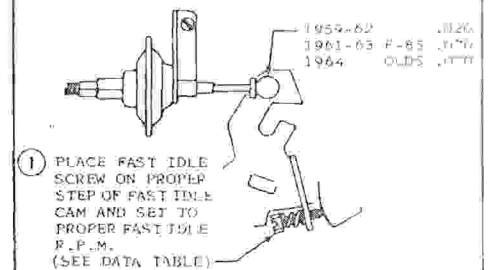
ENGINE AT OPERATING TEMP. CHOKE FULLY OPEN, THROTTLE VALVES COMPLETELY CLOSED. ADJUST IDLE MIXTURE SCREWS IN OR OUT FOR A SMOOTH IDLE AND ADJUST IDLE BY-PASS AIR SCREW FOR PROPER R.P.M. (SEE DATA TABLE FOR R.P.M.)

NOTE: FINAL ADJUSTMENT IS MADE WITH IDLE MIXTURE SCREWS



(SECOND TYPE) SLOW IDLE ADJUSTMENT Fig.21

- ② WITH ENGINE OFF AND SCREW STILL ON STEP OF FAST IDLE CAM, ADJUST SET SCREW CLEARANCE BETWEEN THE SCREW HEAD AND STOP ON THROTTLE LEVER.



(DASH 101) THROTTLE RETURN CHECK ADJUSTMENT Fig.22