# INSTRUCTION SHEET 50-689-2

# OFF VEHICLE CARBURETOR SERVICE HOLLEY MODEL-4180C

## DISASSEMBLY

USE THE EXPLODED VIEW AS A GUIDE. THE NUMERICAL SEQUENCE MAY GENERALLY BE FOLLOWED TO DISASSEMBLE UNIT FAR ENOUGH TO PERMIT CLEANING AND INSPECTION. NOTE: THE CHOKE PLATE RETAINING SCREWS ARE STAKED AT THE THREADED END AND THIS STAKING MUST BE FILED OFF BEFORE REMOVING SCREWS. (BE CAREFUL NOT TO DAMAGE THE CHOKE SHAFT OR VENTURI WHILE FILING THE SCREWS.)

TO REMOVE CHOKE COVER RETAINER TAMPER PROOF SCREWS, CAREFULLY HACK-SAW A SLOT IN THE HEAD OF THE SCREW DEEP ENOUGH TO ACCOMODATE A SCREW-DRIVER BIT. CAREFULLY REMOVE THE SCREWS WITH A SCREWDRIVER.

IDENTIFY PRIMARY AND SECONDARY FLOATS AS THEY ARE REMOVED FROM THE FUEL BOWLS, FOR PROPER REASSEMBLY.

TO REMOVE PRIMARY AND SECONDARY IDLE MIXTURE CONCEALMENT PLUGS. CENTER PUNCH AND DRILL 3/32" DIAMETER HOLE THROUGH THE HARDENED STEEL PLUG. INSTALL AN EASY OUT AND REMOVE PLUG. BEFORE REMOVING IDLE ADJUST-ING NEEDLES, CAREFULLY TURN NEEDLES IN CLOCKWISE COUNTING THE NUMBER OF TURNS IT TAKES TO LIGHTLY SEAT THE NEEDLES. (RECORD FOR PROPER REASSEMBLY).

## CLEANING

CLEANING MUST BE DONE WITH CARBURETOR DISASSEMBLED. SOAK PARTS LONG ENOUGH TO SOFTEN AND REMOVE ALL FOREIGN MATERIAL USING A COLD IMMERSION TYPE CARBURETOR CLEANER. MAKE CERTAIN THE THROTTLE BORES ARE FREE OF ALL CARBON AND VARNISH DEPOSITS. RINSE 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 ASSEMBLIES WITH ATTACHED PLASTIC PARTS FOR A LONG PERIOD OF TIME. DO NOT SOAK ANY PARTS CONTAINING RUBBER, FLOATS, OR DIAPHRAGM ASSYS.

## REASSEMBLY

REASSEMBLE IN REVERSE ORDER OF DISASSEMBLY. NOTE SPECIAL INSTRUCTIONS AND FOLLOW NUMERICAL OUTLINE IN MAKING ADJUSTMENTS NECESSARY FOR CAR-BURETOR BEING SERVICED.

## SPECIAL INSTRUCTIONS

PUMP DISCHARGE CHECK NEEDLE (79)-REPLACE WITH STEEL BALL. INSTALL BALL THEN USING A BRASS PUNCH AND HAMMER LIGHTLY STAKE BALL FOR A GOOD SEAT.

PUMP NOZZLE (78) AND SCREW (76) INSTALLATION-TIGHTEN SCREW SECURELY. USING A FLAT PUNCH AND HAMMER, RESTAKE THE NOZZLE SCREW IN POSITION. (CARE SHOULD BE USED WHEN STAKING THE NOZZLE SO AS NOT TO USE EXCESSIVE FORCE. REMOVE ANY CHIPS FROM CARBURETOR BODY. SEE FIG. 1.

CHOKE PLATE SCREWS (71)-STAKE SCREWS AFTER INSTALLATION.

PRIMARY IDLE ADJUSTING NEEDLES (67)-TURN IN UNTIL LIGHTLY SEATED, THEN BACK OUT NUMBER OF TURNS RECORDED ON DISASSEMBLY. (DO NOT INSTALL IDLE NEEDLE CONCEALMENT PLUGS AT THIS TIME.)

SCREWS LISTED BELOW MUST BE TIGHTENED IN THREE STAGES CROSSWISE TO ARRIVE AT THE CORRECT TORQUE.

THROTTLE BODY GASKET (65)-BE SURE HOLES ARE PROPERLY MATCHED TO THROT-TLE BODY. TORQUE THROTTLE BODY SCREWS TO 50 INCH LBS.

ENRICHMENT VALVE (58)-INSTALL WITH GASKET AND TORQUE TO 100 INCH LBS.

PRI. AND SEC. FUEL BOWL (43) (23)-BEFORE INSTALLING MAKE DRY FLOAT LEVEL ADJUSTMENT.

BOWL SCREW INSTALLATION (41) (21)-INSTALL GASKETS (42) (22) ON SCREWS BEFORE INSTALLING, THEN TORQUE EVENLY IN STAGES TO 50 INCH LBS.

FUEL LINE TUBE (35)-INSTALL O-RINGS (36) ON THE EXTREME ENDS OF THE TUBE, THEY WILL ROLL ON THE TUBE WHEN INSTALLING THE FUEL BOWLS.

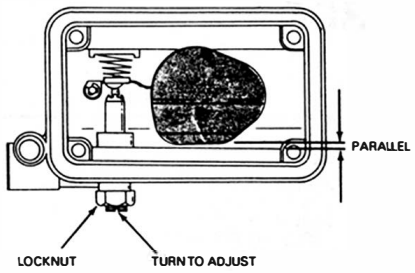
O-RINGS-LUBRICATE LIGHTLY BEFORE INSTALLING.

## NOMENCLATURE

| REF. NO. | |
|---|---|
| 1. | SCREW (2)-SOLO POT |
| 2. | SOLO POT ASSY. |
| 3. | SCREW (2)-RETAINER |
| 4. | SCREW (1)-RETAINER |
| 5. | RETAINER-CHOKE COVER |
| 6. | CHOKE COVER ASSY. |
| 7. | GASKET-CHOKE COVER |
| 8. | RETAINER-CHOKE ROD |
| 9. | SCREW & LKWSHR. (3)-CHOKE HOUS ING |
| 10. | CHOKE HOUSING ASSY. |
| 11. | GASKET-CHOKE HOUSING **(O-RING 1984-85)** |
| 12. | RETAINER-SEC. DIAPHRAGM LINK |
| 13. | SCREW & LKWSHR. (3)-SEC. DIAPH. HSG. |
| 14. | SEC. DIAPHRAGM HSG. ASSY. |
| 15. | GASKET-SEC. DIAPH. HSG. **(O-RING 1984-85)** |
| 16. | SCREW & LKWSHR. (4)-COVER |
| 17. | COVER-SEC. DIAPHRAGM |
| 18. | SPRING-SEC. DIAPHRAGM |
| 19. | DIAPHRAGM-SECONDARY |
| 20. | BALL-SEC. DIAPHRAGM CHECK |
| 21. | SCREW (4)-SEC. FUEL BOWL |
| 22. | GASKET (4)-SEC. BOWL SCREW |
| 23. | BOWL ASSY.-SEC. FUEL |
| 24. | NEEDLE & SEAT ASSY.-SEC. |
| 25. | BAFFLE-SEC. FUEL |
| 26. | RETAINER-SEC. FLOAT |
| 27. | FLOAT & SPRING ASSY.-SEC. |
| 28. | PLUG-FUEL LEVEL |
| 29. | GASKET-PLUG |
| 30. | SCREW (6)-SEC. METERING BODY |
| 31. | METERING BODY-SEC. |
| 32. | GASKET-METERING BODY |
| 33. | PLATE-METERING BODY |
| 34. | GASKET-FUEL BOWL & METERING BODY |
| 35. | TUBE-FUEL LINE |
| 36. | O-RING (2)-FUEL LINE TUBE |
| 37. | SCREW & LKWSHR. (4)-PUMP COVER |
| 38. | COVER ASSY.-PUMP DIAPHRAGM |
| 39. | DIAPHRAGM-PUMP |
| 40. | SPRING-PUMP DIAPHRAGM |
| 41. | SCREW (4)-PRI. FUEL BOWL |
| 42. | GASKET (4)-PRI. BOWL SCREW |
| 43. | BOWL ASSY.-PRIMARY |
| 44. | NEEDLE & SEAT ASSY.-PRI. |
| 45. | BAFFLE-PRI. FUEL |
| 46. | RETAINER-PRI. FLOAT |
| 47. | FLOAT & SPRING ASSY.-PRI. |
| 48. | PLUG-FUEL LEVEL |
| 49. | GASKET-PLUG |
| 50. | FITTING-FUEL INLET |
| 51. | GASKET-FITTING |
| 52. | GASKET-FILTER |
| 53. | FILTER-FUEL |
| 54. | SPRING-FILTER |
| 55. | GASKET-PRI. FUEL BOWL |
| 56. | METERING BODY-PRI. |
| 57. | JET (2)-MAIN |
| 58. | VALVE-PRI. ENRICHMENT |
| 59. | GASKET-PRI. ENRICHMENT VALVE |
| 60. | GASKET-PRI. METERING BODY |
| 61. | TUBE-PUMP PASSAGE |
| 62. | O-RING (2)-PASSAGE TUBE |
| 63. | SCREW & LKWSHR. (6)-THROTTLE BODY |
| 64. | THROTTLE BODY ASSY. |
| 65. | GASKET-THROTTLE BODY |
| 66. | PLUG (2)-PRI. IDLE NEEDLE |
| 67. | NEEDLE (2)-PRI. IDLE ADJUSTING |
| 68. | O-RING (2)-PRI. IDLE NEEDLE |
| 69. | SPRING (2)-PRI. IDLE ADJ. NEEDLE |
| 70. | MAIN BODY ASSY. |
| 71. | SCREW (2)-CHOKE PLATE |
| 72. | PLATE-CHOKE |
| 73. | SHAFT-CHOKE PLATE |
| 74. | ROD-CHOKE |
| 75. | SEAL-CHOKE ROD |
| 76. | SCREW-PUMP NOZZLE |
| 77. | GASKET (2)-PUMP NOZZLE |
| 78. | NOZZLE-PUMP DISC. |
| 79. | NEEDLE-PUMP DISC. CHECK |

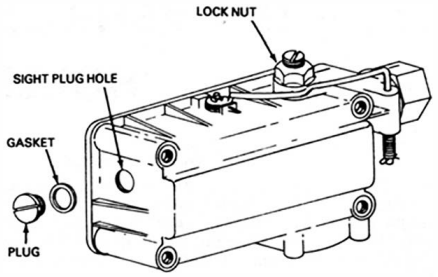
# ADJUSTMENTS

FLOAT BOWL INVERTED, TURN NEEDLE SEAT ASSEMBLY UNTIL FLOAT SURFACE IS PARALLEL WITH THE SURFACE DIRECTLY BELOW THE FLOAT. TIGHTEN LOCK NUT.




PRIMARY & SECONDARY
DRY FLOAT LEVEL
ADJUSTABLE NEEDLE & SEAT

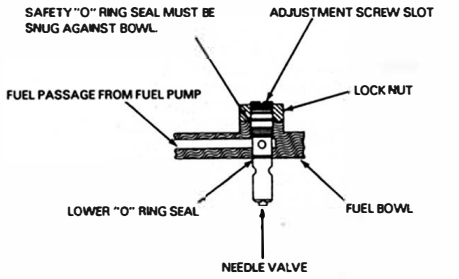
FIG. 1.




1. VEHICLE SITTING ON LEVEL SURFACE AND ENGINE RUNNING.
2. REMOVE SIGHT LEVEL PLUG FROM HOLE.
3. ADJUST NEEDLE SEAT ASSEMBLY SO FUEL WILL BE AT BOTTOM EDGE OF SIGHT PLUG HOLE. (1/32" TOLERANCE)
4. TIGHTEN LOCK NUT.

WET FLOAT LEVEL
ADJUSTABLE NEEDLE & SEAT

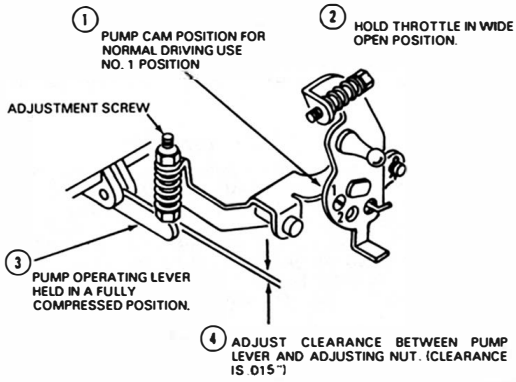
FIG. 2




THE EXCLUSIVE SEALING FEATURE OF THIS ASSEMBLY PROVIDE SAFE ADJUSTMENT OF FUEL LEVEL WHILE ENGINE IS RUNNING.

SAFETY SEAL ADJUSTABLE FUEL VALVE

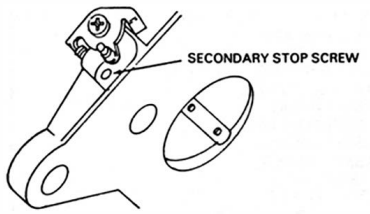
FIG. 3




PUMP ADJUSTMENT

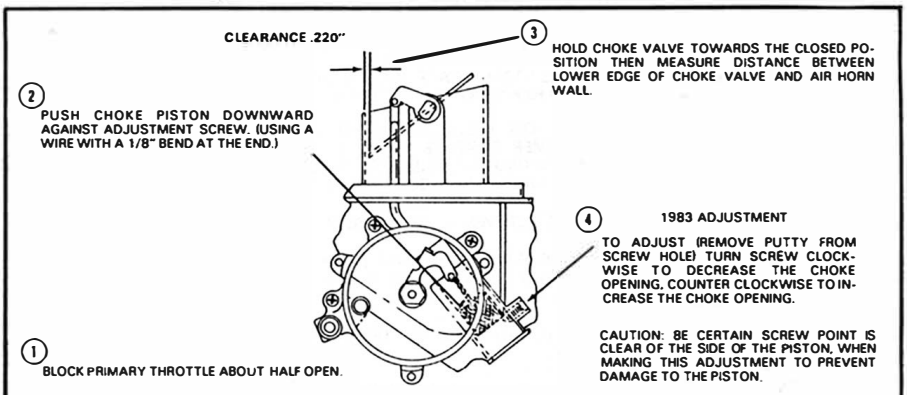
FIG. 4.

SECONDARY THROTTLE STOP SCREW, BACK OUT UNTIL SECONDARY PLATES ARE CLOSED. TURN SCREW IN UNTIL IT CONTACTS STOP. THEN TURN SCREW IN 1/4 TURN MORE.



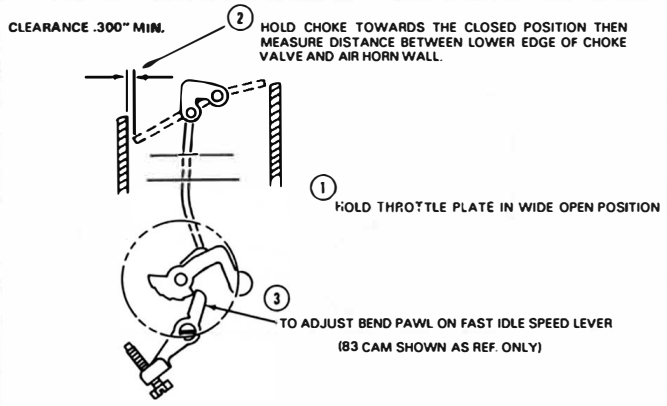

CAUTION: EXCEEDING THIS ADJUSTMENT MAY CAUSE EXCESSIVE SECONDARY PLATE OPENING, AND PREVENT PROPER ADJUSTMENT OF IDLE SPEED AND MIXTURE SETTINGS ON THE PRIMARY SIDE OF THE CARBURETOR.

FIG. 5.




(ALSO SEE FIG. 9)
CHOKE PLATE PULLDOWN ADJUSTMENT

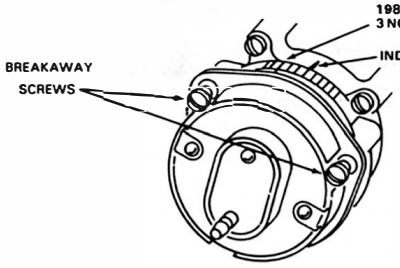
FIG. 6.




UNLOADER ADJUSTMENT

FIG. 7.

ALIGN MARK ON CHOKE COVER WITH PROPER INDEX MARK ON CHOKE HOUSING. SERVICE RETAINING RING WITH NEW BREAK AWAY SCREWS START ALL 3 SCREWS, THEN TIGHTEN THE TOP 2 SCREWS TO BREAK AWAY BEFORE TIGHTENING THE BOTTON SCREW.

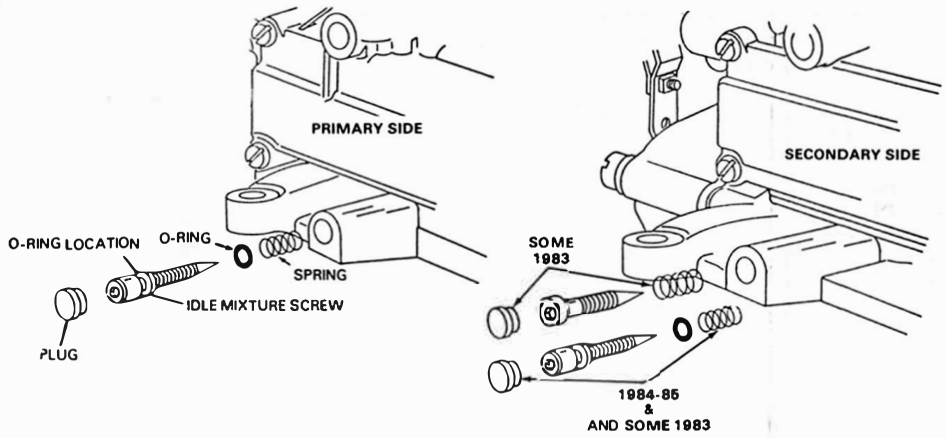



**CARB. NO.**
**E4TE-ARA (INDEX)**
**E4ZE-SA (1 NOTCH LEAN)**

**ALL OTHERS**
**NON ADJUSTABLE**

AUTOMATIC CHOKE SETTING

FIG. 8.




TO REMOVE TAMPERPROOF IDLE MIXTURE CONCEALMENT PLUGS. CENTER PUNCH AND DRILL 3/32" DIAMETER HOLE THROUGHT THE HARDENED STEEL PLUG. INSTALL AN EASY OUT AND REMOVE THE PLUG.

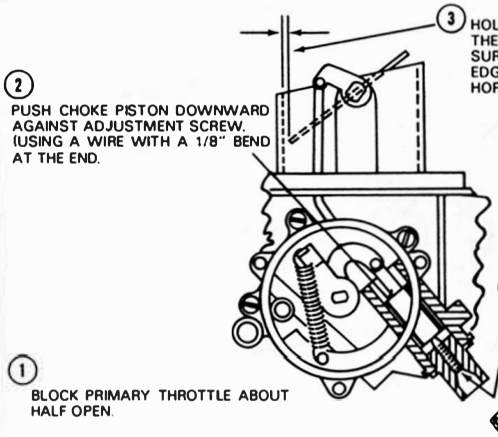
BEFORE REMOVING IDLE ADJUSTING SCREWS, CAREFULLY TURN SCREWS IN CLOCKWISE COUNTING THE NUMBER OF TURNS IT TAKES TO LIGHTLY SEAT SCREWS. (RECORD FOR PROPER REASSEMBLY.)

REASSEMBLY: TURN IN IDLE MIXTURE SCREWS UNTIL LIGHTLY SEATED. THEN BACK OUT THE NUMBER OFTURNS RECORDED ON DISASSEMBLY.

ENGINE AT OPERATING TEMPERATURE REFER TO ENGINE DECAL AND CAR SERVICE MANUAL FOR PROPER IDLE ADJUSTING PROCEDURE & SPECIFICATIONS. REPLACE PLUGS AFTER COMPLETING ADJUSTMENTS.

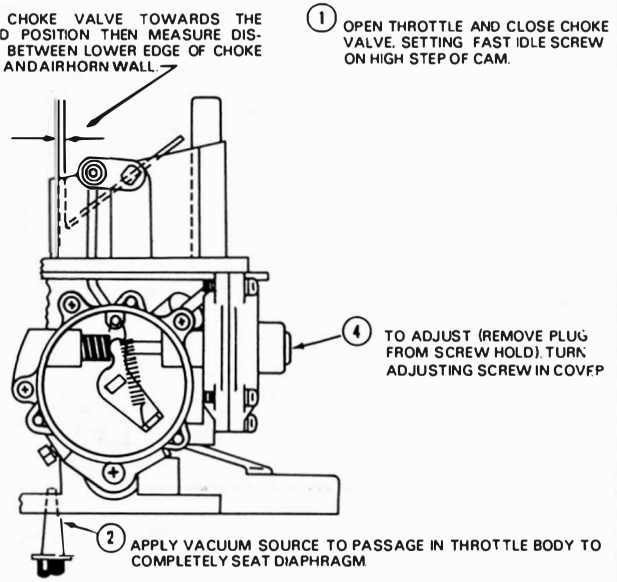
TAMPERPROOF IDLE MIXTURE SCREWS

FIG. 9.




(LATE DESIGN)
CHOKE PLATE PULLDOWN ADJUSTMENT

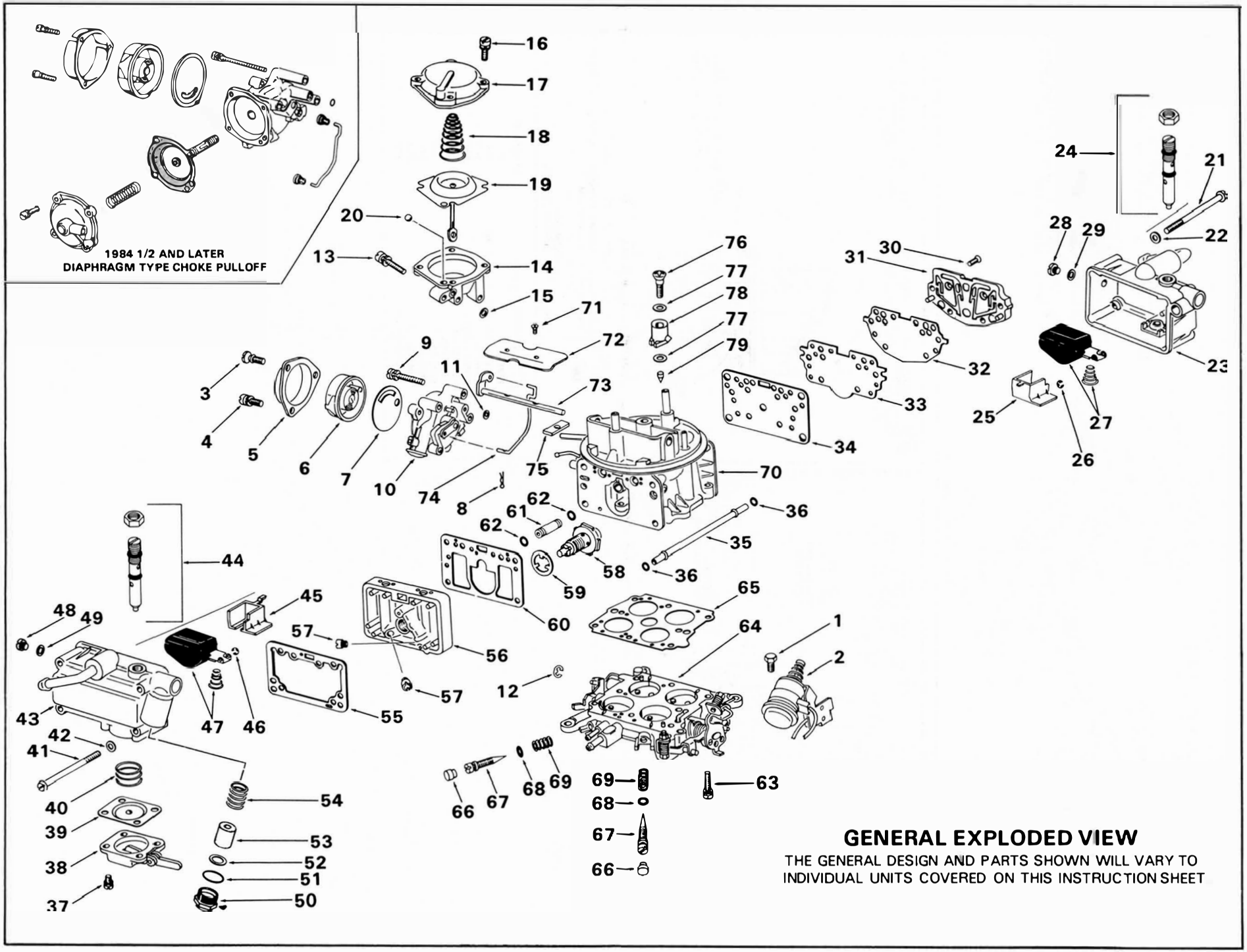
FIG. 10.




DIAPHRAGM TYPE
CHOKE PLATE PULLDOWN ADJUSTMENT

FIG. 11.

| CARBURETOR TAB NO. | CLEARANCE |
|---|---|
| E4ZE-YA | .200" |
| E5HE-DA-DB-DC-DD-EA-EB-EC-ED | .170" |
| E5HE-FA | .150" |
| E5HE-LA-LB-LC-MA-MB-MC | .170" |
| E5TE-ZA-ZB | .157" |
| E5TE-ABA | .185" |
| E5ZE-GA | .178" |
| E6HE-AC | .140" |
| E6HE-GA-GB | .150" |
| E6JL-AA-AB-BA | .170" |


1984 1/2 AND LATER
DIAPHRAGM TYPE CHOKE PULLOFF
GENERAL EXPLODED VIEW
THE GENERAL DESIGN AND PARTS SHOWN WILL VARY TO INDIVIDUAL UNITS COVERED ON THIS INSTRUCTION SHEET