

INSTRUCTION SHEET

50-590-2

MOTORCRAFT CARBURETOR - MODEL 2700/ 7200 VV

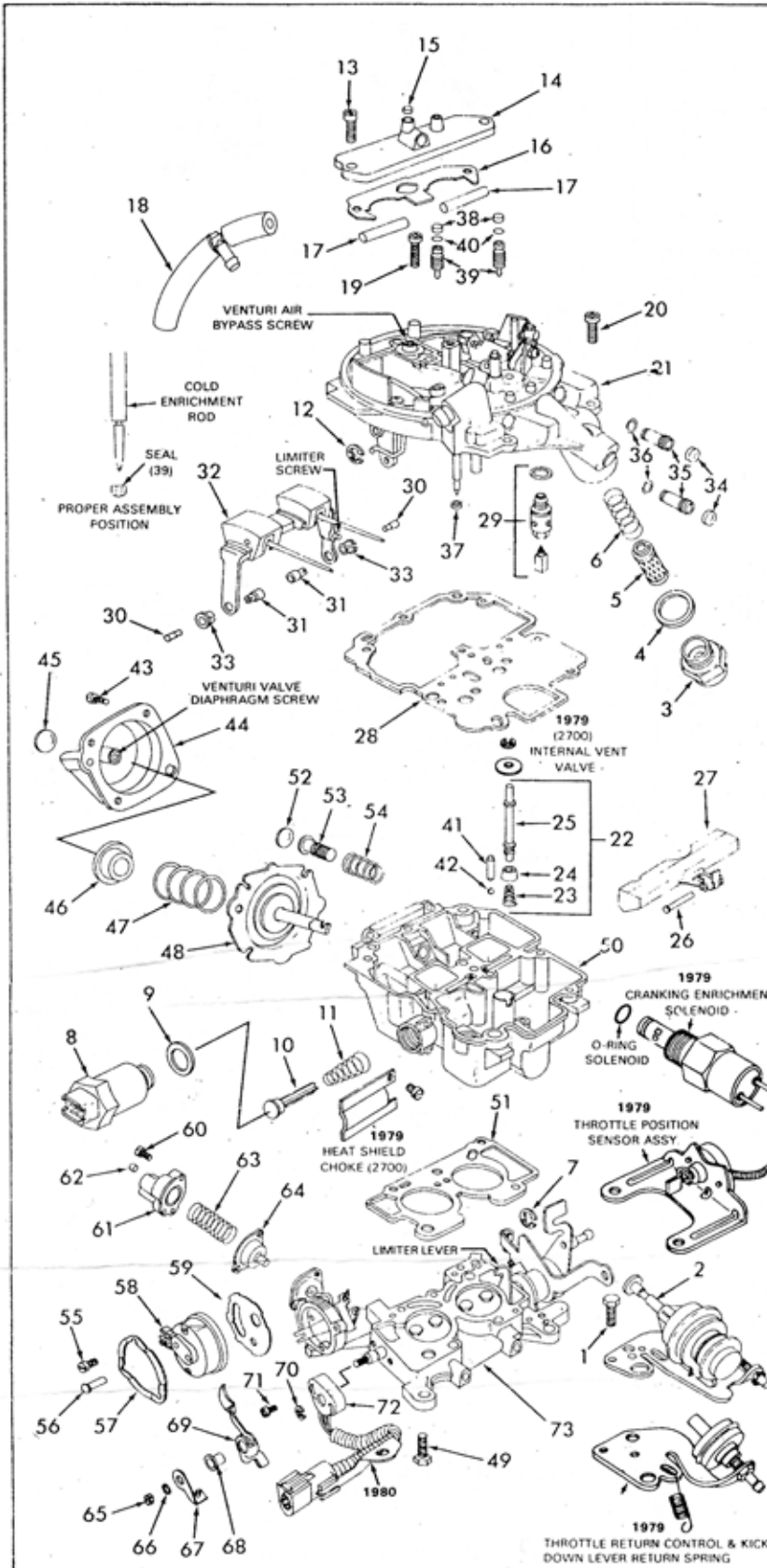
1979-80

50-590-2



GENERAL EXPLODED VIEW

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



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.

SPECIAL INSTRUCTIONS

CAUTION: ALWAYS BLOCK THE VENTURI VALVES WIDE OPEN WHEN WORKING ON THE MAIN METERING JETS. ITEM (35).

BEFORE REMOVING THROTTLE POSITION SENSOR (72) SCRIBE TWO MARKS ON SENSOR AND THROTTLE BODY FOR PROPER REASSEMBLY.

NOTE POSITION OF THE TWO LONG BOWL COVER SCREWS FOR PROPER REASSEMBLY. ITEM (19)

PIVOT PLUGS (30)- SUPPORT BOWL COVER HINGE BRACKET (SMALL SOCKET, ETC.) THEN USING A SMALL PUNCH, LIGHTLY TAP PIVOT PLUG FROM PIVOT PIN REMOVE VENTURI VALVE AND METERING ROD ASSEMBLY (32) BY SLIDING BACKWARD

CUP PLUGS (34)- CAREFULLY PUNCH OR DRILL HOLE IN CENTER OF PLUG, THEN USING AN EASY OUT TYPE PULLER, TAP PLUG OUT OF BOWL COVER.

MAIN JETS (35)-BEFORE REMOVING, USE JET WRENCH OR A PROPER FITTING SCREWDRIVER TO CAREFULLY TURN JETS IN CLOCKWISE, COUNTING THE EXACT NUMBER OF TURNS IT TAKES TO SEAT JET IN CASTING. RECORD NUMBER OF TURNS TO THE NEAREST 1/4 TURN.

REMOVE JETS, THEN IDENTIFY THE JETS AND METERING RODS. THROTTLE SIDE OR CHOKE SIDE. FOR PROPER REASSEMBLY.

IDLE TRIM SCREWS (39)- BEFORE REMOVING, USING AN ALLEN WRENCH, CAREFULLY TURN SCREWS IN CLOCKWISE, COUNTING THE NUMBER OF TURNS IT TAKES TO SEAT SCREW IN CASTING. RECORD FOR PROPER REASSEMBLY. (2700 ONLY)

WELCH PLUG (45) (52) PUNCH OR DRILL HOLE IN CENTER OF PLUG, USING AN EASY OUT TYPE PULLER. TAP PLUG FROM SEAT.

CHOKE COVER RIVETS (56) (7200)- REMOVE THE TOP TWO (THROUGH) RIVETS USING A 1/8 INCH DIAMETER DRILL. DRILL THROUGH THE RIVET HEAD AND REMOVE THE THIRD (BOTTOM) RIVET IS LOCATED IN A "BLIND" HOLE, AND MUST BE REMOVED BY LIGHTLY TAPPING THE BACKSIDE OF THE RETAINER RING, USING A PUNCH AND HAMMER. THE RIVET, RETAINER RING, CHOKE HOUSING AND GASKET, CAN THEN BE REMOVED.

CHOKE DIAPHRAGM COVER (51)- DO NOT PUT COVER IN ANY TYPE OF CLEANING FLUID. (FILTER AND CHECK VALVE WILL BE DAMAGED).

NOMENCLATURE

| REF. NO. | REF. NO. |
|---|---|
| 1. SCREW- THROTTLE RETURN CONTROL | 39. SCREW (2)- IDLE TRIM (2700) |
| 2. THROTTLE RETURN CONTROL | 40. O- RING (2)- IDLE TRIM SCREW (2700) |
| 3. FITTING- FUEL INLET | 41. WEIGHT- PUMP CHECK BALL |
| 4. GASKET- FITTING | 42. BALL- PUMP CHECK |
| 5. FILTER- FUEL | 43. SCREW & LOCKWASHER (4)- DIAPHRAGM COVER |
| 6. SPRING- FILTER | 44. COVER- DIAPHRAGM |
| 7. E- CLIP- PUMP ROD | 45. PLUG- VENTURI VALVE DIAPHRAGM SCREW |
| 8. FEEDBACK CONTROL MOTOR (7200) | 46. GUIDE- SPRING |
| 9. GASKET- CONTROL MOTOR (7200) | 47. SPRING- DIAPHRAGM |
| 10. VALVE- METERING (7200) | 48. DIAPHRAGM- VENTURI VALVE |
| 11. SPRING- METERING VALVE (7200) | 49. SCREW & LOCKWASHER (5)- THROTTLE BODY |
| 12. E- CLIP- CHOKE CONTROL ROD | 50. BOWL ASSEMBLY |
| 13. SCREW & LOCKWASHER (2)- COVER PLATE | 51. GASKET- THROTTLE BODY |
| 14. COVER PLATE- VENTURI VALVE | 52. PLUG- WIDE OPEN STOP SCREW |
| 15. PLUG- VENTURI AIR BYPASS SCREW | 53. SCREW- WIDE OPEN STOP |
| 16. GASKET- COVER PLATE | 54. SPRING- WIDE OPEN STOP SCREW |
| 17. ROLLER BEARINGS (2) | 55. SCREW (3)- RETAINER |
| 18. HOSE- CHOKE FRESH AIR (7200) | 56. RIVET (3)- RETAINER (7200 CALIF.) |
| 19. SCREW & LOCKWASHER (2)- BOWL COVER (LONG) | 57. RETAINER- CHOKE THERMOSTATIC HOUSING |
| 20. SCREW & LOCKWASHER (5)- BOWL COVER | 58. CHOKE THERMOSTATIC HOUSING |
| 21. BOWL COVER ASSEMBLY | 59. GASKET- THERMOSTATIC HOUSING |
| 22. PUMP PLUNGER ASSEMBLY | 60. SCREW & LOCKWASHER (2)- DIAPHRAGM HOUSING |
| 23. SPRING- PUMP RETURN | 61. COVER- DIAPHRAGM |
| 24. CUP- PUMP | 62. LEAD BALL- COVER ADJ. SCREW |
| 25. STEM- PUMP | 63. SPRING- DIAPHRAGM |
| 26. PIN- FLOAT HINGE | 64. DIAPHRAGM ASSEMBLY- CHOKE |
| 27. FLOAT & LEVER ASSEMBLY | 65. NUT |
| 28. GASKET- BOWL COVER | 66. LOCKWASHER |
| 29. NEEDLE, SEAT & GASKET ASSEMBLY | 67. LEVER & FAST IDLE SCREW |
| 30. PIVOT PLUG (2)- VENTURI VALVE | 68. BUSHING- FAST IDLE CAM LEVER |
| 31. PIVOT PIN (2)- VENTURI VALVE | 69. LEVER- FAST IDLE CAM |
| 32. VENTURI VALVE AND METERING ROD ASSEMBLY | 70. E-CLIP- THROTTLE SHAFT |
| 33. VENTURI VALVE | 71. SCREW & LOCKWASHER (2)- SENSOR |
| 34. CUP PLUG (2)- MAIN JET | 72. THROTTLE POSITION SENSOR |
| 35. JET (2)- MAIN METERING | 73. THROTTLE BODY ASSEMBLY |
| 36. O-RING (2)- MAIN JET | |
| 37. SEAL- COLD ENRICHMENT ROD | |
| 38. CUP PLUG (2)- IDLE TRIM SCREW (2700) | |

- * INSTALL THESE PARTS AS BENCH ADJUSTMENTS ARE MADE.
- ** INSTALL AFTER FINAL RUNNING ADJUSTMENTS ARE MADE.

CLEANING

CLEANING MUST BE DONE WITH CARBURETOR DISASSEMBLED. SOAK PARTS LONG ENOUGH TO SOFTEN AND REMOVE ALL FOREIGN MATERIAL. USE A CARBURETOR CLEANING SOLVENT. MAKE CERTAIN THE THROTTLE BORES ARE FREE OF ALL CARBON AND VARNISH DEPOSITS. RINSE OFF IN A SUITABLE SOLVENT. BLOW OUT ALL PASSAGES IN THE CASTINGS WITH COMPRESSED AIR AND CHECK CAREFULLY TO INSURE THOROUGH CLEANING OF OBSCURE AREAS. **CAUTION: DO NOT SOAK PARTS CONTAINING NYLON OR RUBBER. THESE INCLUDE SOLENOIDS, SWITCHES, OR PARTS SUCH AS (2), (8), (10), (19), (27), (58), (61) (72)**

REASSEMBLY

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

SPECIAL INSTRUCTIONS ON PAGE 2

ADJUSTMENTS

SPECIAL INSTRUCTIONS

CHECK ADJUSTMENTS. SOME ARE MADE AS CARBURETOR IS BEING ASSEMBLED.

O-RING- WHEN INSTALLING, LIGHTLY LUBRICATE WITH LIGHT OIL.

IDLE TRIM SCREWS (39) - TURN EACH SCREW IN CLOCKWISE UNTIL IT IS SEATED IN THE CASTING, THEN TURN SCREW COUNTERCLOCKWISE THE NUMBER OF TURNS RECORDED DURING DISASSEMBLY (2700 ONLY).

MAIN JETS (35) - TURN EACH MAIN JET IN CLOCKWISE UNTIL IT IS SEATED IN THE CASTING. THEN TURN JET COUNTERCLOCKWISE THE NUMBER OF TURNS RECORDED DURING DISASSEMBLY.

CUP PLUGS (34) - USING A 3/8" DRIFT PUNCH, INSERT PLUG IN HOLE AND TAP LIGHTLY UNTIL PLUG SEATS IN CASTING. (SET PROPER DEPTH WITH GAUGE - SEE FIG. 2)

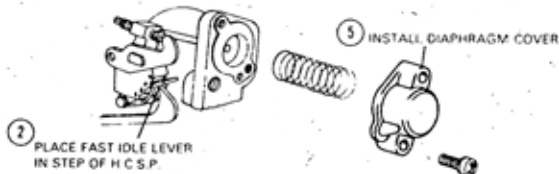
PIVOT PLUG (30) - TAPERED PLUGS CAN BE CAREFULLY PRESSED INTO THE PIVOT PIN USING PLIERS WITH PARALLEL JAWS IN THE OPEN POSITION.

FLOAT HINGE PIN (26) - INSTALL PIN SO FLAT HEAD OF PIN IS IN THE RECESSED LEG OF THE FLOAT HANGER.

BOWL COVER ASSEMBLY (71) - WHEN INSTALLING ON MAIN BODY, BE SURE LIMITER LEVER IS MOVED FORWARD TO CLEAR VENTURI VALVE ARM AND VENTURI VALVE DIAPHRAGM STEM ENGAGES THE VENTURI VALVE PIN.

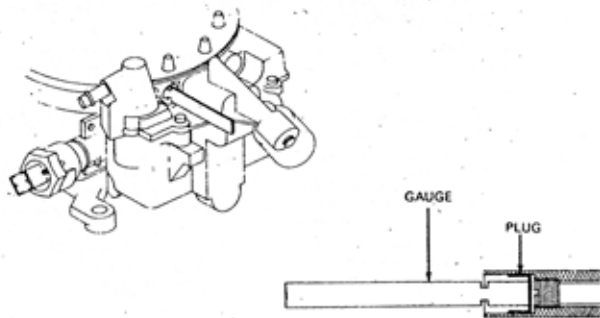
IMPORTANT: SEE FIG. 22 FOR COLD ENRICHMENT METERING ROD ADJUSTMENT NOTE.

- HOLD THROTTLE FIRMLY CLOSED TO MAINTAIN CAM POSITION
- PLACE THE HIGH CAM SPEED POSITIONER ON SPECIFIED STEP OF CAM AND AGAINST SHOULDER OF NEXT STEP
- TURN DIAPHRAGM IN UNTIL METAL WASHER LIGHTLY BOTTOMS ON CASTING, THEN ROTATE COUNTERCLOCKWISE 1/2 TO 1 1/2 TURNS UNTIL VACUUM PORT AND DIAPHRAGM HOLE LINE UP
- INSTALL DIAPHRAGM COVER



1979 ONLY (2700)
HIGH CAM SPEED POSITIONER ADJUSTMENT

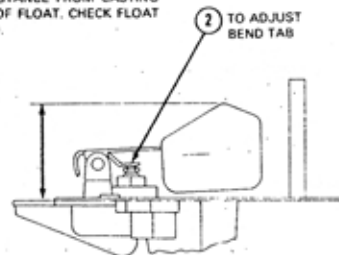
FIG. 1



MAIN JET CUP PLUG INSTALLATION

FIG. 2

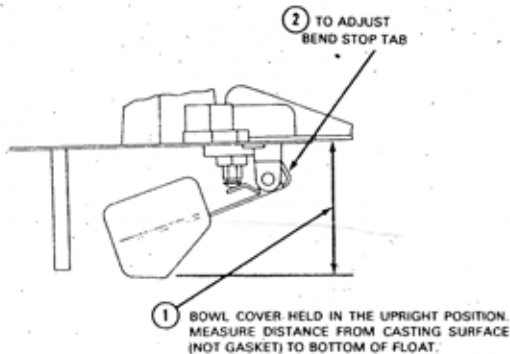
- (BOWL COVER GASKET REMOVED) BOWL COVER INVERTED MEASURE DISTANCE FROM CASTING SURFACE TO BOTTOM OF FLOAT. CHECK FLOAT PONTON AT EACH END.
- TO ADJUST BEND TAB



CAUTION: DO NOT EXERT PRESSURE ON RESILIENT NEEDLE VALVE.

2700/7200
DRY FLOAT LEVEL ADJUSTMENT

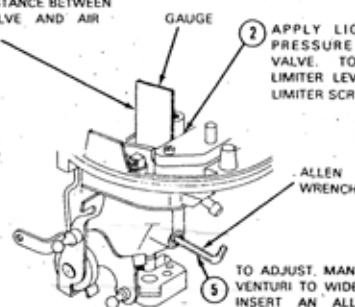
FIG. 3



2700/7200
FLOAT DROP ADJUSTMENT

FIG. 4

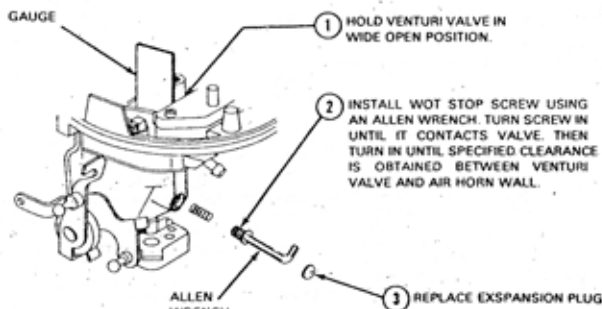
- HOLD THROTTLE PLATES IN WIDE OPEN POSITION.
- REMOVE EXPANSION PLUG (52), SET SCREW (53), AND SPRING (54).
- MEASURE DISTANCE BETWEEN VENTURI VALVE AND AIR HORN WALL.
- APPLY LIGHT CLOSING PRESSURE ON VENTURI VALVE TO MAKE SURE LIMITER LEVER IS AGAINST LIMITER SCREW
- REPEAT STEPS (1), (2), (3).



TO ADJUST, MANUALLY MOVE THE VENTURI TO WIDE OPEN POSITION. INSERT AN ALLEN WRENCH IN THROUGH STOP SCREW HOLE TO REACH ALLEN SCREW IN VENTURI ARM. TURN LIMITER ADJUSTING SCREW CLOCKWISE TO INCREASE GAP AND COUNTERCLOCKWISE TO DECREASE.

2700/7200
VENTURI VALVE LIMITER ADJUSTMENT

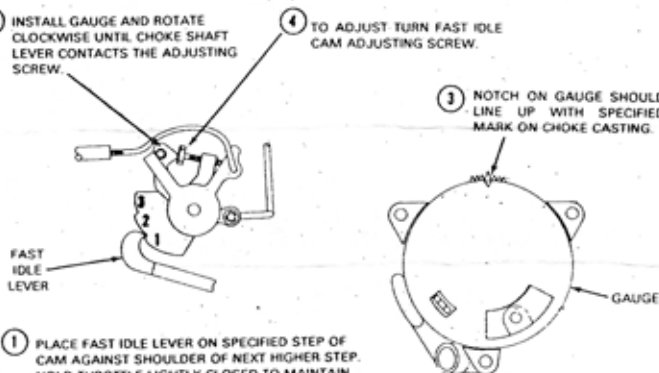
FIG. 5



2700/7200
VENTURI VALVE WIDE OPEN STOP ADJUSTMENT

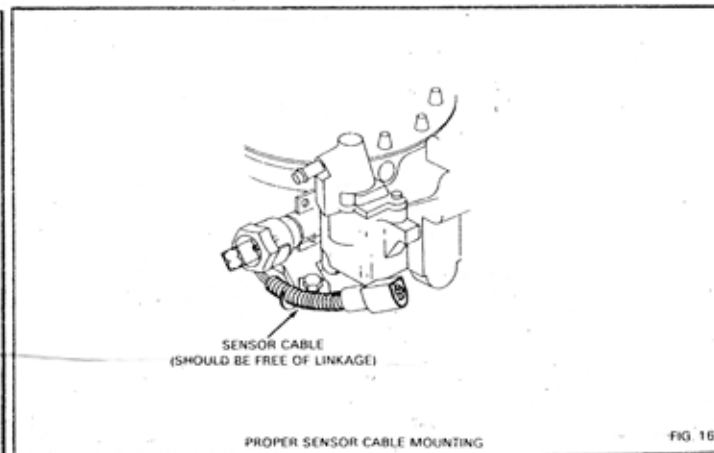
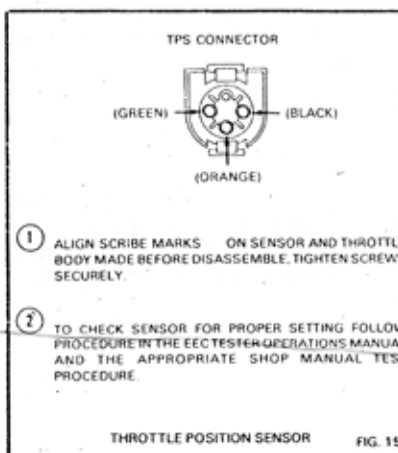
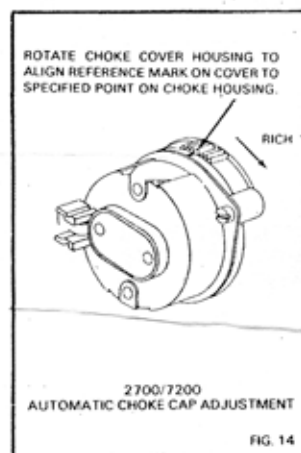
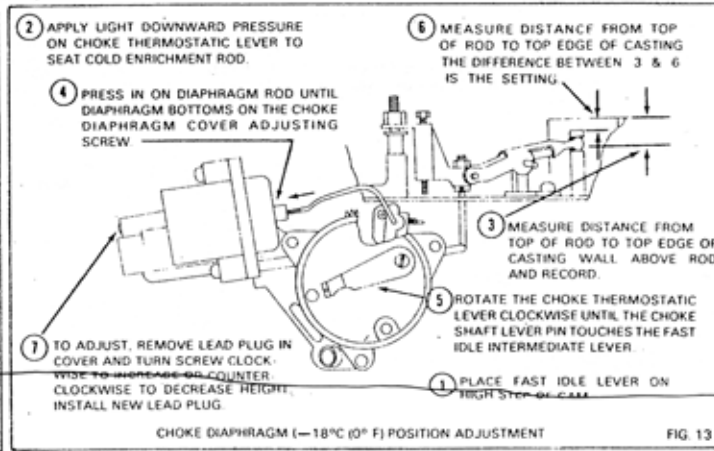
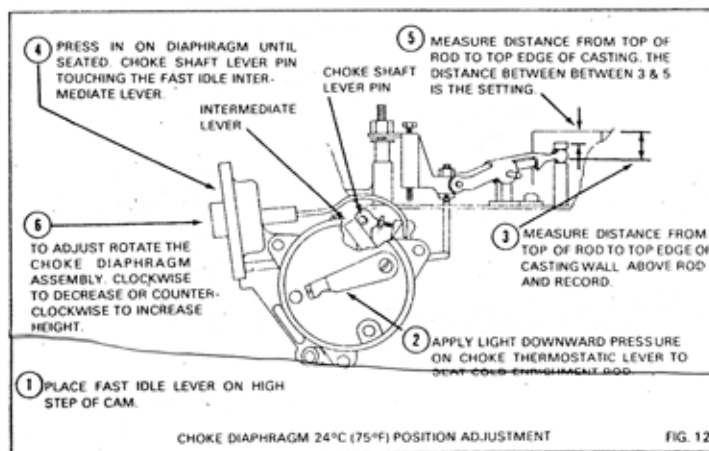
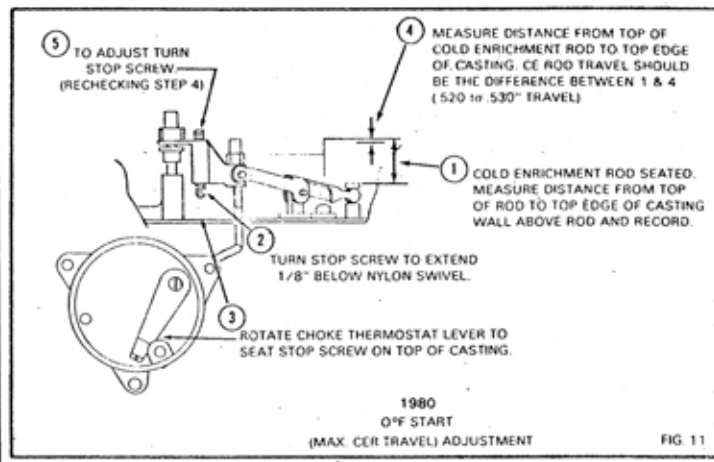
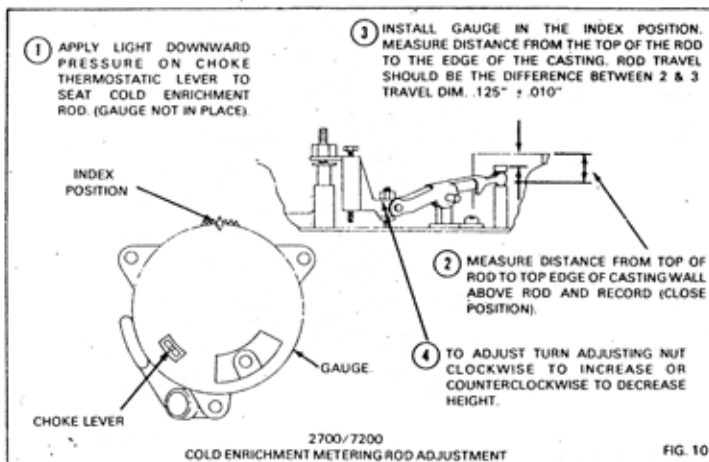
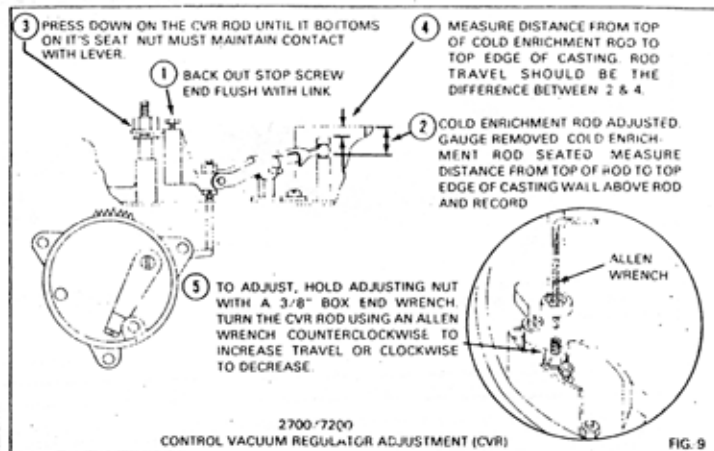
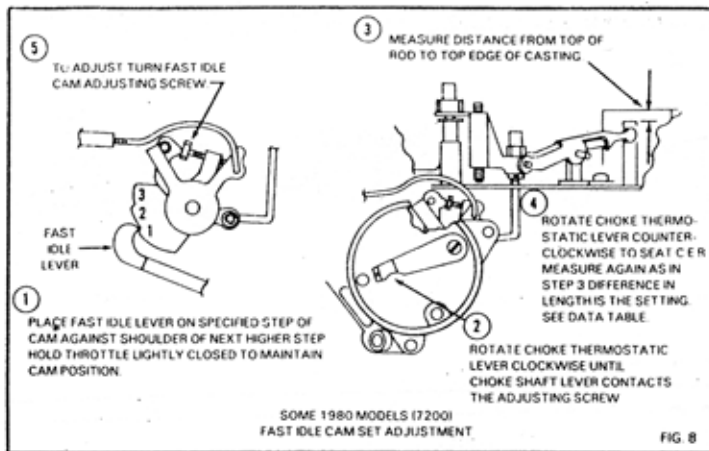
FIG. 6

- INSTALL GAUGE AND ROTATE CLOCKWISE UNTIL CHOKE SHAFT LEVER CONTACTS THE ADJUSTING SCREW.
- TO ADJUST TURN FAST IDLE CAM ADJUSTING SCREW.
- NOTCH ON GAUGE SHOULD LINE UP WITH SPECIFIED MARK ON CHOKE CASTING.
- PLACE FAST IDLE LEVER ON SPECIFIED STEP OF CAM AGAINST SHOULDER OF NEXT HIGHER STEP. HOLD THROTTLE LIGHTLY CLOSED TO MAINTAIN CAM POSITION.

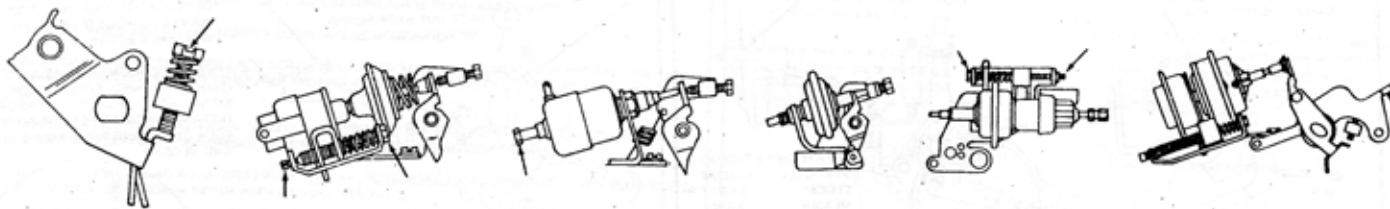


2700/7200
FAST IDLE CAM SET ADJUSTMENT

FIG. 7



FOLLOW IDLE ADJUSTMENT PROCEDURE FOUND ON ENGINE DECAL (OR IN SERVICE MANUAL).



CURB IDLE ADJUSTMENT WITHOUT THROTTLE POSITIONER WITH OR WITHOUT DASHPOT.

SOLENOID BRACKET ADJUSTMENT WITH OR WITHOUT DASHPOT.

SOLENOID THRU ADJUSTMENT WITH OR WITHOUT DASHPOT.

VACUUM KICKER

KICKER-DASH POT

SOL-A-VAC

CURB IDLE ADJUSTMENT TYPE SCREWS

FIG. 17

NOTE: THIS IS A CLOSE TOLERANCE SETTING WHICH IS CALIBRATED ON A PRECISION FLOW STAND DURING THE MANUFACTURING PROCESS. THE ADJUSTMENTS ARE SET AND DO NOT NORMALLY LOOSE THE ADJUSTMENTS. IF ALL ATTEMPTS TO CURE A PROBLEM THROUGH NORMAL DIAGNOSTIC TECHNIQUES ARE UNSUCCESSFUL PERFORM THIS ADJUSTMENT.

1. BEFORE INSTALLING CARBURETOR REMOVE VENTURI VALVE ADJUSTING SCREW PLUG. (CENTER PUNCH UNTIL LOOSE). ALSO REMOVE VENTURI BYPASS SCREW PLUG, IF SO EQUIPPED.
2. INSTALL CARBURETOR ON ENGINE AND ATTACH VACUUM AND ELECTRICAL CONNECTIONS.
3. START THE ENGINE AND BRING IT TO NORMAL OPERATING TEMPERATURE.
4. CONNECT VACUUM GAUGE (T77L-9510-A OR EQUIVALENT) TO VACUUM TAP ON VENTURI VALVE COVER.

NOTE: THE SPECIFIED VACUUM GAUGE INDICATES VACUUM IN INCHES OF WATER. AN INTAKE MANIFOLD VACUUM GAUGE INDICATES VACUUM IN INCHES OF MERCURY AND CANNOT BE USED TO PERFORM THIS ADJUSTMENT.

5. SET IDLE SPEED TO 500 RPM WITH TRANSMISSION IN DRIVE. RETURN TRANSMISSION TO "PARK"
6. USING FINGERS, PUSH VENTURI VALVE UNTIL VALVE IS SEATED AGAINST CASTING FACE. WHILE HOLDING CLOSED, ADJUST BYPASS SCREW TO OBTAIN A VACUUM READING OF SPECIFIED INCHES OF WATER ON GAUGE.
7. RELEASE VENTURI VALVE AND CYCLE THROTTLE.

NOTE: CYCLE THE THROTTLE AFTER EACH ADJUSTMENT.

8. WITH ENGINE AT CURB IDLE AND TRANSMISSION IN PARK, ADJUST VENTURI VALVE DIAPHRAGM SCREW UNTIL CONTROL VACUUM SPECIFICATIONS IS OBTAINED.
9. SET CURB IDLE SPEEDS TO SPECIFICATION IN DRIVE. INSTALL VENTURI VALVE DIAPHRAGM SCREW PLUG.

NOTE: THIS ADJUSTMENT SHOULD BE DONE AS A LAST STEP AND VARIATIONS TO THE ABOVE READING MAY OCCUR, DEPENDING ON ENGINE CONDITION. HOWEVER, AS LONG AS THE ENGINE FUNCTIONS PROPERLY, THESE VARIATIONS ARE ACCEPTABLE.

NOTE: 1980 5.8L CALIFORNIA 7200 FEEDBACK CARBURETORS DON'T HAVE AN ADJUSTMENT SCREW. YOU CANNOT ADJUST CONTROL VACUUM ON THESE CARBURETORS.

ON CAR ADJUSTMENT BYPASS AND CONTROL VACUUM ADJUSTMENT

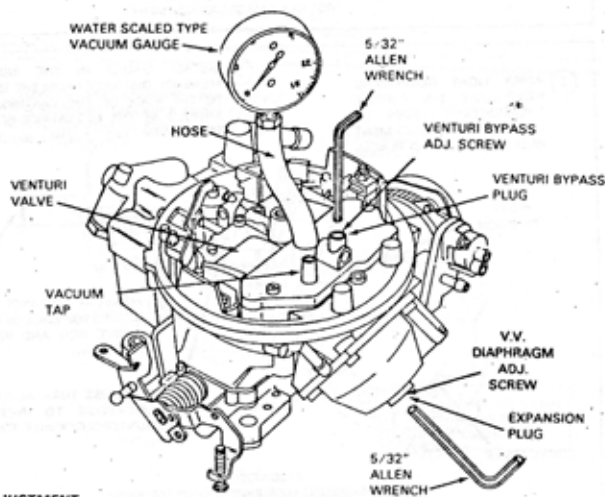
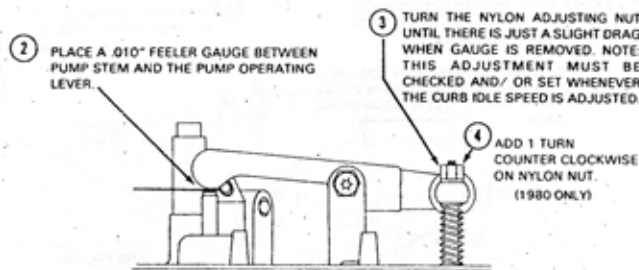


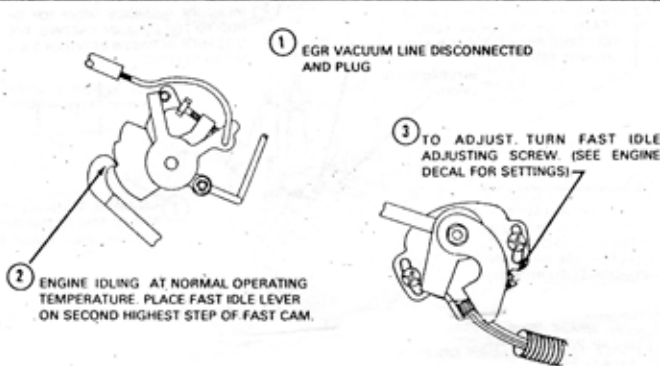
FIG. 18



- 1 CURB IDLE SPEED SET TO SPECIFICATIONS. (SEE ENGINE DECAL)

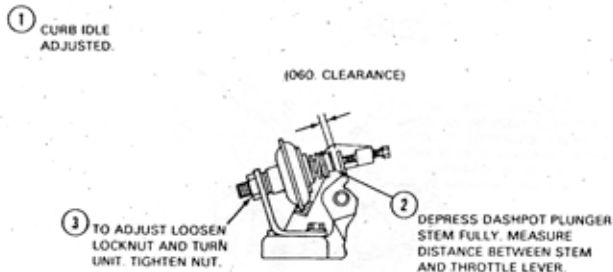
PUMP STEM CLEARANCE

FIG. 19



FAST IDLE SPEED ADJUSTMENT

FIG. 20



DASHPOT ADJUSTMENT

FIG. 21

ADJUSTMENTS
IMPORTANT! THE COLD ENRICHMENT METERING ROD ADJUSTMENT (FIG. 10) MUST BE DONE PRIOR TO ANY OTHER CHOKE SYSTEM ADJUSTMENTS.

FIG. 22