

INSTRUCTION SHEET OFF VEHICLE CARBURETOR SERVICE AMERICAN MOTORS — MODEL 2150

50-537-7

GENERAL EXPLODED VIEW

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

DISASSEMBLY

USE EXPLODED VIEW AS A GUIDE. THE NUMERICAL SEQUENCE MAY GENERALLY BE FOLLOWED TO DISASSEMBLE UNIT FAR ENOUGH TO PERMIT CLEANING AND INSPECTION. NOTE: WHEN REMOVING PUMP ROD RETAINER (36) MARK ROD HOLE POSITION ON LEVER FOR PROPER ASSEMBLY. TO REMOVE PLASTIC LIMITER CAPS (43) INSTALL A SHEET METAL SCREW IN THE CENTER OF THE CAP AND TURN CLOCKWISE.

NOMENCLATURE

REF. NO.	REF. NO.
1. SCREW & LOCKWASHER- THROTTLE POSITIONER	30. GASKET- VENTURI CLUSTER
2. THROTTLE POSITIONER ASSY.	31. RETAINER- AIR METERING ROD SPRING
3. SCREW- AIR SHIELD	32. SPRING- AIR METERING ROD RETURN
4. AIR SHIELD	33. AIR METERING ROD ASSY.
5. SCREW (3)- CHOKE COVER CLAMP	34. GASKET- VENTURI CLUSTER
6. CLAMP- CHOKE COVER	35. BALL- PUMP DISCHARGE CHECK
7. CHOKE COVER & SPRING ASSY.	36. RETAINER- PUMP ROD
8. GASKET- CHOKE COVER	37. ROD- PUMP
9. RETAINER- CHOKE ROD	38. SCREW (4)- PUMP DIAPHRAGM COVER
10. RETAINER- FAST IDLE CAM ROD (LOWER)	39. COVER- PUMP DIAPHRAGM
11. SCREW & LOCKWASHER (3)- CHOKE HOUSING	40. PUMP DIAPHRAGM ASSY.
12. CHOKE HOUSING ASSY.	41. SPRING- PUMP DIAPHRAGM RETURN
13. GASKET- CHOKE HOUSING	42. VALVE- PUMP INLET CHECK
14. SCREW (2)- CHOKE PULLDOWN ASSY.	43. CAP (2)- IDLE LIMITER
15. CHOKE PULLDOWN MOTOR & HOSE ASSY.	44. NEEDLE (2)- IDLE ADJUSTING
16. SCREW & LOCKWASHER (6)- BOWL COVER	45. SPRING (2)- IDLE ADJ. NEEDLE
17. BOWL COVER ASSY.	46. SCREW & LOCKWASHER (4)- ENRICHMENT VALVE COVER
18. SEAL- CHOKE ROD	47. COVER- ENRICHMENT VALVE
19. GASKET- BOWL COVER	48. GASKET- COVER
20. RETAINER- FLOAT PIN	49. VALVE- ENRICHMENT
21. FLOAT & LEVER ASSY.	50. GASKET- ENRICHMENT VALVE
22. SPRING- DAMPER (WHERE USED)	51. SCREW & LOCKWASHER (3)- ANERIOD ASSY.
23. PIN- FLOAT HINGE	52. ANERIOD ASSY.
24. NEEDLE & SEAT ASSY.	53. GASKET- ANERIOD ASSY.
25. SCREEN- NEEDLE SEAT	54. SCREW & LOCKWASHER (4)- POPPET VALVE ASSY.
26. JET (2)- MAIN METERING	55. POPPET VALVE ASSY.- ALT
27. SCREW- PUMP DISCHARGE NOZZLE	56. GASKET- POPPET VALVE HOUSING
28. GASKET- PUMP DISC. SCREW	57. MAIN BODY ASSY.
29. VENTURI CLUSTER ASSY.	

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 BURELS 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 PARTS CONTAINING RUBBER MATERIALS OR PARTS SUCH AS (2)(7)(15)(21)(49) (52)(55) IN CLEANING SOLVENTS.

REASSEMBLY

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

SPECIAL INSTRUCTIONS

ENRICHMENT VALVE (49)- USE CARE WHEN TIGHTENING TO PREVENT DISTORTION OF GASKET (50)

IDLE ADJUSTING NEEDLES (44)- TURN IN UNTIL SEATED, THEN BACK OUT 1 1/2-2 TURNS. (DO NOT INSTALL LIMITER CAPS AT THIS TIME)

PUMP INLET CHECK VALVE (42)- INSTALLATION.- LUBRICATE TIP OF NEW VALVE AND INSERT IN CENTER HOLE OF PUMP CAVITY. USE NEEDLE NOSE PLIERS AND PULL THRU FROM FUEL BOWL SIDE UNTIL FULLY SEATED. CUT OFF VALVE TIP AT RETAINING SHOULDER.

PUMP DIAPHRAGM RETURN SPRING (41)- INSTALLATION.- INSTALL LARGE OPEN END OF SPRING OVER RUBBER INLET CHECK VALVE (42).

CHOKE COVER (7)- INSTALLATION.- BE SURE TO INSTALL BI-METAL SPRING HOOK IN SLOT OF LEVER.

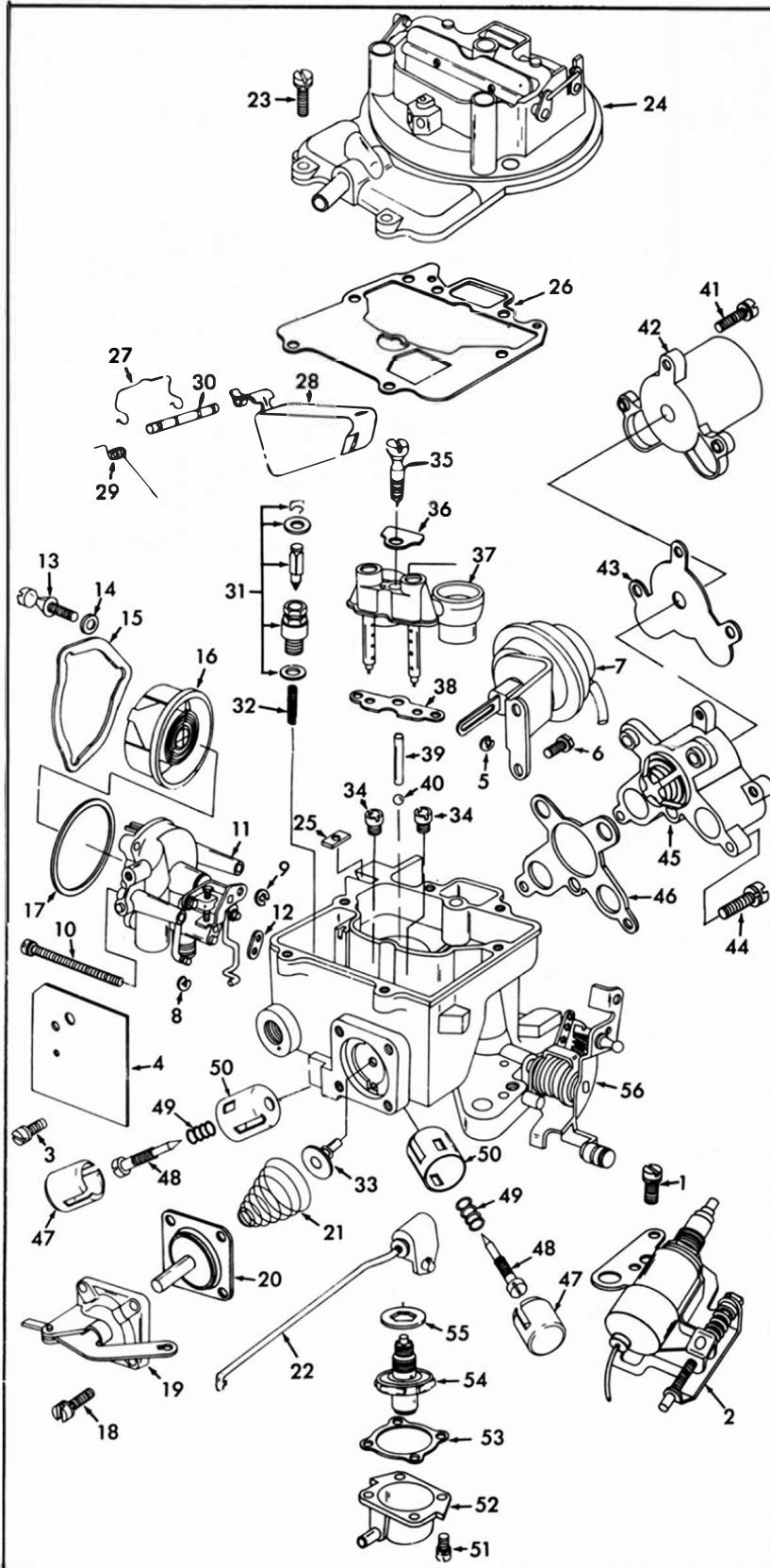
INSTRUCTION SHEET

OFF VEHICLE CARBURETOR SERVICE

AMERICAN MOTORS — MODEL 2150

GENERAL EXPLODED VIEW

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DISASSEMBLY

USE EXPLODED VIEW AS A GUIDE. THE NUMERICAL SEQUENCE MAY GENERALLY BE FOLLOWED TO DISASSEMBLE UNIT FAR ENOUGH TO PERMIT CLEANING AND INSPECTION.

TAMPER RESISTANT CHOKE CAN BE REMOVED AS A ASSEMBLY FOR MAJOR OVERHAUL. IF NECESSARY TO OVERHAUL CHOKE REMOVE CHOKE COVER CLAMP TAMPER PROOF SCREWS BY CENTER PUNCHING THE SCREW HEADS, THEN USING A 1/4" DRILL, DRILL THE SCREW HEAD DEEP ENOUGH TO REMOVE THE RETAINING RING. CAREFULLY REMOVE THE CAP (18) BY INSERTING A SHARP FLAT CHISEL BETWEEN THE LAYERS OF THE CHOKE CAP GASKET. REMOVE THE REMAINING PORTION OF THE CHOKE CAP RETAINING SCREWS WITH A LOCKING PLIERS. CLEAN ANY REMAINING EPOXY FROM THE MATING SURFACES WITH A GASKET SCRAPER.

TO REMOVE CAP (48) AND CUP (49) FROM IDLE MIXTURE NEEDLE SUPPORT THE AREA UNDER THE LIMITER PLUG AND USING A POINTED TOOL DIRECTED AT THE TONG, LIGHTLY TAP THE PLUG FORWARD. BEFORE REMOVING IDLE ADJUSTING NEEDLE, TURN IN CLOCKWISE COUNTING THE NUMBER OF TURNS IT TAKES TO LIGHTLY SEAT THE NEEDLE. RECORD FOR REASSEMBLY.

NOMENCLATURE

REF. NO.	REF. NO.
1. SCREW - THROTTLE POSITIONER	29. SPRING - DAMPER
2. THROTTLE POSITIONER ASSY.	30. PIN - FLOAT HINGE
3. SCREW - AIR SHIELD	31. NEEDLE & SEAT ASSY.
4. AIR SHIELD	32. SCREEN - NEEDLE SEAT
5. RETAINER - CHOKE PULLDOWN ROD	33. VALVE - PUMP INLET CHECK
6. SCREW (2) - CHOKE PULLDOWN ASSY.	34. JET - MAIN
7. CHOKE PULLDOWN ASSY.	35. SCREW - PUMP DISCHARGE NOZZLE
8. RETAINER - FAST IDLE CAM ROD (LOWER)	36. GASKET - NOZZLE SCREW
9. RETAINER - CHOKE ROD	37. VENTURI CLUSTER ASSY.
10. SCREW & LOCKWASHER (3) - CHOKE ASSY.	38. GASKET - VENTURI CLUSTER
11. CHOKE HOUSING ASSY.	39. WEIGHT - PUMP DISC. BALL
12. GASKET - CHOKE HOUSING	40. BALL - PUMP DISC.
13. SCREW (3) BREAKAWAY - CHOKE COVER CLAMP	41. SCREW & LOCKWASHER (3) - ANEROID ASSY.
14. WASHER (3) - BREAKAWAY SCREW	42. ANEROID ASSY.
15. RETAINER - CHOKE COVER	43. GASKET - ANEROID ASSY.
16. CHOKE COVER & SPRING ASSY.	44. SCREW & LOCKWASHER (4) - POPPET VALVE ASSY.
17. GASKET - CHOKE COVER	45. POPPET VALVE ASSY. - ALT.
18. SCREW (4) - PUMP DIAPHRAGM COVER	46. GASKET - NOZZLE SCREW
19. COVER - PUMP DIAPHRAGM	47. CAP (2) - IDLE LIMITER
20. PUMP DIAPHRAGM ASSY.	48. NEEDLE (2) - IDLE ADJUSTING
21. SPRING - PUMP DIAPHRAGM	49. SPRING - IDLE ADJ. NEEDLE
22. ROD - PUMP	50. CUP (2) - IDLE LIMITER
23. SCREW & LOCKWASHER 6 - BOWL COVER	51. SCREW & LOCKWASHER (4) - ENRICHMENT VALVE COVER
24. BOWL COVER ASSY.	52. GASKET - ENRICHMENT VALVE
25. SEAL - CHOKE ROD	53. GASKET - COVER
26. GASKET - BOWL COVER	54. VALVE - ENRICHMENT
27. RETAINER - FLOAT PIN	55. GASKET - ENRICHMENT VALVE
28. FLOAT & LEVER ASSY.	56. MAIN BODY ASSY.

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 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 PARTS CONTAINING RUBBER MATERIAL OR PARTS SUCH AS (2), (7), (18), (28), (42), (45), (54) IN CLEANING SOLVENTS.

REASSEMBLY

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

SPECIAL INSTRUCTIONS

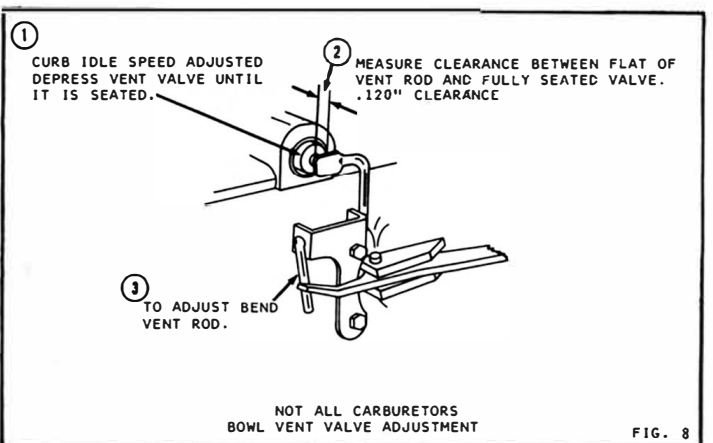
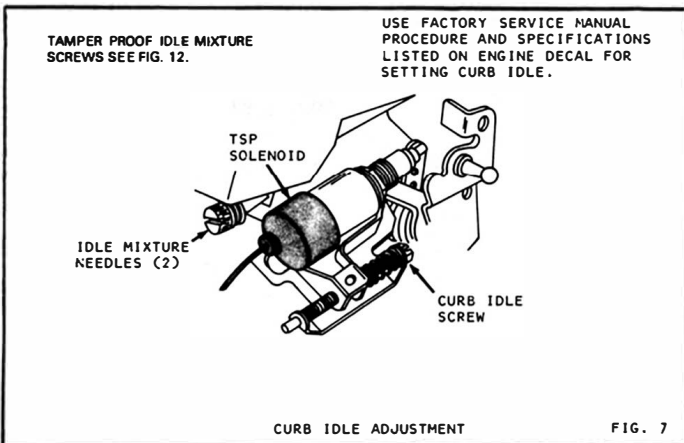
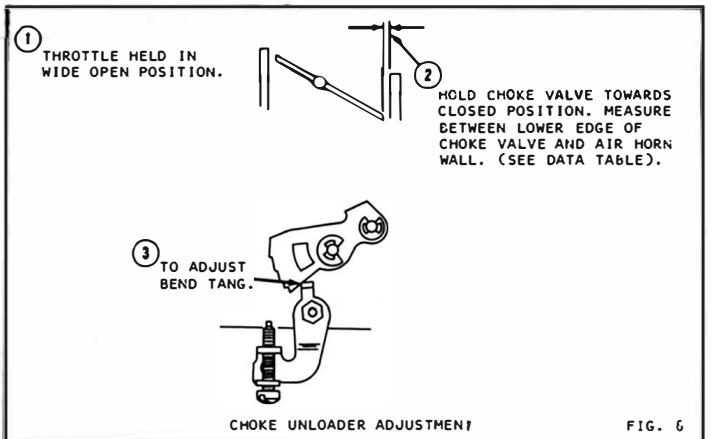
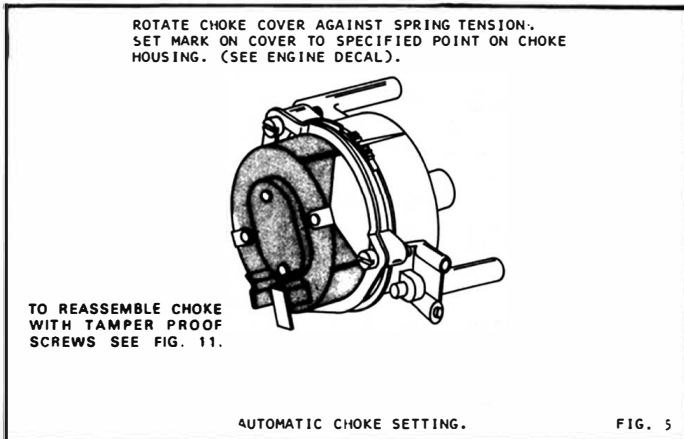
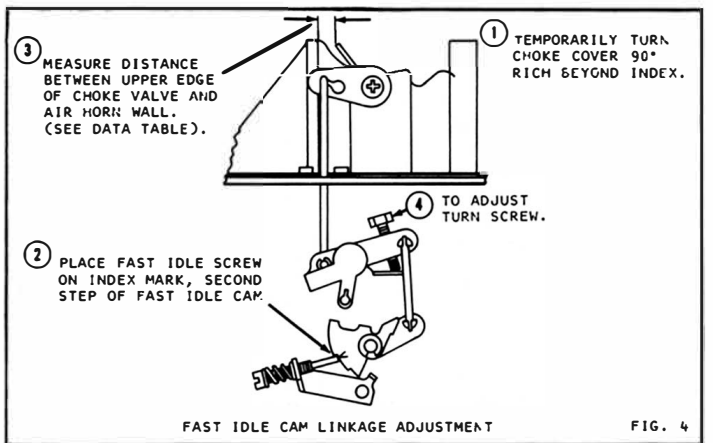
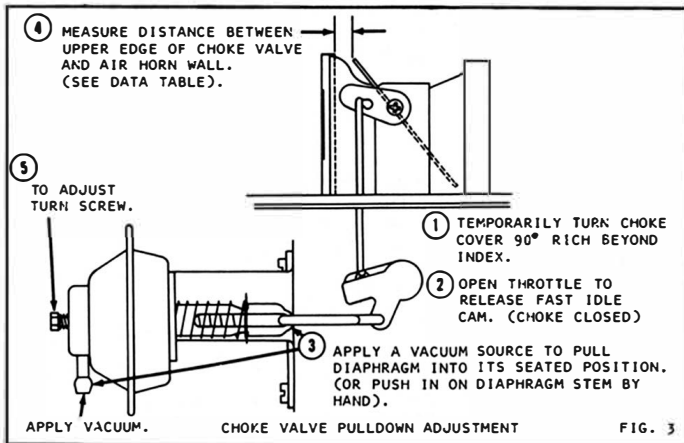
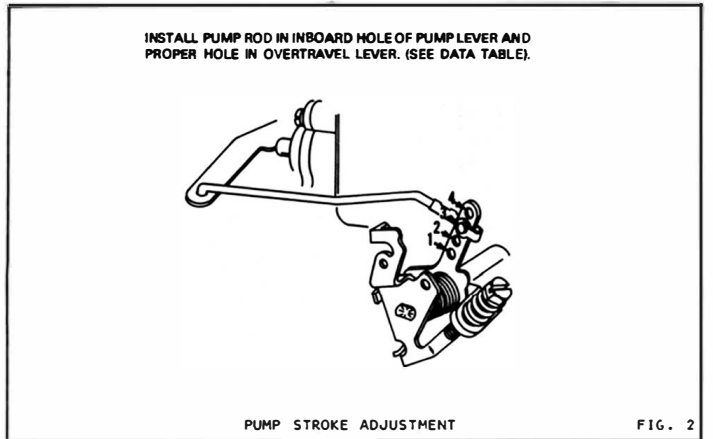
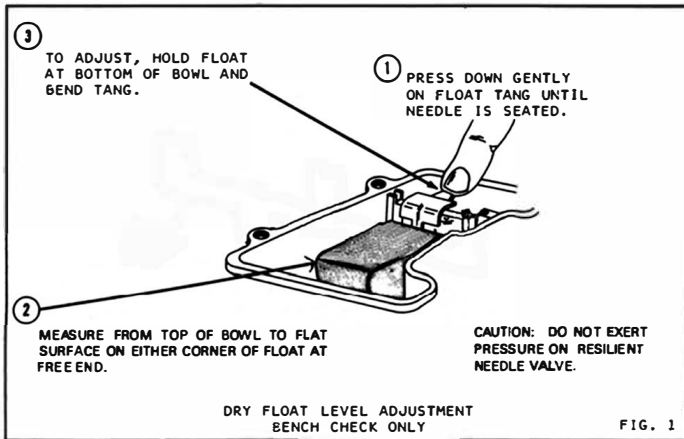
ENRICHMENT VALVE (54) - USE CARE WHEN TIGHTENING TO PREVENT DISTORTION OF GASKET (55).

IDLE ADJUSTING NEEDLES (48) - TURN IN UNTIL LIGHTLY SEATED THEN BACK OUT NUMBER OF TURNS RECORDED ON DISASSEMBLY. (DO NOT INSTALL CAPS (47) AT THIS TIME).

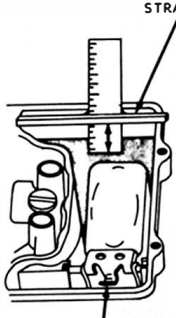
PUMP INLET CHECK VALVE INSTALLATION (33) - LUBRICATE TIP OF NEW VALVE AND INSERT IN CENTER HOLE OF PUMP CAVITY. USE A NEEDLE NOSE PLIERS AND PULL THROUGH FROM FUEL BOWL SIDE UNTIL FULLY SEATED. CUT OFF VALVE TIP AT RETAINING SHOULDER.

PUMP DIAPHRAGM RETURN SPRING INSTALLATION (21) - INSTALL LARGE OPEN END OF SPRING OVER RUBBER INLET CHECK VALVE (33).

ADJUSTMENTS



ADJUSTMENTS

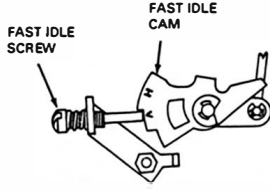


STRAIGHTEDGE

1. VEHICLE ON A LEVEL SURFACE AND ENGINE AT NORMAL OPERATING TEMPERATURE.
2. REMOVE AIR HORN ATTACHING SCREWS. START AND LET ENGINE IDLE FOR A FEW MINUTES, THEN ROTATE AIR HORN OUT OF WAY AND REMOVE AIR HORN GASKET.
3. WHILE ENGINE IS IDLING, USE A T-SCALE TO MEASURE THE VERTICAL DISTANCE FROM THE TOP MACHINED SURFACE OF THE CARBURETOR MAIN BODY TO THE LEVEL OF THE FUEL IN THE BOWL. CAUTION: MEASUREMENT MUST BE MADE AT LEAST 1/4" AWAY FROM ANY VERTICAL SURFACE TO ASSURE AN ACCURATE READING. (SEE DATA TABLE FOR SETTING.)
4. TO ADJUST. STOP ENGINE. BEND FLOAT TAB UPWARD TO RAISE FUEL LEVEL, AND DOWNWARD TO LOWER IT. TO RECHECK LEVEL ENGINE MUST BE STARTED AND ALLOWED TO IDLE A FEW MINUTES TO STABILIZE FUEL LEVEL.
5. RECHECK CARBURETOR IDLE ADJUSTMENT.

TO ADJUST BEND TAB.

WET FLOAT ADJUSTMENT FIG. 9

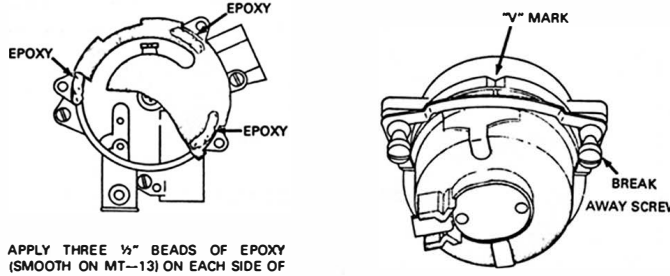


FAST IDLE SCREW

FAST IDLE CAM

ADJUST CURB AND OFF IDLE. EGR VALVE HOSE DISCONNECTED & PLUGGED. PLACE FAST IDLE SCREW ON PROPER STEP OF FAST IDLE CAM. ADJUST FAST IDLE SCREW TO PROPER R.P.M. (SEE ENGINE DECAL).

FAST IDLE ADJUSTMENT FIG. 10



EPOXY

EPOXY

EPOXY

APPLY THREE 1/2" BEADS OF EPOXY (SMOOTH ON MT-13) ON EACH SIDE OF GASKET ADJACENT TO THE RETAINER SCREW BOSSES

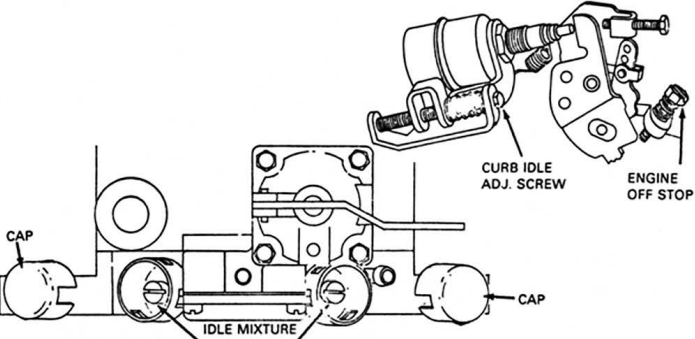
"V" MARK

BREAK AWAY SCREW

INSTALL BI-METAL SPRING HOOK IN SLOT OF LEVER. SET COVER TO "V" MARK ON CHOKE HOUSING. SECURE RETAINING RING WITH NEW BREAK AWAY SCREWS.

AUTOMATIC CHOKE SETTING FIG. 11

USE FACTORY CAR MANUAL PROCEDURE FOR SETTING SLOW (CURB IDLE). (SPECIFICATIONS LISTED ON ENGINE DECAL.) INSTALL LIMITER CAPS AFTER SETTING IDLE MIXTURE.



CURB IDLE ADJ. SCREW

ENGINE OFF STOP

CAP

IDLE MIXTURE SCREWS (2)

CURB IDLE ADJUSTMENT (BRACKET ADJUST SOLENOID) FIG. 12

ADJUSTMENT DATA TABLE

YEAR	APPLICATION	FLOAT LEVEL (DRY)	FUEL LEVEL (WET)*	PUMP LEVER HOLE	CHOKE INITIAL CLEARANCE (PULL DOWN)	FAST IDLE CAM	AUTO CHOKE	UNLOADER	CURB IDLE	FAST IDLE R. P. M.
1977	PASS CARS 360° ENG. ALT. A/T	13/32"	.780	NO. 2	.104"	.089"	1-RICH	.290"	E/D	E/D
1977	JEEP 304° ENG. ALT. M/T	13/32"	.930**	NO. 2	.110"	.089"	2-RICH	.290"	E/D	E/D
		13/32"	.930**	NO. 2	.104"	.089"	1-RICH	.290"	E/D	E/D
1978	PASS CARS 304° ENG. ALT. A/T	9/16"	.930**	NO. 3	.089"	.078"	2-RICH	.290"	E/D	E/D
		360° ENG. ALT. A/T	9/16"	.780	NO. 3	.069"	.078"	2-RICH	.290"	E/D
1976	JEEP 304° ENG. ALT. A/T	9/16"	.930**	NO. 3	.089"	.078"	2-RICH	.290"	E/D	1600
		304° ENG. ALT. M/T	9/16"	.930**	NO. 3	.093"	.078"	2-RICH	.290"	E/D
1979-80	JEEP 360° ENG. A/T	9/16"	.930**	NO. 3	.113"	.093"	2-RICH	.350"	E/D	1600
		360° ENG. M/T	9/16"	.930**	NO. 3	.104"	.086"	2-RICH	.348"	E/D
1981	JEEP 304° ENG. CARB. NO. 1DM2J, 1DA2J	21/64"	.930**	NO. 3	.073"	.046"	2-RICH	.350"	E/D	1600 A/T
		21/64"	.930**	NO. 3	.073"	.046"	1-RICH	.350"	E/D	1500 M/T
1981-83	JEEP 360° ENG. CARB. NO. 1RHA2	21/64"	.930**	NO. 3	.113"	.086"	2-RICH	.350"	E/D	1600 A/T
		21/64"	.930**	NO. 3	.134"	.081"	2-RICH	.350"	E/D	1500 M/T
		21/64"	.930**	NO. 3	.116"	.076"	1-RICH	.420"	E/D	1600 A/T
		21/64"	.930**	NO. 3	.116"	.076"	1-RICH	.350"	E/D	1500 M/T
1984-85	JEEP 380° ENG. CARB. NO. 4RHA2	21/64"	.930**	NO. 3	.113"	.086"	2-RICH	.350"	E/D	E/D
		21/64"	.930**	NO. 3	.113"	.086"	2-RICH	.350"	E/D	E/D
1986-89	JEEP ALL	21/64"	.930**	NO. 3	.118"	.076"	INDEX	.420"	E/D	E/D

* REFER TO CAR SERVICE MANUAL
** WITH FLOAT DAMPER SPRING
E/O-ENGINE DECAL

A/T-AUTOMATIC TRANSMISSION
M/T-MANUAL TRANSMISSION
ALT.-HIGH ALTITUDE

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