

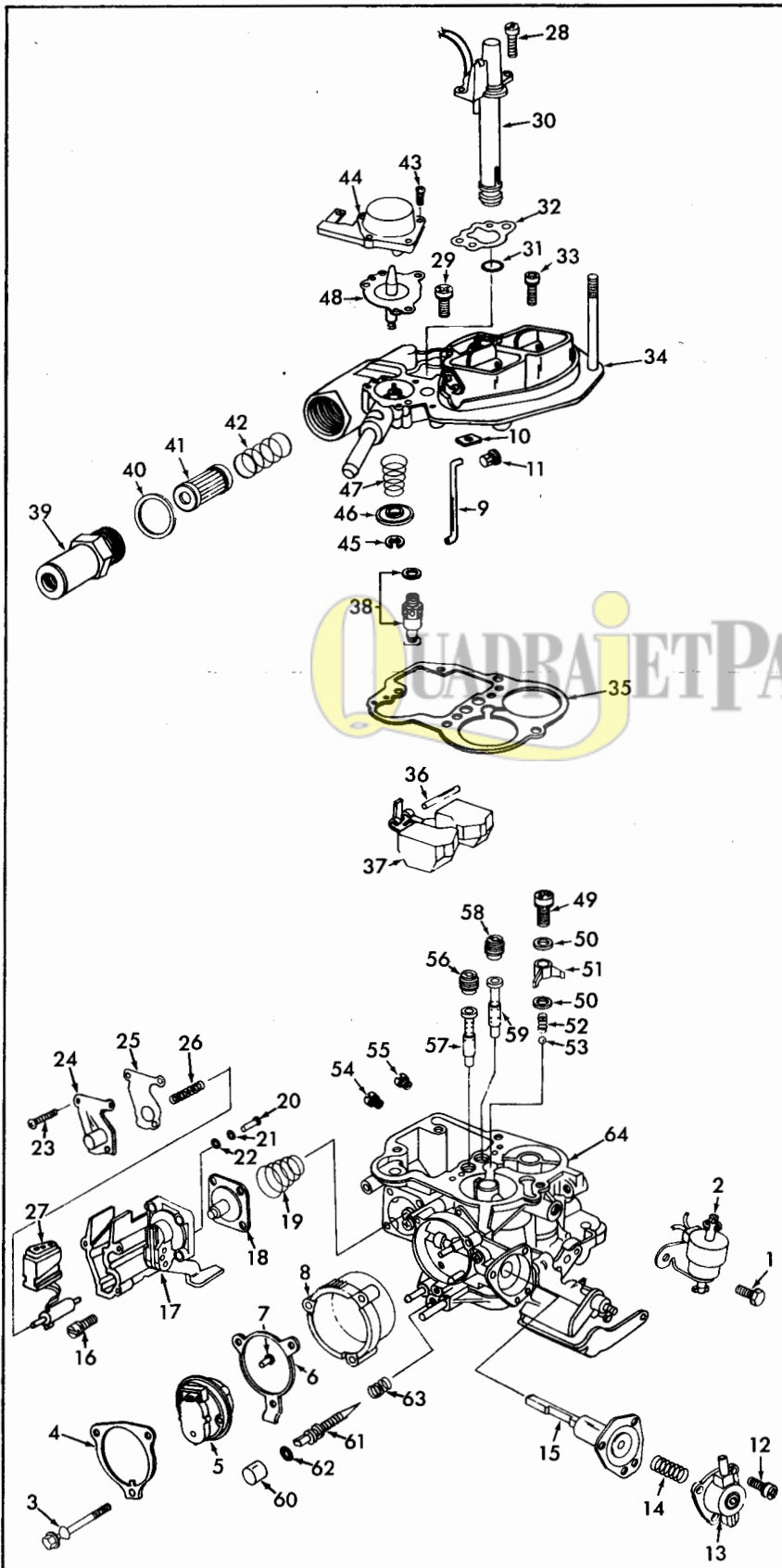
# INSTRUCTION SHEET OFF VEHICLE CARBURETOR SERVICE HOLLEY-MODEL 6510-C

50-594-2

(WITH MIXTURE CONTROL SOLENOID)

## 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. TO REMOVE TAMPER RESISTANT CHOKE RETAINING SCREWS (3), USE A FILE OR SUITABLE GRINDER TO REMOVE REMAINING PORTION OF SCREW HEADS. REMOVE CHOKE COMPONENTS THEN BACK OUT REMAINING PORTION OF SCREWS WITH A PLIERS. NOTE SIZES OF JETS AND MAIN WELL TUBES AND THEIR LOCATION FOR PROPER ASSEMBLY (RECORD SIZES BELOW). TO REMOVE IDLE MIXTURE NEEDLE PLUG (60) POSITION A PUNCH IN LOCATOR POINT OF THROTTLE BODY, BENEATH IDLE MIXTURE NEEDLE PLUG (MANIFOLD SIDE). DRIVE OUT HARDENED STEEL PLUG. MOST SCREWS AND THREADS ARE METRIC. DO NOT SUBSTITUTE WITH U. S. THREADED SCREWS.

## NOMENCLATURE

REF. NO.	REF. NO.
1. SCREW & LKWSHR. (2) - SOLENOID	32. GASKET - SOLENOID MOUNTING
2. SOLENOID - IDLE STOP	33. SCREW & LKWSHR. (4) - BOWL COVER
3. SCREW (3) - CHOKE RETAINER	34. BOWL COVER ASSY.
4. RETAINER - CHOKE COVER	35. GASKET - BOWL COVER
5. CHOKE COVER & COIL ASSY. - ELECTRIC	36. PIN - FLOAT
6. RING - CHOKE GROUND	37. FLOAT ASSY.
7. BUSHING - CHOKE SPRING LOOP	38. NEEDLE, SEAT & GASKET ASSY.
8. HOUSING - CHOKE COIL ASSY.	39. NUT - FUEL INLET
9. ROD - CHOKE	40. GASKET - INLET NUT
10. SEAL - CHOKE ROD	41. FILTER - FUEL
11. RETAINER (2) - CHOKE ROD (PLASTIC)	42. SPRING - FUEL FILTER
12. SCREW & LKWSHR. (3) - COVER	43. SCREW & LKWSHR. (3) - SOLENOID
13. COVER ASSY. - DIAPHRAGM	44. SOLENOID ASSY. - BOWL VENT
14. SPRING - DIAPHRAGM	45. E CLIP - VENT VALVE
15. DIAPHRAGM ASSY. - CHOKE PULLDOWN	46. VALVE - VENT
16. SCREW & LKWSHR. (4) - PUMP COVER ASSY.	47. SPRING - DIAPHRAGM RETURN
17. PUMP COVER & SENSOR ASSY.	48. DIAPHRAGM ASSY. - VENT VALVE
18. DIAPHRAGM ASSY. - PUMP	49. SCREW - PUMP DISC. NOZZLE
19. SPRING - DIAPHRAGM	50. GASKET (2) - PUMP NOZZLE
20. PLUNGER - SENSOR	51. NOZZLE - PUMP DISC.
21. RETAINER - PLUNGER SEAL*	52. SPRING - DISC. BALL
22. SEAL - PLUNGER *	53. BALL - DISC. CHECK
23. SCREW & LKWSHR. (3) - COVER	54. JET - PRI. MAIN
24. COVER - SENSOR	55. JET - SEC. MAIN
25. GASKET - COVER	56. JET - PRI. HIGH SPEED BLEED
26. SPRING - SENSOR	57. TUBE - PRI. MAIN WELL
27. SENSOR ASSY. - THROTTLE	58. JET - SEC. HIGH SPEED BLEED
28. SCREW & LKWSHR. (2) - SOLENOID	59. TUBE - SEC. MAIN WELL
29. SCREW & LKWSHR. - WIRE CLAMP	60. PLUG - IDLE ADJ. NEEDLE (NOT REPL.)
30. SOLENOID ASSY. - MIXTURE CONTROL	61. NEEDLE - IDLE ADJUSTING
31. O-RING - SOLENOID	62. O-RING - IDLE ADJ. NEEDLE
	63. SPRING - IDLE ADJ. NEEDLE
	64. MAIN BODY ASSY.

\*RETAIN FOR REASSEMBLY.

## 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 PLASTIC FLOAT, ELECTRIC CHOKE, SOLENOIDS OR PARTS CONTAINING RUBBER MATERIALS IN CARBURETOR CLEANING SOLVENTS.

## REASSEMBLY

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

## SPECIAL INSTRUCTIONS

IDLE ADJUSTING NEEDLE (61) - INSTALL O-RING (62) ON NEEDLE BEFORE INSTALLING IN HOUSING TURN NEEDLE IN UNTIL LIGHTLY SEATED THEN BACK OUT 1/2 TURNS CHECK EMISSION CONTROL LABEL (UNDER HOOD) AND CAR SHOP MANUAL TO COMPLETE IDLE MIXTURE ADJUSTMENT.

FUEL FILTER (4) - BE SURE TO USE A FILTER WITH BUILT IN ROLL OVER CHECK VALVE AND WITH CHECK VALVE FACING OUT. TIGHTEN SECURELY.

PUMP RETURN SPRING (19) - INSTALL WITH SMALL DIAMETER AGAINST CARBURETOR BOWL.

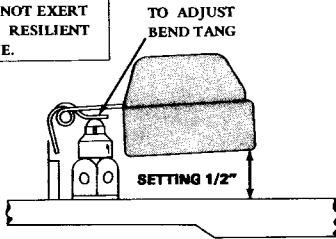
CHOKE ROD (9) & RETAINER (11) - LOOSEN CHOKE HOUSING SCREWS FOR EASIER INSTALLATION.

CHOKE COVER & COIL ASSY. (5) - INSTALL COIL SPRING LOOP ON PIN OF LEVER. (BE SURE BUSHING (7) IS ON PIN.) NO GASKET USED ON ELECTRIC CHOKE COVER. CHOKE COVER IS NONE ADJUSTABLE. INSTALL NEW BREAK AWAY SCREWS. TIGHTEN EVENLY UNTIL SCREW HEADS BREAK OFF. (PRE TORQUED).

FOLLOW VEHICLE SERVICE MANUAL INSTRUCTIONS TO MAKE FINAL ADJUSTMENTS ON CAR.

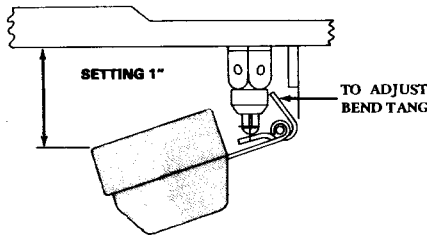
# ADJUSTMENTS

CAUTION: DO NOT EXERT PRESSURE ON RESILIENT NEEDLE VALVE.



BOWL COVER INVERTED (BOWL COVER GASKET REMOVED). FLOAT RESTING ON NEEDLE VALVE OF ITS OWN WEIGHT. (DO NOT COMPRESS SPRING). MEASURE DISTANCE FROM FLOAT AT TOE END TO CASTING SURFACE.  
(CHECK BOTH FLOATS)

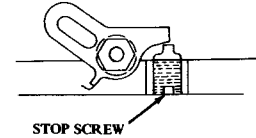
DRY FLOAT LEVEL ADJUSTMENT Fig. 1



BOWL COVER HELD IN NORMAL POSITION WITH FLOAT HANGING FREELY. MEASURE DISTANCE FROM BOWL COVER GASKET SURFACE TO TOP TOE OF FLOAT.

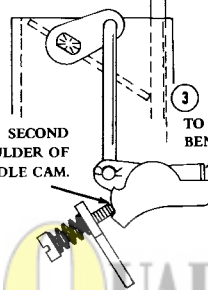
FLOAT DROP ADJUSTMENT Fig. 2

BACK OUT STOP SCREW UNTIL SECONDARY THROTTLE VALVE SEATS IN BORE. TURN SCREW IN UNTIL IT TOUCHES SECONDARY THROTTLE LEVER, THEN TURN IN AN ADDITIONAL 1/4 TURN.



SECONDARY THROTTLE STOP ADJUSTMENT Fig. 3

- HOLD CHOKE VALVE TOWARD CLOSED POSITION AND MEASURE DISTANCE BETWEEN LOWER EDGE OF CHOKE PLATE AND AIR HORN WALL.



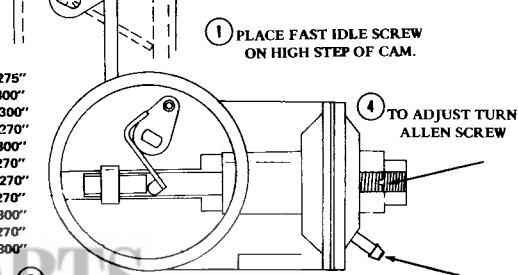
SETTING  
1980-81—.130"  
1982-85—.080"

- HOLD FAST IDLE SCREW ON SECOND STEP AND AGAINST THE SHOULDER OF THE FIRST STEP OF FAST IDLE CAM.

TO ADJUST BEND TANG

FAST IDLE CAM INDEX ADJUSTMENT Fig. 4

- HOLD CHOKE VALVE TOWARD CLOSED POSITION AND MEASURE DISTANCE BETWEEN LOWER EDGE OF CHOKE PLATE AND WALL OF AIR HORN.



SETTING

1980-M/T .275"  
1980-A/T .300"  
1981-ALL .300"  
1982-ALL .270"  
1983-M/T .300"  
1983-A/T .270"  
1984-ALL .270"  
1985-A/T .270"  
1985-M/T .300"  
1986-A/T .270"  
1986-M/T .300"

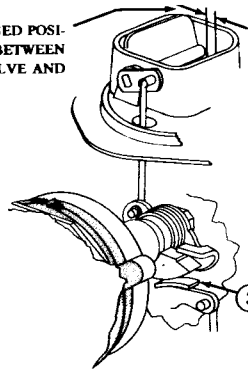
- PLACE FAST IDLE SCREW ON HIGH STEP OF CAM.

- APPLY OUTSIDE VACUUM SOURCE TO SEAT DIAPHRAGM ON UNITS WITH VACUUM PICK UP ON DIAPHRAGM COVER.

CHOKO PULLDOWN ADJUSTMENT

Fig. 5

- CHOKO HELD TOWARD CLOSED POSITION. MEASURE DISTANCE BETWEEN LOWER EDGE OF CHOKE VALVE AND AIR HORN WALL.



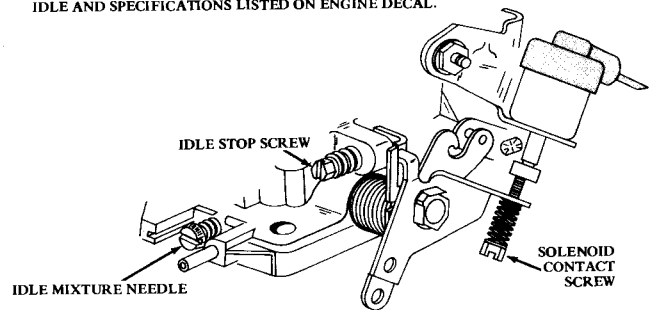
SETTING .360"

- THROTTLE HELD IN WIDE OPEN POSITION.

TO ADJUST BEND TANG

UNLOADER ADJUSTMENT Fig. 6

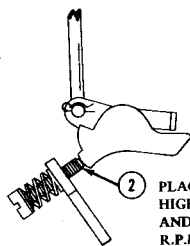
USE FACTORY CAR MANUAL PROCEDURE FOR SETTING SLOW IDLE AND SPECIFICATIONS LISTED ON ENGINE DECAL.



IDLE ADJUSTMENT

Fig. 7

- CURB IDLE SPEED ADJUSTED. DISCONNECT AND PLUG EGR PORT.



- PLACE FAST IDLE SCREW ON HIGH STEP OF FAST IDLE CAM AND ADJUST TO SPECIFIED R.P.M.

CHECK ENGINE COMPARTMENT DECAL FOR SPECIFIED R. P. M.

FAST IDLE ADJUSTMENT Fig. 8