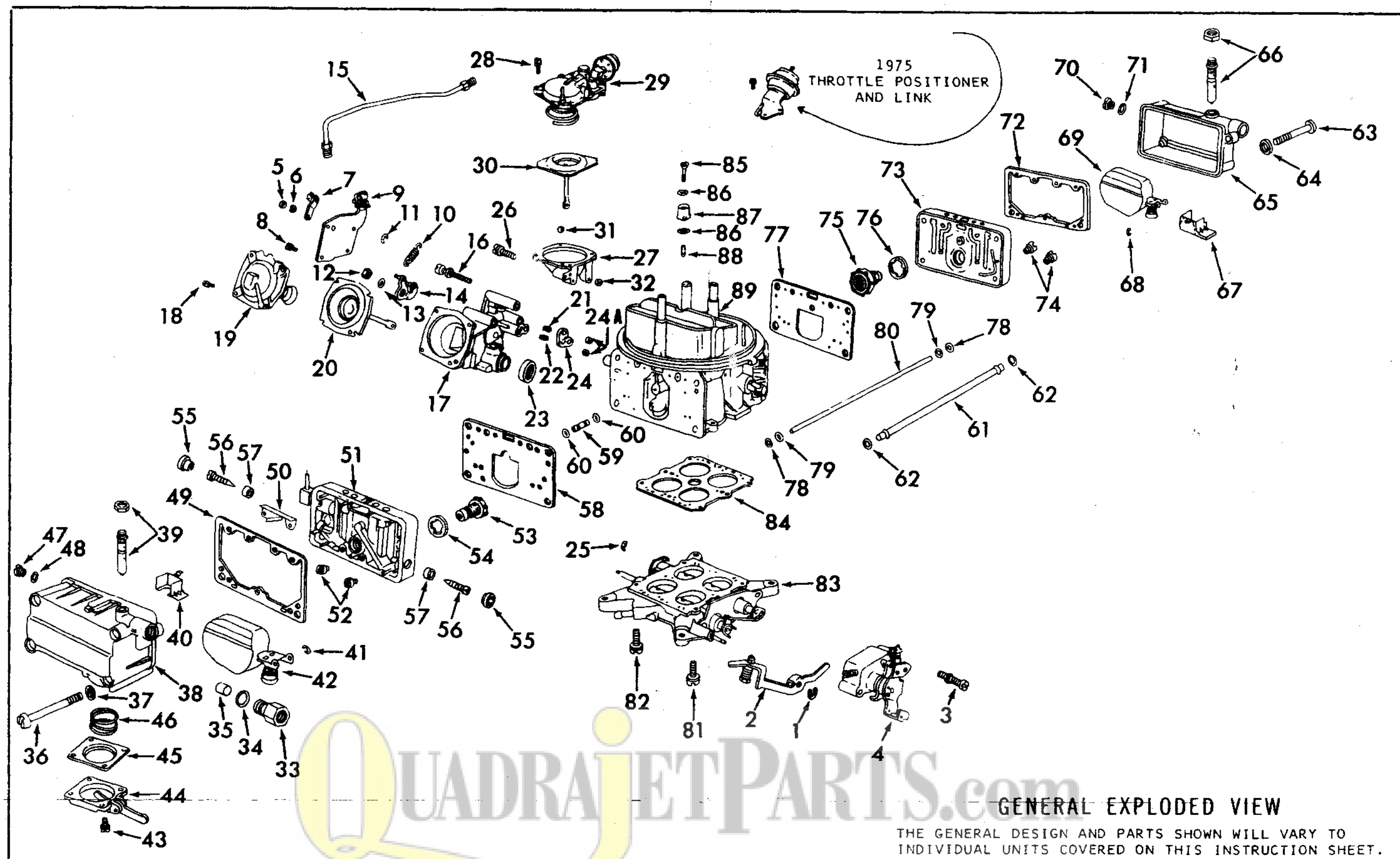
1975 TECHLIT CO.
PRINTED IN U.S.A.

INSTRUCTION SHEET
HOLLEY CARBURETOR — MODEL 4150G, 4150MG

50-503



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: PRIMARY SIDE (CHOKE SIDE) AND SECONDARY SIDE PARTS ARE NOT ALWAYS IDENTICAL. BE SURE TO MARK PARTS REMOVED FROM PRIMARY SIDE. CARE MUST BE TAKEN WHEN REMOVING OR INSTALLING COVER SCREWS FROM THE GOVERNOR OR SECONDARY UNITS TO PREVENT DAMAGE TO THE DIAPHRAGMS. ALSO MARK DIAPHRAGMS AND SPRINGS FOR PROPER ASSEMBLY. CARBURETORS HAVING TWO GOVERNOR BYPASS JETS (21)(22) NOTE SIZES AND LOCATION. IDLE ADJUSTING NEEDLES (56) ARE SOMETIMES LOCATED IN THE SECONDARY METERING BODY (73). SECONDARY METERING BODY (73) WILL SOMETIMES BE BLANK OR HAVE AN ENRICHMENT OR OVERRUN VALVE (75).

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 WITH ATTACHED PLASTIC PARTS FOR A LONG PERIOD OF TIME. DO NOT SOAK ANY PARTS CONTAINING RUBBER OR DIAPHRAGM ASSEMBLIES. (20)(29)(30)(42)(69)

REASSEMBLY

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

SPECIAL INSTRUCTIONS

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

THROTTLE BODY GASKET(84)-MAKE SURE HOLES ARE PROPERLY MATCHED TO THROTTLE BODY. TORQUE THROTTLE BODY SCREWS TO 50 INCH POUNDS.

BALANCE TUBE (80) INSTALLATION-SEE FIG. 1.

ENRICHMENT OR OVERRUN VALVE (75)(53) INSTALLATION-TORQUE TO 100 INCH POUNDS.

PRI. AND SEC. FUEL BOWL (65)(38)-BEFORE INSTALLING MAKE DRY FLOAT LEVEL ADJUSTMENT.

BOWL SCREW INSTALLATION (36)(63).-INSTALL GASKETS (37)(64) ON SCREWS BEFORE INSTALLING THEN TORQUE EVENLY IN STAGES TO 40 INCH LBS.

FUEL LINE TUBE (61)-INSTALL O-RINGS (62) ON THE EXTREME ENDS OF THE TUBE, THEY WILL ROLL ON THE TUBE WHEN INSTALLING THE FUEL BOWL.

IDLE ADJUSTING NEEDLES (56)-TURN IN UNTIL LIGHTLY SEATED, THEN BACK OUT 1 TURN. (DO NOT INSTALL IDLE LIMITER CAPS AT THIS TIME WHERE USED.)

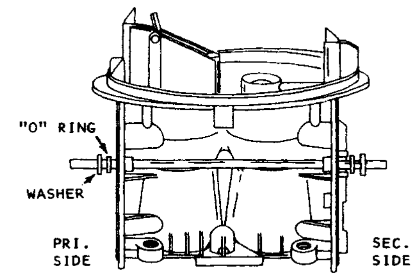
GOVERNOR DIAPHRAGM (20) INSTALLATION-SEE FIG. 3.

NOMENCLATURE

REF. NO.	
1.	RETAINER-PUMP OPERATING LEVER
2.	LEVER-PUMP OPERATING
3.	SCREW & LKWSHR(2)-THROTTLE OPERATING HOUSING ASSY.
4.	THROTTLE OPERATING HSG. ASSY.
5.	NUT-CHOKE LEVER
6.	LOCKWASHER-CHOKE LEVER
7.	LEVER-CHOKE CONTROL
8.	SCREW & LKWSHR(4)-GOV. HSG. COVER
9.	COVER-GOV. HSG.
10.	SPRING-GOV.
11.	RETAINER-GOV. DIAPHRAGM LINK
12.	NUT-GOV. LEVER
13.	LOCKWASHER-GOV. LEVER
14.	LEVER-GOV.
15.	VACUUM LINE-SEC. CONTROL VALVE (1975)
16.	SCREW & LKWSHR(3)-GOV. HSG.
17.	GOV. HSG. ASSY.
18.	SCREW & LOCKWASHER(4)-GOV. DIAPHRAGM COVER
19.	COVER & SPRING-GOV. DIAPHRAGM
20.	DIAPHRAGM ASSY.-GOV.
21.	JET-GOV. BYPASS (A)
22.	JET-GOV. BYPASS (B)
23.	SEAL-GOV. HSG.
24.	GASKET-GOV. HSG.
24A.	GASKET(2)-GOV. HSG.(SOME MODELS)
25.	RETAINER-SEC. DIAPHRAGM LINK
26.	SCREW & LKWSHR(3)-SEC. DIAPHRAGM HOUSING
27.	SEC. DIAPHRAGM HSG. ASSY.
28.	SCREW & LOCKWASHER(4)-SEC. DIAPHRAGM COVER
29.	COVER & SPRING-SEC. DIAPHRAGM (1975 WITH ATTACHED SEC. CONTROL VALVE)
30.	DIAPHRAGM ASSY.-SECONDARY
31.	CHECK BALL-SEC. DIAPHRAGM HSG.
32.	GASKET-SEC. DIAPHRAGM HSG.
33.	FITTING-FUEL INLET
34.	GASKET-FITTING
35.	SCREEN-FUEL INLET
36.	SCREW(4)-PRI. FUEL BOWL
37.	GASKET(4)-PRI. FUEL BOWL
38.	BOWL-PRI. FUEL
39.	NEEDLE & SEAT ASSY.-PRI.
40.	BAFFLE PLATE-PRI. N/S
41.	RETAINER-FLOAT

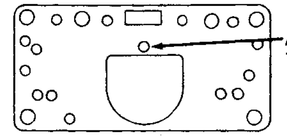
REF. NO.	
42.	FLOAT & SPRING ASSY.-PRI.
43.	FLOAT & LOCKWASHER(4)-PUMP COVER
44.	COVER ASSY.-PUMP
45.	DIAPHRAGM-PUMP
46.	SPRING-DIAPHRAGM
47.	PLUG-SIGHT LEVEL
48.	GASKET-SIGHT LEVEL PLUG
49.	GASKET-PRI. FUEL BOWL
50.	VENT BAFFLE-PRI. METERING BODY
51.	METERING BODY-PRI.
52.	JET(2)-PRI. MAIN
53.	VALVE-PRI. ENRICHMENT (POWER)
54.	GASKET-PRI. ENRICHMENT VALVE
55.	CAP(2)-IDLE LIMITER
56.	NEEDLE(2)-IDLE ADJUSTING
57.	SEAL(2)-IDLE ADJ. NEEDLE
58.	GASKET-PRI. METERING BLOCK
59.	FUEL PIPE-CROSS OVER
50.	O-RING(2)-CROSS OVER FUEL PIPE
61.	TUBE-FUEL LINE
62.	O-RING(2)-FUEL LINE TUBE
63.	SCREW(4)-SEC. FUEL BOWL
64.	GASKET(4)-SEC. FUEL BOWL SCREW
56.	BOWL-SEC. FUEL
66.	NEEDLE & SEAT ASSY.-SEC.
67.	BAFFLE PLATE-SEC. N/S
68.	RETAINER-FLOAT
69.	FLOAT & SPRING ASSY.-SEC.
70.	PLUG-SIGHT LEVEL
71.	GASKET-SIGHT LEVEL PLUG
72.	GASKET-SEC. FUEL BOWL
73.	METERING BODY-SEC.
74.	JET(2)-SEC. MAIN
75.	VALVE-OVERRUN (SOME MODELS)
76.	GASKET-OVERRUN VALVE
77.	GASKET-SEC. METERING BODY
78.	WASHER(2)-BALANCE TUBE
79.	O-RING(2)-BALANCE TUBE
80.	TUBE-BALANCE
81.	SCREW & FLATWSHR(7)-THROTTLE BODY
82.	SCREW & LKWSHR(7)-THROTTLE BODY
83.	THROTTLE BODY ASSY.
84.	GASKET-THROTTLE BODY
85.	SCREW-PUMP DISC. NOZZLE
86.	GASKET(2)-PUMP NOZZLE
87.	NOZZLE-PUMP DISC.
88.	NEEDLE VALVE-PUMP DISC.
89.	MAIN BODY ASSY.

SPECIAL INSTRUCTIONS

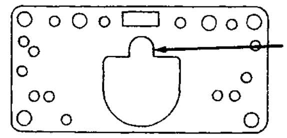


TRUCK APPLICATIONS TUBE IS EQUALLY PROJECTED IN BOTH PRIMARY AND SECONDARY BOWLS.

BALANCE TUBE POSITION FIG. 1



USE ON PRIMARY SIDE WITHOUT PUMP TRANSFER TUBE

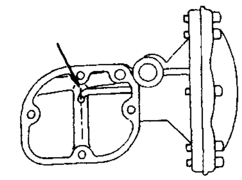


USE ON PRIMARY SIDE ONLY WHEN PUMP TRANSFER TUBE (59) IS USED.

NOTE: EITHER PRIMARY METERING BODY GASKET CAN BE USED ON THE SECONDARY SIDE.

PROPER INSTALLATION PRIMARY METERING BODY GASKET. FIG. 2

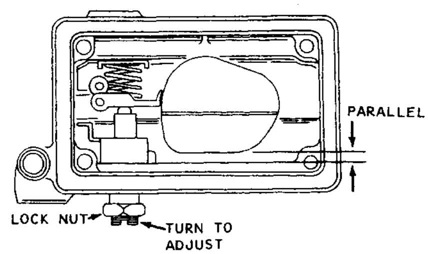
INSTALL COVER (19) WITH THE SCREWS FINGER TIGHT. STRETCH AND HOLD DIAPHRAGM ROD BY HAND UNTIL CENTER LINE OF HOOK END OF ROD AND CENTER LINE OF THE BOSS MATCH. THEN TIGHTEN SCREWS EVENLY WHILE MAINTAINING DIAPHRAGM STRETCHED IN THIS POSITION.



INSTALLING GOVERNOR DIAPHRAGM FIG. 3

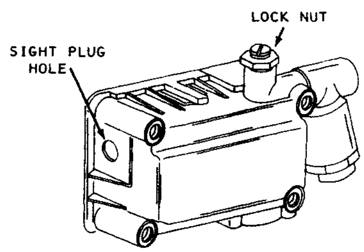
ADJUSTMENTS

SIDE HUNG FLOAT



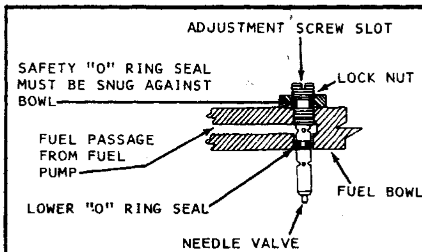
FLOAT BOWL INVERTED, TURN NEEDLE SEAT ASSY. UNTIL FLOAT SURFACE IS PARALLEL WITH THE SURFACE DIRECTLY BELOW THE FLOAT. TIGHTEN LOCK NUT.

DRY FLOAT LEVEL ADJUSTMENTS FIG. 4



1. TRUCK SETTING ON LEVEL SURFACE AND ENGINE RUNNING.
2. REMOVE SIGHT LEVEL PLUG FROM BOWL.
3. ADJUST NEEDLE SEAT ASSY. SO FUEL LEVEL WILL BE AT BOTTOM EDGE OF SIGHT PLUG HOLE. (PLUS OR MINUS 1/32" TOLERANCE.)
4. TIGHTEN LOCK NUT.

WET FLOAT LEVEL ADJUSTMENT FIG. 5

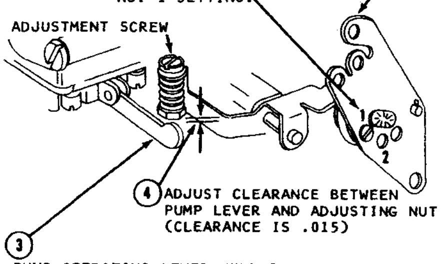


THE EXCLUSIVE SEALING FEATURES OF THIS ASSEMBLY PROVIDE SAFE ADJ. OF FUEL LEVEL WHILE ENGINE IS RUNNING.

SAFETY SEAL ADJUSTABLE FUEL VALVE FIG. 6

2 HOLD THROTTLE IN WIDE OPEN POSITION.

1 PUMP CAM POSITION FOR NORMAL DRIVING, USE NO. 1 SETTING.

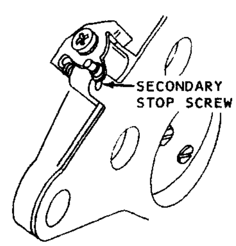


4 ADJUST CLEARANCE BETWEEN PUMP LEVER AND ADJUSTING NUT (CLEARANCE IS .015)

3 PUMP OPERATING LEVER HELD IN A FULLY COMPRESSED POSITION

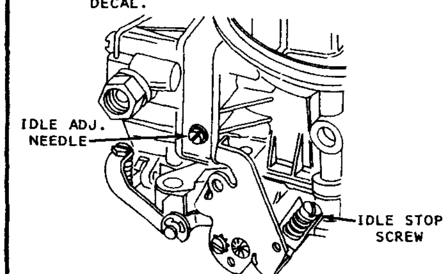
PRI. & SEC. PUMP ADJUSTMENT FIG. 7

SECONDARY THROTTLE STOP SCREW, BACK OUT UNTIL SECONDARY THROTTLE PLATES ARE CLOSED. TURN SCREW IN UNTIL IT CONTACTS STOP, THEN TURN SCREW IN 1/2 TURN MORE.



SECONDARY THROTTLE STOP ADJUSTMENT FIG. 8

ENGINE AT OPERATING TEMP. AND CHOKE WIDE OPEN, ADJUST IDLE MIXTURE NEEDLES TO A SMOOTH IDLE. ADJUST IDLE STOP SCREW TO 500-550 R.P.M. OR FOLLOW SETTING ON ENGINE DECAL.

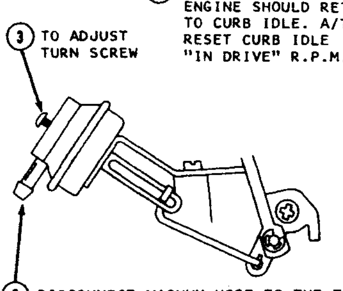


SLOW IDLE ADJUSTMENT FIG. 9

1 ENGINE AT OPERATING TEMPERATURE AND CURB IDLE ADJUSTED. AUTOMATIC TRANSMISSION IN NEUTRAL SET IDLE 100 R.P.M. ABOVE SPECIFIED "IN DRIVE" R.P.M.

4 REMOVE VACUUM SOURCE, ENGINE SHOULD RETURN TO CURB IDLE. A/T RESET CURB IDLE "IN DRIVE" R.P.M.

3 TO ADJUST TURN SCREW



2 DISCONNECT VACUUM HOSE TO THE THROTTLE POSITIONER AND PLUG. CONNECT ENGINE MANIFOLD VACUUM SOURCE TO DIAPHRAGM WITH A "SLAVE" VACUUM HOSE. TACHOMETER CONNECTED CHECK R.P.M.

R.P.M. SETTINGS

ENGINE	M/T	A/T
361"	1500 R.P.M.	1600 R.P.M.
389"	- S/M	- S/M
475"	- S/M	- S/M
477"	1100 R.P.M	N/A
534"	1000 R.P.M.	1150 R.P.M

ALL SETTINGS + OR - 50 R.P.M.
S/M = SEE SERVICE MANUAL

THROTTLE POSITIONER (MODULATOR) ADJUSTMENT FIG. 10