



General Instructions

- Take lots of pictures as you take your carburetor apart. This will give you a reference of where things go.
- Using a cookie sheet with folded up sides will help keep parts from falling on the floor.
- We suggest not removing the throttle shaft, valves, or choke shaft unless they are corroded, or very dirty. These parts can be easily damaged and are difficult to re-assemble.
- Instruction sheets that come with our carburetor kits are somewhat generic. It may not match your parts exactly.
- Do NOT use WD-40 around your carburetor. It reacts with ethanol.
- Using Silicon Spray Lubricant on the gaskets will help with sticking in case you need to take the carburetor apart again.
- Be careful after taking the top of the carburetor off. Turning the carburetor upside down may cause parts to fall out and you won't know where they were.
- Screws and jets that are frozen can often be removed after heating outside the screw or jet.
- Stuck check balls can be removed by heating the outside of where the check ball resides and tapping the carburetor on the work bench.
- Do not discard any parts until complete done. You may have to refer for size, or matching.

Cleaning:

- Clean with carburetor dis-assembled.
- Soak all parts except rubber & electrical in Simple Green for 2 hours. Aluminum parts will get discolored if left longer.
- Wash parts with hot water if available to remove all chemicals.
- Blow out each passage way taking special notice of the smaller ones. Test each passage that air goes through the entire passage.
- Blow out the idle mixture hole.

- Check any hole above the idle mixture hole (inside the bore). This is the idle discharge and often becomes plugged.
- A tooth brush can facilitate cleaning parts.
- Soda blasting, then washing again will make the carburetor look good any will clean any minor deposits.
- Any corrosion, or deposits that are hard to remove may indicate the passages are also corroded and the carburetor should be replaced.
- If your engine has been sitting for 6 months or more, the gas has probably turned, and the gas tank will need to be cleaned as well as the fuel lines. Flushing new gas through the tank will not be enough.

Assembly:

- Do NOT apply any gasket sealant on any of the gaskets. Gas will break sealant part and the particles will clog the small passages.
- Test your float.
 - Brass floats should be immersed into hot water. As the air inside expands any leak will be noticeable with air bubbles.
 - Plastic, or Nitrophyl floats should be weighed. The weight is in grams. Check our technical pages for any weight specification that we may have.
- Most gaskets will fit as expected, but you may have to trim some, especially under the venturis.
- Your kit may include multiple gaskets in order to get better coverage out of the kit. Use the one that fits the best. Look for any opening the gasket may leave allowing air into the carburetor. Some holes may be casting holes that don't lead to anything and do not have to be covered.
- Mounting gaskets for multiple bore carburetors do not have to have matching holes. Example a four-barrel gasket can be open in the middle instead of 4 holes as long as the carburetor has some kind of passage between bores. The passage is between primary, or secondary, not both.
- When adjusting the float be careful not to put any pressure on the needle. The viton tip is easily damaged.
- Most idle mixture screws can be cleaned using a soft wire wheel. Inspect for any scoring, which would indicate over tightening. Screw with scoring should be replaced.

Accelerator Pumps:

- On leather cups run your finger around the inside of the cup to break any manufacturer sealant.
- Apply 2 drops of oil to cups (leather, or rubber) before inserting into carburetor. Do not soak the cup in oil. The swelling of the cup needs to happen inside the carburetor. Allow the 2 drops of oil and the gas to do its job naturally.
- Twist the pump as you are inserting to help keep the cup from curling or folding over.
- Test your accelerator pump circuit before putting the top of the carburetor back on. Our technical pages have instructions on how to do this for most carburetor types.
- Pump wells are usually slight tapered, and the pump will not seal until it gets towards the bottom.

Needle & Seat Assembly Installation Instructions

CAUTION

**Excessive Tightening Of The Needle Seat Locknut
Can Cause Thread Distortion And Damage
To The Fuel Bowl.**

Proper Installation Is As Follows:

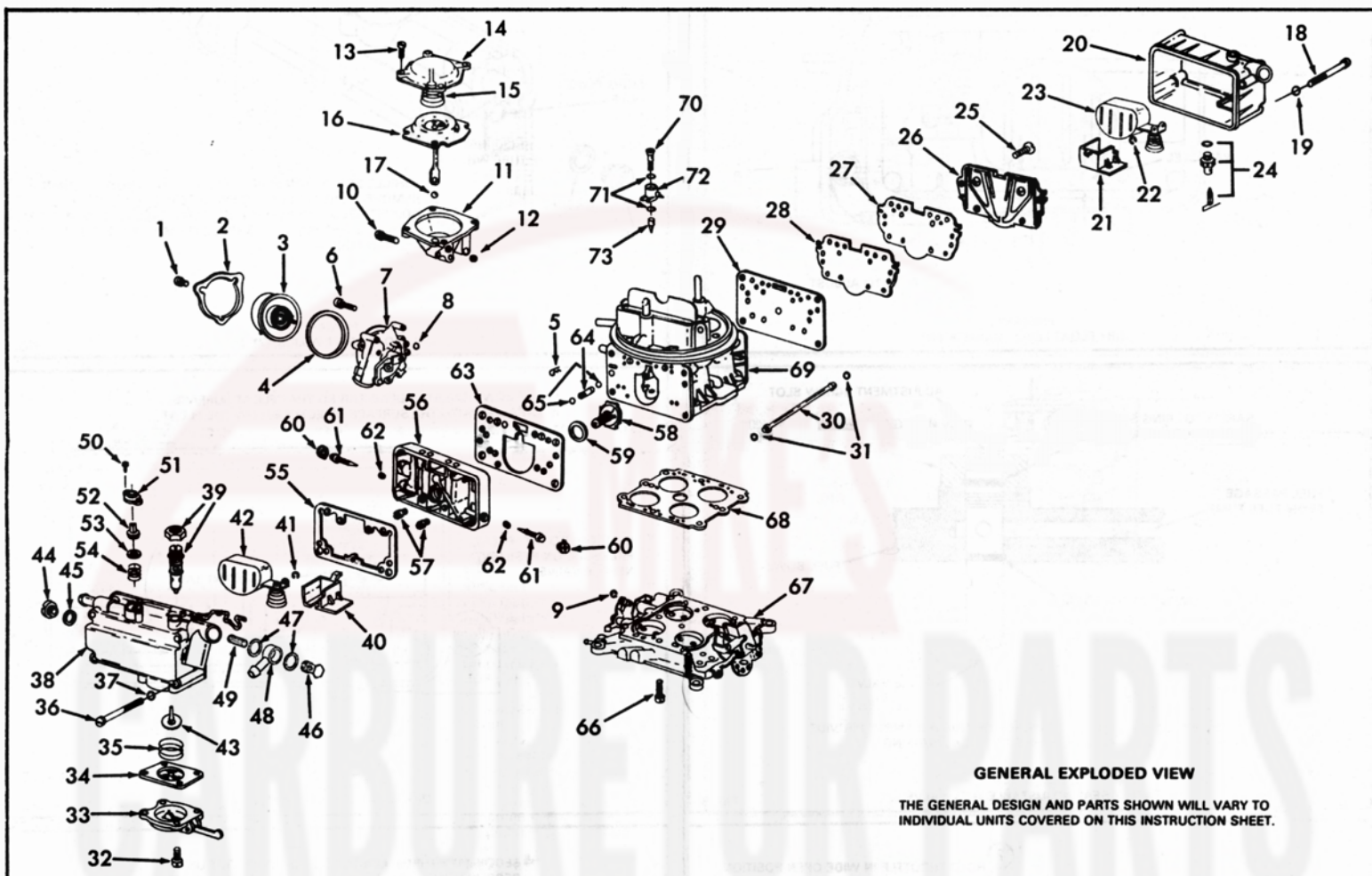
- 1. Install and Adjust Needle & Seat To Provide
Correct Fuel Level**
- 2. Tighten Locknut Until Nut Contacts The Fuel
Bowl Surface. Then Tighten An Additional 1/8 Turn,
Or To A Torque Value Of 15-20 Inch Pounds.**

INSTRUCTION SHEET

HOLLEY CARBURETOR - MODEL 4160C

IS- 50-574

(FORD 4V REPLACEMENT)



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.

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 DESPOSITS. 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.

NOMENCLATURE

REF. NO.	REF. NO.
1. SCREW (3) - RETAINER	37. GASKET (4) - PRI. BOWL SCREW
2. RETAINER - CHOKE COVER	38. BOWL - PRI. FUEL
3. CHOKE COVER ASSY.	39. NEEDLE & SEAT ASSY.
4. GASKET - CHOKE COVER	40. BAFFLE - PRI. FUEL
5. RETAINER - CHOKE ROD	41. RETAINER - FLOAT
6. SCREW & LOCKWASHER (3) - CHOKE HOUSING	42. FLOAT & SPRING ASSY. - PRI.
7. CHOKE HOUSING ASSY.	43. VALVE - PUMP INTAKE
8. GASKET - CHOKE HOUSING	44. PLUG - SIGHT
9. RETAINER - SEC. DIAPHRAGM LINK	45. GASKET - SIGHT PLUG
10. SCREW & LOCKWASHER (3) - SEC. DIAPHRAGM ASSY.	46. BOLT - BANJO FITTING
11. SEC. DIAPHRAGM HSG. ASSY.	47. GASKET (2) - BANJO FITTING
12. GASKET - SEC. DIAPHRAGM HSG.	48. FUEL INLET FITTING - BANJO
13. SCREW & LOCKWASHER (4) - SEC. DIAPHRAGM COVER	49. SCREEN - FUEL INLET
14. COVER - SEC. DIAPHRAGM	50. SCREW & LOCKWASHER (2) - VENT VALVE COVER
15. SPRING - SEC. DIAPHRAGM	51. COVER - VENT VALVE
16. DIAPHRAGM - SECONDARY	52. STEM - VENT VALVE
17. BALL - SEC. VACUUM CHECK	53. VALVE - VENT
18. SCREW (4) - SEC. FLOAT BOWL	54. SPRING - VENT VALVE
19. GASKET (4) - SEC. BOWL SCREW	55. GASKET - PRI. FUEL BOWL
20. BOWL - SEC. FUEL	56. METERING BODY - PRI.
21. BAFFLE - SEC. FUEL	57. JETS (2) - MAIN
22. RETAINER - FLOAT	58. VALVE - PRI. ENRICHMENT
23. FLOAT & SPRING ASSY. - SEC.	59. GASKET - PRI. ENRICHMENT VALVE
24. NEEDLE & SEAT ASSY. - SEC.	60. CAP (2) - IDLE LIMITER
25. SCREW (8) - SEC. METERING BODY	61. NEEDLE (2) - IDLE ADJUSTING
26. METERING BODY - SEC.	62. SEAL (2) - IDLE ADJ. NEEDLE
27. GASKET - METERING BODY	63. GASKET - PRI. METERING BODY
28. PLATE - METERING BODY	64. TUBE - PUMP PASSAGE
29. GASKET - FUEL BOWL & METERING BODY	65. O-RING (2) - TUBE
30. TUBE - FUEL LINE	66. SCREW & LOCKWASHER (6) - THROTTLE BODY
31. O-RING (2) - FUEL LINE TUBE	37. THROTTLE BODY ASSY.
32. SCREW & LOCKWASHER (4) - PUMP COVER	68. GASKET - THROTTLE BODY
33. COVER ASSY. - PUMP DIAPHRAGM	69. MAIN BODY ASSY.
34. PUMP DIAPHRAGM ASSY.	70. SCREW - PUMP NOZZLE
35. SPRING - PUMP DIAPHRAGM	71. GASKET (2) - PUMP NOZZLE
36. SCREW (4) - PRI. FUEL BOWL	72. NOZZLE - PUMP DISC.
	73. NEEDLE - PUMP DISC. CHECK

REASSEMBLY

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

SPECIAL INSTRUCTIONS

PRIMARY IDLE ADJUSTING NEEDLES (61) TURN IN UNTIL LIGHTLY SEATED, THEN BACK 1 1/4 TURN. (DO NOT INSTALL IDLE LIMITER CAPS AT THIS TIME.)

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

THROTTLE BODY GASKET (68)- BE SURE HOLES ARE PROPERLY MATCHED TO THROTTLE BODY. TORQUE THROTTLE BODY SCREWS TO 50 INCH LBS.

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

PUMP INLET CHECK VALVE (43) - TO INSTALL 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 CASTING.

PRI. AND SEC. FUEL BOWL (38) (20) - BEFORE INSTALLING MAKE FRYE FLOAT LEVEL ADJUSTMENT. COMPLETE PRIMARY FLOAT ADJUSTMENT AS PER FIG. 2

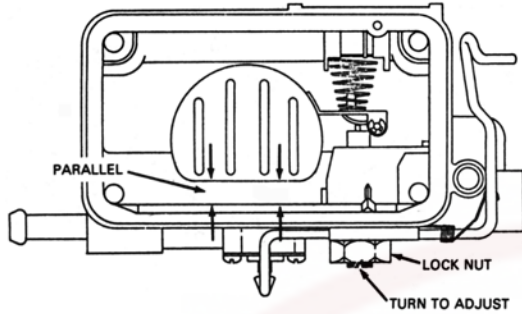
BOWL SCREW INSTALLATION (36) (18) - INSTALL GASKETS (37) (19) ON SCREWS BEFORE INSTALLING, THEN TORQUE EVENLY IN STAGES TO 40 INCH LBS.

FUEL LINE TUBE (30) INSTALL O-RINGS (31) ON THE EXTREME ENDS OF THE TUBE. THEY WILL ROLL ON THE TUBE WHEN INSTALLING THE FUEL BOWLS.

O-RINGS - LUBRICATE LIGHTLY BEFORE INSTALLING.

ADJUSTMENTS

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



PRIMARY
DRY FLOAT LEVEL ADJUSTMENT

FIG. 1

LOCK NUT

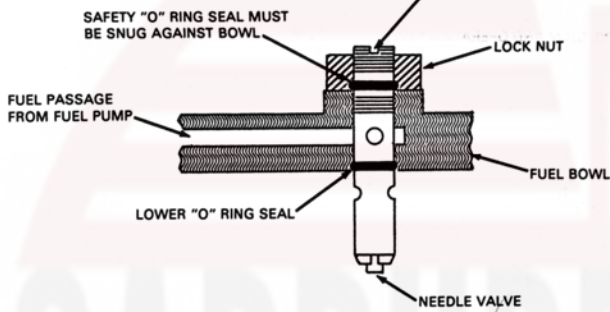
SIGHT PLUG
HOLE



1. VEHICLE 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.

PRIMARY
WET FLOAT LEVEL ADJUSTMENT

FIG. 2



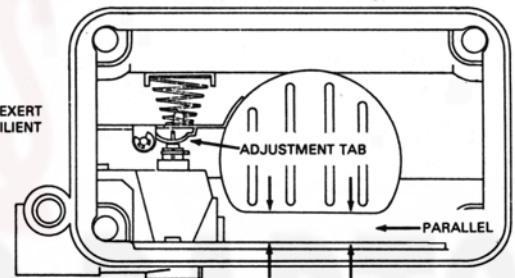
THE EXCLUSIVE SEALING FEATURES OF THIS ASSEMBLY PROVIDE SAFE ADJ. OF FUEL LEVEL WHILE ENGINE IS RUNNING.

SAFETY SEAL ADJUSTABLE FUEL VALVE

FIG. 3

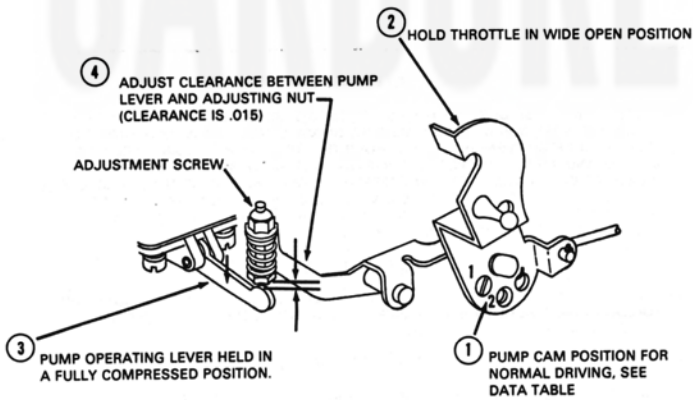
FLOAT BOWL INVERTED BEND TAB SO THAT FLOAT SURFACE IS PARALLEL WITH THE SURFACE DIRECTLY BELOW THE FLOAT.

CAUTION: DO NOT EXERT PRESSURE ON RESILIENT NEEDLE VALVE.



SECONDARY
DRY FLOAT LEVEL ADJUSTMENT

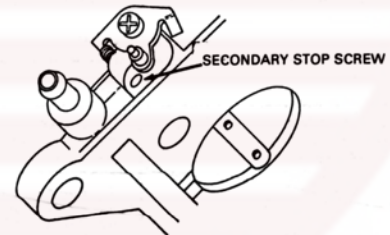
FIG. 4



PUMP ADJUSTMENT

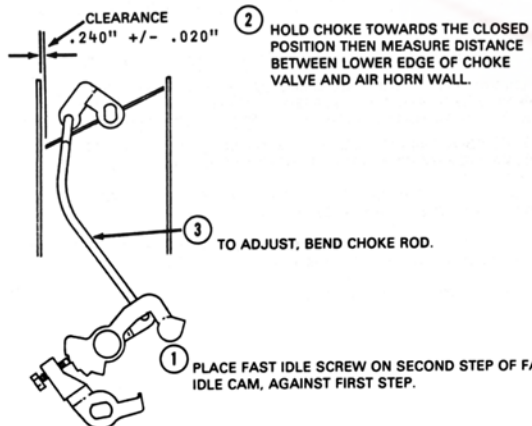
FIG. 5

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



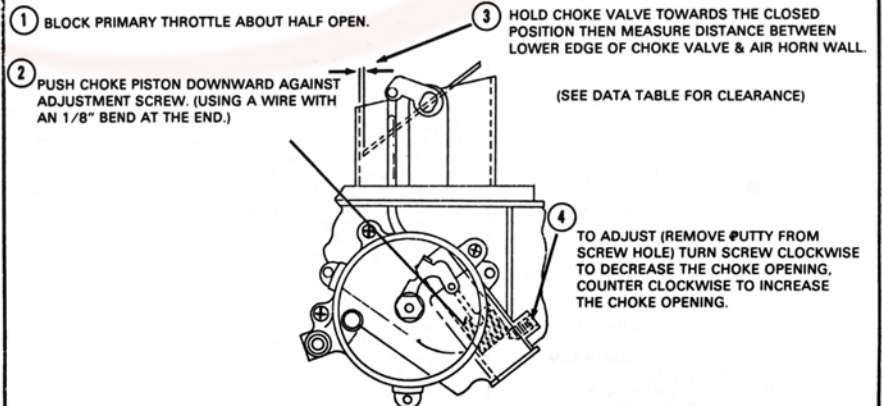
SECONDARY THROTTLE STOP ADJUSTMENT

FIG. 6



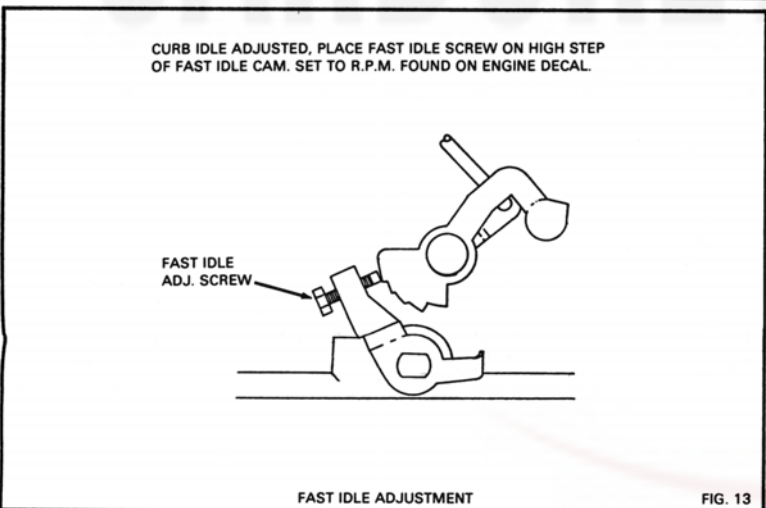
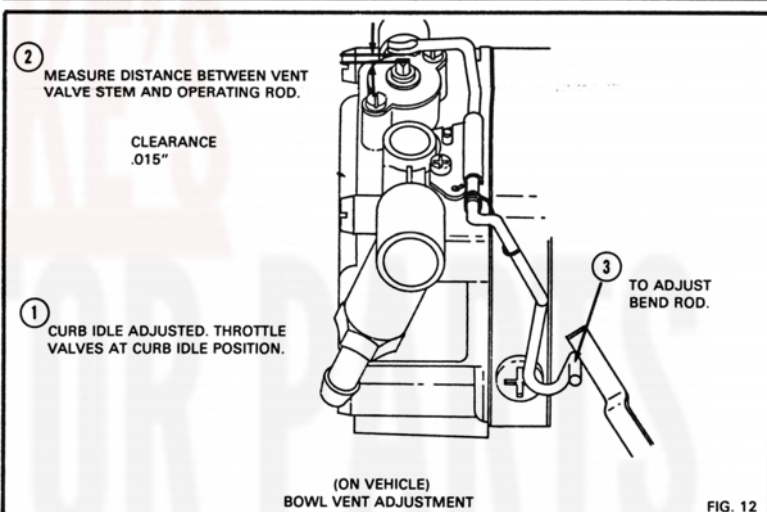
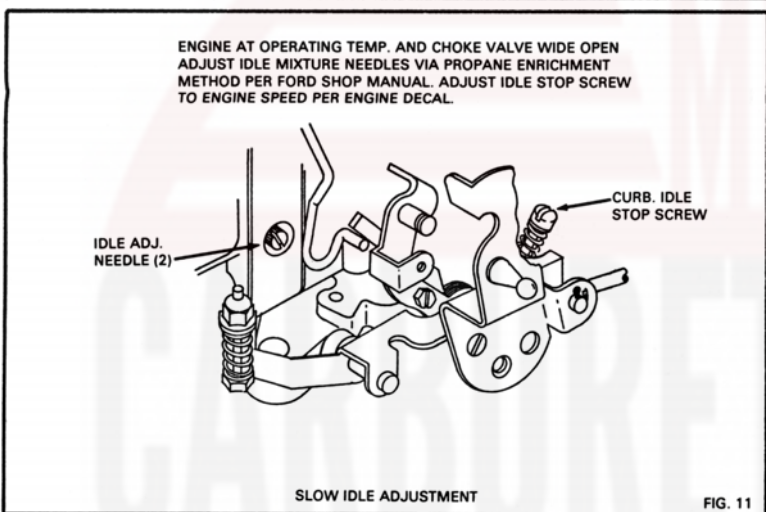
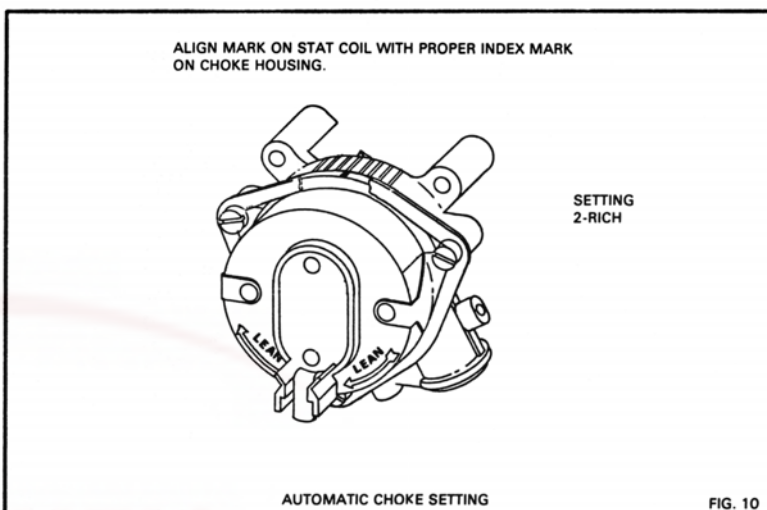
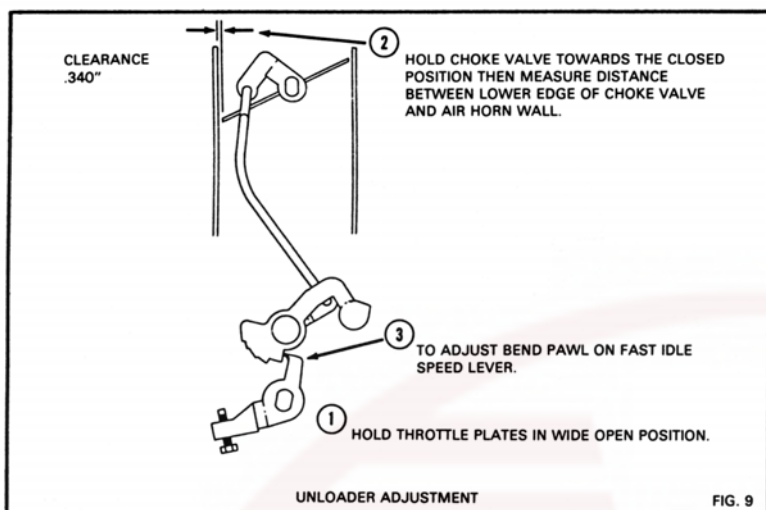
FAST IDLE CAM INDEX ADJUSTMENT

FIG. 7



CHOKE PLATE PULLDOWN ADJUSTMENT

FIG. 8



DATA TABLE

CARBURETOR NO.	PUMP CAM POSITION	CHOKE PULLDOWN CLEARANCE
D8PE-9510-RA	*	.190"
D8PE-9510-TA	1	.240"
D8PE-9510-YA	1	.240"
D8PE-9510-ZA	1	.240"
D8PE-9510-AAA	1	.240"
D8PE-9510-ABA	1	.240"

*Use #2 Hole in Throttle Lever
With #3 Hole in Plastic Cam.