



## 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.

# INSTRUCTION SHEET

HOLLEY CARBURETOR MODEL 1920

50-466-6

## I. DISASSEMBLY.

a. Disassemble in the general order of index numbers on opposite side of this sheet. Disassembly need not be carried further than indicated by the drawing except for unusual conditions. If the choke piston is not free after cleaning (indicated by resistance of choke valve movement), the welch plug at end of choke piston cylinder may be removed; the piston and cylinder cleaned thoroughly and piston replaced, if necessary.

b. Take notice of original positions and holes from which linkage rods are removed so they can be returned to the same locations during reassembly.

c. The main well and economizer assembly (19) contains the pump inlet ball and outlet ball plus the power jet assembly. These parts and internal passages will be cleaned after soaking time in the cleaning solvent and will normally be restored to good operating condition.

(DO NOT REMOVE IDLE ADJ. NEEDLE LIMITER CAP.)

## II. CLEANING.

NOTE: Do not soak leather, rubber or other parts of this nature in the cleaning solvent.

Soak parts long enough to soften and remove all foreign material. Use a regular carburetor cleaning solvent, lacquer thinner, or denatured alcohol. Use a small brush to aid cleaning, if necessary. Make certain the throttle body is free of all hard carbon deposits. Blow out all passages in castings with compressed air and check carefully to insure thorough cleaning of obscure areas.

## III. REASSEMBLY.

a. Reassemble the carburetor, using essentially the reverse order of disassembly.

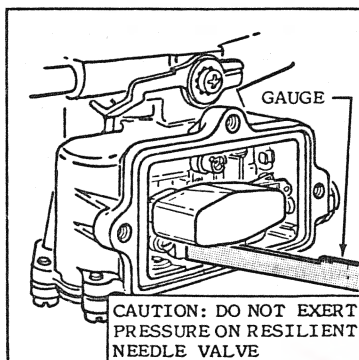
b. Refer to paragraph I, b, when installing linkage rods.

c. For normal operation connect the pump link in middle hole of throttle lever. For cold climates use outer hole; for hot climates use inner hole.

## IV. FLOAT ADJUSTMENT. (See figure 1.)

a. Prior to installing fuel bowl, place carburetor upside-down and measure float height with the gage included in the kit. The gage should be positioned at the end of level (top) surface of float as shown.

C. A. P. = CLEAN AIR PACKAGE  
C. A. S. = CLEANER AIR SYSTEM  
E. C. S. = EVAPORATION CONTROL SYSTEM



FLOAT LEVEL Fig.1

| BARRACUDA-DART-DODGE<br>PLYMOUTH-VALIANT  | FLOAT<br>LEVEL | FAST IDLE<br>CAM POSITION | SLOW<br>IDLE R.P.M. | FAST<br>IDLE R.P.M.  |
|-------------------------------------------|----------------|---------------------------|---------------------|----------------------|
| 1962 EARLY MODELS<br>WITHOUT FLOAT SPRING | 9/32"          | INDEX                     | 550                 | 1500 S/T<br>1700 A/T |
| 1962-63 WITH FLOAT SPRING                 | 3/16"          | INDEX                     | 550                 | 1500 S/T<br>1700 A/T |
| 1964 - 170" - 225" Eng.                   | 3/16"          | 15/64"                    | 550                 | 700                  |
| 1965 - 170" - 225" Eng.                   | 3/16"          | 5/64"                     | 550                 | 700                  |
| 1966-67 225" Eng.                         | 3/16"          | 3/32"                     | 550                 | 700                  |
| 1966-69 225" Eng.                         | 3/16"          | 3/32"                     | 650                 | 1550                 |
| S/T W/C.A.P.                              | 3/16"          | 1/16"                     | 650                 | 1550                 |
| A/T W/C.A.P.                              | 3/16"          | 1/16"                     | 700                 | 1600                 |
| 1970-71 225" Eng.                         | 3/16"          | 1/16"                     | 650                 | 1800                 |
| All S/T                                   | 3/16"          | 1/16"                     | 800                 | 2000                 |
| All A/T                                   | 3/16"          | 1/16"                     | 800                 | 1900                 |
| 1972 198" Eng. All S/T                    | 3/16"          | 1/16"                     | 750                 | 2000                 |
| 225" Eng. All S/T                         | 3/16"          | 1/16"                     | 750                 | 1900                 |
| All A/T                                   | 9/32"          | 5/64"                     | 750                 | 1700 All A/T         |
| 1973 198" Eng. A/T                        | 9/32"          | 3/32"                     | 750                 | 2000 All S/T         |
| All Others                                | 9/32"          | 3/32"                     | 750                 | 2000 All S/T         |
| 1965-71 DODGE TRUCK<br>170" - 225" Eng.   | 3/16"          | ---                       | 550                 | ---                  |
| 1964-66 KAISER JEEP<br>6 CYL. 230" Eng.   | 3/16"          | ---                       | 550                 | ---                  |

b. To adjust, bend the float tab which touches end of needle, being careful not to distort the float lever which might cause it to bind.

## V. FAST IDLE CAM POSITION (1962-63 See Figure 2)

a. Hold choke valve and throttle valve closed. With carburetor in upright position, the index mark on fast-idle cam should be aligned with the center of fast-idle screw.

b. If an adjustment is required, bend the fast-idle rod, as shown, until index marks line up with screw.

c. (1964 See Figure 3.) Place fast idle screw on low step of fast idle cam and against second step. Hold choke valve toward closed position, and measure distance between upper edge of choke valve and air horn wall. To adjust bend fast idle rod. (See Data Table for measurement.) 1965-73 SECOND STEP NEXT TO HIGH STEP.

## VI. IDLE ADJUSTMENT (See Figure 2)

Engine at operating temp. and choke wide open adjust idle adjusting needle to smooth idle, adjust throttle stop screw for proper R.P.M. Make adjustment with headlights and air condition on A/T in neutral. (See Data Table for R.P.M.)

## VII. BOWL VENT ADJUSTMENT. (See Figure 4)

A. WITH THROTTLE AT CURB IDLE SPEED THE BOWL VENT VALVE SHOULD BE RAISED OFF ITS SEAT AS SHOWN FIG. 4

B. IF ADJUSTMENT IS REQUIRED BEND TAB AT LOCATION SHOWN. 1966-73 BEND ROD AT HORIZONTAL PORTION. 1970-73 E.C.S. MODELS CHECK CLEARANCE BETWEEN VENT VALVE STEM AND OPERATING ROD.

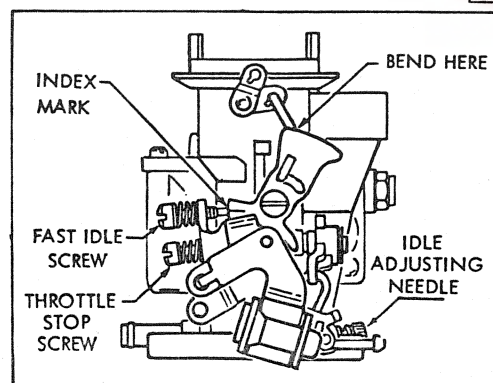
## VIII. FAST IDLE ADJUSTMENT

1962-63 (See Figure 2) Set fast idle screw on index mark of fast idle cam and adjust to proper R.P.M.

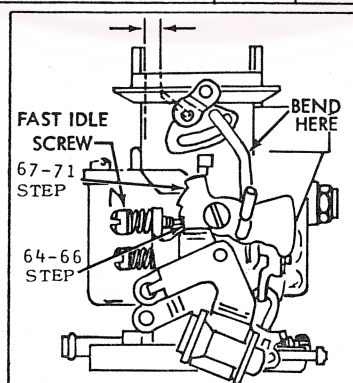
1964-67 (See Figure 3) set fast idle screw on low step of fast idle cam and adjust to proper R.P.M. (See Data Table for R.P.M.)

1966-69 W/C. A. P. ON SECOND HIGHEST STEP.  
1970-73 ALL ON SECOND HIGHEST STEP.

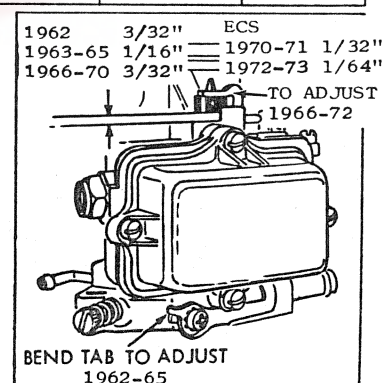
ADJUSTMENT DATA TABLE



FAST IDLE CAM POSITION Fig.2



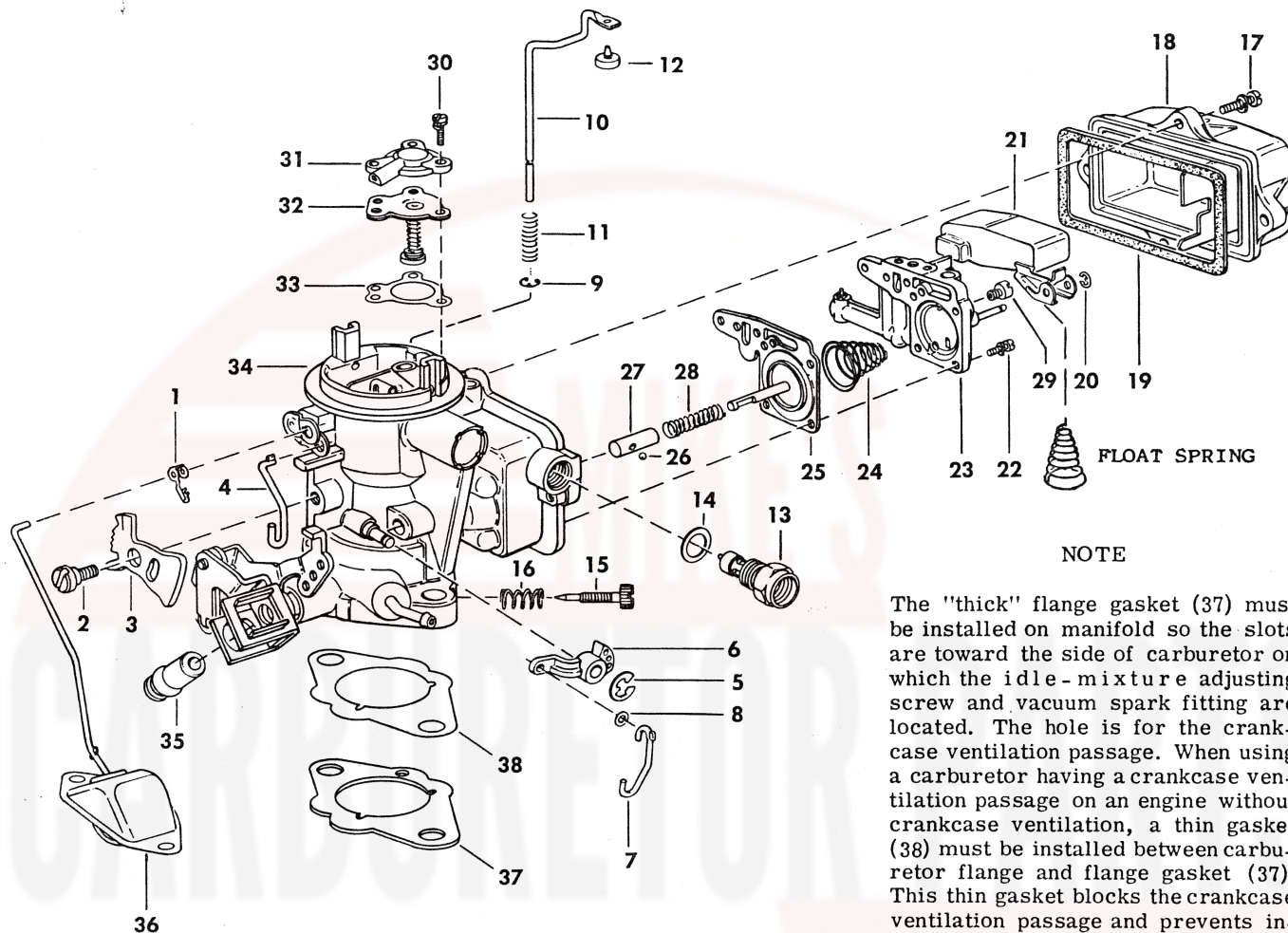
FAST IDLE CAM POSITION Fig.3



BOWL VENT ADJ. Fig.4

## GENERAL EXPLODED VIEW

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



### NOTE

The "thick" flange gasket (37) must be installed on manifold so the slots are toward the side of carburetor on which the idle-mixture adjusting screw and vacuum spark fitting are located. The hole is for the crankcase ventilation passage. When using a carburetor having a crankcase ventilation passage on an engine without crankcase ventilation, a thin gasket (38) must be installed between carburetor flange and flange gasket (37). This thin gasket blocks the crankcase ventilation passage and prevents intake of air. The thin gasket must not be used on cars equipped with crankcase ventilation system.

### Index

#### No. NOMENCLATURE

1. Choke rod retainer clip
2. Fast-idle cam screw
3. Fast-idle cam
4. Fast-idle rod
5. Pump lever retainer ("E" washer)
6. Pump lever
7. Pump link
8. Pump-link washer
9. Bowl vent rod retainer ("E" washer)
10. Bowl vent rod
11. Bowl vent rod spring
12. Bowl vent valve
13. Needle and seat assembly
14. Needle seat gasket
15. Idle-mixture adjusting needle
16. Idle adjusting needle spring
17. Screw and lockwasher assembly
18. Fuel bowl
19. Fuel-bowl gasket

### Index

#### No. NOMENCLATURE

20. Float lever retainer ("E" washer)
21. Float assembly
22. Screw and lockwasher assembly
23. Main well and economizer body assy.
24. Pump diaphragm spring
25. Pump diaphragm assembly
26. Pump push-rod sleeve ball
27. Pump push-rod sleeve
28. Pump push-rod spring
29. Main-metering jet
30. Screw and lockwasher assembly
31. Economizer diaphragm cover
32. Economizer diaphragm assembly
33. Economizer diaphragm gasket
34. Body assembly
35. Throttle-rod insulator bushing
36. Automatic choke assy. (well type)
37. Manifold flange gasket, thick (see "note", above)
38. Manifold flange gasket, thin (see "note", above)