

SERVICE INSTRUCTIONS

CARTER CARBURETOR MODEL BBD 1-1/4"

DISASSEMBLY

The numerical sequence of the exploded view may be followed in most instances, to disassemble the carburetor far enough to permit the cleaning, inspection and installation of the kit contents. Some variation in shape, omission and addition of some parts will occur between models in this group. NOTE: The idle mixture screws (48) on the C.A.P. (Cleaner Air Package) carburetors have a limited travel and are not removable. The idle limiter caps (47) if so equipped should not be removed, unless the new service limiter caps are included in repair kit. If the limiter caps are removed, (After removal of the caps) be sure to turn the idle mixture screws clockwise (inward) to a seated position counting the number of turns. *The same number of turns from the seated position must be maintained before reinstalling the new idle limiter caps.*

To disassemble the integral choke parts (if equipped) from the air horn, refer to insert at top of exploded view.

To disassemble the pump plunger parts of the E.C.S. (Evaporation Control System) carburetors, refer to the alphabetical letters in exploded view.

CLEANING

Clean parts thoroughly in an approved carburetor solvent. Special attention should be given to carbon deposits in throttle bore and passages. Rinse parts in a suitable solvent and blow out all passages with compressed air. CAUTION: Do not soak leather, plastic, diaphragm assemblies, rubber or other similar material in solvent.

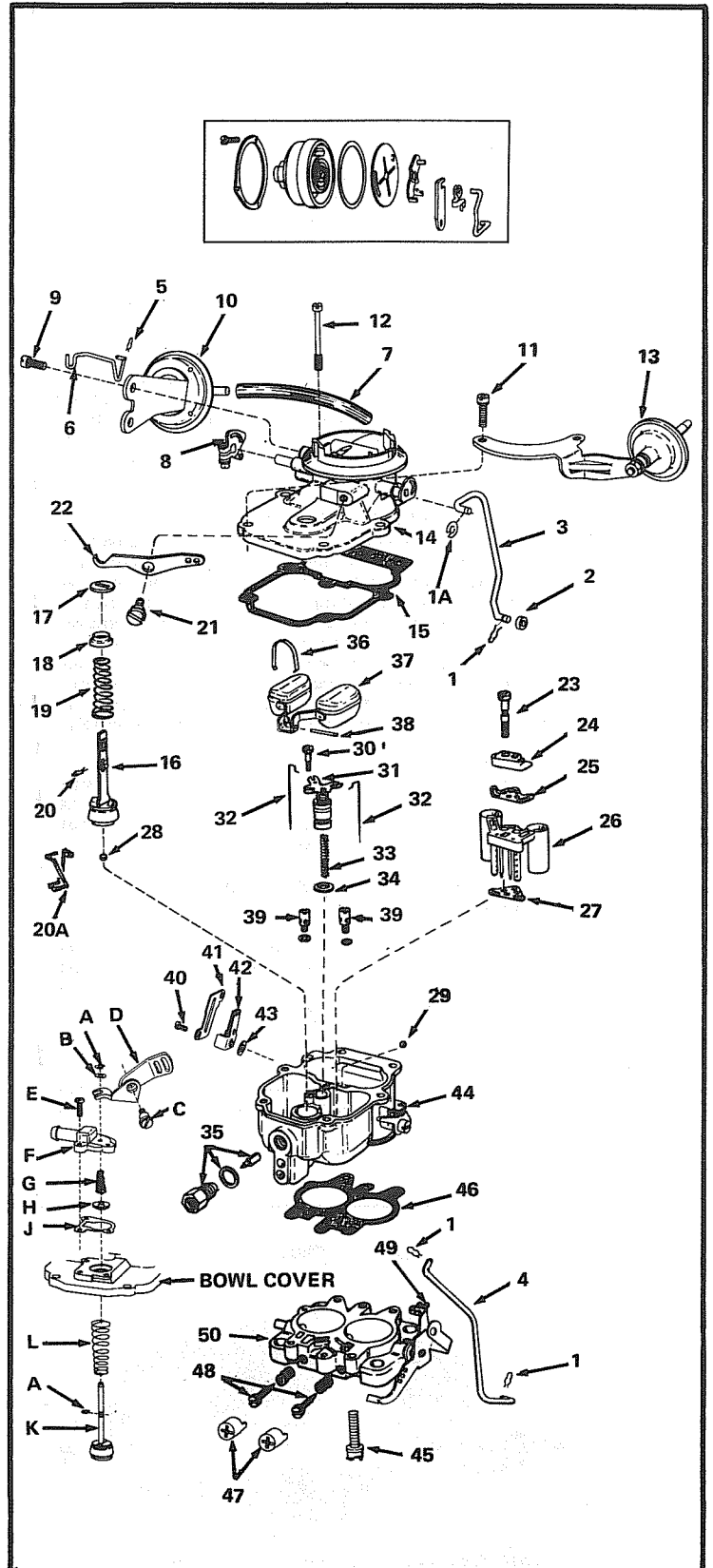
REASSEMBLY

Reverse the numerical sequence of exploded view, to reassemble carburetor. Note the following special instructions:

1. Idle mixture screws (48) should be seated lightly, then back out 1 to 2 turns for initial setting. Refer to the idle speed and mixture adjustment for the final adjustment, and the proper installation of the new service idle limiter caps.
2. The Pin Spring (20), retainer (20A) or retainer (A) should be installed in center groove of plunger shaft.
3. Be sure step up piston gasket (34) is installed in piston passage.
4. The 1955 and early 1956 carburetors will require the fast idle and unloader adjustment before installing the thermostatic choke housing.
5. Lubricate leather on plunger (16) with engine oil before installing.

NOMENCLATURE

- | | |
|--------------------------------------|-------------------------------|
| 1 Pin spring | 30 Step-up piston plate screw |
| 1A Retainer | 31 Step-up piston plate |
| 2 Spacer | 32 Step-up piston rod (2) |
| 3 Choke connector rod | 33 Step-up piston spring (2) |
| 4 Throttle connector rod | 34 Step-up piston gasket |
| 5 Pin spring (small) | 35 Needle & seat assembly |
| 6 Choke diaphragm connector link | 36 Float lever pin retainer |
| 7 Hose | 37 Float & lever assembly |
| 8 Choke shaft lever | 38 Float lever pin |
| 9 Choke diaphragm screws | 39 Main jets |
| 10 Choke diaphragm assembly | 40 Compensator valve screw |
| 11 Air horn screws (short) | 41 Compensator valve cover |
| 12 Air horn screws (long) | 42 Compensator valve |
| 13 Dash pot and bracket assy. | 43 Compensator gasket |
| 14 Air horn | 44 Main body casting |
| 15 Air horn gasket | 45 Body flange screw |
| 16 Pump plunger assembly | 46 Body flange gasket |
| 17 Pump plunger washer | 47 Idle limiter cap |
| 18 Pump plunger bushing | 48 Idle mixture screw |
| 19 Pump plunger spring | 49 Throttle speed screw |
| 20 Pin spring (plunger rod) | 50 Flange assembly |
| 20A Plunger shaft retainer | A Retainer (2) |
| 21 Pump arm screw | B Washer |
| 22 Pump arm | C Pump arm screw |
| 23 Venturi cluster screw | D Pump arm |
| 24 Venturi cover | E Cover plate screw |
| 25 Venturi cover gasket | F Cover plate |
| 26 Venturi cluster assembly | G Vent valve spring |
| 27 Venturi cluster gasket | H Vent valve |
| 28 Pump intake check ball (large) | J Cover plate gasket |
| 29 Pump discharge check ball (small) | K Pump plunger |
| | L Pump plunger spring |



FLOAT LEVEL (FIG. 1)

Invert casting and hold finger against float fulcrum pin retainer to assure fulcrum pin is bottomed in its guide slots. Measure the dimension as listed in Data Chart from surface of fuel bowl to the top of crown at center of each float (1955-56) at outer ends of float. To adjust bend lip of float. **NOTE: Never allow the needle to be pressed into seat when adjusting.**

FAST IDLE (FIG. 2)

TYPE 1 - OFF ENGINE

Open throttle valve slightly and hold choke valve fully closed to allow fast idle cam (in piston housing) to rotate to fast idle position. The dimension between lower edge of throttle valve and bore of casting should be as listed in Data Chart. To adjust, bend connector rod (C).

TYPE 2 - OFF ENGINE

Place fast idle screw (A) on the index mark (or highest step) of fast idle cam and adjust the screw to the dimension, as listed in Data Chart, between lower edge of throttle valve and edge of casting.

TYPE 3 - ON ENGINE

With engine running, place fast idle screw on step of cam as listed in Data-Chart, then turn the screw to the R.P.M. speed as listed in Data Chart.

UNLOADER (FIG. 3)

Hold throttle valves wide open and close choke valve as far as possible without forcing. The dimension between top edge of choke valve and inner wall of air horn, should be as listed in Data Chart. To adjust (1955 and early 1956 carburetors) bend trip lever arm in housing; (late 1956 and later - see insert) and bend unloader arm (B) on throttle lever.

CHOKE VACUUM KICK (FIG. 4) - IF EQUIPPED

Press diaphragm stem (A) inward until diaphragm is bottomed on 1964 carburetors; 1965 and later press diaphragm plunger (not stem) to bottom diaphragm and to allow diaphragm stem internal spring to be compressed by extending the stem as choke valve is moved toward the closed position to obtain the proper dimension between top edge of choke valve and wall of air horn, as listed in Data Chart. To adjust, open or close the "U" bend of choke operating link. (Remove link to adjust to prevent damage to diaphragm). **NOTE: Optional method of bottoming diaphragm is to apply at least 10" of vacuum from an outside source to diaphragm assembly.**

AUTOMATIC CHOKE

Carburetors equipped with the integral choke. (Housing on carb) Rotate cover against spring tension until mark on cover is aligned with center index mark on housing. (Tighten screws) **NOTE: Do not exceed 2 notches rich or lean when adjusting.**

IDLE SPEED AND MIXTURE (SEE EXPLODED VIEW)

Non-Emission Carburetors

Turn throttle speed screw (49) in until throttle valves are opened slightly. Start engine and allow to warm up thoroughly. Turn mixture screws (48) either way until the best idle is obtained. Readjust throttle speed screw (49) to 450-500 R.P.M. and again check mixture screws. 1968 and later carburetors see tune up decal in engine compartment for the proper R.P.M.

Emission Carburetors

Follow idle mixture adjusting procedure as outlined in car manufacturer's service manual. If not available, make temporary adjustment as follows:

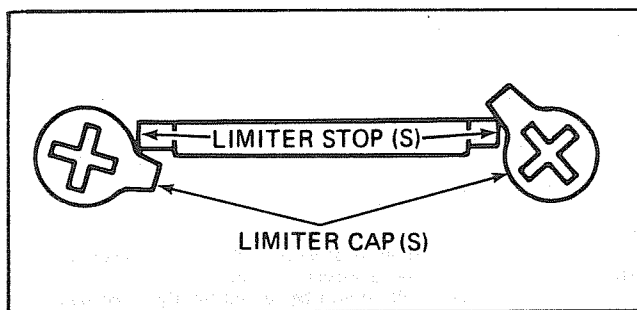
1. Check ignition timing.

2. With engine at normal operating temperature, air cleaner installed where possible, and all transmissions in (neutral).
3. Turn throttle speed screw (49) for speed of 500-550 R.P.M. For (C.A.P.) carburetors turn throttle speed screw (49) to 700 R.P.M. for Manual Transmissions, and 650 R.P.M. for Auto. Transmissions. For 1968 and later carburetors see tune up decal in engine compartment for specified R.P.M.
4. Turn idle mixture screws (48) for the highest R.P.M. using a tachometer.
5. Readjust throttle speed screw (49) if necessary.
6. Turn each mixture screw (48) clockwise (leaner) slowly, to obtain 10 to 20 R.P.M. drop with each screw. Then turn each screw 1/4 turn counterclockwise (richer) for final adjustment.

LIMITER CAP INSTALLATION (IF EQUIPPED)

If the original limiter caps have been removed from carburetor, the new service idle limiter caps must be installed after properly adjusting the idle speed and mixture screw, to comply with existing State and Federal regulations regarding Exhaust Emissions.

Soak caps in hot water for a few minutes to aid in installation. Place caps on mixture screw heads and press firmly using care not to turn mixture screws when forcing caps in place, with the tab in the maximum counterclockwise position against the limiter stops. (See illustration)



PUMP (FIG. 5 AND 5A) On Engine

With throttle valves at curb idle and throttle connector rod (A) in center hole of throttle lever and inner hole of pump arm (unless otherwise noted in Data Chart). Determine proper type from Data Chart and proceed as follows:

TYPE 1 (FIG. 5) The dimension (B) from surface of casting to top of plunger shaft should be as listed in Data Chart. To adjust, bend connector rod (A).

TYPE 2 (SEE FIG. 5) The pin spring should be in center groove of plunger shaft to support vent valve for standard setting, unless otherwise noted in Data Chart. **NOTE: Change pin spring in accord with pump stroke.**

The dimension (C) between vent valve and bushing should be as listed in Data Chart. To adjust, bend connector rod (A).

TYPE 3 (FIG. 5A) The retainer should be in center groove of plunger shaft. The dimension from the shoulder of air horn to top of plunger rod, should be as listed in Data Chart. To adjust, bend connector rod (A).

DASHPOT - IF EQUIPPED

With throttle valves at (curb idle) hold dash pot stem fully depressed. Loosen lock nut and adjust dashpot in or out of bracket to obtain 1/16" between diaphragm stem and throttle lever tang.

