

Carter Carburetors

CARTER MODEL RBS SINGLE BARREL

JEEP

Application	Carter Part No.
1965	
232" 6 Cyl. (Man. Choke).....	4163S
232" 6 Cyl. (Auto. Choke).....	4016S
1966	
232" 6 Cyl. (W/O Emission Control)	
Man. Choke.....	4163S
Auto. Choke.....	4016S
232" 6 Cyl. (W/Emission Control)	
Man. Choke.....	4252S
Auto. Choke.....	4253S
1967	
232" 6 Cyl. (W/O Emission Control)	
Man. Choke.....	4163S
Auto. Choke.....	4016S
232" 6 Cyl. (W/Emission Control)	
Man. Choke.....	4252S
Auto. Choke.....	4253S
1968	
232" 6 Cyl. (Man. Choke).....	4252S
232" 6 Cyl. (Auto. Choke).....	4253S
1969	
232" 6 Cyl. (Man. Choke).....	4252S
232" 6 Cyl. (Auto. Choke).....	4253S
1970	
232" 6 Cyl. (Man. Choke).....	4925S
232" 6 Cyl. (Auto. Choke).....	4926S
1971 232" 6 Cyl.	4926S

CARBURETOR IDENTIFICATION

Carter number stamped on tag attached to carburetor by air horn screw or stamped on side of carburetor flange near throttle lever. "S" indicates basic carburetor design. Additional letter following "S" indicates production change affecting parts replacement, jet calibration or adjustment settings.

DESCRIPTION

Single venturi design with aluminum body casting and pressed steel fuel bowl. Two internal vapor vents provide for fuel vapor dissipation. Metering rod is diaphragm controlled, accelerator pump is spring actuated, and integral automatic choke has a vacuum piston in the thermostatic spring chamber.

ADJUSTMENT

HOT (SLOW) IDLE RPM

See appropriate article in TUNE-UP Section.

COLD (FAST) IDLE RPM

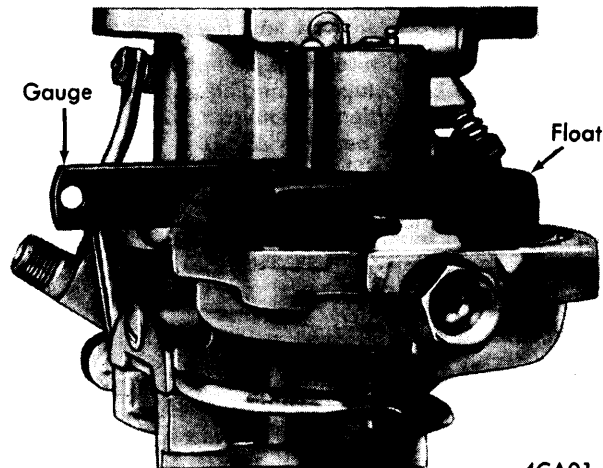
See appropriate article in TUNE-UP Section.

ACCELERATOR LINKAGE

See appropriate article in TUNE-UP Section.

FLOAT LEVEL

With carburetor assembly inverted, bowl and bowl gasket removed and weight of float resting on inlet needle, measure distance from machined surface of casting to tip on outer end of float. Adjust to specifications by bending float bracket. **NOTE** - If adjustment is made with float in carburetor, do not allow any pressure to be placed on resilient inlet needle seat.



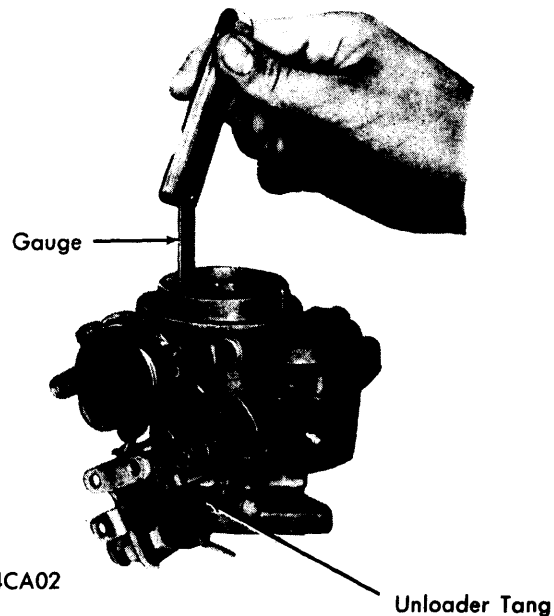
FLOAT ADJUSTMENT

FAST IDLE THROTTLE VALVE CLEARANCE

With choke valve fully closed and center of fast idle tang on index mark, measure distance between edge of valve and throttle bore. Adjust to specifications by bending fast idle tang.

UNLOADER

With throttle valve wide open, measure clearance between upper edge of choke valve and wall of air horn. Adjust to specifications by bending unloader arm on throttle lever.



UNLOADER ADJUSTMENT

DASHPOT

With throttle valve fully closed and dashpot plunger fully depressed, measure distance between throttle lever and end of plunger. Adjust to specifications by turning dashpot assembly in or out of bracket as necessary.

CARTER MODEL RBS SINGLE BARREL (Cont.)

AUTOMATIC CHOKE

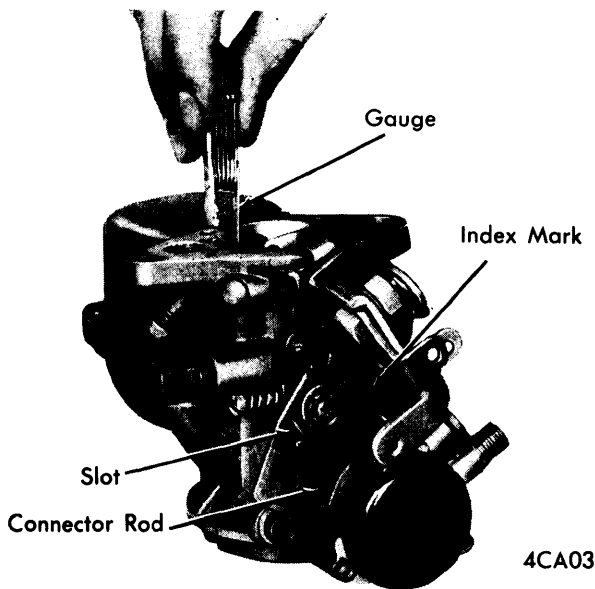
Loosen choke cover retaining screws and rotate choke cover and coil assembly to align reference mark on cover with specified mark on choke housing. Tighten choke cover retaining screws.

PUMP AND BOWL VENT

With throttle valve fully closed, adjust connector rod nut to .005-.015" clearance between connector rod and shoulder on pump plunger shaft.

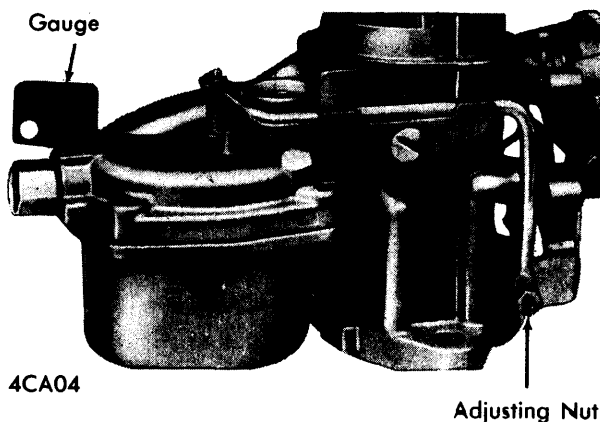
FAST IDLE LINKAGE

Models 4016S, 4253S, 4926S — With choke valve fully closed and choke connector rod in upper end of slot in cam, align cam index with center of fast idle tang. Adjust by bending choke connector rod at lower angle.



FAST IDLE ADJUSTMENT

Models 4163S, 4252S, 4925S — With choke valve wide open and throttle valve fully closed, align index mark on cam with center of throttle lever tang. Adjust by turning nut on choke connector rod.



ACCELERATOR PUMP ADJUSTMENT

ACCELERATOR PUMP

With throttle valve fully closed, turn self-locking accelerator pump adjusting nut to obtain a clearance of $\frac{1}{16}$ " between washer on accelerator pump piston and boss of carburetor body.

OVERHAUL

DISASSEMBLY

1) Remove anti-stall dashpot and bracket as an assembly. Remove automatic choke cover and coil assembly and gasket. Remove choke piston lever screw from end of choke shaft, remove piston lever, choke piston and link as an assembly. Remove air cleaner anchor screw bracket from air horn.

2) Remove fork lever from choke shaft, remove staking and take out choke valve screws, remove valve and slide choke shaft out.

3) Remove fast idle cam retainer and plastic collar, remove cam and disengage connector rod from cam and choke shaft fork lever. Remove pump arm connector link, free retaining spring from pump arm at plunger end, remove pump arm retainer screw and retainer, then remove pump arm, spring, and plastic sleeve.

4) Take out fuel bowl attaching screws, remove bowl and gasket. Remove float pin attaching screws, remove float pin, float, fuel inlet needle valve and seat assembly.

5) Use a light hammer to tap down on upper end of pump plunger shaft to remove cover on lower face of casting. **CAUTION** — Pump plunger and spring will drop out with cover.

6) Remove snap ring and pry conical washer out of upper end of step-up metering rod diaphragm housing, pierce diaphragm cover with a sharp pointed tool and pry cover out, remove diaphragm retainer, spring, and diaphragm and step-up metering rod assembly.

7) If necessary to remove throttle valve or shaft, scribe throttle plate and lower face of mounting flange lightly for correct installation, remove staking from throttle valve screws with a file, remove screws, lift out valve and slide throttle shaft and lever assembly out.

8) Remove plastic idle limiter cap, being certain to note position of tab. After removing limiter cap, count the number of turns necessary to lightly seat needle (this will aid in reassembly). Remove idle mixture screw and spring, fast idle speed screw and spring, and idle speed screw and spring. **CAUTION** — Do not disturb or attempt to remove slotted idle passage plug, located directly below idle mixture adjusting screw, as this screw is pressed in and any change in position will affect idle performance.

CLEANING & INSPECTION

Wash all parts except pump diaphragm, power valve, step-up rod, diaphragm, dashpot and throttle positioner solenoid in clean carburetor solvent, rinse in kerosene and dry with compressed air. Wipe all parts which cannot be immersed in solvent with clean cloth. Blow out all passages with air. Check all parts for wear or damage.

REASSEMBLY

Use all new gaskets, reassemble carburetor by reversing disassembly procedure while noting the following:

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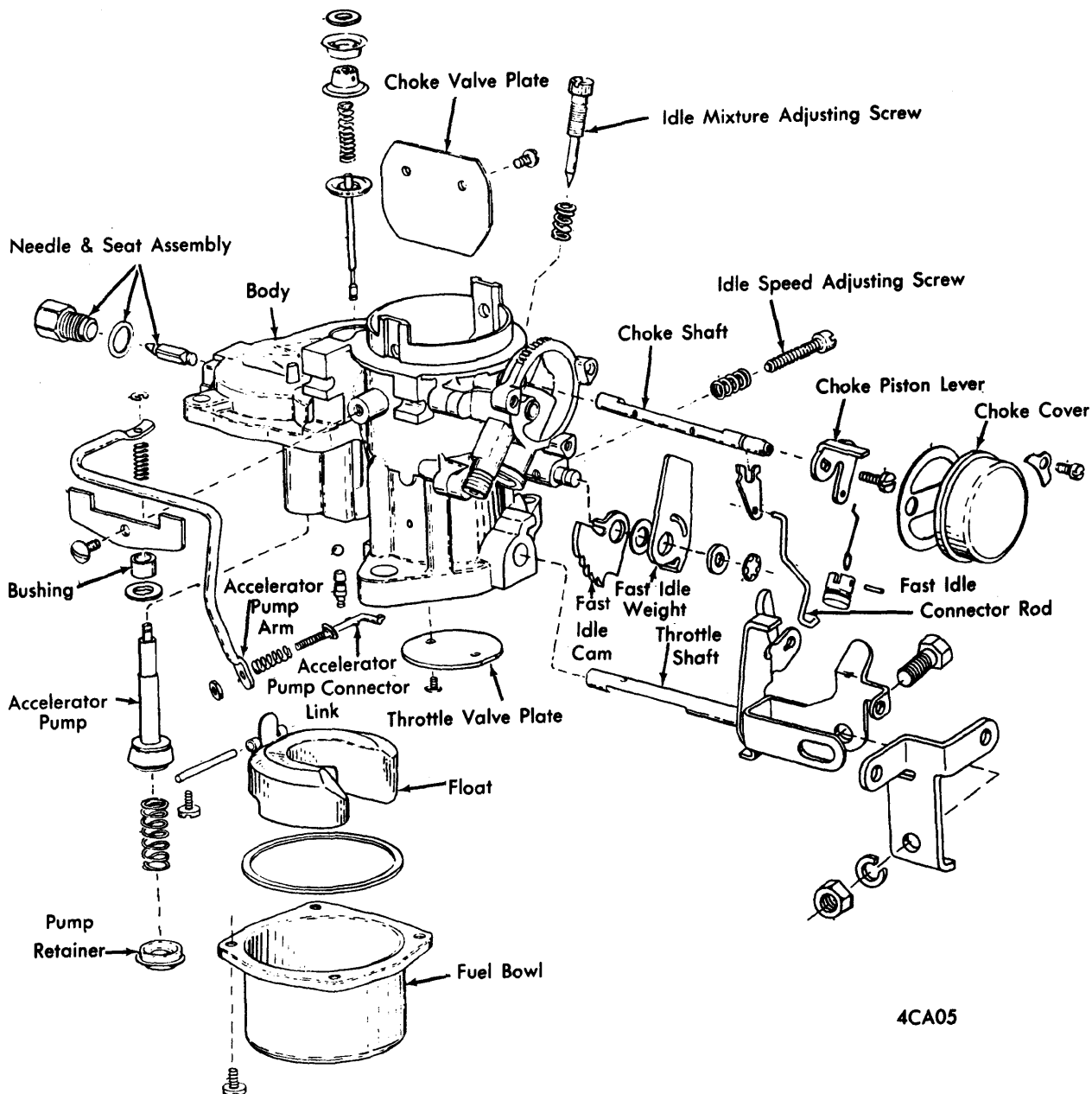
Accelerating Pump Assembly – Install pump plunger with spring, spring seat, and shims in carburetor body. Install new cover on bottom of body, use a $\frac{3}{8}$ " socket to press on outer edge of cover and tap with light hammer to seat cover on bottom of carburetor body.

Step-Up Metering Rod & Diaphragm Assembly – Install idle jet in main body. Insert metering rod in sleeve in casting and drop into place in main body, position diaphragm spring and retainer over diaphragm. Install new diaphragm cover. Use $\frac{1}{2}$ " socket and light hammer to seat diaphragm cover in casting. Install new conical washer over diaphragm cover and use a $\frac{3}{16}$ " socket and light hammer to tap washer down until it is flat in main body.

Throttle Valve Installation – Install valve on shaft with scribe marks (made during disassembly) aligned, install valve screw just snug. Close valve and check alignment by holding main body up to light – little or no light should show around valve. Tap valve lightly to seat it and hold valve closed while tightening screws securely. Stake attaching screws while supporting shaft with a metal bar or block of wood.

Choke Valve Installation – Center choke valve in same manner as throttle valve while tightening screws.

Idle Mixture Adjusting Screw & Limiter Cap – Install adjusting screw and spring, but do not install limiter cap until after carburetor has been installed on engine and idle mixture adjusted.



4CA05

CARBURETOR ASSEMBLY

CARTER MODEL RBS SINGLE BARREL (Cont.)

CARBURETOR ADJUSTMENT SPECIFICATIONS								
Carburetor Number	Idle Speed (Engine RPM)		Float Level Setting	Fast Idle Valve	Unloader Setting	Dashpot Clearance	Choke Pull-Down	Auto. Choke Setting
	Hot ①	Fast ①						
4016S	2 1/32"	.035"	1/8"	.....	.....	1 Rich
4163S	2 1/32"	.052"	.....	.....	.....	.....
4252S	2 1/32"	.052"	.....	1/8"	.....	.....
4253S	2 1/32"	.035"	1/8"	1/8"	.....	1 Rich
4925S	2 1/32"	.052"	.....	1/8"	.....	.....
4926S	2 1/32"	.035"	1/8"	1/8"	.....	1 Rich

① — See appropriate article in TUNE-UP Section.