



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.

NOTE: Numbers used in disassembly and reassembly procedures are the index numbers on the exploded drawing on reverse side of this sheet. Slight variations in parts and casting configurations occur between the various WCFB carburetors, although basically all units are alike. Refer to the Adjustment Data Table for adjustment dimensions.

I. DISASSEMBLY.

- Using the exploded view on reverse side as a guide, disassemble the carburetor far enough to permit thorough cleaning and inspection of parts.
- Notice holes from which linkage rods are removed so they can be returned to the same locations during reassembly.
- Notice thermostat setting on choke so that it may be returned to the same marks at reassembly.

II. CLEANING.

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.

Reassemble the carburetor using essentially the reverse of disassembly.

IV. FLOAT LEVEL ADJUSTMENT. (See Figure 1.)

- In most cases primary and secondary floats have different settings. Refer to the Adjustment Data Table for proper gage measurement to use.
 - Hold air horn upside down with floats in place and gasket removed. Measure float heights at both locations shown in figure 1.
 - Adjust by bending float arms, making sure that both pontoons on each float assembly are the same height and that pontoons are positioned to clear the bowl when assembled.
- Caution: apply no pressure on the resilient tip needle.

V. FLOAT DROP ADJUSTMENT. (See figure 2.)

- TYPE "A" ADJUSTMENT. Hold air horn upright with floats hanging by their own weight. Measure from center top surface of pontoons to air horn (gasket removed) as shown at "A" in figure 2. Refer to Adjustment Data Table for dimensions and adjust by bending stop tabs on float brackets.
- TYPE "B" ADJUSTMENT. Hold parts as described above and measure at location "B" figure 2. Refer to Adjustment Data Table for dimensions. Adjust as described above.

VI. PUMP ADJUSTMENT. (See figure 3.)

- Back out throttle stop screw until throttle valves seat in bores.

- Hold a straight edge across top of dust cover housing, next to the pump arm. The flat surface of the pump arm should be parallel to the straight edge. Adjust by bending throttle connector rod at deepest angle as shown in figure 3.

VII. METERING ROD ADJUSTMENT. (See figure 4.)

- Back out throttle stop screw until throttle valves seat in bores.
- Loosen the clamp screw (A) in metering rod arm and press down on vacuum piston link (C) until metering rods "bottom" in carburetor body.
- With parts held as indicated above, rotate the metering rod arm (B) until the finger on the arm at (D) contacts the lug on the vacuum piston link (C). Tighten screw (A) and recheck.

VIII. BOWL VENT ADJUSTMENT. (See figure 5.)

- Carburetors equipped with an adjustable bowl vent require adjustment.
- With throttle valves seated in bores, dust cover and gasket in place, the lower edge of vent valve cap should be raised above surface of dust cover the distance listed in the Adjustment Data Table.
- If an adjustment is required, remove dust cover and bend arm that operates the vent mechanism. Install dust cover and recheck.

IX. FAST IDLE ADJUSTMENT.

- Adjustment "A". (See figure 6.) Loosen clamp screw on choke lever. Insert feeler gage (see Adjustment Data Table, for correct size) between the lip of fast idle cam and the boss on the flange casting (at A, figure 6). With choke valve held tightly closed, take slack out of linkage and tighten clamp screw on choke lever.
- Adjustment "B". (See figure 6.) With choke valve held closed and fast idle adjusting screw (C), or fast idle adjusting tang, on high step of cam, rotate screw (C) or bend tang, until throttle valves are open the distance listed in Adjustment Data Table between throttle valves and carburetor bore, on side opposite idle adjusting screws.

X. UNLOADER ADJUSTMENT. (See figure 7.)

With throttle valves held wide open, there should be a clearance between upper edge of choke valve and the inner wall of air horn as listed in the Adjustment Data Table. Adjust by bending unloader lip on throttle shaft lever as shown.

XI. IDLE ADJUSTMENT. (See figure 6.)

With carburetor installed and engine warmed up, rotate throttle stop screw (E) until engine idles at approximately 500 rpm. Adjust idle screws (D) to produce a smooth idle. It may be necessary to readjust throttle stop screw (E) and idle adjusting screws (D) alternately until a smooth idle of correct speed is obtained.

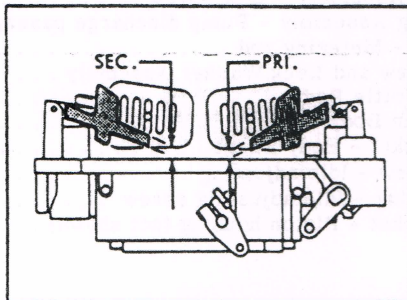


Figure 1

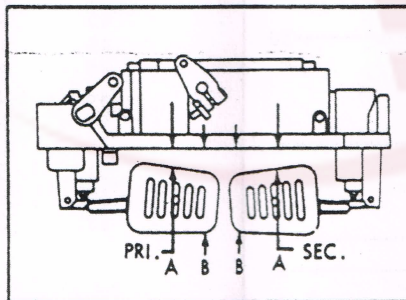


Figure 2

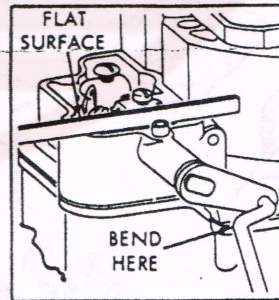


Figure 3

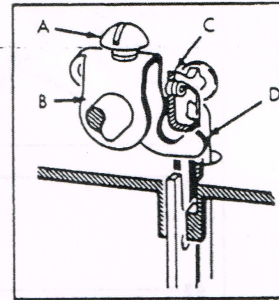


Figure 4

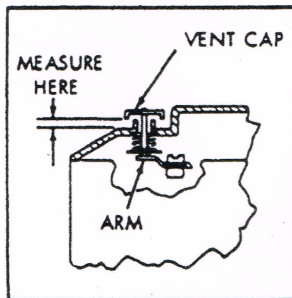


Figure 5

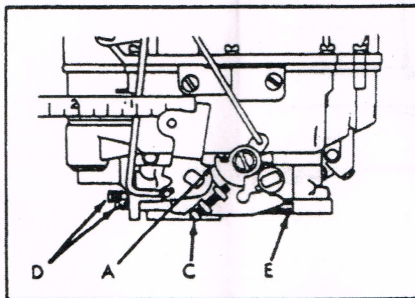


Figure 6

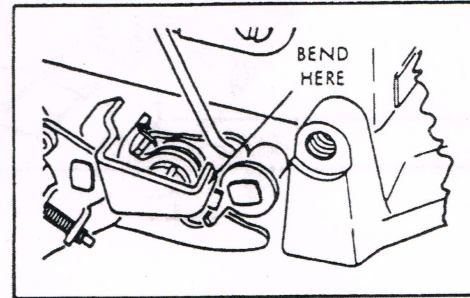
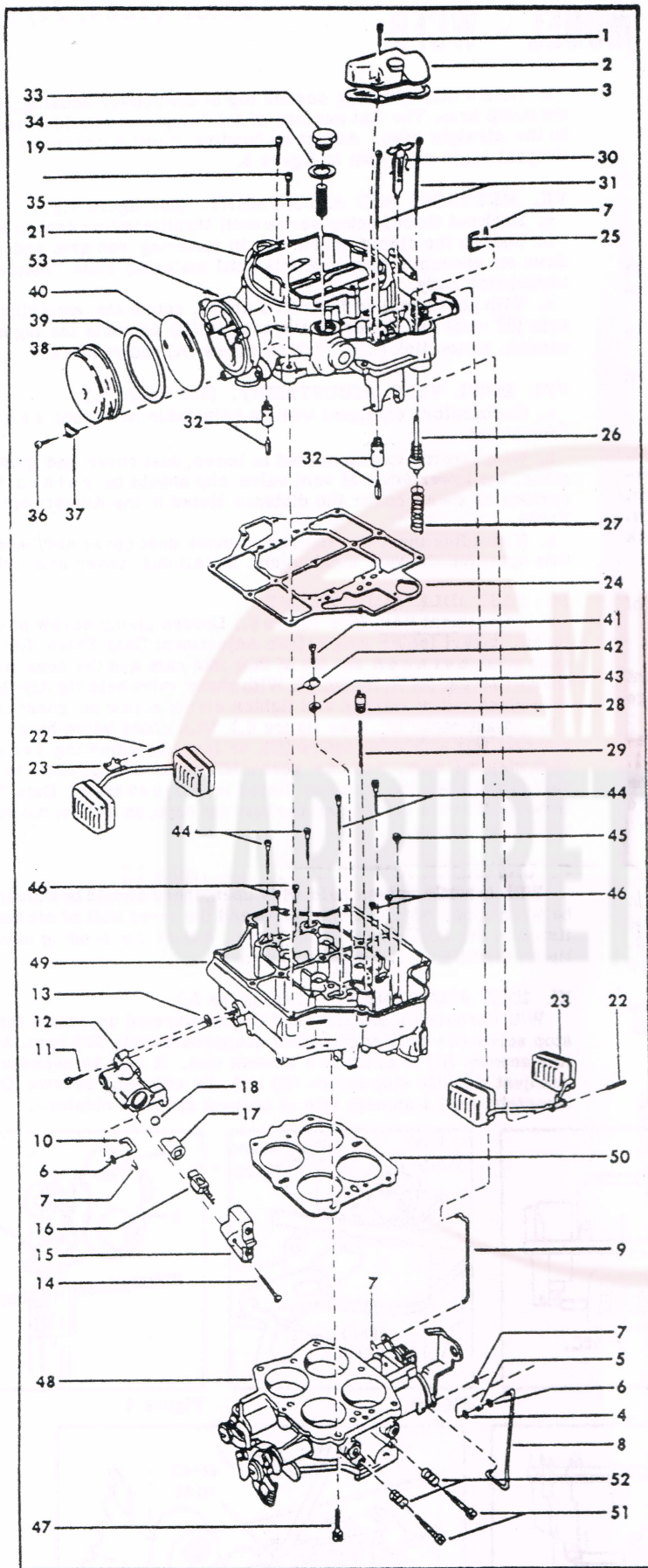


Figure 7



Ref. No.

NOMENCLATURE

1	Screw and Lock Washer Assembly
2	Cover Assembly - Dust
3	Gasket - Dust cover
4	Retainer - Spring
5	Spring - Connector rod
6	Washer - Connector rod
7	Spring - Pin
8	Rod - Throttle connector
9	Rod - Choke connector
10	Link - Starter switch operating
11	Screw and Lock Washer Assembly
12	Housing - Starter switch
13	Gasket - Starter switch housing
14	Screw
15	Cap Assembly - Terminal
16	Block - Switch guide
17	Plunger - Switch
18	Ball - Switch
19	Screw and Lock Washer Assembly
20	Screw and Lock Washer Assembly
21	Air Horn Assembly
22	Pin - Float
23	Float Assembly
24	Gasket - Air horn
25	Link - Pump connector
26	Piston Assembly - Pump
27	Spring - Lower pump
28	Piston Assembly - Vacuum
29	Spring - Vacuum piston
30	Link - Vacuum piston
31	Rod - Metering
32	Needle and Seat Assembly
33	Nut - Strainer
34	Gasket - Strainer nut
35	Strainer
36	Screw
37	Retainer - Coil housing
38	Coil and Housing Assembly - Thermostatic
39	Gasket - Coil housing
40	Plate - Choke baffle
41	Screw - Pump jet housing
42	Jet and Housing Assembly - Pump
43	Gasket - Pump jet housing
44	Jet Assembly - Low speed
45	Plug Assembly - Pump discharge passage
46	Jet - Metering rod
47	Screw and Lock Washer Assembly
48	Throttle Body
49	Main Body
50	Gasket - Body flange
51	Screw - Idle adjusting
52	Spring - Idle adjusting screw
53	Gasket - Piston housing (not shown)

INSTRUCTION SHEET

CARTER MODEL WCFB CARBURETOR

SERVICE TIPS AND CHANGES

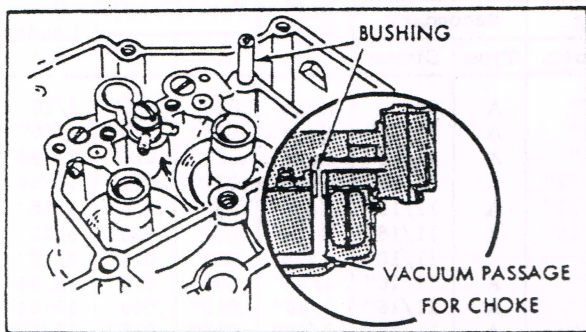


Figure 8.

ENGINE STALLING ON LEFT TURNS — All WCFB Units.

A bushing can be permanently installed in the choke vacuum passage in main body casting provides a more positive seal at this point, and prevents fuel from leaking into this passage on left turns and stalling the engine because of too rich a mixture. (See figure 8.) Make sure the air horn contacts the inner wall of the bowl. This can be done by looking at the impression on bowl cover gasket. Correct by removing any burrs or nicks. Recheck float adjustments.

BOWL COVER SCREWS — Different Lengths.

All late model WCFB carburetors have three different-length bowl cover screws. Each size must be used in its own location. Be sure to take notice of screw locations during disassembly so they may be returned to correct locations.

1955 CHEVROLET — Loading On Warm Up.

Reset choke housing to two points lean.

1955 CHEVROLET — Hard Starting After Flooding.

Check throttle linkage to make sure that primary throttle valves come to full wide-open position. Recheck unloader settings with carburetor on the engine.

1955 CHEVROLET — Air-Cleaner Installation.

Make sure the air-cleaner gasket does NOT block the bowl vents. Check to see that slots in air-cleaner gasket line up with vent tubes and do not rotate gasket during installation of air cleaner.

1955-56 DESOTO — Engine Stalling.

Readjust idle to 500 rpm and fast-idle to 1200 rpm. On 1955 models set choke two points lean. On 1956 models one point rich. Readjust dashpot plunger to move 1/16-inch on closing of throttle valves. Make sure manifold heat control valve is free.

1957 DESOTO ADVENTURER — Loose Throttle Lever Rear Carburetor.

This is caused by side strain on throttle lever due to misalignment and maladjustment of the carburetor interconnecting rod. To correct this condition, remove carburetor and tighten throttle lever by either peening end of shaft over, or soldering end of shaft to throttle lever. Reinstall carburetor, align and readjust interconnecting rod to manufacturer's specifications.

1957 HUDSON, NASH, RAMBLER — Rough Idle.

With engine running, check for an air leak at front left corner of carburetor between throttle body and bowl by squirting gasoline at this point. If a loss of rpm is noted, or if the engine dies, an air leak exists. To correct this condition, remove carburetor and turn it upside down. Place the choke housing toward the left and remove upper right main body to throttle body screw. Coat threads of screw with sealing compound and install it.

1956 PLYMOUTH, POWERFLITE TRANSMISSION — Dashpot.

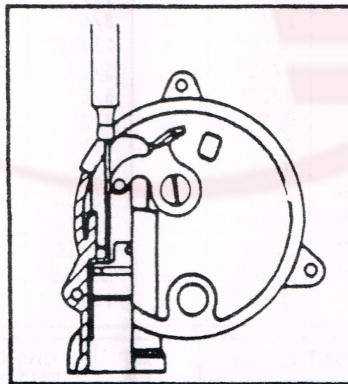
Late production cars have eliminated the dashpot unit.

1955 PONTIAC — Loading or Carburetor Flooding.

Test fuel pump for excessive pressure.

1956 PONTIAC — Hard Starting, Partially Warm Engine.

Change the choke setting to index. If hard starting still exists, change the choke setting to one point lean.



CHOKE PISTON LINKAGE ADJUSTMENT

1. Bend a .026" wire at 90 degrees angle 1/8" from its end.
2. Open choke valve and insert bent portion of wire between the top of slot in choke piston cylinder and bottom of slot in the piston.

CARTER CARBURETOR MODEL - WCFB

Year & Make	Float Level		Float Drop				Bowl Vent Adj.	Fast Idle Adj.		Un-Loader Adj.
	Pri. Dimen.	Sec. Dimen.	Primary		Secondary			A	B	
			Type	Dimen.	Type	Dimen.				
1952 Buick	3/32"	1/4"	A	5/8"	A	3/4"	None	.020"	.020"	3/16"
1953 Buick	3/32"	3/16"	A	5/8"	A	11/16"	None	.020"	.020"	3/16"
1954 Buick	1/8"	3/16"	A	5/8"	A	11/16"	None	.021"	.018"	11/64"
1955 Buick - 2197S	3/32"	3/16"	A	19/32"	A	11/16"	None	.021"	.018"	11/64"
1955 Buick - 2358S	3/32"	3/16"	A	19/32"	A	11/16"	None	.025"	.016"	3/16"
1956 Buick	3/16"	3/16"	A	11/16"	A	11/16"	None	.020"	.020"	5/32"
1952-54 Cadillac	1/8"	3/16"	A	5/8"	A	11/16"	1/16"	.020"	.015"	3/16"
1955 Cadillac	1/8"	3/16"	A	5/8"	A	11/16"	1/16"	.020"	.015"	13/64"
1956 Cadillac	1/8"	3/16"	A	5/8"	A	11/16"	1/16"	.015"	.015"	13/64"
1956 Cadillac Eldorado	1/8"	3/16"	A	5/8"	A	11/16"	1/16"	.015"	.015"	13/64"
1957 Cadillac	1/8"	1/4"	A	5/8"	A	3/4"	1/16"	.000"	.010"	13/64"
1955-57 Chevrolet	1/8"	1/4"	A	5/8"	A	3/4"	1/16"	.020"	.015"	3/16"
1956 Chev. Dual Carbs.	1/8"	1/4"	A	5/8"	A	3/4"	1/16"	.020"	.015"	3/16"
1957-61 Chev. Dual Carbs.	1/8"	1/4"	A	5/8"	A	3/4"	1/16"	.020"	.018"	1/8"
1958 Chevrolet	1/8"	1/4"	A	5/8"	A	3/4"	3/32"	.020"	.015"	3/16"
1959-61 Chevrolet	5/32"	9/32"	B	2"	B	2"	3/32"	.020"	None	3/16"
1962-65 Chevrolet	7/32"	9/32"	B	2"	B	2"	3/32"	.020"	None	1/4"
1961 Chris Craft	1/8"	1/4"	A	5/8"	A	3/4"	3/32"	.020"	.012"	3/16"
1954 Chrysler	1/8"	1/4"	A	5/8"	A	3/4"	1/16"	.020"	.015"	3/16"
1955 Chrysler	1/8"	3/16"	A	5/8"	A	11/16"	1/16"	.010"	.018"	3/16"
1955-56 Chry. Dual Carbs.	7/32"	11/32"	A	23/32"	A	27/32"	1/16"	.015"	.010"	3/16"
1956 Chrysler	5/32"	7/32"	A	21/32"	A	23/32"	1/16"	.020"	.012"	3/16"
1956 Canada C-71 A/T	7/32"	9/32"	A	23/32"	A	25/32"	1/16"	.020"	.015"	11/64"
1957 Chrysler	5/32"	9/32"	A	21/32"	A	25/32"	1/16"	.020"	.012"	15/64"
1955 DeSoto	1/8"	3/16"	A	5/8"	A	11/16"	1/16"	.010"	.018"	3/16"
1956 DeSoto	5/32"	7/32"	A	21/32"	A	23/32"	1/16"	.020"	.012"	3/16"
1956 DeSoto Dual Carbs.	7/32"	11/32"	A	23/32"	A	27/32"	1/16"	.015"	.010"	11/64"
1957 DeSoto S-26	5/32"	9/32"	A	21/32"	A	25/32"	1/16"	.020"	.012"	15/64"
1957 DeSoto S-27	7/32"	9/32"	A	23/32"	A	25/32"	1/16"	.020"	.010"	15/64"
1954 Dodge	1/8"	3/16"	A	5/8"	A	11/16"	1/16"	.020"	.015"	3/16"
1955-56 Dodge	1/8"	3/16"	A	5/8"	A	11/16"	None	.020"	.012"	3/16"
1956 Canada D-61	7/32"	9/32"	A	23/32"	A	25/32"	1/16"	.020"	.015"	11/64"
1957-58 Dodge	7/32"	9/32"	A	23/32"	A	25/32"	1/16"	.020"	.010"	11/64"
1957 Hudson	1/8"	3/16"	A	5/8"	A	11/16"	1/16"	.026"	.023"	9/32"
1957 Lincoln	1/16"	3/16"	A	9/16"	A	11/16"	1/16"	.000"	.030"	1/8"
1956 Mercury	1/8"	3/16"	A	5/8"	A	11/16"	1/16"	.000"	.023"	1/8"
1957 Mercury	1/16"	3/16"	A	9/16"	A	11/16"	1/16"	.000"	.030"	1/8"
1957 Nash	1/8"	3/16"	A	5/8"	A	11/16"	1/16"	.026"	.023"	9/32"
1952 Oldsmobile	1/4"	1/4"	A	3/4"	A	3/4"	3/32"	.020"	.018"	1/8"
1953 Oldsmobile - 2016S	3/16"	3/16"	A	1/2"	A	1/2"	1/16"	.020"	.018"	3/16"
1953 Oldsmobile - 2080S	3/16"	3/16"	A	11/16"	A	11/16"	1/16"	.020"	.018"	3/16"
1954 Oldsmobile	1/4"	1/4"	A	3/4"	A	3/4"	1/16"	.020"	.015"	3/16"
1955 Oldsmobile	3/16"	3/16"	A	11/16"	A	11/16"	1/16"	.020"	.015"	3/16"
1953-54 Packard	5/32"	5/32"	A	5/8"	A	5/8"	3/32"	.020"	.020"	9/32"
1954 Packard - 2112S	1/8"	5/32"	A	5/8"	A	5/8"	3/32"	.020"	.026"	9/32"
1955 Packard	1/8"	5/32"	A	5/8"	A	21/32"	1/16"	.020"	.031"	3/16"
1956 Packard	1/8"	3/16"	A	5/8"	A	11/16"	1/16"	.025"	.023"	9/32"
1955 Plymouth	1/8"	3/16"	A	5/8"	A	11/16"	None	.020"	.012"	3/16"
1956-57 Plymouth	7/32"	9/32"	A	23/32"	A	25/32"	1/16"	.020"	.015"	11/64"
1955 Pontiac	3/16"	3/16"	A	11/16"	A	11/16"	None	.020"	.018"	1/8"
1956 Pontiac	3/16"	3/16"	A	11/16"	A	11/16"	1/16"	.020"	.030"	1/8"
1955-62 Studebaker V8	3/16"	3/16"	A	11/16"	A	11/16"	None	.020"	.024"	9/64"
1955-62 Studebaker Truck V8	3/16"	3/16"	A	11/16"	A	11/16"	None	.020"	.024"	9/16"

APPLICATION		FLOAT LEVEL		PUMP ARM HOLE	CHOKE PISTON LINKAGE	BOWL VENT	FAST IDLE VALVE	UNLOADER	CHOKE SETTING
		P	S						
1956 Chrysler Marine		1/8	3/16	Outer	-	1/16	-	-	Manual
1957 Chrysler Marine		5/32	7/32	Center	-	1/16	-	-	Manual
Owens Yacht		3/32	7/32	Outer	-	1/32	.015	3/16	Index
1966-67 Opel		1/8	5/16	Outer	-	3/32		7/64	Index

① Gauge primary float at free end.