

1955 Corvette: Service Bulletin: Specification Sheets for the Adjustment and Parts Sizes for the Four Barrel Carburetor

Subject: Specification Sheets for the Adjustment and Parts Sizes for the Four Barrel Carburetor

Model and Year: 1955 Chevrolet Eight Cylinder Two Barrel Carburetor

Source: Chevrolet Service Bulletin - Zone #13 - Pittsburgh, PA

Bulletin No: S&M- 55-25

Date: July 5, 1955

TO: ALL DEALERS

ATTENTION: SERVICE MANAGER

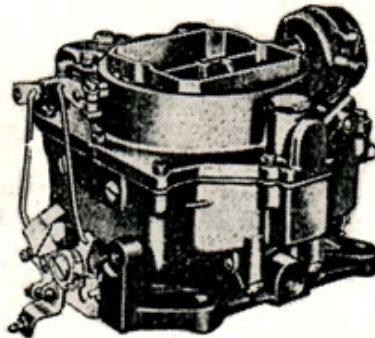
Attached please find a copy of the specification sheets for the adjustment parts sizes for the four barrel carburetor that we are currently using in production in our V-8 engines.

We would like to suggest that this be reviewed by the mechanics in your organization, together with the Top release 55-25 - S&M "Servicing the 1955 Chevrolet Eight Cylinder Two Barrel Carburetor", and Top 55-26 - S&M entitled "Servicing the 1955 Chevrolet Eight Cylinder Four Barrel Carburetor".

The tools, that will be necessary to adjust the four barrel carburetor, were included in your last essential tool order under the number J-6040.

We believe that this will help to clarify servicing the Four Barrel Carburetor and insure your owners peak performance in engine tune-up.

Optional Equipment
(180 Horsepower)



Casting No. 1063 on face of flange

CHEVROLET
"V-8"
1955

WCFB Four-Bore Down-Draft Climatic® Control Carburetor No. 22185

CARBURETOR SPECIFICATIONS

For Chevrolet 8 Cylinder Engine: 3¾ Inch Bore, 3 Inch Stroke

Dimensions: Flange size, 1⅞ inch. Four Bore—4 bolt type.
Primary venturi size, 11/32 inch I. D.
Main venturi (primary) size, 1-1/16 inch.
Main venturi (secondary) size, 15/16 inch I. D.

Float Level: See adjustments.

Vents: Outside, none. Inside, (2) on primary side, (3) on secondary side.

Gasoline Intake: Size No. 42 (.0935 inch) drill hole in needle seat.

Low Speed Jet Tube: (Primary side only).

Jet, size No. 68 (.031 inch) drill.

By-Pass, in body, size No. 52 (.0635 inch) drill.

Economizer, in screw plug, size (.049 inch) diameter.

Idle Bleed, in body, size No. 52 (.0635 inch) drill.

Idle Port: (Upper) slot type. Primary, length .174 inch; width .040 inch. Secondary, none.

Idle Port Opening: Primary, .113 to .119 inch above top edge of valve with valve tightly closed. Secondary, none.

Lower Port: Primary (for idle adjustment screw), size No. 53 (.0595 inch) drill. Secondary, none.

Set Idle Adjustment Screw: ¼ to 1¼ turns open. For richer mixture turn screw out. Do not idle engine below 400 r.p.m. (Automatic Transmission—in Drive Range). 450 r.p.m. (Standard and Overdrive Transmission).

Main Nozzle: Installed permanently. DO NOT REMOVE. Anti-percolating jet (primary, in plug) size No. 60 (.040 inch) drill, (secondary, in body) size No. 60 (.040 inch) drill.

Metering Rod: Primary, economy step .071 inch diameter. Middle step tapers to .065 inch diameter. Power step, .055 inch diameter. Secondary, none.

Metering Rod Jet: Primary, size .091 inch diameter (for metering rod).

Secondary, size .0512 inch diameter (no metering rod).

Metering Rod Setting: See adjustments.

Accelerating Pump: Discharge jet (twin) primary side only, size No. 73 (.024 inch) drill.

Intake ball check seat, size .115 to .120 inch diameter.

Discharge needle seat, size .070 inch diameter.

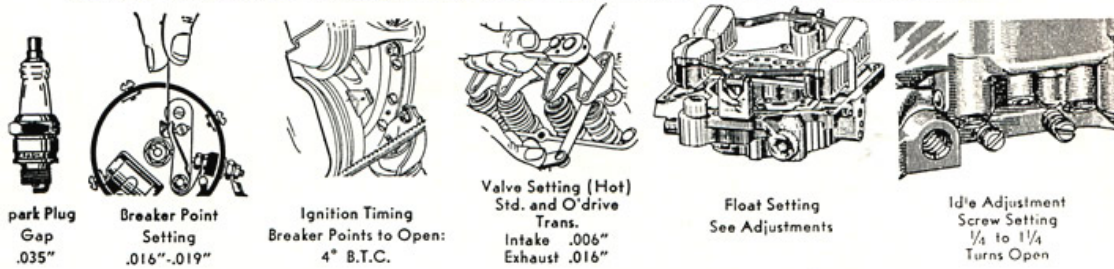
Pump Adjustment: See adjustments.

Choke: Carter Climatic® Control, set on index. Butterfly type—offset choke valve, primary side only. Choke heat suction hole, restriction in piston housing, size No. 42 (.089 inch) drill.

Vacuum Spark Port: Horizontal slot (round end) .045 x .110 inch. Top of port .018 to .028 inch above valve with valve tightly closed.

Motor Tune-Up—Be Accurate! Always Use Feeler Gauges!

CAUTION: Change worn or leaky flange gaskets. Tighten manifold bolts and test compression before adjusting carburetor.



NOTE: Power Glide Trans. equipped with hydraulic valves—no adjustment necessary.

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S. S. WHITE
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CARBURETOR ADJUSTMENTS

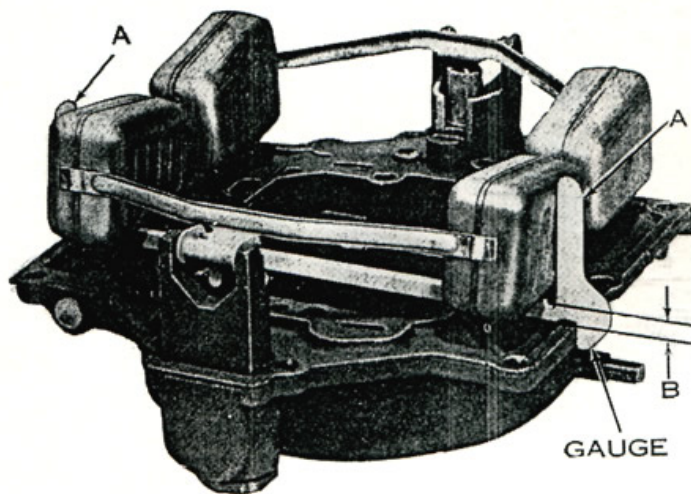


Figure 1
Float Adjustment

FLOAT ADJUSTMENT (Fig. 1):

Two separate float adjustments must be made—lateral and vertical.

LATERAL ADJUSTMENT: With bowl cover assembly inverted, bowl cover gasket removed and float resting on seated needle, place float gauge directly under center of floats with notched portion of gauge fitted over edge of casting. Side of floats should just clear the vertical uprights of float gauge (A). Adjustment should be made by bending arms of floats.

VERTICAL ADJUSTMENT: With float gauge in same position floats should just clear the horizontal portion of gauge. Vertical distance (B) between top of float and machined surface of casting must be 1/8 inch (gauge T107-232) for primary floats and 1/4 inch (gauge T109-223) for secondary floats. Adjust by bending float arms.

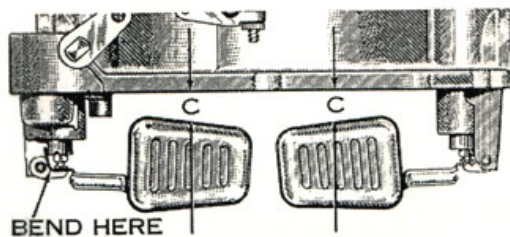


Figure 2
Float Drop Adjustment

FLOAT DROP ADJUSTMENT (Fig. 2):

With bowl cover held in upright position and measuring from center of float, the distance between top of floats (C) and bowl cover should be 5/8 inch for primary floats and 3/4 inch for secondary floats. Adjust by bending stop tabs on float brackets.

PUMP ADJUSTMENT (Fig. 3):

Install pump connector link in outer hole (long stroke) of pump arm, with ends extending toward countershaft arm. Back out throttle lever stop screw (D) until throttle valves seat in bores of carburetor. Hold straight edge across top of dust cover boss at pump arm. The flat on top of pump arm should be parallel to straight edge. Adjust by bending throttle connector rod at lower angle. (Use tool T109-213.)

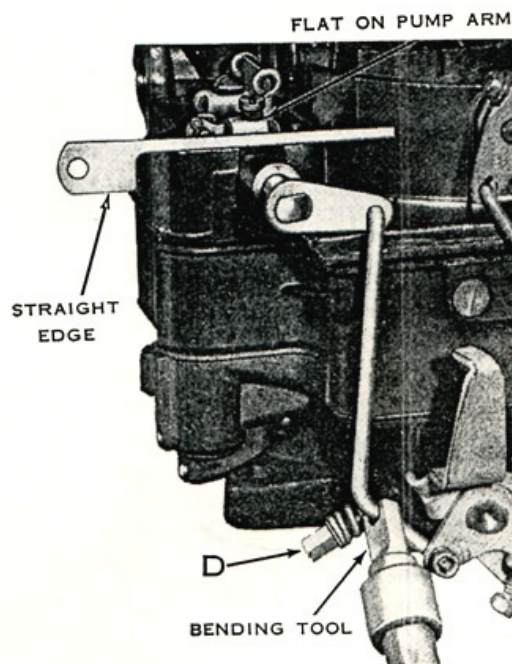


Figure 3
Pump Adjustment



FIG. 1. A perspective view of the pump assembly, showing the central shaft, gears, and structural supports.

FIG. 2. A side view of the pump assembly, showing the internal components and the overall structure.

FIG. 3. A top view of the pump assembly, showing the internal components and the overall structure.

FIG. 4. A bottom view of the pump assembly, showing the internal components and the overall structure.

FIG. 5. A cross-sectional view of the pump assembly, showing the internal components and the overall structure.

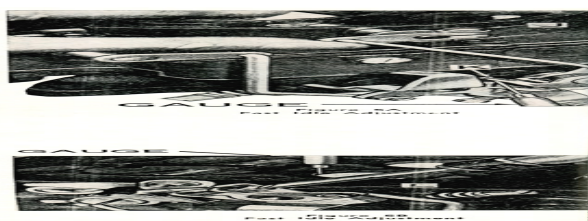
FIG. 6. A perspective view of the pump assembly, showing the central shaft, gears, and structural supports.

FIG. 7. A side view of the pump assembly, showing the internal components and the overall structure.

FIG. 8. A top view of the pump assembly, showing the internal components and the overall structure.

FIG. 9. A bottom view of the pump assembly, showing the internal components and the overall structure.

FIG. 10. A cross-sectional view of the pump assembly, showing the internal components and the overall structure.



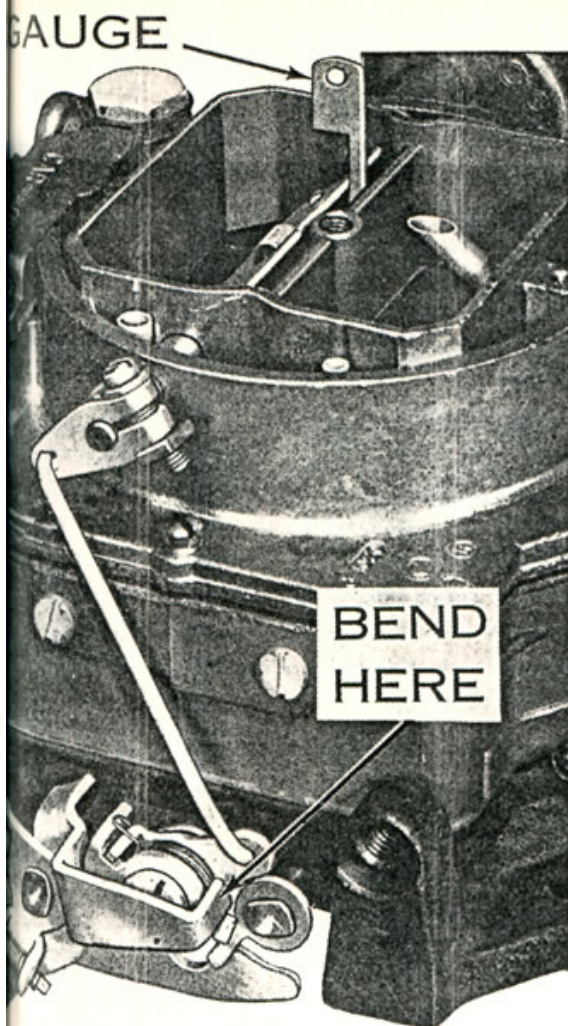


Figure 6
Unloader Adjustment

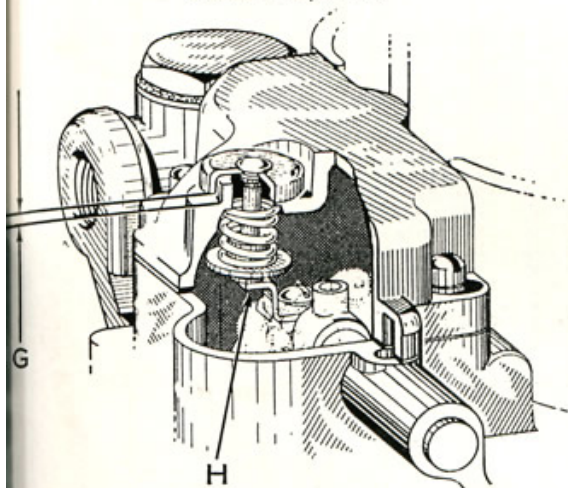


Figure 7
Bowl Vapor Vent Adjustment

BOWL VAPOR VENT ADJUSTMENT (Fig. 7):

This adjustment should be made after completing pump and metering rod adjustments. Install dust cover and dust cover gasket. Back out throttle lever stop screw to allow throttle valves to seat in bores of carburetor. There should be $1/16$ inch [G] (gauge T109-197) between lower edge of bowl vapor vent valve and dust cover. To adjust, remove dust cover and bend vapor vent arm [H].

UNLOADER ADJUSTMENT (Fig. 6):

With throttle wide open there should be $3/16$ inch (gauge T109-28) clearance between upper edge of choke valve and inner wall of air horn. Adjust by bending unloader lip on throttle shaft lever (use bending tool T109-41).

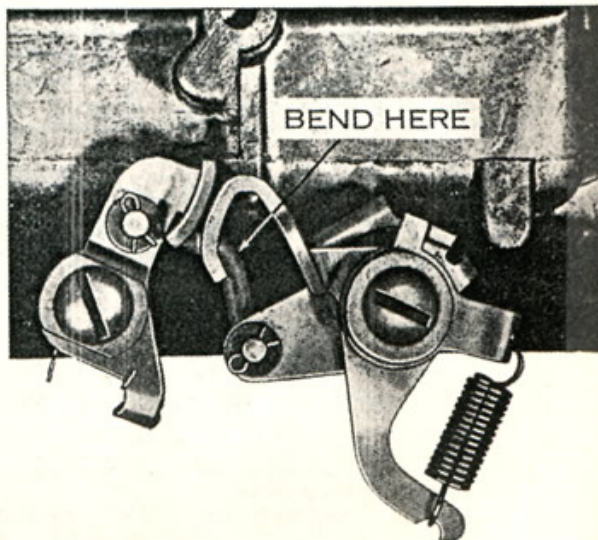


Figure 8
Secondary Throttle Lever Adjustment

SECONDARY THROTTLE LEVER ADJUSTMENT (Fig. 8):

Primary and secondary throttle valves should reach wide open position at the same time. To adjust, bend throttle operating rod at upper angle. (Use bending tool T109-213.)

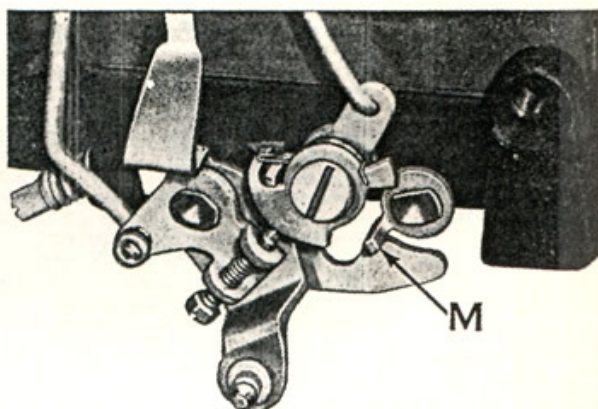
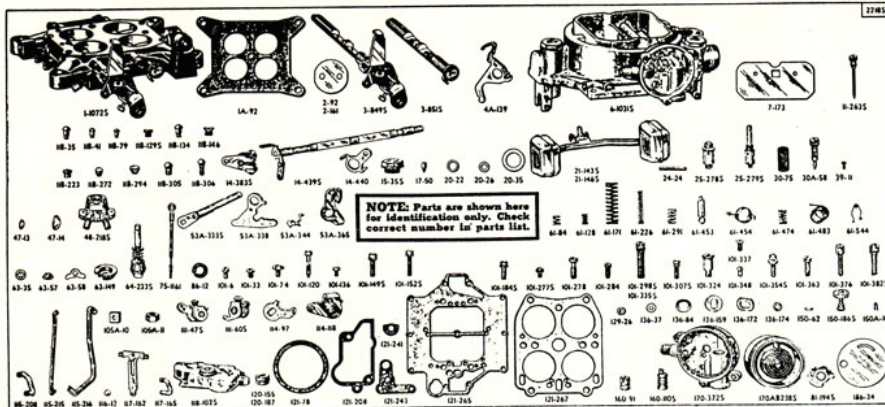


Figure 9
Secondary Throttle Lock-Out Adjustment

SECONDARY THROTTLE LOCK-OUT ADJUSTMENT (Fig. 9):

This adjustment should be made after completing fast idle and secondary throttle lever adjustments. Crack throttle valves and hold choke valve tightly closed. Then close throttle. Tang (M) on secondary throttle lever should freely engage in notch of lock-out dog. If necessary to adjust, bend tang (M) on secondary throttle lever.



Chevrolet "V-8"—1955—Carburetor No. 22185

WHEN SERVICING, USE GASKET ASSORTMENT No. 261; REPAIR PACKAGE No. 1784

PART NAMES IN CAPITAL LETTERS, LISTED BELOW, INDICATE CONTENTS OF REPAIR PACKAGE

Part No.	PART NAME	Part No.	PART NAME
1-10725	Body flange assembly.....	47-13	Welsh plug (spark port).....
1A-92	Flange gasket (Sup. by 1A-96).....	47-14	Welsh plug (choke housing).....
1A-96	FLANGE GASKET.....	48-2335	Pump jet and housing assembly.....
2-92	Primary throttle valve.....(2)	53A-3335	Pump operating lever and countershaft assembly.....
2-161	Secondary throttle valve.....(2)	53A-338	Lockout arm.....
3-8495	Primary throttle shaft and lever assembly.....	53A-344	Vent arm.....
3-8515	Secondary throttle shaft and dog assembly.....	53A-365	Secondary operating lever.....
4A-137	Throttle shaft dog.....	61-84	Idle adjustment screw spring.....(2)
6-10315	Air horn assembly.....	61-128	Connector rod spring.....
7-173	Choke valve.....	61-171	PUMP SPRING (LOWER).....
11-2635	LOW SPEED JET ASSEMBLY.....(2)	61-226	VACUUM PISTON SPRING (Sup. by 61-332).....
11B-35	Rivet plug.....(4)	61-291	Throttle lever adjusting screw spring.....
11B-41	Rivet plug.....(2)	61-332	Vacuum piston spring.....
11B-79	Rivet plug.....(4)	61-453	Throttle flex spring.....
11B-1295	PUMP DISCHARGE PASSAGE PLUG ASSEMBLY.....	61-454	Fast idle cam spring.....
11B-134	Rivet passage plug.....	61-474	Bowl vent spring.....
11B-146	Level sight plug.....(2)	61-483	SECONDARY THROTTLE RETURN SPRING.....
11B-223	Nozzle passage rivet plug.....(4)	61-544	METERING ROD SPRING.....
11B-272	Rivet plug.....(2)	63-35	CONNECTOR ROD SPRING RETAINER.....
11B-274	Idle port rivet plug.....(2)	63-57	INTAKE CHECK BALL RETAINER.....
11B-305	Rivet plug.....	63-58	Coil housing retainer.....(3)
11B-306	Rivet plug.....(2)	63-149	Bowl vent spring retainer.....
14-3835	Choke lever and screw assembly.....	64-1655	PUMP PLUNGER, ROD, SPRING AND RETAINER ASSEMBLY.....
14-4395	Choke piston lever, link and shaft assembly.....	75-1161	METERING ROD—STANDARD.....(2)
14-440	Cam trip lever.....	86-12	Flange stud lock washer.....(4)
15-355	Strainer nut assembly.....(2)	101-6	Pump arm clamp screw.....
17-50	PUMP CHECK NEEDLE.....	101-33	Metering rod arm clamp screw.....
20-22	Needle seat gasket.....(2)	101-74	Throttle shaft screw.....(2)
20-26	Pump passage plug gasket.....	101-120	Fast idle adjustment screw.....
20-35	BOWL STRAINER GASKET.....(2)	101-136	Coil housing attaching screw.....(3)
21-1435	Primary float and lever assembly.....	101-1495	Body flange attaching screw and washer assembly.....
21-1465	Secondary float and lever assembly.....	101-1525	Air horn attaching screw and washer assembly.....
24-24	Float lever pin.....(2)	101-1845	Dust cover attaching screw and washer assembly.....(2)
25-2785	PRIMARY NEEDLE AND SEAT ASSEMBLY.....	101-2775	Vent arm attaching screw and washer assembly.....
25-2795	SECONDARY NEEDLE AND SEAT ASSEMBLY.....	101-278	Pump jet and housing attaching screw.....
30-75	BOWL STRAINER.....	101-284	Piston housing attaching screw.....(2)
30A-58	Idle adjustment screw.....(2)	101-2985	Body flange attaching screw and washer assembly.....(2)
37-11	Choke valve attaching screw.....(2)	101-3075	Air horn attaching screw and washer assembly.....(8)
101-324	Fast idle cam attaching screw.....		
101-3355	Air horn attaching screw and washer assembly.....(7)	120-187	SECONDARY METERING JET.....(2)
101-337	Secondary throttle valve attaching screw.....(4)	121-78	COIL HOUSING GASKET.....
101-348	Primary throttle valve attaching screw.....(4)	121-208	DUST COVER GASKET.....
101-3545	Choke lever clamp screw and washer assembly.....	121-241	PUMP JET HOUSING GASKET.....
101-363	Piston housing attaching screw.....	121-243	PISTON HOUSING GASKET.....
101-376	Throttle lever adjusting screw.....	121-265	AIR HORN GASKET.....
101-3825	Body flange attaching screw and washer assembly.....(3)	121-267	BODY FLANGE GASKET.....
105A-10	Choke lever clamp screw nut.....	129-26	Metering rod disk.....(2)
105A-11	Flange stud nut.....(4)	136-37	Throttle connector rod and operating rod washer.....(5)
111-475	Pump arm and screw assembly.....	136-84	Spring washer.....
111-605	Metering rod arm and screw assembly.....	136-159	Throttle shaft washer.....
114-97	Throttle shaft arm (outer).....	136-172	Secondary throttle shaft washer.....
114-118	Throttle shaft arm (inner).....	136-174	Throttle lever adjusting screw washer.....
115-208	Throttle operating rod.....	150-62	Choke piston pin.....
115-215	Choke connector rod.....	150-1865	Pin and valve cap assembly.....
115-216	THROTTLE CONNECTOR ROD.....		
116-13	PUMP INTAKE CHECK BALL.....	150A-10	PIN SPRING.....(5)
117-162	Vacuum piston link.....	160-91	Choke piston.....
117-165	Pump arm link.....	160-1105	Vacuum piston and pin assembly.....
118-1025	Dust cover assembly.....	170-3725	Piston housing and plug assembly.....
120-155	PRIMARY METERING ROD JET.....(2)	170A82385	Thermostatic coil and housing assembly.....
		181-1945	Fast idle cam and spring assembly.....
		186-34	Choke baffle plate.....

—Parts so marked are new and listed for the first time.

NOTE: Figures in parentheses indicate number of pieces used in one carburetor. Where no figure is shown, only one is used.

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