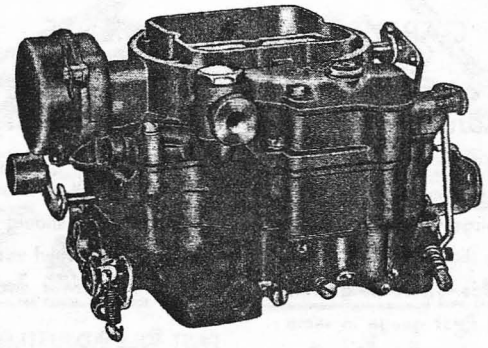
MODEL
"56-J"
HARDTOP



STUDEBAKER "V-8" PRESIDENT 1956

WCFB Four-Bore Down-Draft Climatic® Control **Carbureter No. 2394S**

CARBURETER SPECIFICATIONS

For Studebaker 8 Cylinder Engine: 4 Inch Bore, 3½ Inch Stroke

Dimensions: Flange size, 1¼ inch Four Bore—4 bolt type.
Primary venturi size, 11/32 inch I. D.
Main venturi (primary) size, 1-1/16 inch I. D.
Main venturi (secondary) size, 1¼ inch I. D.

Vents: Outside, 4. Inside, 5.

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

Low Speed Jet Tube: (Primary side only). Jet, size No. 65 (.035 inch) drill.
By-Pass, in body, size No. 54 (.055 inch) drill.
Economizer, in screw plug, size .0492 inch diameter.
Idle Bleed, in body, size .063 inch diameter.

Idle Port: (Upper) slot type. Primary, length .185 inch; width .030 inch. Secondary, none.

Idle Port Opening: Primary, .130 to 136 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: ¾ to 1¾ turns open. For richer mixture turn screw out. Do not idle engine below 550 r.p.m. Automatic Trans.—in neutral.

Main Nozzle: Installed permanently. DO NOT REMOVE. Anti-percolating jet, primary and secondary, size No. 70 (.028 inch) drill.

Metering Rod: Primary, economy step .072 inch diameter. Middle step tapers to .055 inch diameter. Power step, .040 inch diameter. Secondary, none.

Metering Rod Jet: Primary size .0935 inch; secondary size .0785 inch diameter.

Accelerating Pump: Discharge jet (Twin) primary side only, size No. 72 (.025 inch) drill. Intake ball check seat, size .115 to .120 diameter. Discharge needle seat, size .070 inch diameter. Pump passage disk check, size No. 55 (.052 inch) drill.

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. 43 (.089 inch) drill.

Vacuum Spark Port: Horizontal, slot, round end type—.130 x .040 inch. Bottom of port to be .000 to .006 inch above top edge of 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 carbureter.

Spark Plug Gap .035"	Breaker Point Setting .016"	Ignition Timing Breaker Points to Open: 5° B. T. C. At Vibration Damper	Float Setting See Adjustments	Idle Adjustment Screw Setting ¾ to 1¾ Auto. Trans. 550 R.P.M. In Neutral

NOTE: These cars are equipped with hydraulic valve lifters.—NO ADJUSTMENT.

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CARBURETER ADJUSTMENTS

FLOAT ADJUSTMENT: 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. 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 between top of float and machined surface of casting must be 1/8 inch (gauge T109-232) for primary floats and 3/16 inch (gauge T109-222) for secondary floats. Adjust by bending float arms.

FLOAT DROP ADJUSTMENT: With bowl cover held in upright position and measuring from center of float, the distance between top of floats and bowl cover should be 5/8 inch for primary floats and 11/16 inch for secondary floats. Adjust by bending stop tabs on float brackets.

PUMP ADJUSTMENT: Install pump connector link in outer hole (long stroke) of pump arm, with ends extending toward countershaft arm. Back out throttle lever set screw until throttle valves seat in bores of carbureter. 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.)

METERING ROD ADJUSTMENT: Metering rod adjustment is important and must be made after completing the pump adjustment. No metering rod gauges are necessary. Procedure is as follows: (1) Back out throttle lever set screw to allow throttle valves to seat in bores of carbureter and loosen metering rod arm clamp screw. (2) With metering rods in place, press down on vacumeter link until metering rods bottom in carbureter body casting. (3) Holding rods in downward position and throttle valves seated, revolve metering rod arm until finger on arm contacts lip of vacumeter link. Hold in place and carefully tighten clamp screw.

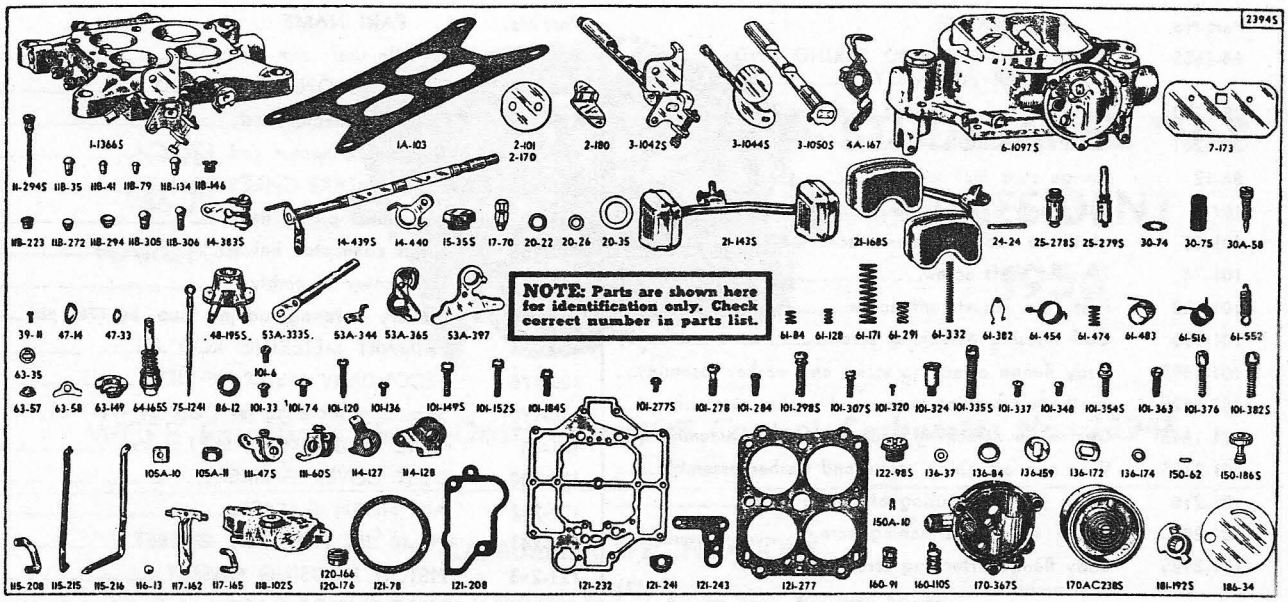
BOWL VAPOR VENT ADJUSTMENT: This adjustment should be made after completing pump and metering rod adjustments. Install dust cover and dust cover gasket. Back out throttle lever set screw to allow throttle valves to seat in bores of carbureter. There should be 1/16 inch (gauge T109-197) between lower edge of bowl vapor vent valve and dust cover. To adjust, remove dust cover and bend vapor vent arm.

FAST IDLE ADJUSTMENT: (a) Loosen choke lever clamp screw on choke shaft. Insert .025 inch wire gauge (T109-189) between lip of fast idle cam and boss of flange casting. Hold choke valve tightly closed and take slack out of linkage by pressing choke lever towards closed position—hold in place and tighten clamp screw. (b) With choke valve tightly closed tighten fast idle adjusting screw until there is .023 inch (gauge T109-189) opening between throttle valve and bore of carbureter side opposite idle port. Be sure fast idle adjusting screw is on high step of cam while making this adjustment.

UNLOADER ADJUSTMENT: With throttle wide open there should be 9/32 inch (gauge T109-126) 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).

SECONDARY THROTTLE LEVER ADJUSTMENT: 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.) With primary and secondary throttle valves in tightly closed position there should be .008-.013 inch (gauge T109-200) clearance between positive closing shoes on primary and secondary throttle levers. To adjust, bend shoe on primary lever.

SECONDARY THROTTLE LOCK-OUT ADJUSTMENT: 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 on secondary throttle lever should freely engage in notch of lockout dog. If necessary to adjust, bend tang on secondary throttle lever.



Studebaker "V-8"—1956—Carbureter No. 2394S

WHEN SERVICING, USE GASKET ASSORTMENT No. 283; REPAIR PACKAGE No. 1829

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

Part No.	PART NAME
1-1366S	—Body flange assembly
1A-103	FLANGE GASKET
2-101	Primary throttle valve (2)
2-170	Secondary throttle valve (2)
2-180	—Auxiliary throttle valve (2)
3-1042S	—Primary throttle shaft and lever assembly
3-1044S	—Auxiliary throttle shaft and weight assembly
3-1050S	—Secondary throttle shaft and dog assembly
4A-158	Throttle shaft dog (Sup. by 4A-167)
4A-167	—Throttle shaft dog
6-1097S.	—Air horn assembly
7-173	Choke valve
11-287S	Low speed jet assembly (Sup. by 11-294S) (2)
11-294S	—LOW SPEED JET ASSEMBLY (2)
11B-35	Rivet plug (4)
11B-41	Rivet plug (2)
11B-79	Rivet plug (4)
11B-134	Rivet passage plug
11B-146	Level sight plug (2)
11B-223	Nozzle passage rivet plug (4)
11B-272	Rivet plug (2)
11B-294	Idle port rivet plug (2)
11B-305	Rivet plug
11B-306	Rivet plug (2)
14-383S	Choke lever and screw assembly
14-439S	Choke piston lever, link and shaft assembly
14-440	Cam trip lever
15-35S	Strainer nut assembly (2)
17-70	PUMP CHECK NEEDLE
20-22	Needle seat gasket (2)
20-26	Pump relief plug gasket
20-35	BOWL STRAINER GASKET (2)

Part No.	PART NAME
21-143S	Primary float and lever assembly
21-168S	—Secondary float and lever assembly
24-24	Float lever pin (2)
25-278S	PRIMARY NEEDLE AND SEAT ASSEMBLY
25-279S	SECONDARY NEEDLE AND SEAT ASSEMBLY
30-74	Secondary fuel inlet strainer
30-75	BOWL STRAINER
30A-58	Idle adjustment screw (2)
39-11	Choke valve attaching screw (2)
47-14	Welsh plug (choke housing)
47-33	Welsh plug (spark port)
48-195S	Pump jet and housing assembly
53A-333S	Pump operating lever and countershaft assembly
53A-344	VENT ARM
53A-365	Secondary operating lever
53A-397	—Lockout arm
61-84	Idle adjustment screw spring (2)
61-128	Connector rod spring
61-171	PUMP SPRING (LOWER)
61-291	Throttle lever adjusting screw spring
61-332	VACUUM PISTON SPRING
61-382	METERING ROD SPRING
61-454	Fast idle cam spring
61-474	Bowl vent spring
61-483	SECONDARY THROTTLE RETURN SPRING
61-516	Countershaft spring
61-552	Throttle flex spring
63-35	Connector rod spring retainer
63-57	INTAKE CHECK BALL RETAINER
63-58	Coil housing retainer (3)
63-149	Bowl vent spring retainer

Part No.	PART NAME
64-165S	PUMP PLUNGER, ROD, SPRING AND RETAINER ASSEMBLY
75-1230	Metering rod—standard (Sup. by 75-1241) (2)
75-1241	—METERING ROD—STANDARD (2)
86-12	Flange stud lock washer (4)
101-6	Pump arm clamp screw
101-33	Metering rod arm clamp screw
101-74	Throttle shaft screw (2)
101-120	Fast idle adjustment screw
101-136	Coil housing attaching screw (3)
101-149S	Body flange attaching screw and washer assembly
101-152S	Air horn attaching screw and washer assembly
101-184S	Dust cover attaching screw and washer assembly (2)
101-277S	Vent arm attaching screw and washer assembly
101-278	Pump jet and housing attaching screw
101-284	Piston housing attaching screw (2)
101-298S	Body flange attaching screw and washer assembly (2)
101-307S	Air horn attaching screw and washer assembly (8)
101-320	Auxiliary throttle valve attaching screw (4)
101-324	Fast idle cam attaching screw
101-335S	Air horn attaching screw and washer assembly (7)
101-337	Secondary throttle valve attaching screw (4)
101-348	Primary throttle valve attaching screw (4)
101-354S	Choke lever clamp screw assembly
101-363	Piston housing attaching screw
101-376	Throttle lever adjusting screw
101-382S	Body flange attaching screw and washer assembly (3)
105A-10	Choke lever clamp screw nut
105A-11	Flange stud nut (4)
111-47S	Pump arm and screw assembly
111-60S	Metering rod arm and screw assembly
114-127	Throttle shaft arm (outer)
114-128	Throttle shaft arm (inner)
115-208	THROTTLE OPERATING ROD
115-215	Choke connector rod
115-216	Throttle connector rod
116-13	PUMP INTAKE CHECK BALL
117-162	Vacumeter piston link
117-165	Pump connector link
118-102S	Dust cover assembly
120-165	Primary metering rod jet (Sup. by 120-166) (2)
120-166	PRIMARY METERING ROD JET (2)
120-176	SECONDARY METERING JET (2)
120-194	Secondary metering jet (Sup. by 120-176) (2)
121-78	COIL HOUSING GASKET
121-208	DUST COVER GASKET
121-232	AIR HORN GASKET
121-241	PUMP JET HOUSING GASKET
121-243	PISTON HOUSING GASKET
121-277	—BODY FLANGE GASKET
122-98S	Pump relief valve plug assembly
136-37	Throttle connector rod and operating rod washer (5)
136-84	Spring washer
136-159	Throttle shaft washer
136-172	Secondary throttle shaft washer
136-174	Throttle lever adjusting screw washer
150-62	Choke piston pin
150-186S	Pin and valve cap assembly
150A-10	PIN SPRING (5)
160-91	Choke piston
160-110S	Vacuum piston and pin assembly
170-367S	Piston housing and plug assembly
170AC238S	Thermostatic coil and housing assembly
181-192S	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 carbureter. Where no figure is shown, only one is used.

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