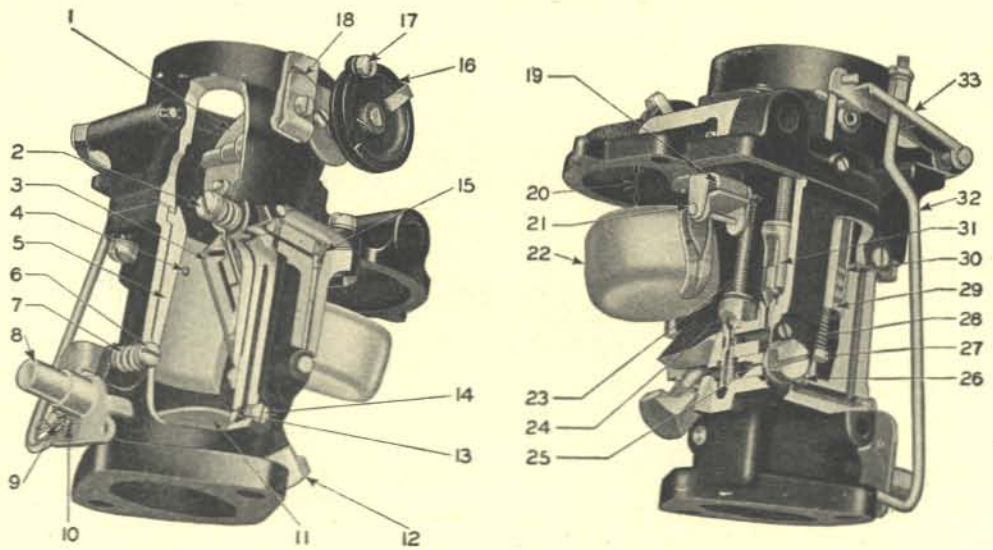
Bendix Stromberg Carburetor Co.

SERVICE BULLETIN

"DXC" CARBURETOR

1931
CHRYSLER
Model
"CD" De Luxe
3¼" x 4¼" 8 cyl.
Motor

STROMBERG CARBURETOR
Model
DXC-3
(Down Draft)
No. A-15343
Chrysler
Symbol No. 376880



Parts indicated in illustrations above are as follows:

1. Choke Valve
2. Idle Needle Valve
*3. Main Discharge Jet
*4. Pump Discharge Nozzle
*5. Venturi Tube
6. Throttle Stop Set Screw
7. Throttle Stop Set Screw Spring
8. Throttle Stop and Stem
9. Winter Pump Adjustment
10. Summer Pump Adjustment
11. Throttle Valve
12. Main Discharge Jet Nut
13. Idle Discharge Holes
14. Idle Discharge Channel Plug
*15. Idle Tube
16. Choke Pulley
17. Choke Pulley Wire Clamp Screw
18. Choke Control Tube Holder
19. Float Needle Valve and Seat
20. Float Setting (see instructions)
21. Float Fulcrum Pin
22. Float
23. Vacuum Economizer
*24. Economizer By-Pass Jet
*25. Main Metering Jet
26. Pump Valve
27. Pump Piston Spring Cup
28. Pump Piston Spring
29. Pump Piston
30. Pump Sleeve with Link
31. Automatic Shut-Off Valve
32. Pump Lever Connecting Rod
33. Pump Lever

*IMPORTANT: When ordering venturi tubes, high speed bleeders, metering jets, pump discharge jets, or by-pass jets, specify the size number which is found stamped on each part, and always state type of carburetor and serial number as well as model and make of car for which part is intended.

—SPECIFICATIONS—

Venturi 1-3/16"
Main Discharge Jet 2 No. 33
High Speed Bleeder No. 65
Pump Discharge Jet No. 68
Main Metering Jet .062"
Economizer By-Pass Jet .030"
Feed Hole in Idle Tube No. 70
Idle Discharge Holes No. 55-70

Upper lip of throttle valve to be flush plus or minus .004" with lower edge of upper idle discharge hole.

GENERAL DESCRIPTION

The "DXC" Stromberg carburetor is of the down draft plain tube type, incorporating several outstanding features, such as:

A positive acting accelerating device, consisting of a pump which delivers an accelerating charge immediately the throttle is opened, and meters and delivers this charge over a definite period of time.

An economizer, which insures a lean and economical mixture at normal driving speeds, and automatically supplies the richer mixture necessary for maximum power, high speed, and part throttle with accelerating.

Automatic shut-off valves which do not allow any gas to discharge from the carburetor when the engine is shut off.

A semi-automatic choking device for starting, and the choke valve has a relief poppet valve to prevent over choking.

Form A-586 10M
Printed in U. S. A.
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METERING SYSTEM

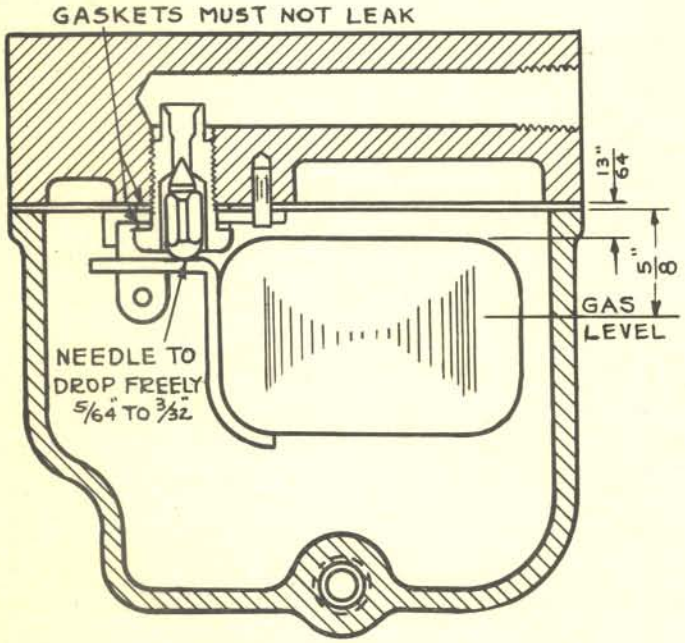
The main metering jet "25" and the economizer by-pass jet "24" are of the fixed type. These jets are calibrated at the factory to supply the proper amount of fuel. The sizes are stamped on the outer face in decimal parts of an inch, and should not be changed without special instructions. The main metering jet "25" supplies fuel up to speeds of approximately 60 miles an hour. At this point, the vacuum controlled economizer "23" is forced down, opening the valve and allowing an additional supply of gas to flow through the economizer by-pass jet "24." On quick acceleration, when the throttle is opened fully, the by-pass jet is also brought into action.

ADJUSTMENTS

Low Speed or Idling Adjustment: Have the engine well warmed up. With the hand throttle in the closed position, adjust the throttle stop set screw "6" for the desired engine speed. Idle needle valve "2" controls the air for low speed adjustment. Screwing it **In** gives a **Richer** mixture, and **Out** a **Leaner** mixture. Turn the idle adjustment in and out until the engine runs smoothly for this throttle position. If a satisfactory adjustment cannot be obtained, remove plug "14" and see that idle discharge holes "13" are open and free from lint or dirt.

Accelerating Pump: The accelerating pump has two adjustments, summer and winter. During the summer months (or in warm climates), less pump discharge is required for acceleration, and pump rod "32" should be placed in position "10." During the winter, the pump rod should be placed in "9."

Float Level: The fuel level is set at the factory to stand 5/8" below the top of the float bowl when the engine is not running. It is necessary to readjust the level only when extremely high test gas is used, or the carburetor is handled roughly. It can be



reset by seeing that the distance "20" is 13/64"; it can be raised or lowered the desired amount by bending the float arm in the corner between the float and the needle valve.

Shut Off Valves:

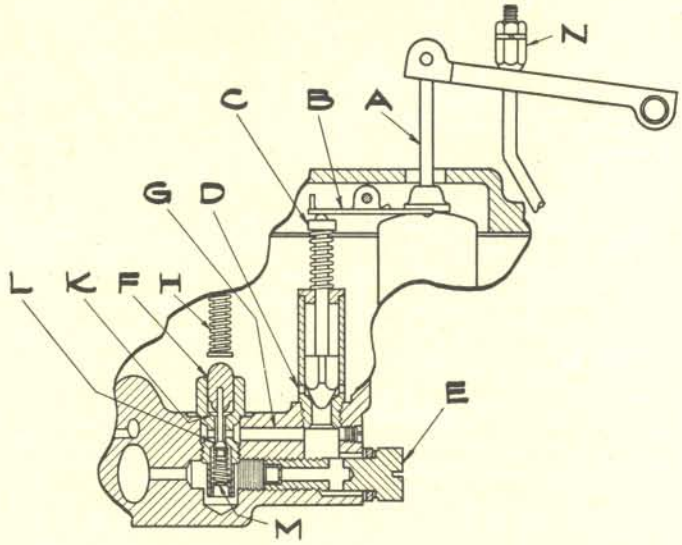
Adjustment of the automatic shut-off valves is as follows:

Fig. 1 shows the carburetor in idling position, at which stage gas is delivered to the idle system through clearance "F" of the needle valve and the seat by way of channel "G" and main metering jet "E".

When the throttle is opened, pump link "A" is depressed, (releasing the tension on arm "B" operating on fulcrum pin). This permits needle "C" to raise off its seat, which allows gas to flow through holes "D" to the metering jet "E" for speeds in the normal driving range.

When the engine speed is increased to the point where the economizer action takes place, the vacuum economizer "H" is released which seats the needle valve at "K" and off the seat at "L". This then allows an additional supply of gas from channel "G" to flow through the by-pass jet "M".

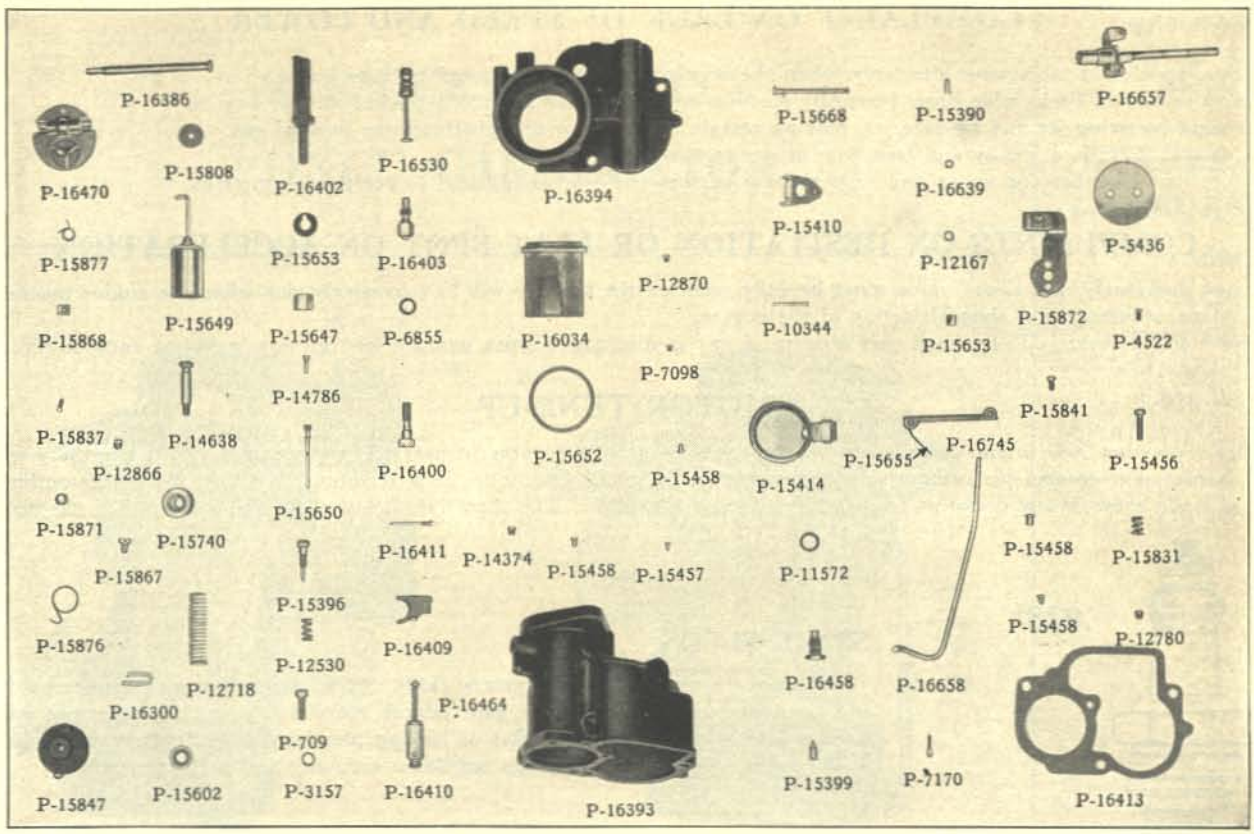
When the engine is shut off and the throttle is closed, the needle valve "C" seats itself, and the vacuum economizer "H" automatically drops, seating the needle valve at "K", which shuts off the flow of gas from the float chamber. This eliminates the percolating action which would occur when a hot engine is shut off.



When servicing this carburetor, the adjusting screw "N" should be set so that the pump link "A" releases the tension on arm "B" as soon as the throttle is opened. To check, follow this procedure: While motor is idling, turn off ignition switch. Loosen metering jet "E". No gasoline should flow out after the first few drops when adjustment "N" is correctly set, but starts to flow if the throttle is opened slightly, and will stop flowing if throttle is closed. (The motor should not be running in above check). Screwing up adjustment "N" shuts off valve "C" earlier and screwing down closes it later.

OUR GUARANTEE

Stromberg carburetors are sold under a guarantee as to material and workmanship, and any carburetor or parts thereof proving defective within a period of ninety days will be repaired or replaced free of charge upon their return to our factory, all transportation charges prepaid.



All part numbers shown above are for DXC-3 carburetor, as used on Chrysler "CD" Deluxe model.

List of Parts on Model "DXC" Carburetor

NAME	No. Req.	PIECE PARTS	List Price
Air Horn with Valve (Complete)	1	P-16390	$9.50
Air Horn	1	16394	6.50
Choke Lever Stem	1	16386	.75
Choke Tube Holder with Screw	1	15872	.50
Choke Tube Holder	1	15868	.25
Choke Tube Clamp	1	11561	.15
Choke Tube Clamp Screw Nut	1	8806	.05
Choke Tube Clamp Screw	1	12868	.05
Choke Tube Holder Attaching Screw	2	15841	.05
Choke Pulley	1	15847	.35
Choke Pulley Spring	1	15876	.15
Choke Wire Clamp Screw	1	15867	.05
Choke Pulley Set Screw	1	12866	.05
Choke Stem Bushing	1	15871	.08
Choke Pulley Clip Spring	1	16300	.10
Choke Valve (Complete)	1	16470	.80
Choke Valve	1	16408	.50
Choke Valve Pin	1	15331	.20
Choke Valve Plate Spring	1	15844	.05
Choke Valve Plate	1	15329	.10
Choke Valve Pin Bushing	1	15266	.10
Choke Valve Open Washer	1	8344	.02
Choke Valve Stop Block	1	15866	.10
Choke Valve Stop Block Screw	1	15837	.05
Choke Valve Spring	1	15877	.10
Auxiliary Channel Plug	1	14374	.05
Auxiliary Needle Valve (Complete)	1	16464	.75
Auxiliary Needle Valve Seat	1	16410	.50
Auxiliary Lever	1	16409	.30
Auxiliary Lever Fulcrum Screw	1	16411	.15
By-Pass Jet (Complete)	1	16403	1.45
Float Fulcrum Pin	1	10344	.05
Float Needle Valve	1	15399	.40
*Float Needle Valve Seat	1	16458	.50
Float Needle Valve Seat Gasket	2	11572	.02
Float with Lever (Complete)	1	15414	1.10
Float Lever Hanger	1	15410	.25
Float Lever Hanger Dowel Pin	1	15411	.05
*High Speed Bleeder	1	*12870	.15
Idle Channel Plug	1	7098	.05
Idle Feed Channel Plug	1	15458	.05
Idle Drive Plug	1	15457	.05

NAME	No. Req.	PIECE PARTS	List Price
Idle Discharge Channel Plug	2	P-12780	.05
Idle Tube with Holder	1	15650	.50
Idling Needle Valve	1	15396	.35
Idling Needle Valve Spring	1	12530	.08
*Large Venturi Tube	1	16034	1.10
Large Venturi Tube Gasket	1	15652	.05
Main Body	1	16393	9.50
Main Body Gasket	1	16413	.20
Main Body Attaching Screws	3	709	.05
Main Body Attaching Screw Lockwashers	3	3157	.02
*Main Discharge Jet (Complete)	1	16401	1.10
Main Discharge Jet Gasket	1	15653	.05
Main Discharge Jet Nut	1	15647	.15
Main Discharge Jet Nut Gasket	1	9773	.02
*Main Metering Jet	1	16400	.50
Main Metering Jet Gasket	2	6855	.05
Pump Connecting Rod	1	16658	.30
Pump Connecting Rod Nut	1	16639	.03
Pump Connecting Rod Lock Washer	1	12167	.05
Pump Connecting Rod Cotter Pin	1	7170	.01
Pump Connecting Rod Ball Nut	1	16653	.10
Pump Gas Channel Plug	1	15458	.05
Pump Disch. Hole Plug	1	12780	.05
Pump Disch. Nozzle	1	14786	.40
Pump Lever	1	16745	.50
Pump Lever Spring	1	15655	.20
Pump Lever Fulcrum Screw	1	15668	.20
Pump Lever Fulcrum Screw Cotter Pin	1	15390	.02
Pump Washer	1	15808	.10
Pump Piston and Sleeve (Complete)	1	15936	1.45
Pump Piston Spring	1	12718	.15
Pump Piston Spring Cup	1	15602	.10
Pump Piston Valve	1	14638	.85
Pump Conn. Chan. Plug	1	15458	.05
Throttle Stop and Stem	1	16657	1.25
Throttle Stop Screw	1	15456	.05
Throttle Stop Screw Spring	1	15831	.05
Throttle Valve	1	5436	.40
Throttle Valve Screws (each)	2	4522	.05
Vacuum Economizer (Complete)	1	16530	1.10
Vacuum Economizer Boss Plug	1	14374	.05
Vacuum Economizer Suction Plug	1	15458	.05

*Give size desired when ordering these parts.

Check the following:

COMPLAINT ON LACK OF SPEED AND POWER

1. Throttle stop should hit against the body when the accelerator pedal is pushed to floor board.
2. Choke valve should be in wide open (vertical) position when the dash control is pushed all the way in.
3. Check main metering jet and by-pass jet, making certain no water or dirt obstructs the flow of gas.
4. Make certain there is a steady and free flow of gas to the carburetor.
5. Examine float chamber for water and dirt, making certain the level is adjusted as per the instructions.

COMPLAINTS ON HESITATION OR FLAT SPOT ON ACCELERATION

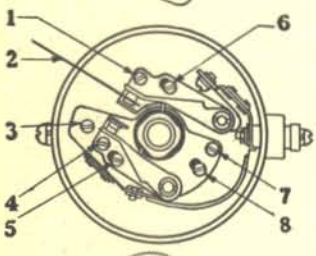
1. As stated previously, the choke valve must be fully open or the mixture will be excessively rich when the engine reaches normal temperature, resulting in a sluggish action of the engine.
2. Work the pump lever "33" by hand and observe if gas is discharged from pump discharge nozzle "4" at each stroke.

MOTOR TUNE-UP

Statistics show that 90% of the so-called carburetor troubles are due to other causes. Therefore, it is vitally necessary to see that the other factors that control performance and economy are in good condition. It is recommended that the points outlined below are checked when there is any doubt as to what is causing the trouble. The operations below should be performed in the order listed:

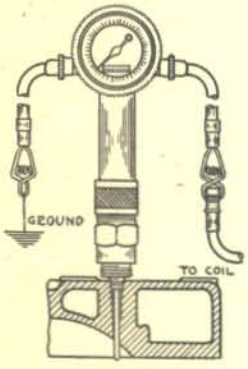
SPARK PLUGS

Clean spark plug points with emery cloth. Set all gaps alike with gauge at .028", moving side wire only. A too wide gap reduces speed and power; a too close gap causes uneven idle of motor. Replace flat or leaking plug gaskets. Replace spark plugs every 10,000 miles. Old and worn plugs cut down economy and performance.



DISTRIBUTOR

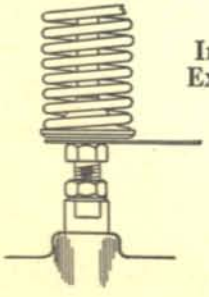
Hone breaker points to an even contact. Replace if necessary. Set breaker point gaps at .020" by loosening screws "1" and "4" and turning screws "5" and "6." Screws "3," "7" and "8" control the synchronizing adjustment.



IGNITION TIMING

Set distributor so that breaker points separate at .040" before top dead center. Use Motor Gauge described in CHRYSLER SERVICE BULLETIN 317 CH.

If pre-ignition occurs with proper timing, do not set back spark, but remove carbon. Late spark is the most common error in service work; it encourages carbon formation, reduces power, and is the principal cause of waste of fuel.



VALVES

Adjust tappets with engine idling after it is thoroughly warmed up. Clearance of the intake valves should be .005", exhaust valves .007". **Use feeler gauge. Do not set closer.** Quiet operation can be obtained by careful, even setting, rather than by tappets set closer than standard.