WEBER DCOF TYPE 2-BARREL

FIAT	Weber No.
1100 R (1966-67)	32 DCOF 1 or 32 DCOF 4
124 Sedan (1966-67)	32 DCOF

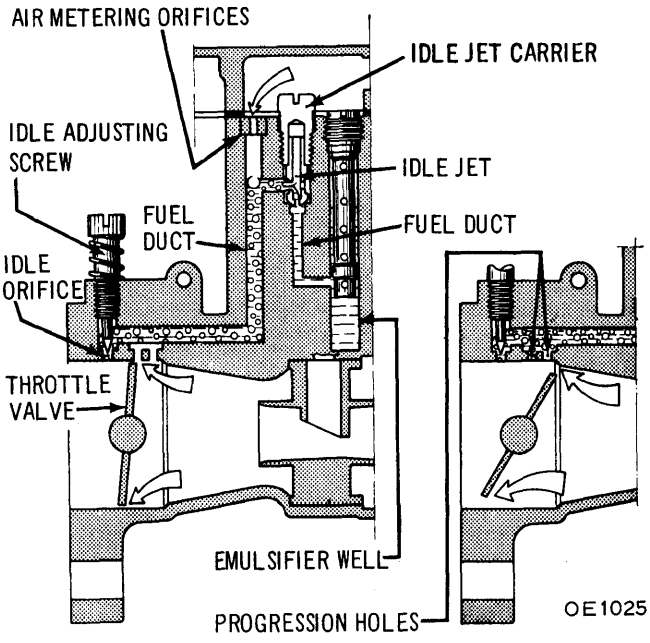
DESCRIPTION

Two barrel sidedraft type carburetor of twin body design. Carburetor features a butterfly type choke valve and a diaphragm type accelerator pump. Carburetors also incorporate a fuel enrichment device which delivers extra fuel to the engine when operation is at full power. Each barrel has an idling and a main jet system. The two barrels share one float chamber.

OPERATION

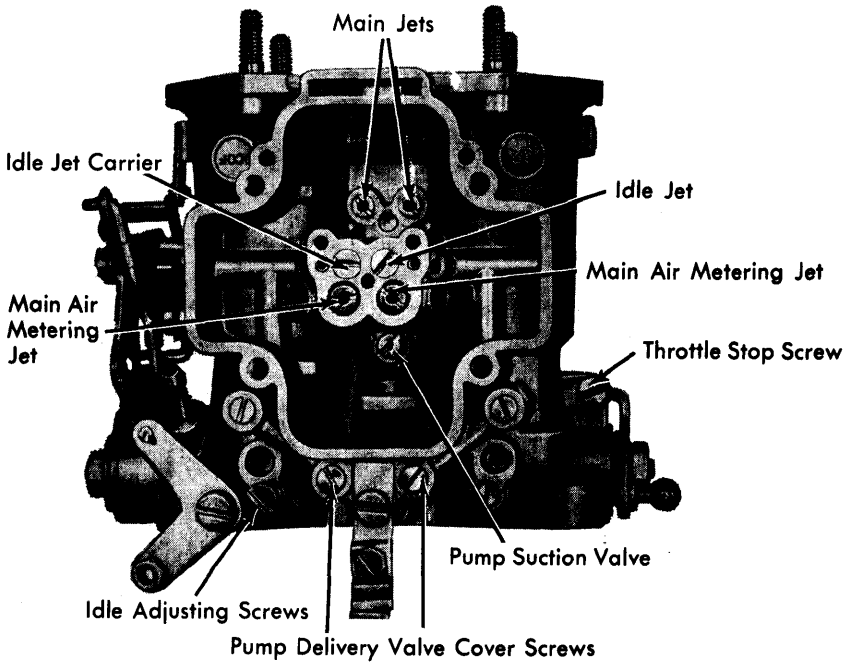
Normal Running – Fuel from float chamber passes through main jets to wells and then mixes with air admitted through emulsion tubes and from air jets. Fuel then goes through jet tubes and is discharged into venturi and spray chamber.

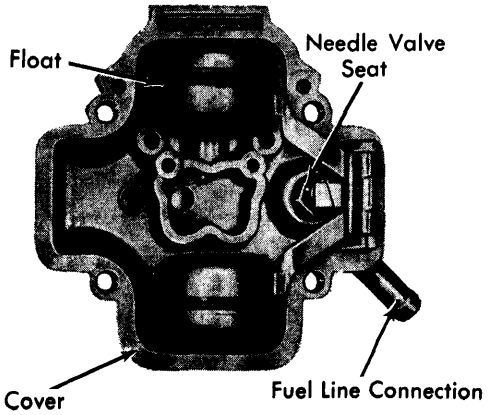
Idle System – Fuel from wells passes through ducts to the idle jets. After mixing with air from metering orifices, fuel passes through ducts to the carburetor barrels, downstream of the throttle valves. When throttle valves are open, the mixture enters ducts which are normally upstream of the throttle valves. The mixture from these ducts supplies enough mixture to allow a uniform increase in speed from the idle condition before the main system comes into operation.



IDLE & PROGRESSIVE RUNNING OPERATION

Accelerator Pump – When the throttle valves close, a lever releases diaphragm. Pressure from a spring causes diaphragm to draw fuel from the float bowl. When throttle valve is opened, a cam and a lever cause the diaphragm to inject fuel into the ducts, through delivery valve and to the accelerator pump jets. An inlet valve is provided with a calibrated orifice to discharge excess fuel back into the float bowl.



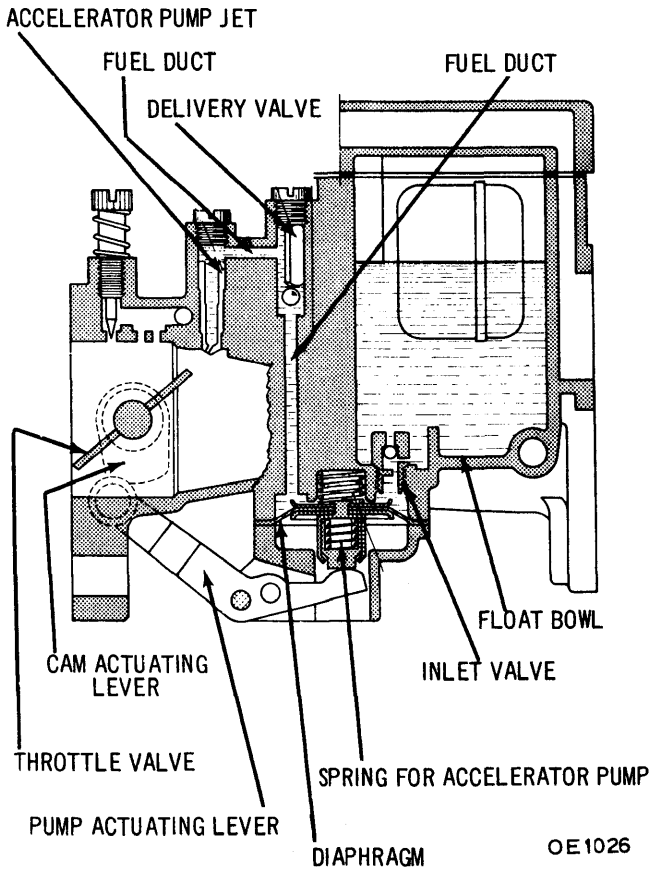


OE1035

WEBER DCOF CARBURETOR BODY & COVER

WEBER DCOF TYPE 2-BARREL (Cont.)

Choke & Starting System – When choke butterflies are closed, outside air supply is cut off. At the same time, a lever and a cam open the throttle valves a small amount. This causes emulsifier ducts to deliver a rich mixture for easy starting. When engine has started, the vacuum opens the choke butterfly valves a small amount against spring pressure. This allows air to enter carburetor and leans the mixture out so that the engine will run regularly.



ACCELERATOR PUMP OPERATION

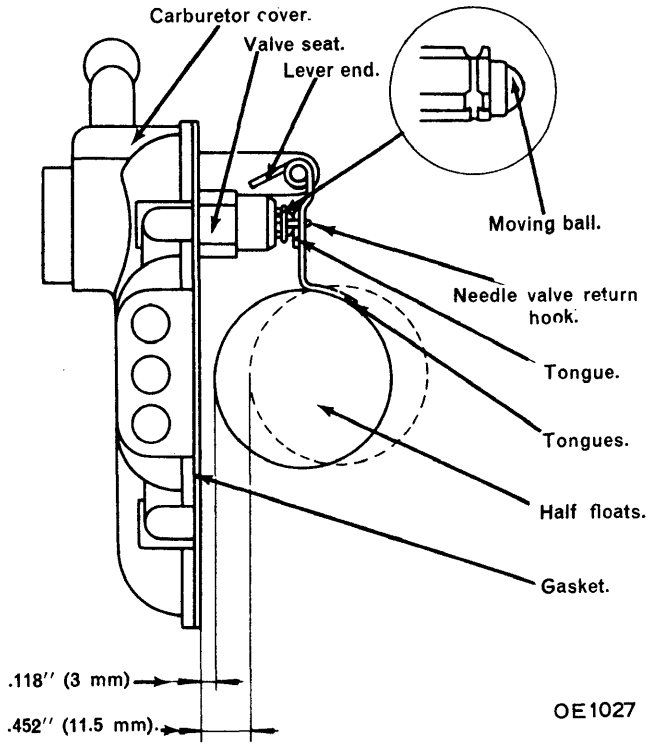
ADJUSTMENT

Float Level Adjustment

1) Remove carburetor cover and check that float is not damaged and that it is free to pivot on its hinge pin. Float chamber should be .53 ozs. (15 g) in weight. Check that needle valve is correctly screwed into its housing and that the ball is not jammed.

2) Hold carburetor cover in vertical position so that weight of float does not depress the ball in the end of the needle valve. With float tongue in light contact with the ball, the floats should be .118 in. (3 mm) from gasket on mating surface of cover. If incorrect, bend float tongue to change float level.

3) Check travel of float and correct if necessary by changing position of lever end. Make sure that travel is .335 in. (8.5 mm). Make sure that valve return hook allows free movement in the seat.



FLOAT LEVEL ADJUSTMENT

Idle Adjustment

Engine must be at normal operating temperature before idle adjustments are made. 1) Turn throttle stop screw so that engine runs smoothly. Then turn mixture screw to give fastest and smoothest idle.

2) Turn throttle stop screw again to correct idle speed. Continue repeating procedure until smooth running is achieved at the lowest reasonable speed.

WEBER DCOF 2-BBL. ADJUSTMENT SPECIFICATIONS

Body Diameter	1.260 in. (32 mm)
Venturi Diameter	.0955 in. (23 mm)
Main Jet Diameter	.0432 in. (1.10 mm)
Idle Jet Diameter	.0177 in. (.45 mm)
Main Air Jet Diameter	.0649 in. (1.65 mm)
Idle Air Jet Diameter	.0708 in. (1.80 mm)
Accel. Pump Discharge nozzle	.0157 in. (.40 mm)
Needle Valve Seat Diameter	.0590 in. (1.5 mm)
Weight of Float	.53 oz.)
Fuel Level	℄ 18 in. (3 mm)

℄ – Distance from float to underside of float bowl cover, gasket left in place.