SOLEX 32-35 TDID 2-BARREL

Audi 100 (1973)

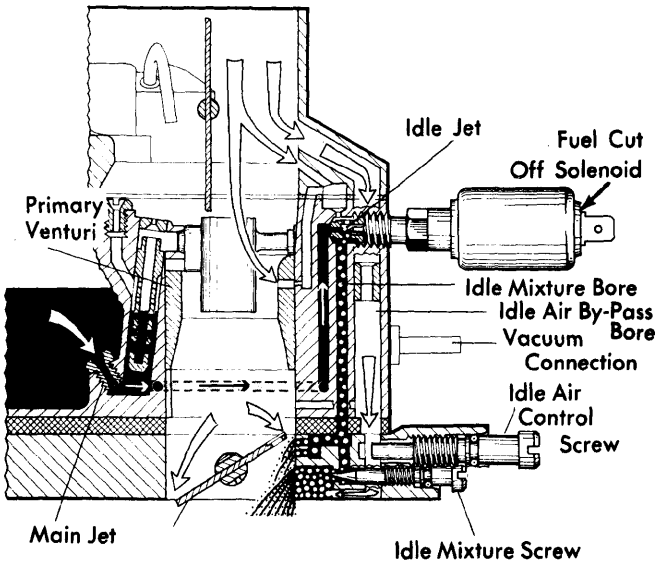
DESCRIPTION

The Solex 32/35 TDID is a downdraft two barrel carburetor. It incorporates an idle air by-pass bore and has a fixed minimum throttle valve opening. This slight throttle opening allows vacuum for necessary retarding of ignition system at idle. An electrically operated fuel cut off solenoid is mounted in idle system of carburetor. Fuel is shut off to idle system when ignition is off. Choke is electrically actuated by a heating element mounted in choke housing.

OPERATION

IDLE SYSTEM

When throttle is at idle position with engine running, considerable vacuum is built up below throttle and fuel flows out of main jet into idle jet via a bore. At this point the fuel is mixed with air by means of idle air bore. The flow of this air/fuel mixture is regulated into intake manifold by idle mixture screw.



3AU01 **IDLE AIR BY-PASS SYSTEM**

NORMAL ACCELERATION

As throttle opens past idle position, by-pass bores are cleared more and more allowing an additional amount of mixture to be fed into intake manifold from idle jet. This allows for a constant composition of mixture in the period from idle to full throttle. As throttle continues to open, the air speed in the venturi increases to the point that fuel is drawn in from outlet arm. Fuel flows into the mixing tube via main jet and mixed with correct amount of air from air correction jet. Mixture continues to atomizer in outlet arm, where the fuel is then atomized with intake air in the mixing chamber and intake manifold. The secondary system operates in the same manner, except it does not start functioning until primary throttle is more than two-thirds open.

ACCELERATION SYSTEM

To avoid a lean air/fuel mixture during sudden acceleration, the accelerator pump injects an additional amount of fuel into the mixing chamber of the primary barrel of the carburetor.

FULL LOAD ENRICHMENT SYSTEM

With engine running at full load and high speed, the increased air speed and volume must be enriched in order to obtain maximum engine performance. An enrichment tube is provided that supplies fuel to the mixture chamber during full load and high speed operation.

ADJUSTMENT

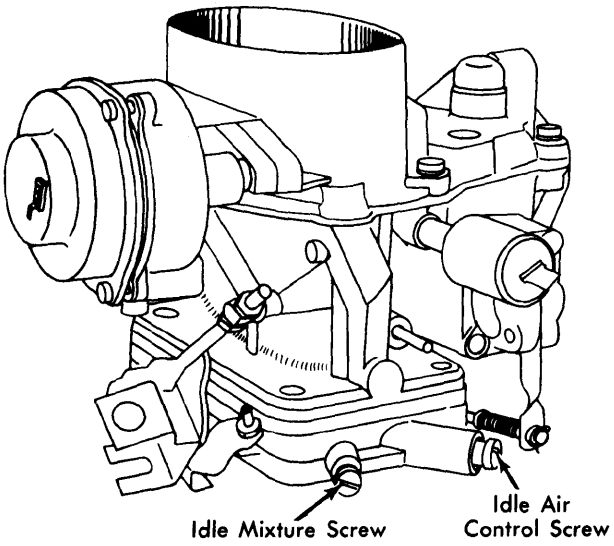
IDLE MIXTURE ADJUSTMENT

1) Adjustment must be made with engine at normal operating temperature, air cleaner installed and preheating hose from exhaust manifold disconnected. High-beams must also be on.

2) Check timing and if necessary adjust to 8° ATDC with engine idling at 850 to 1000 RPM. Connect a suitable CO meter to exhaust pipe. Check CO content at normal idle of 850 to 1000 RPM. CO content should be 1.0 ± 0.5%.

3) If CO level is above that specified, then air control screw and then loosen 2½ turns. Now set CO level to specifications by adjusting mixture control screw. Engine should still be idling within specified idle range.

4) If idle speed is to high, tighten mixture control screw until idle is correct. This should also lower CO level. Tighten air control screw until CO level reaches specifications. Idle speed should remain the same.



SOLEX 32/35 TDID CARBURETOR

SOLEX 32-35 TDID 2-BARREL (Cont.)

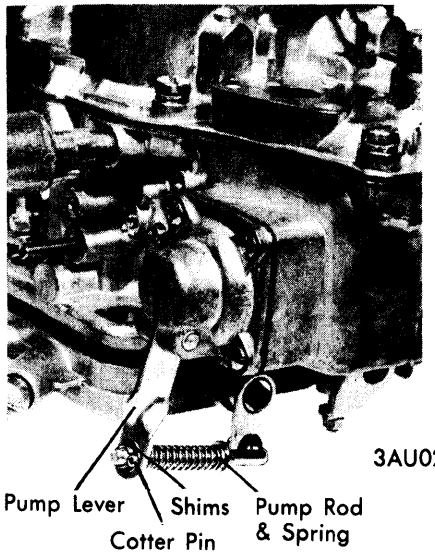
ACCELERATOR PUMP ADJUSTMENT

1) Before checking or adjusting accelerator pump output, ensure that throttle gap is 3.5°. If throttle gap is not to specifications, adjust as necessary. Make sure float chamber is full.

2) Measure primary system output first. Place carburetor over a container. Move throttle lever from idle stop position to where resistance is just felt, ten to twenty times. Throttle should only move within primary range.

3) Measure amount of fuel in container and divide by number of strokes. Capacity per stroke should be a minimum of 1.35 cc. Correct capacity by adding or removing shims between cotter pin and pump lever.

4) Secondary output is checked in the same manner. Move throttle lever from stop to stop, holding carburetor over container. Measure amount in same way. Capacity per stroke should be .6 to .95 cc more than primary rate.

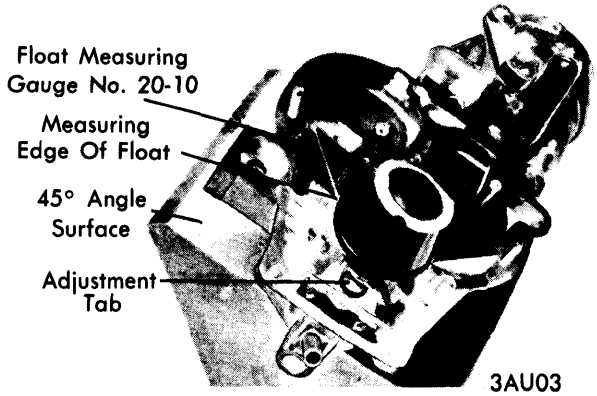


ACCELERATOR PUMP ACTUATING COMPONENTS

FLOAT LEVEL ADJUSTMENT

1) To check or adjust float level, remove carburetor top cover. Using a suitable float level measuring gauge (USA gauge No. 20-10) check float level with carburetor cover placed at a 45° angle.

2) Distance between carburetor cover surface and upper edge of bead on float should be .65" or to pointed edge of float gauge. Bend adjusting tongue to obtain correct float level.



FLOAT LEVEL ADJUSTMENT

CHOKE COVER ADJUSTMENT

For choke to correctly operate, notch in housing must be aligned with large tooth on choke cover housing on carburetor.

OVERHAUL

NOTE — Manufacturer does not indicate any overhaul procedures.

CARBURETOR SPECIFICATIONS

Application	Specification
Main Jet	
Primary	X125
Secondary	X135
Air Correction Jet	
Primary	150
Secondary	100
Accelerator Pump Capacity (One Stroke)	
Primary Only	① 1.4 cc
Primary & Secondary Total	② .6-.95 cc
Idle Air Bore	.053"

① — Minimum.
② — Plus amount for primary.