1974-79 FUEL SYSTEMS
Solex 34 PICT 3/4 1-Barrel Carburetors

Volkswagen: Type 1

DESCRIPTION

Carburetor is a 1-barrel, downdraft type. Carburetor consists of 2 main assemblies, air horn, and main body. Air horn houses automatic choke, vacuum break diaphragm, fast idle cam, and fuel inlet needle and seat. Main body contains all jets, accelerator pump circuit, fuel shut-off solenoid, float, accelerator linkage and throttle plate.

Model 34 PICT-4 carburetors are installed on all cars sold in California. Basic difference between these two carburetors is that the 34 PICT-4 has a thermostatic valve installed which varies accelerator pump injection quantity (per stroke) according to temperature of carburetor body.

ADJUSTMENTS

IDLE SPEED & MIXTURE

See appropriate TUNE-UP PROCEDURES article.

COLD (FAST) IDLE RPM

See appropriate TUNE-UP PROCEDURES article.

FUEL LEVEL

1) Position vehicle on a level surface. Run engine briefly. Detach fuel hose from upper part of carburetor. Remove upper part complete with gasket. Hold feed pipe closed to prevent more fuel flowing into chamber as upper part is lifted.
2) Measure fuel level from body joint with a depth gauge, holding gauge in a vertical position. Measurement is taken when tip of gauge just touches surface of the fuel. Reading should be 0.47-0.55" (12-14 mm). If level is too high, increase thickness of washer under needle valve. If level is too low, decrease washer thickness.

ACCELERATOR PUMP STROKE

NOTE: Models 34 PICT-3 and 34 PICT-4 carburetors differ in the adjustment procedures for each carburetor. Model 34 PICT-3 has an adjustable bellcrank, while adjustment on 34 PICT-4 is made on accelerator pump actuating rod.

1) This procedure can be performed either on vehicle or off vehicle. If performing test on vehicle, run engine to ensure fuel bowl is at level predetermined by float adjustment.
2) Attach length of hose to accelerator pump discharge nozzle and place loose end in graduated cylinder. Operate accelerator pump linkage 10 ten times and divide quantity caught in cylinder by ten, to determine quantity per stroke.

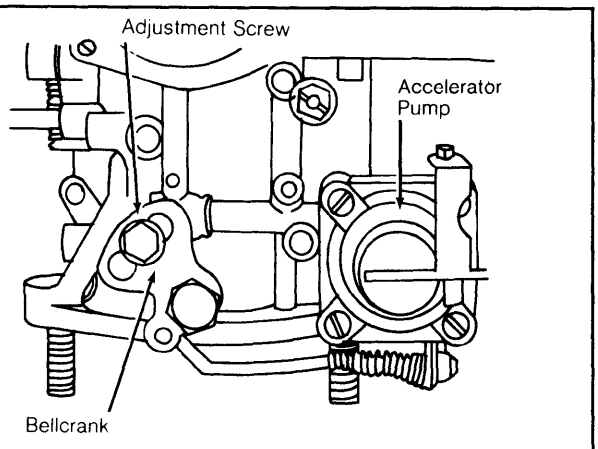

Fig. 1: Accelerator Pump Stroke Adjustment

3) On 34 PICT-3 carburetor, adjust slotted bellcrank if quantity per stroke varies significantly from 1.7 cc. Loosen adjustment screw and move bellcrank along its slot until correct quantity is obtained. *See Fig. 1.*
4) To adjust 34 PICT-4 carburetor, remove top of carburetor and insert thermometer into fuel bowl. If temperature is below 70°F (21°C), quantity injected per stroke should be 1.7 cc.
5) If temperature is above 70°F (21°C), quantity injected per stroke should be 1.1 cc. If necessary to adjust, turn spring-loaded screw on end of accelerator pump actuating rod until correct injection quantity is obtained.

DASHPOT

Manual Transmission Equipped Models - With dashpot stem fully retracted, there should be a clearance of .04" (1.0 mm) between stem and accelerator linkage. If necessary, loosen dashpot lock nut and rotate dashpot until correct clearance is obtained.

THROTTLE VALVE POSITIONER

1) Check fast idle speed and, if necessary, adjust to 1450-1650 RPM. Pull throttle positioner lever against stop and adjusting screw. *See Fig. 2.* With engine at normal operating temperature, engine speed should not exceed 1700 RPM.
2) If engine speed exceeds 1700 RPM, adjust screw on stop until 1700 RPM is obtained. Pull out on throttle lever by hand, then release. If positioner is correctly set, it should require 2.5-4.5 seconds for engine speed to reduce from 3000 RPM to normal idle speed.
3) If it takes longer than specified time, turn adjustment screw on altitude compensator to the left. If time is less than specified, turn adjustment screw on altitude compensator to the right. Altitude compensator is located on side of engine compartment, to left of engine, and is connected to throttle positioner by a vacuum hose.

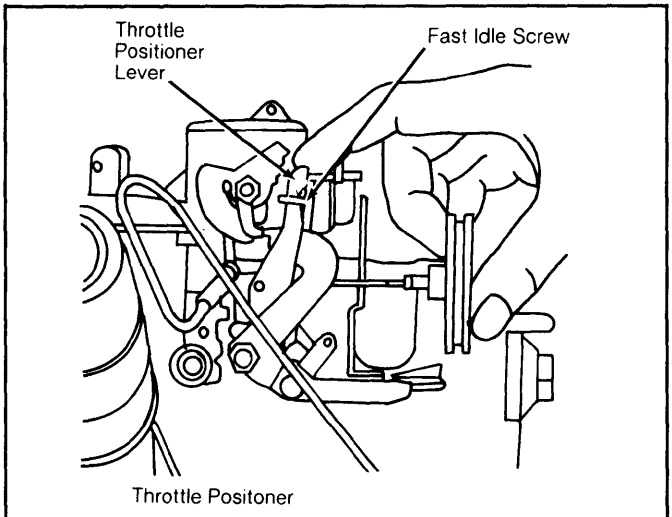

Fig. 2: Throttle Positioner Adjustment

OVERHAUL

DISASSEMBLY

1) Remove 5 top cover (air horn) screws and remove air horn. Unscrew float needle seat from air horn. Remove screws securing automatic choke. Remove ceramic plate, bimetallic spring, heater element, and plastic cap.
2) Unscrew air correction jet with emulsion tube and idle jet. Unscrew main jet carrier and mixture screw. Remove pump lever cotter pin and 4 pump retaining screws. Take off cover, diaphragm, and spring.

Solex 34 PICT 3/4 1-Barrel Carburetors (Cont.)

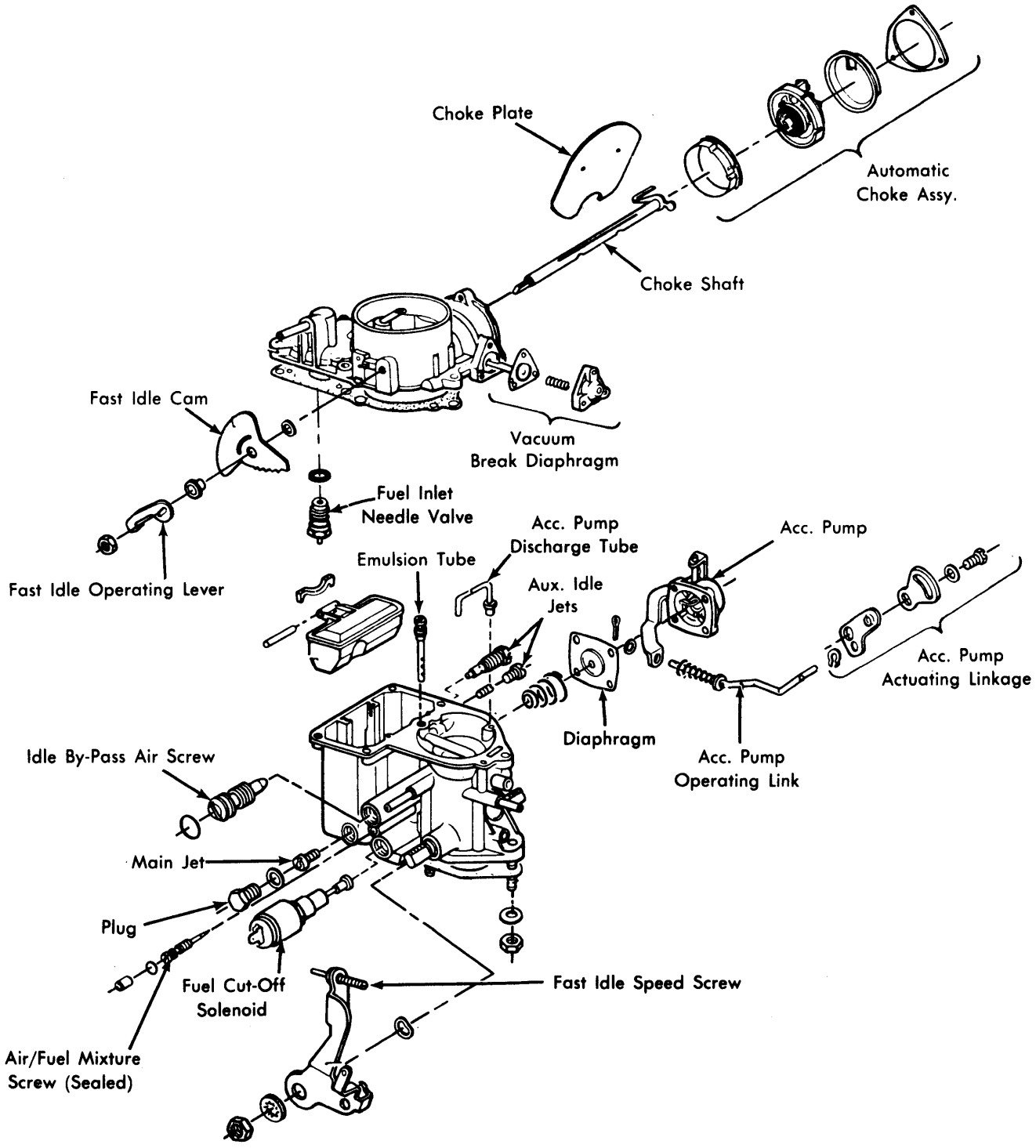

Fig. 3: Exploded View of Solex 34 PICT 1-Barrel Carburetor

1974-79 FUEL SYSTEMS
Solex 34 PICT 3/4 1-Barrel Carburetors (Cont.)

CLEANING & INSPECTION

Wash parts in carburetor cleaner (solvent). DO NOT soak any components containing rubber, leather, or plastic. Soak components long enough to thoroughly clean all surfaces and passages of foreign matter. Remove any residue after cleaning components in solvent. Blow out all fuel passages dry with compressed air. Inspect all parts for wear or damage and replace as necessary.

REASSEMBLY

To reassemble, reverse disassembly procedure. Make sure all parts are properly installed. *See Fig. 3.* Ensure that accelerator pump discharge tube spray is directed down past throttle valve.

CARBURETOR SPECIFICATIONS

Application	34 PICT-3	34 PICT-4
Venturi Diameter	26 mm	26 mm
Main Jet	x127.5/x127.5	x127.5
Air Correction Jet	75Z/80Z	75Z/70Z
Pilot Jet	g55	g55
Pilot Air Bleed	147.5	147.5
Auxiliary Fuel Jet	42.5	42.5
Auxiliary Air Jet	90	90
Power Jet	100	100
Needle Valve Washer Thickness	.06" (1.5 mm)	.06" (1.5 mm)
Pump Injection Quantity Per Stroke	1.3-1.6 cc	1.1-1.7 cc