SOLEX 32 PAIA-4, 5, 7 2-BARREL

ALFA ROMEO
2600 (1963-66)
Giulia 1600 (1968-70)

DESCRIPTION

Two barrel downdraft carburetor using a vacuum operated secondary. Hence, secondary only operates when engine is under a high load condition. Choke is of disc valve design and introduces an enriched air-fuel mixture into intake manifold. Accelerating pump is of diaphragm type and discharges into primary barrel of carburetor. Float and needle valve assembly maintains fuel at proper level in float chamber.

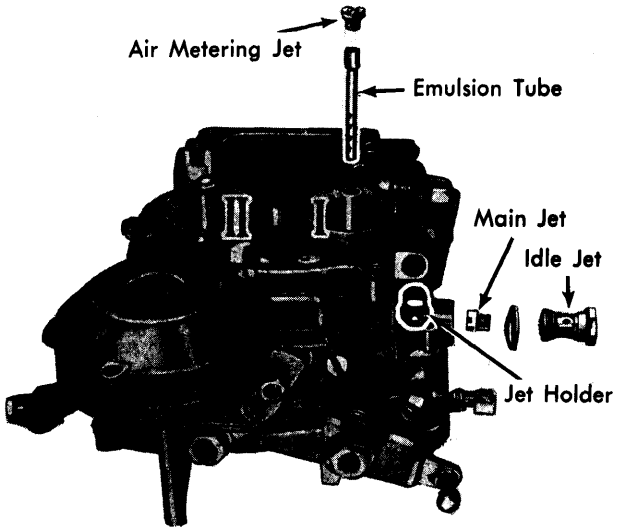
OVERHAUL

Disassembly

1) Remove accelerating pump outlet valve and unscrew the four screws which attach the cover to the carburetor body. Remove the float.

2) Unscrew gauze element and clean. Check cover flange for warpage, and make sure that mating surface is clean and smooth.

3) Remove jet holders, main jets, idle jets, main air meterings, and emulsion tubes from both barrels.

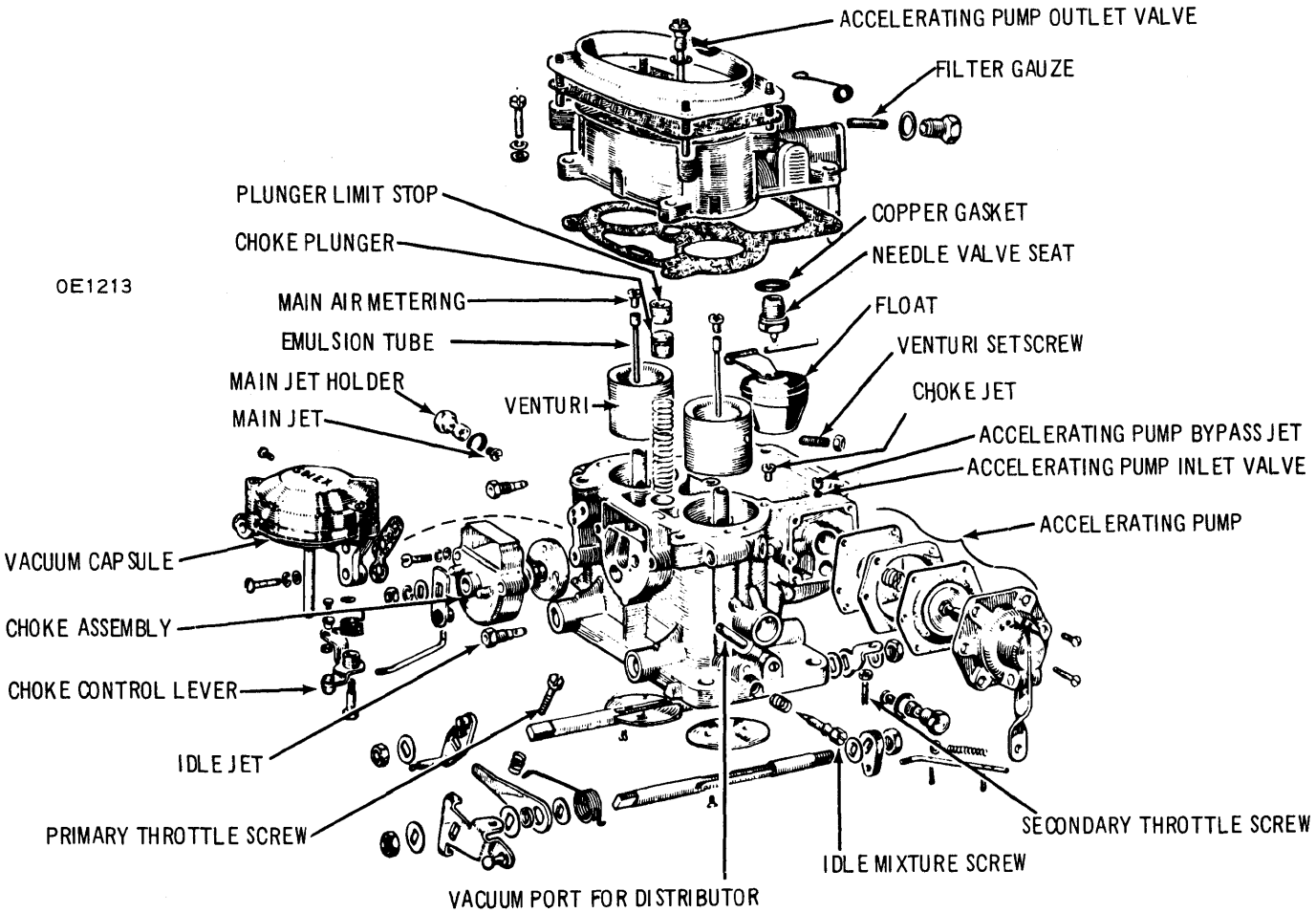


OE1214 I — Primary Bore II — Secondary Bore

JET REMOVAL

Accelerating Pump

1) Unscrew accelerating pump bypass jet from bottom of float chamber and invert carburetor in order to remove ball from valve seat.



SOLEX PAIA-TYPE CARBURETOR (EXPLODED VIEW)

SOLEX 32 PAIA-4, 5, 7 2-BARREL (Cont.)

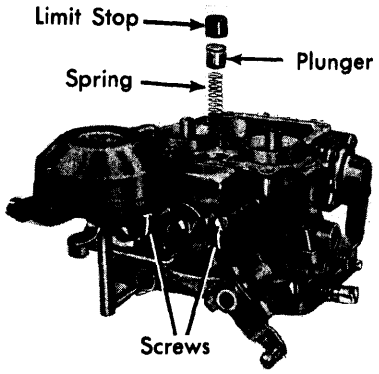
2) Remove the six accelerating pump-to-carburetor body attaching screws, pull out cotter pin from pump lever, remove pump. Check that diaphragm is in good condition.

3) When reassembling pump, insert cotter pin in the first hole of the pump stroke adjustment.

Choke

1) Loosen two screws which attach choke assembly to carburetor. Check that mating surfaces are flat and smooth. Remove limit stop and check that plunger slides freely without binding.

2) Check spring for proper operation and remove choke jet from bottom of float chamber.



CHOKE DISASSEMBLY

Throttle Valves

NOTE – Do not remove throttles unless absolutely necessary.

Loosen set screws, remove throttles, Inspect throttle spindle for scoring. When replacing, it may be necessary to bore and bush the seats of the carburetor body.

Venturis

Loosen set screws on outside of carburetor body and pull venturis out of body.

NOTE – An index is built into the venturi to align the venturi with the carburetor body.

Secondary Throttle Vacuum Capsule

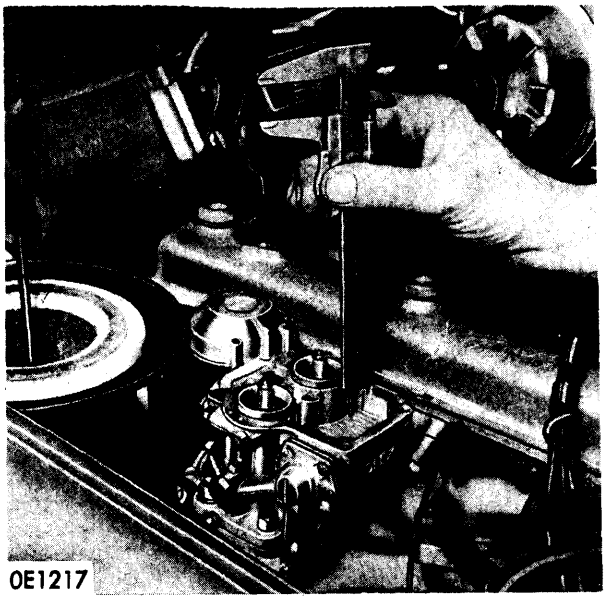
NOTE – Do not disassemble capsule unless absolutely necessary. The only repair that can be effected is the replacement of the rubber diaphragm.

Remove screws and separate capsule halves. Remove old diaphragm and replace with a new one. Make sure diaphragm is seated properly in capsule.

ADJUSTMENTS

Fuel Level Adjustment

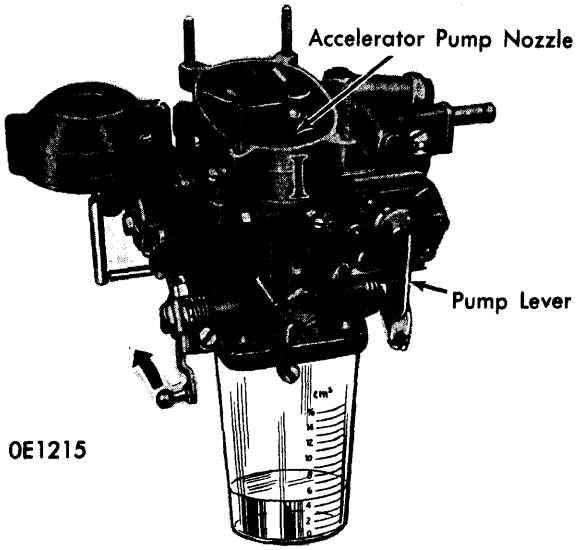
With carburetor installed on engine, place car on level ground and run engine at a slow speed for about one minute. Stop engine and detach fuel line from carburetor. Remove carburetor top cover, remove float and measure the distance from fuel level to float chamber flange. The distance should be .71-.75" (18-19 mm).



CHECKING FUEL LEVEL

Accelerator Pump Stroke

Place carburetor over a graduated container and pump the lever 20 strokes. The fuel delivered to the container should be 4-6 cc. To adjust move cotter pin to different hole. Moving the pin by one hole causes a 100% increase in the delivery. Small increments may be made by inserting shims between the cotter pin and the control lever.



ACCELERATOR PUMP CHECK

Idle Adjustment

1) With engine at normal operating temperature, tighten secondary throttle adjustment screw ¼ turn. This will prevent binding.

2) Slowly turn in primary throttle adjustment screw until RPM increases, then loosen idle mixture screw until engine begins to "hunt". Gradually tighten idle mixture screw until engine runs smoothly.

3) Gradually unscrew primary throttle adjustment screw until engine speed is 500-600 RPM. If engine begins to "hunt", slightly tighten idle mixture screw. *CAUTION: Do not tighten idle mixture screw all the way down.*

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CARBURETOR SPECIFICATIONS

A – Primary Main Jet
B – Secondary Main Jet
C – Primary Main Air Jet
D – Secondary Main Air Jet
E – Primary Idle Jet
F – Secondary Idle Jet
G – Primary Idle Air Jet
H – Secondary Idle Air Jet
I – Accelerating Pump Jet
J – Choke Jet
K – Fuel Level
L – Accelerating Pump Volume (20 strokes)

Carburetor No.	A	B	C	D	E	F	G	H	I	J	K	L
32 PAIA 4	105	110	220	200	45	70	100	60	40	120	.71-.75"	4-6 cc
32 PAIA 5	125	135	220	200	45	70	100	60	45	120	.71-.75"	4-6 cc
32 PAIA 7	125	130	190	190	45	70	100	60	45	120	.71-.75"	4-6 cc