Identification: Information plate in national language on cross member in front of radiator or on cylinder head cover. Adjust engines according to data of respective exhaust gas information plate.

Testing and adjusting values

National version		Idle speed 1/min	Idle speed emission value % CO
(J)	up to 1976	800–900	max. 1.5
(J)	1976	800–900	max. 1.0 **without** air injection
(S)	1976	800–900	max. 1.0 **without** air injection
(USA)	1973	750–900	up to 1.5
(USA)	1974 Federal	750–900	up to 1.5
(USA)	1974 California	700–900	6–8 **without** air injection
(USA)	1975/76	800–900	max. 1.0 **without** air injection

Vacuum governor[1])

National version		Engine speed Vacuum hose pulled off 1/min		Engine speed Driving position engaged 1/min
		without TN choke	**with** TN choke	
(J)	1976	–	1700–1900	600–700
(S)	1976	–	1700–1900	600–700
(USA)	1973/74	1200–1400	1700–1900	600–700
(USA)	1975/76	–	1700–1900	600–700

[1]) When all auxiliary units are engaged, the engine should still run smoothly.

Float level

Float version	Float level[1])
Flat roof float	−2 to 6 mm[3])
Hip roof float and fuel return valve **without** fuel pressure regulation	0 mm[2])
Hip roof float and fuel return valve **with** fuel pressure regulation	+2 mm[2])

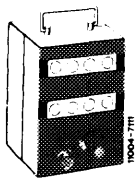
1) Measure from parting surface **without** gasket.
2) In the event of starting or bypass faults, set 2 mm higher.
3) Under parting surface.

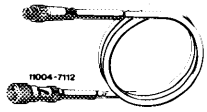
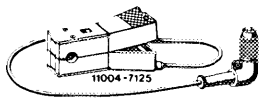
Carburetor line-up

National version	(J) 1976	(S) 1976	(USA) 1973 (USA) 1974 Federal	(USA) 1974 California	(USA) 1975/76
Carburetor designation	Solex two-stage downdraft carburetor 4 A 1				
Carburetor stage	Stage I Stage II	Stage I Stage II	Stage I Stage II	Stage I Stage II	Stage I Stage II
Main jet	X 105 –	X 105 –	X 100 –	X 112.5 –	X 105[2]) –
Jet needle	– A 7	– A 4	– A 4	– A 5	– A 7
Idle speed fuel jet	47.5[1]) –	45[1]) –	45[3]) –	45[3]) –	47.5[1]) –
Idle speed air jet	102.5[1]) –	102.5[1]) –	110 –	100 –	102.5[1]) –

1) Combination jet
2) Model year 1975, size 100
3) Pressed-in, cannot be disassembled.

Special tools

Oil telethermometer		116 589 27 21 00
Digital tester		001 589 54 21 00

Connecting cable 3 m long		000 589 04 90 00
Intermediate plug (adaptor)		000 589 72 63 00
Trigger		000 589 71 63 00

Conventional tools

Revolution counter and CO measuring instrument

Self-made tool

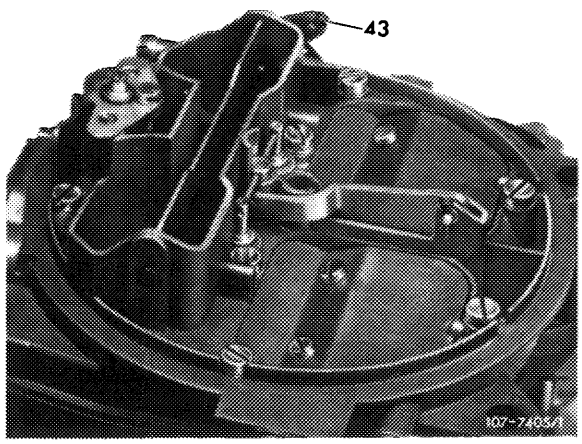
Puller	refer to Fig. item 9

Cleaning

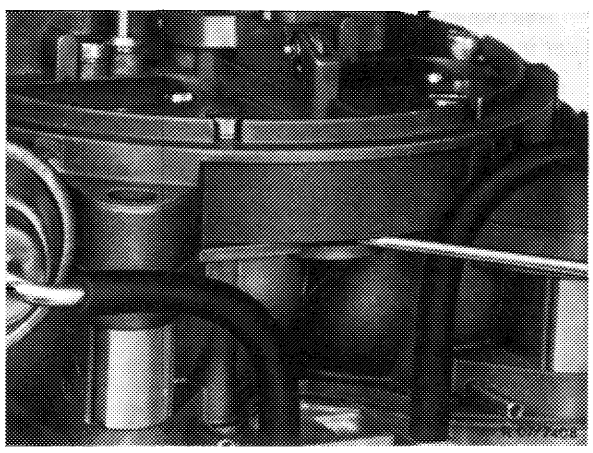
1 Remove air filter.

2 Thoroughly clean outside of carburetor.

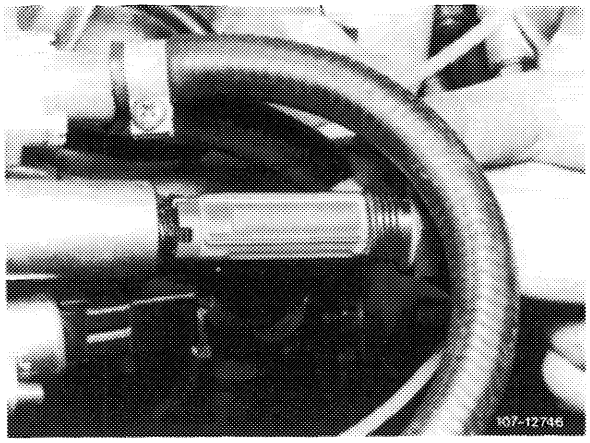
3 Loosen all fastening nuts and screws on carburetor cover. Pull off lock (43) and disconnect choke rod. Unscrew air filter fastening screw.



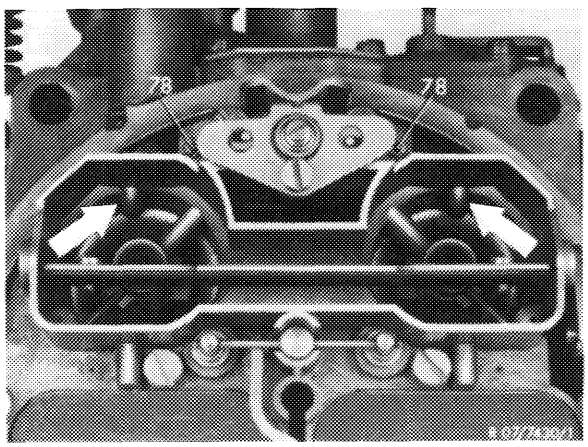
Attention!
Press off carburetor cover only at pressing-off point.



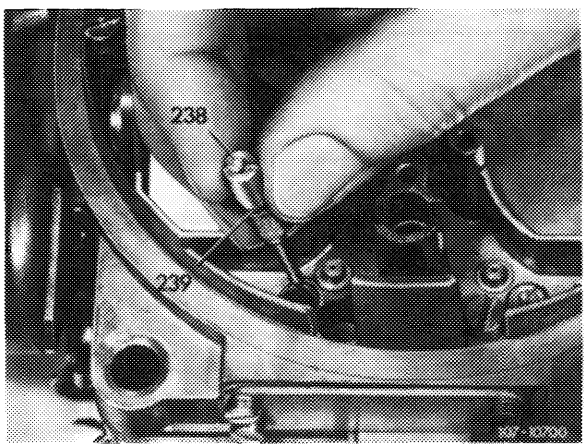
4 Clean filter strainer with compressed air.



5 Unscrew idle speed jets or combination jet (238). Blow out jet and duct with compressed air.



78 Idle speed air jet

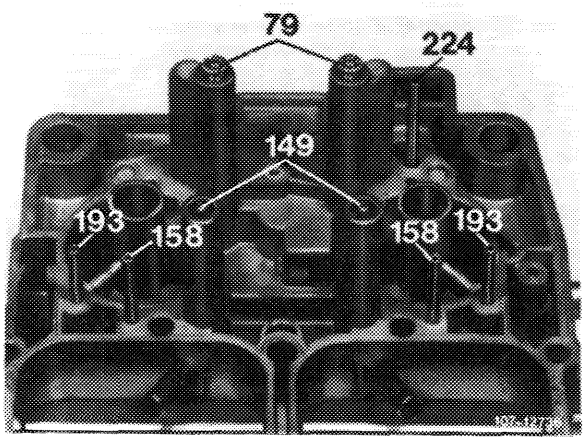


Combination jet

238 Idle speed and idle speed fuel jet
239 O-ring

6 Remove main jets (79). Blow out all ducts, bores, riser pipes and jets with compressed air.

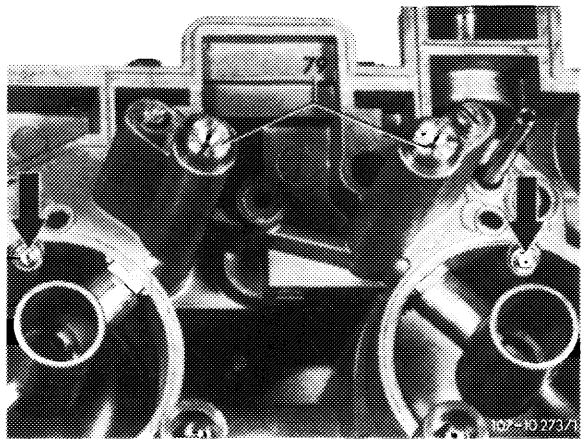
Attention!
Do not clean jets with metallic items (e.g. wire, drill).



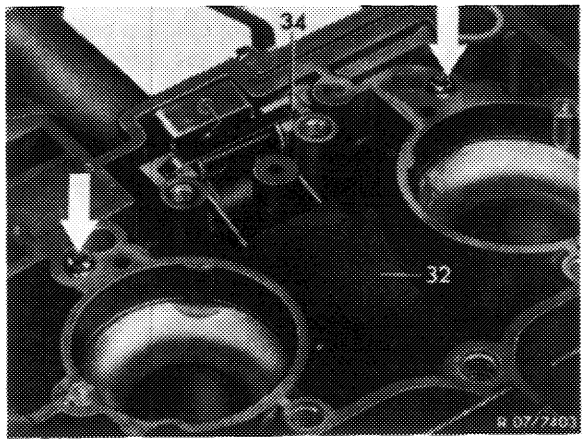
79 Main jets stages I
149 Jet needles stage II
158 Riser pipes bypass system stage II
193 Riser pipes starting mixture enrichment
224 Riser pipe TN choke (thermostatically controlled bypass choke)

7 Blow out injection bores (arrows) of accelerating pump with compressed air and check for unobstructed passage (clean injection bores with a 0.5 mm drill, if required).

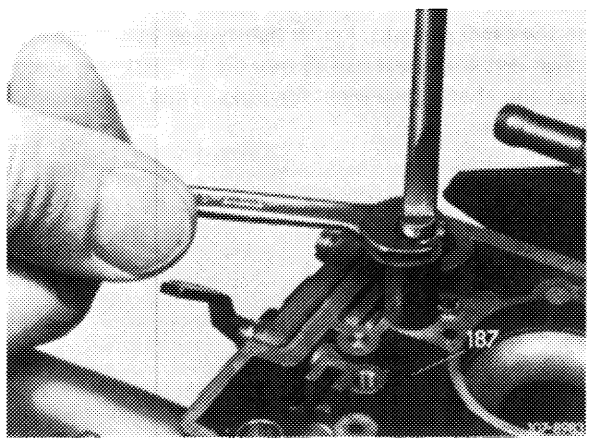
Check jet line-up. Install all parts.



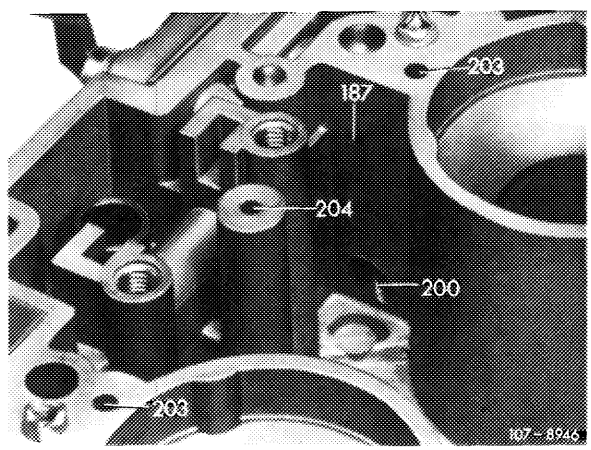
8 Remove holddown (34), float (32) with float needle valve.



9 Pull out closing plug for intake port (suction duct) of accelerating pump with self-made puller. Lift valve ball out of duct (e.g. welding wire with grease).

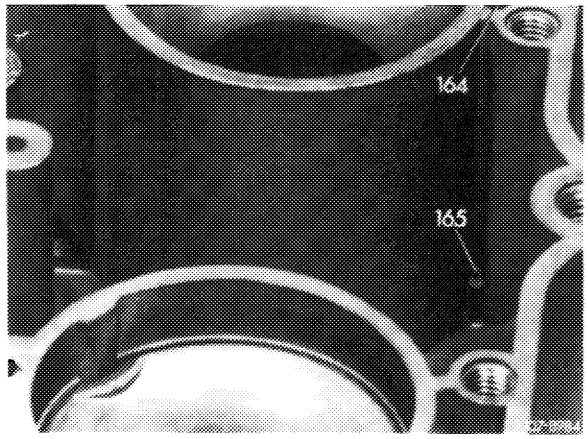


10 Clean float chamber and ducts (200, 203, 204, 187) with compressed air.



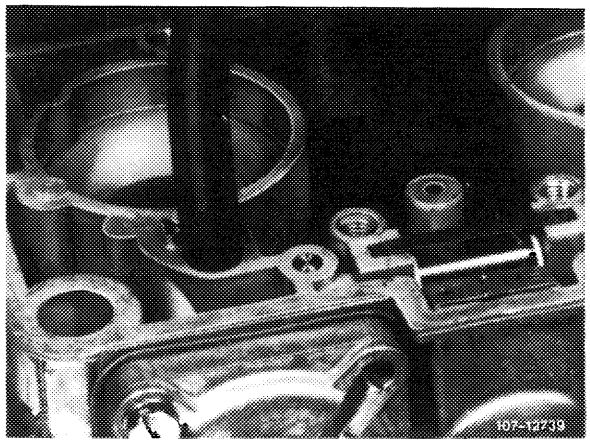
187 Vent bore
200 Intake port
203 Idle speed mixture ducts
204 Vacuum bore for controlling enrichment

11 Clean feed bores (165) and reserve chambers (164) with compressed air.

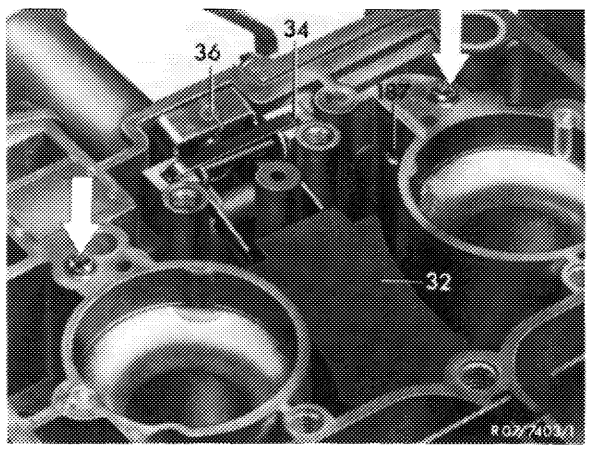


164 Reserve chamber for bypass system stage II
165 Feed bore for reserve chamber stage II

12 Check suction valve for leaks. For this purpose, install valve ball (5 mm steel ball). Fill float chamber with fuel. Slip suitable hose over suction duct (intake port), keep both delivery valves (arrow) closed, on carburetors with vent bore (187) also keep these bores closed and blow into hose. No or only individual air bubbles should come out of intake bore and enter float chamber.



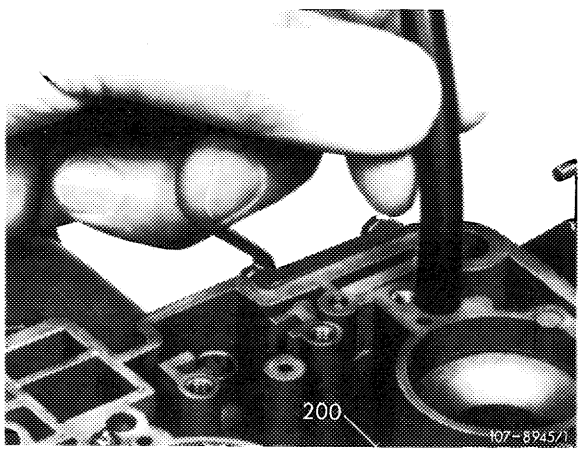
Attention!
In the event of leaks, knock **lightly** against suction valve seat with steel ball (5 mm dia.). Insert new steel ball and check once again for leaks. Then close intake port (suction duct).



187 Vent bore
Arrow = delivery valve

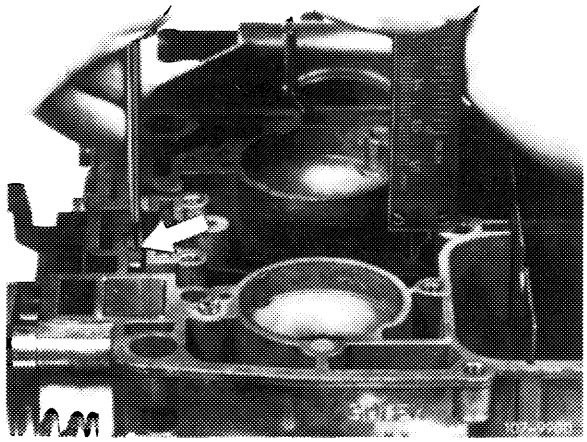
13 Check delivery valves for leaks. For this purpose, slip suitable hose over a delivery valve, keep other delivery valve closed, on carburetors with vent bore (187) keep this bore also closed and blow into hose. No or only individual air bubbles should come out of suction bore (200) and enter float chamber. Then check opposite delivery valve.

Attention!
In the event of leaks, knock balls of delivery valves **"lightly"** against their seat.

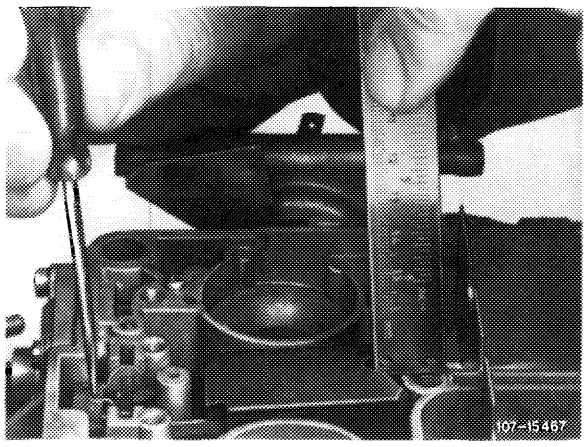


14 Check float level and adjust, if required. For this purpose, push connecting web (arrow) up to **noticeable stop** in downward direction and check float level without gasket.

Attention!
To avoid measuring faults, make sure that the float shaft rests on base of housing during test.

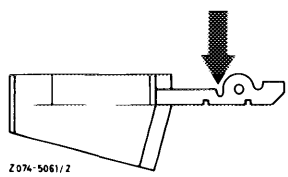


Measuring float level with flat roof float



Measuring float level with hip roof float

Correct float level, if required, by rebending at specified bending point (arrow).



15 Attach float needle with wire clip on float arm in such a manner that the **open side** of clip points **in driving direction.**

16 Install float (32), making sure that the float shaft rests on base of recesses. Insert holddown (34). Holddown should project slightly over parting surface. Rebend, if required.

17 Mount carburetor cover with new gasket.

18 Mount air filter.

19 Adjust idle speed (07.2–100).