

3.2) Disassembling carburetors, carburetor sockets, fuel lines and drip tray (on the 914 Series)

See Figs. 73-10 and 73-11.

To remove the carburetors, loosen the screw hose clamps (3). Remove the fuel line (4) by removing banjo bolts M10 (5) with sealing rings (6).

Remove the clamps (7) of the pressure connecting lines (8) on the carburetor (float chamber venting) and the fuel pressure regulator (17) (only on 914 Series) and pull off the lines.

Remove the tension spring (9) for carburetor suspension with a suitable tool.

Now the airbox (10) can be pulled off the carburetors towards the back .

◆ **NOTE:** If required, remove 2-pin plug connection of temperature sensor (11) and/or loosen air intake hose (12).

Remove 3-pin plug connection of the throttle potentiometer.

Release the clamp (13) of the carburetor socket (14), remove the carburetor with the fuel lines with slight turning and swiveling movements and close off the intake openings.

Remove cable clamp (16), release collar nut (17) and take off the fuel lines.

Remove the hex. screws (15) 2 M8x25 and washers to disassemble the carburetor sockets (14). Then the carburetor socket (14) and the O-Ring (18) can be taken off.

◆ **NOTE:** See SB-914-019, "Cracks, wear and distortion on the carburetor flange", latest issue.

◆ **NOTE:** On older engine versions, the drip tray (19) is not fitted on the airbox but directly on the intake manifold (20), see Fig. 73-10.

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Fig. 73-10

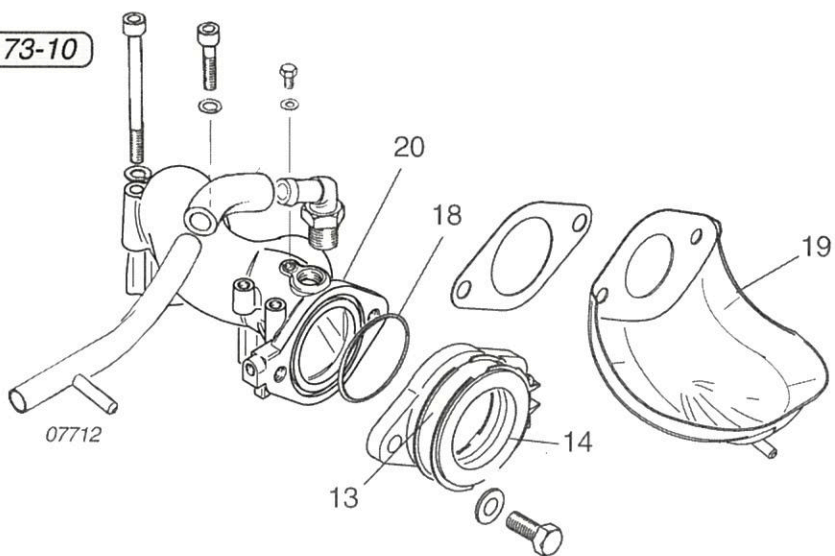
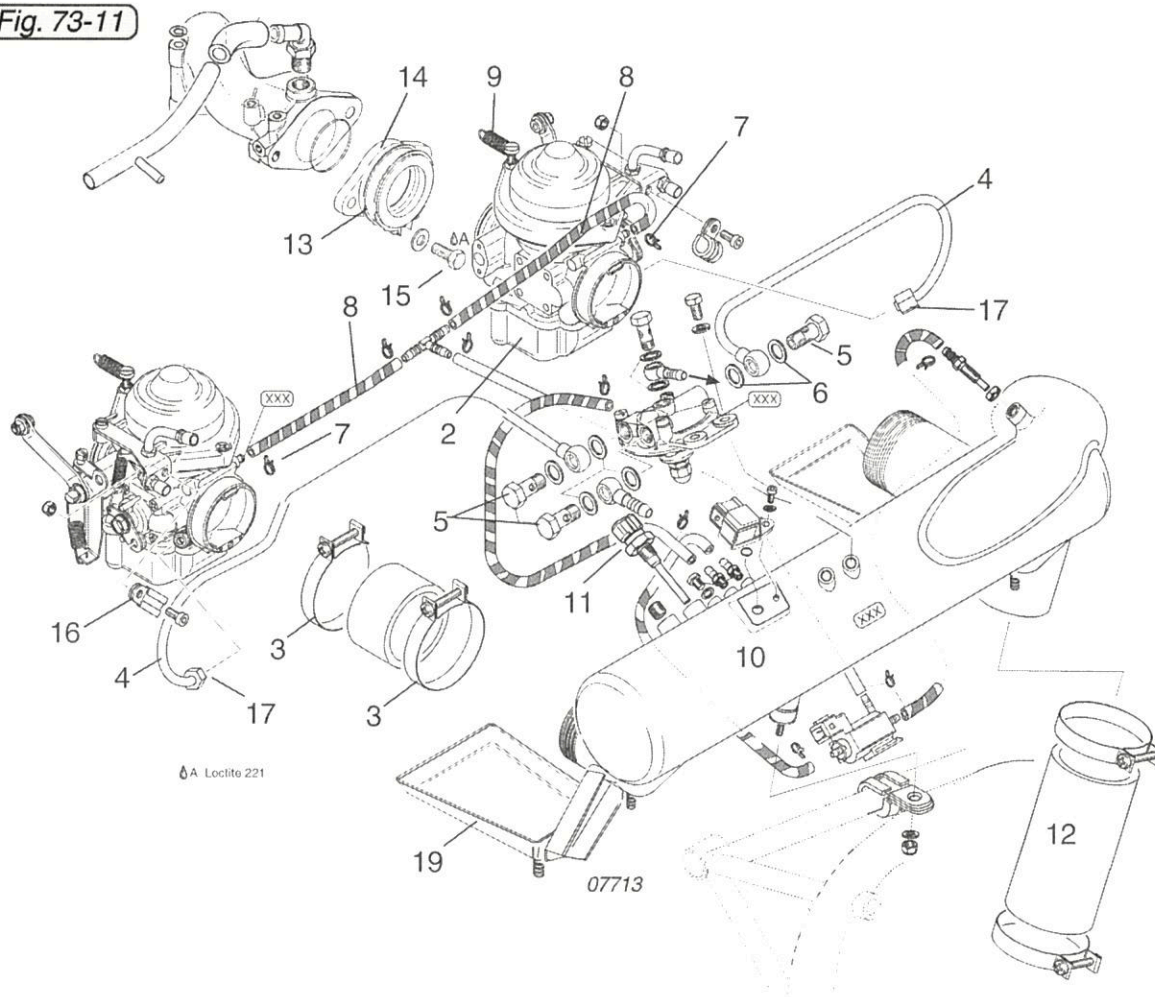


Fig. 73-11



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3.3.2) Float needle valve leakage test

See Fig. 73-12.

This check is carried out to ensure that the float valve seat is not leaking. If the pressure is not maintained, pay particular attention during disassembly to the float valve with the viton tip and the carburetor housing.

Turn the carburetor upside down, as the float needle valve is only closed in this position.

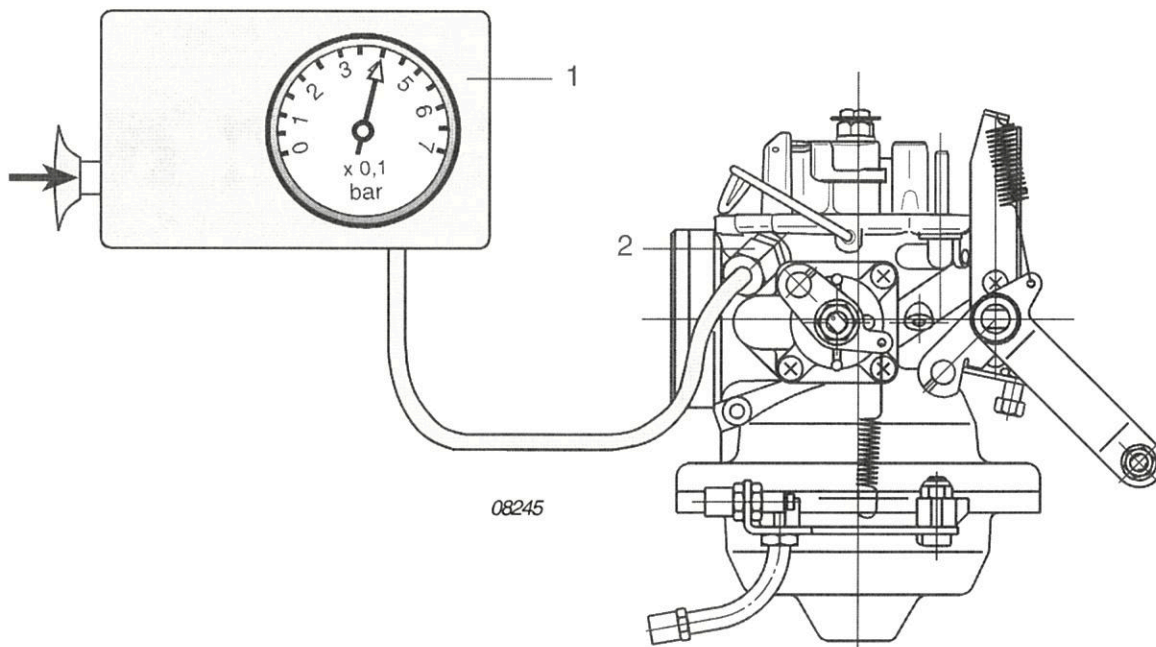
Connect pump (1) to the fuel supply line (2) and apply approx. 0.4 bar (5.8 p.s.i.) of pressure.

The pressure must be maintained for about 5 seconds.

■ **CAUTION:** If pressure drops, this indicates leakage which may cause fuel overflow and in consequence engine damage due to hydraulic shock.

Replacement of the float valve seat is not permissible.

Fig. 73-12

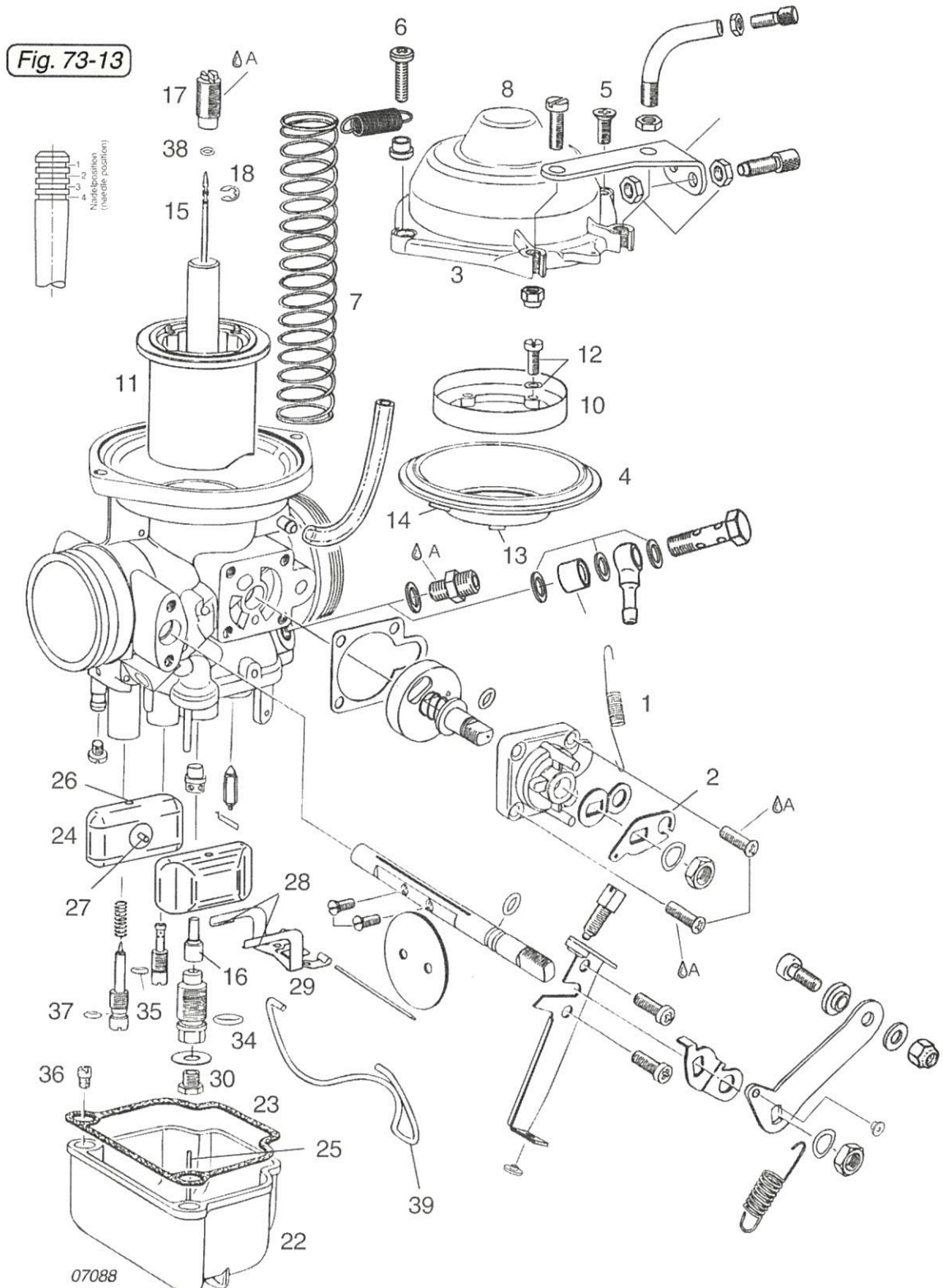


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3.3.3) Individual components of the carburetor (on the 912 Series)

See Illustrated Parts Catalog Rotax 912/914



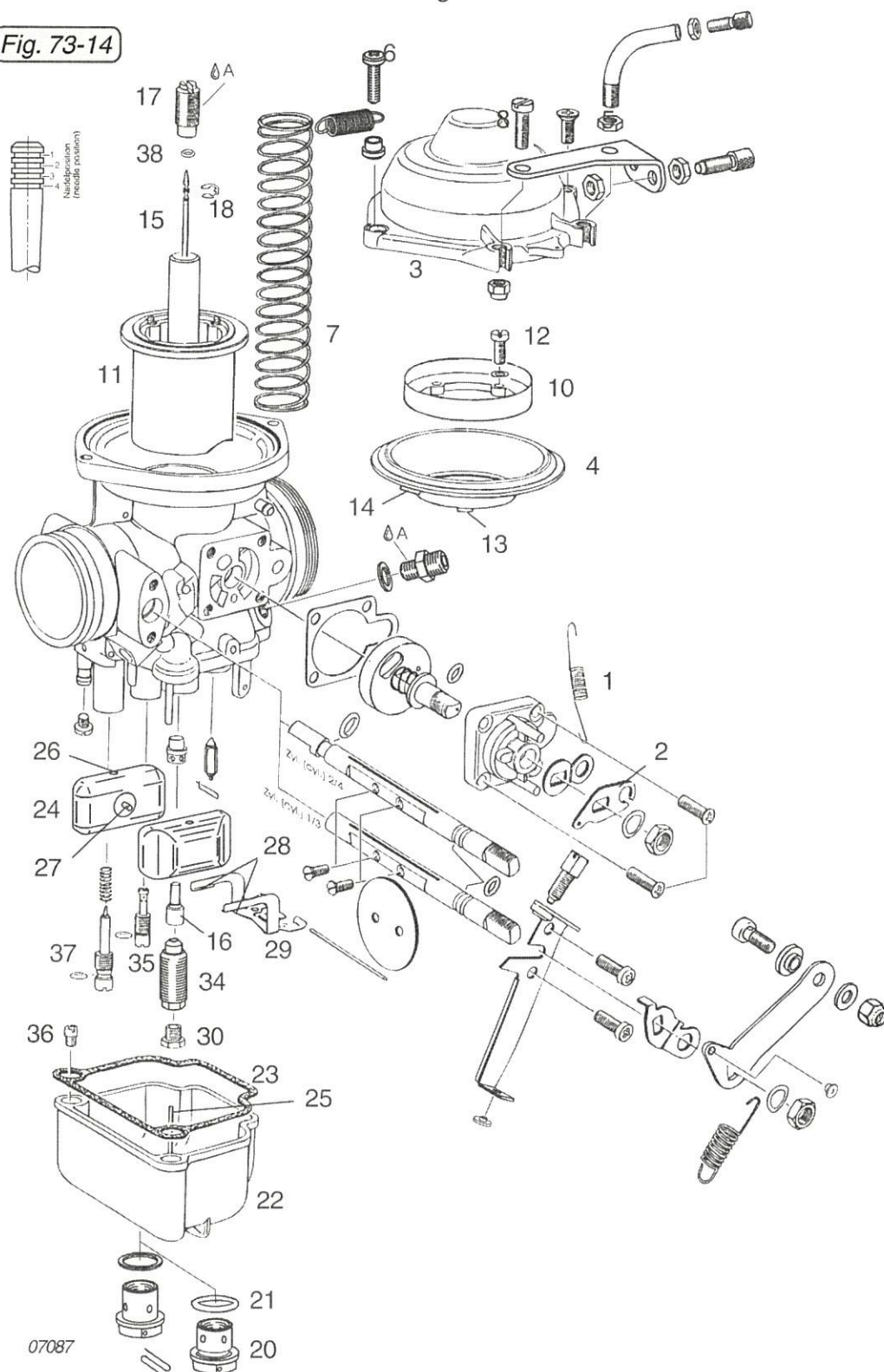
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3.3.4) Individual components of the carburetor (on the 914 Series)

See Illustrated Parts Catalog Rotax 912/914

Fig. 73-14



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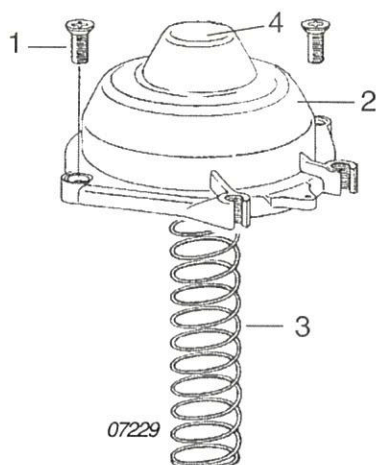


Fig. 73-15

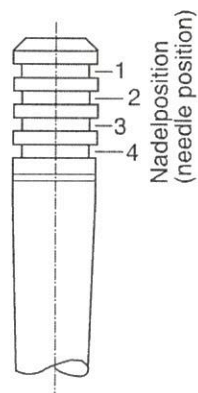


Fig. 73-15/1

Carburetor calibration		
912 A/F/UL	Target	
	Carburetor 1/3	Carburetor 2/4
Needle	2,72	2,72
Idle jet	35	35
Main jet ⁴⁾	155 or 158	155 or 158
Start jet ¹⁾	85	85
Needle position ³⁾	3	3
912 S/ULS/ULSFR	Target	
	Carburetor 1/3	Carburetor 2/4
Needle	2,70	2,70
Idle jet	35	35
Main jet	155	155
Start jet ¹⁾	85	85
Needle position ³⁾	3	3
914 F/UL	Target	
	Carburetor 1/3	Carburetor 2/4
Needle	2,72	2,72
Idle jet	35	35
Main jet ²⁾	156 or 160	158 or 164
Start jet ¹⁾	85	85
Needle position ³⁾	1 or 2	2

Fig. 73-15/2

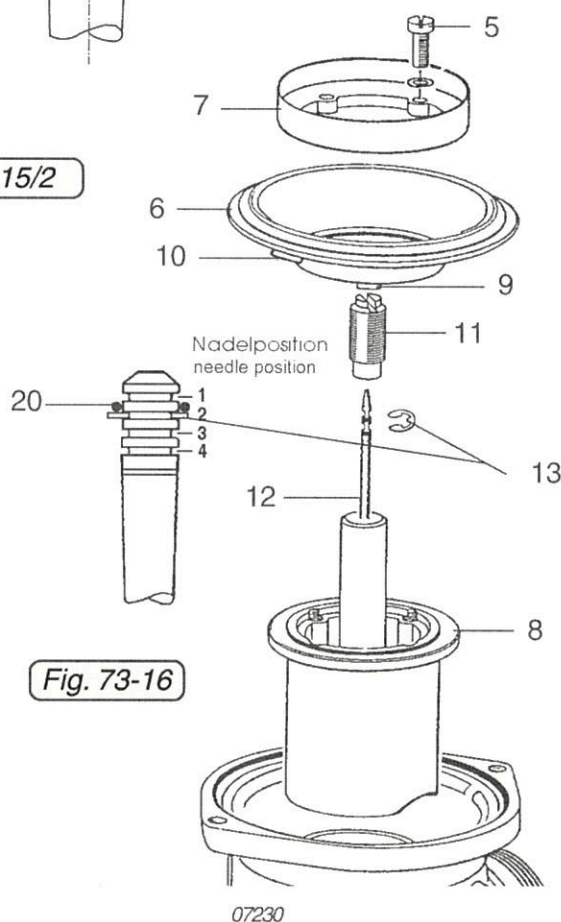


Fig. 73-16

- 1) See SI-03-1998, latest version.
- 2) Depending on the airbox version. See SI-914-013 and SI-914-015, latest version.
- 3) Depending on CO measurement value and specific fuel consumption. See SI-914-013 and SI-914-015, latest version.
- 4) On configuration with air filter. See SB-912-044, latest version.

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3.3.7) Float chamber, floats

See Figs. 73-17, 73-18, 73-19 and 73-20.

On the 912 Series: Release the spring clip (39). See Fig. 73-13.

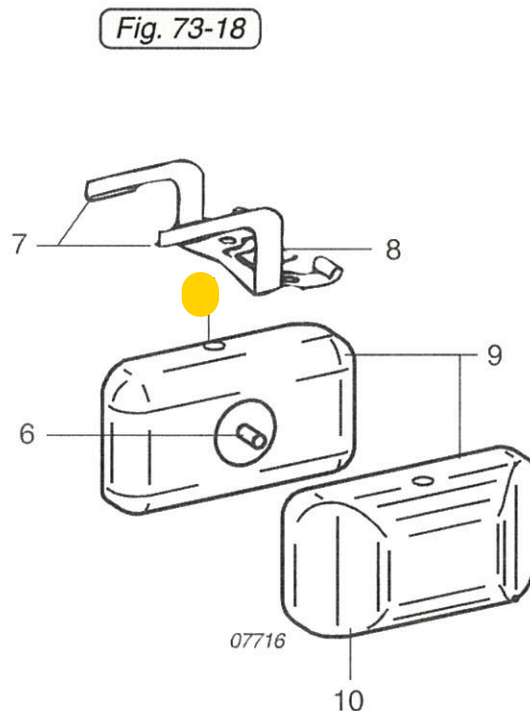
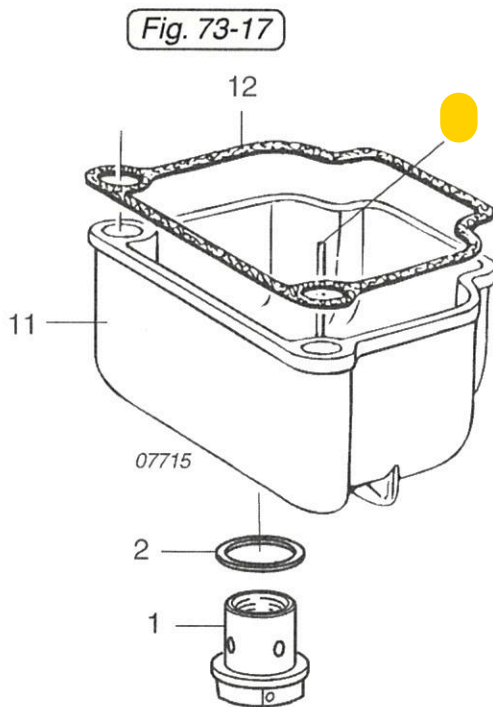
On the 914 Series: Remove the safety wiring and the end screw (1) with the sealing ring (2) 16x22x1. Tightening torque 5.5 Nm (48.7 in.lb)

Remove and clean the float housing (11) with the seal (12).

Check both floats (9) for free movement on the guide pin (3). When the float is at its lowest position, it still must have radial clearance and must not stick on the float chamber wall (10).

■ **CAUTION:** A stuck float causes the carburetor to flood.

Check the wear on the guide sleeves (5) inserted in the float. Check the pins (6) for the float support (7) for wear caused by excessive vibration. If there is noticeable wear, replace both floats and if necessary also the float brackets (8).



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3.3.8) Float brackets

See Figs. 73-18, 73-19 and 73-20.

Check that the float suspension brackets (8) are parallel. To do so, remove main jet and attach the gauge (13) to the mixing tube with a hex. screw (14). When the needle valve is closed, the two arms (15) of the float bracket must be evenly spaced.

Spacing:

On the 912 Series: 0.4 to 0.5 mm (.016 to .02 in.) (measure without washer (20))

On the 914 Series: 5.4 to 5.5 mm (.21 to .22 in.)

Always replace float brackets together with the float needle valve.

If there is a noticeable fault, the float bracket can be bent for correction or be replaced. After the check, remove the gauge and refit the main jet.

Fig. 73-19

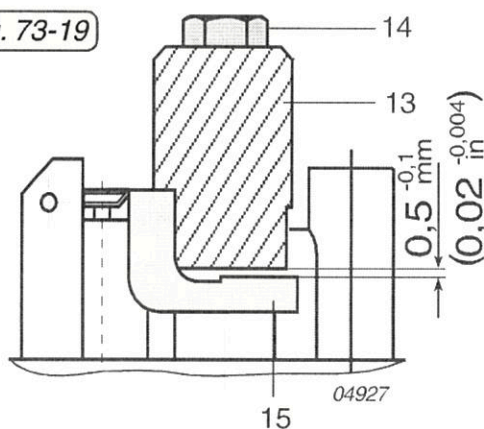


Fig. 73-20

