

Subject: Check and adjustment of carburetor Zenith 150 CD 3

Affected engines: All engines of the following types:

L 1700
L 2000
L 2400 EB, EE

Note: Position numbers in parenthesis used in the descriptions relate to the drawing of the carburetor.

Checking carburetor diaphragm

1. Unscrew damping piston (1).
2. Unscrew screws (2) and remove top (4).
3. Remove spring (5) and regulating piston (6 - 14).
4. Check diaphragm (8) for porosity resp. fissures by extending. If the diaphragm is porous, deformed or shows fissures it must be replaced.

Replacing carburetor diaphragm

1. Assembly steps as under „Checking carburetor diaphragm“
2. Unscrew screws (6), remove ring (7) and diaphragm (8).
3. Put the new diaphragm onto the regulating piston; the boss on the diaphragm rim must be well-aligned with the appropriate notch on the regulating piston.
4. Put on ring (7) and tighten with screws (6).

Assembly of regulating piston

1. Assembly steps as under „Replacing carburetor diaphragm“
2. Put the regulating piston into the carburetor housing; the boss on the diaphragm rim must be well-aligned with the appropriate notch in the carburetor housing.
3. Put on spring (5), tighten top (4) with screws (2).
4. Fill damper with oil to about 5 mm below upper edge of piston guide. Use only carburetor oil p/n: 170.210.005.
5. Screw in damper piston (1).

Basic adjustment of carburetor

1. Unscrew damper piston (1).
2. Untighten screws (2) and remove top (4).
3. Remove spring (5) and regulating piston (6-14).
4. Turn adjustment screw (11) with a wrench p/n: 803.001.022 until the support of the carburetor float spindle is even with the lower edge of the regulating piston.
5. Put in the regulating piston into the carburetor housing; the top of the diaphragm must be completely in mesh with the appropriate spring at the carburetor housing.
6. Put in spring (5), tighten top (4) with screws (2).
7. Put in guiding sleeve p/n: 803.001.021 into guide of the regulating piston and turn until it engages with the chamfer of the piston guide.
8. Put the wrench through the guiding sleeve and engage adjustment screw (11).
9. Turn the adjustment screw clockwise according to the amount of revolutions listed in the following table. Hold up the regulating piston with the guiding sleeve to prevent damage of the diaphragm.
10. Fill in oil to about 5 mm below the upper edge of the piston guide. Use only carburetor oil p/n: 170.210.005.
11. Tighten damper piston (11) with screws.

Part Number	Engine Model	Float chamber needle valve	Jet needle valve	
			Type	Adjustment
170.130.001	L 1700 E0	1,75	6A	+2,0
170.130.002	L 1700 EA	1,75	6A	0
170.130.005	L 1700 EC	1,75	6A	+2,0
170.130.010	L 1700 EB left	1,75	6A	0
170.130.011	L 1700 EB right	1,75	6A	0
201.130.001	L 2000 E0, only RF5	1,75	6A	0
201.130.002	L 2000 E0, EA, EC	1,75	6A	0
205.130.002	L 2000 DA	1,75	6A	0
201.130.011	L 2000 E0, only RF5	1,75	B2BA	+1,5
201.130.010	L 2000 E0, EC	1,75	B2BA	+1,5
201.130.010	L 2000 EA	1,75	B2BA	+1,75
205.130.010	L 2000 DA	1,75	B2BA	+2,0
204.130.007	L 2000 EB1.AA left	1,75	B5CK	+2,0
204.130.008	L 2000 EB1.AA right	1,75	B5CK	+2,0
206.130.005	L 2000 EB left	1,75	B5CK	+2,0
206.130.006	L 2000 EB right	1,75	B5CK	+2,0
207.130.005	L 2000 EB1.AB, AC left	1,75	B5CK	+2,0
207.130.006	L 2000 EB1.AB, AC right	1,75	B5CK	+2,0
244.130.007	L 2400 EB1.AA left	1,75	B5CK	+2,0
244.130.008	L 2400 EB1.AA right	1,75	B5CK	+2,0
245.130.005	L 2400 EE2	1,75	B5CK	+2,0
246.130.005	L 2400 EB1.AD	1,75	B5CK	+2,0
247.130.005	L 2400 EB1.AB, AC left	1,75	B5CK	+2,0
247.130.006	L 2400 EB1.AB, AC right	1,75	B5CK	+2,0

Checking float and float level

1. Unscrew screws (36) and remove float chamber (35) with gasket (34).
2. Pull off float (33) with float axle (32) from support.
3. Check float for leaks. Dip float totally into water of about 90 °C and check if air bubbles come up from the float body. If this is the case the float has to be discarded.
4. Lock float with float axle into the support - the springs of the float point to the carburetor housing.
5. Check float level. Turn carburetor with float to top and check level with gauge p/n: 803.001.005 above raised and flat face of carburetor housing. Put the template onto the raised and flat face - both chambers of the float lightly touch the lower edge of the template at its highest elevation, the weld seam of the chambers is parallel to the raised and flat face. Correct float gage by bending the lever for the float needle valve.
6. Mount float chamber with new gasket, coat center screws lightly with sealant (CURIL-T), tighten screws.

Replacing float needle valve

1. Unscrew screws (36) and remove float chamber (35) with gasket (34).
2. Pull off float (33) with float axle (32) from the support.
3. Unscrew float needle valve.
4. Mount new float needle valve with new conical nipple.
5. Lock float with float axle into the support - the springs of the float point to the carburetor housing.
6. Check float level.
7. Mount float chamber with new gasket, coat center screws lightly with sealant (CURIL-T), tighten screws.

Checking cold start valve

1. Remove cold start valve (26) and check bushing for wear.
2. Metering disc (23) must be free of marks. Check that the disc has axial freedom on the shaft, but no radial play.
3. Mount cold start valve assy. Apply a small amount of CURIL-T to the screw facing the floatchamber.

Notice:

This document has been translated to the best of our knowledge. In case of doubt, however, only the German original shall be considered as authoritative.

