
CARBURETOR, SOLEX 44 PAI

Removing

1. Clean the carburetor, remove the intake silencer (AQ170), the flame arrester cover and the flame arrester.
2. Disconnect the fuel line and the speed cable from the carburetor.
3. Unscrew the nuts securing the carburetor and lift off the carburetor. Cover the holes in the intake manifold to prevent foreign particles from entering the engine.

Disassembling the carburetor

1. Undo the four screws (one on the bottom side) for the upper carburetor body section and lift off the section.
2. Screw out the float valve with washer.
3. Press loose the link rod for the acceleration pump from the throttle lever.
4. Remove the throttle housing from the carburetor body.
5. Remove the acceleration pump.
6. Remove the float by releasing the screw on the outside of the floatchamber. The screw acts as a shaft for the float.
7. Remove all the jets (emulsion - acceleration-main and idling), also the check valve for the floatchamber.
8. The air taper can be removed after its lock screw on the outside of the carburetor body has been released.

Cleaning

See the appropriate instructions for Zenith Stromberg carburetor.

Inspecting

Check to make sure that the diaphragm for the acceleration pump is not damaged. Also check that the calibrated holes in the jets are open. N. B. Never try to clean the holes with a steel wire or similar. Check the float valve. Check that all the sealing surfaces are clean. Use compressed air for blowing clean the jets and other channels in the carburetor body. If necessary, check the weight of the float to ensure that it weighs 7.3 9 (0.25 oz.).

Assembling the carburetor

1. Fit the air taper with designation "Solex 44-31" inverted. Make sure that the taper rests against the stop nib in the carburetor body.
2. Fit all the jets. If necessary, use new seals.
3. Fit the float in the floatchamber.

4. Fit the diaphragm of the acceleration pump so that its guide pin faces the cover. The spring should be placed between the diaphragm and the carburetor body. Fit the cover with the lever turned downwards.
5. Check that the throttle disc in the throttle housing exactly takes up a vertical position when throttle lever is turned to full throttle position. If otherwise, adjust with the stop screw on the throttle lever. Fit the throttle housing. If necessary, use a new gasket.
6. Fit the float valve with washer (1 mm = 0.04" thick).
7. Fit the upper carburetor body section. If necessary, use a new gasket.
8. Press firmly the link rod for the acceleration pump.

Fitting the carburetor

1. Take off the protective cover over the hole for the intake manifold and clean the contact surface. Check that the contact face of the carburetor against the intake manifold is level. If necessary, file it level. Use a new gasket between the carburetor and intake manifold. Tighten the carburetor.
2. Fit the fuel line (if necessary also new copper washers) and the speed cable.
3. Fit the flame arrester and the intake silencer, where such is fitted.

Checking the float level

Where it is suspected that the float level is faulty, replace the float. At the same time, check that the float valve closes and does not jam.

Setting and synchronizing the carburetors, AQ130C, AQ170A,B,C

When setting and synchronizing the carburetors, the intake silencer (AQ170A) and the speed cable should be removed.

1. AQ130C: Release the clamp nut for one of the levers (2) Fig. F10.
AQ170 A: Release the clamp nut for one of the levers (2) on the front and rear intermediate shaft.
2. Screw back (up) all the throttle stop screws (3) so far that they just touch (but do not press on) the boss on the carburetor body. Then screw in all the throttle stop screws (3) exactly one turn.
3. AQ130C: Adjust and lock the lever (2) in such a position that both the throttle levers (4) are actuated simultaneously.
AQ170: Adjust and lock the lever (2) on the front intermediate shaft in such a position that both the throttle levers (4) are actuated simultaneously.

4. AQ130C: Adjust the position of the cube on the control cable so that the pins (7) for the levers (2) come in the middle of the gap on the throttle levers (4) when the cube is connected to the control lever. Connect up the cube and lock it.
AQ170A: Connect up the cube to the control lever for the front intermediate shaft according to AQ130C. Thereafter the levers (2) between the rear and intermediate carburetors should be adjusted so that there is a small space between the levers and pins (see 5, 7).
5. Screw in the air screw (6) fully and then screw it back 1 1/4 turns.
6. AQ170: Fit the intake silencer.
7. Start the engine and run it warm to normal operating temperature.
8. Check that the engine idling speed agrees with the value given in the "Specifications". If necessary, adjust the throttle stop screw (3) exactly the same amount for each carburetor.

Setting the idling, AQ115

1. Check when the control lever is in neutral position that the spring-loaded cube has a spring tension of about 2 mm (0.08") (see A, Fig. F9). When adjusting, slacken the locknut under the spring sleeve and screw the sleeve on the thread of the control cable until the correct measurement is obtained.

2. Run the engine warm and check that the idling speed agrees with the value given in the "Specifications". If necessary, adjust the throttle stop screw (1, Fig. F9). If the engine runs unevenly, adjust the air screw until smooth running is obtained. The basic setting for the air screw is about 2 turns of the screw out from its screwed in position.

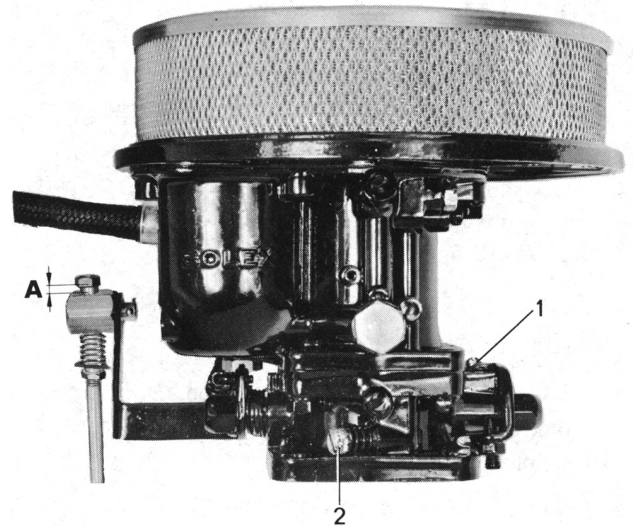


Fig. F9. Single carburetor Solex (AQ115A)

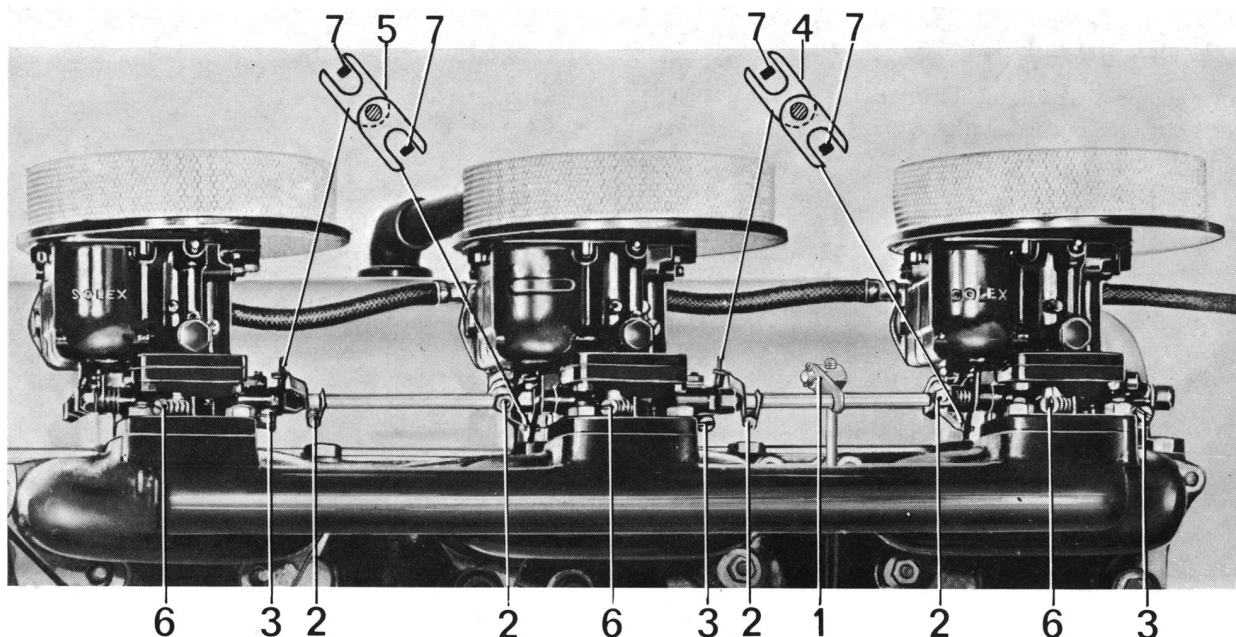
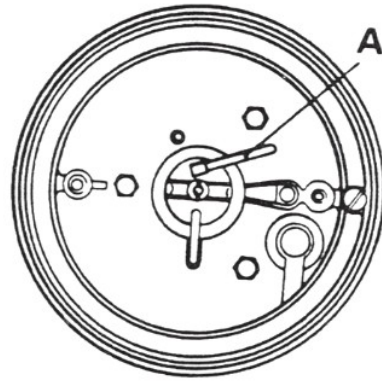
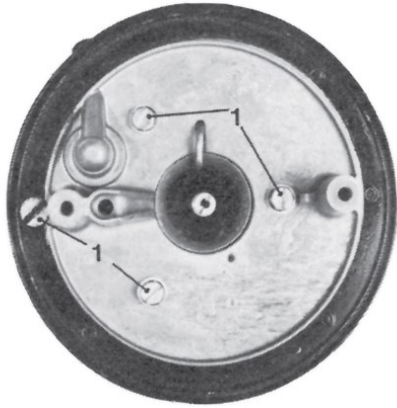


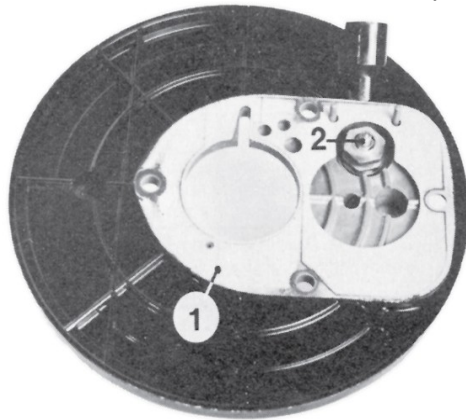
Fig. F10. 3 synchronized Solex carburetors (AQ170A,B,C)

Solex 44PA1 Rebuilding Instructions

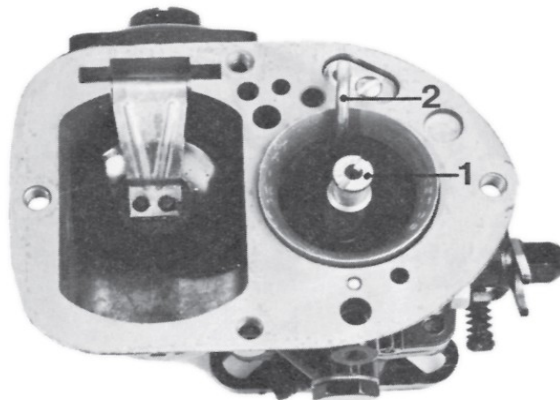


1. Remove the carburetor from the intake manifold. Notice the positioning of the plate in order to install it in the same way. Take care of the plate. Remove the screws (1) 4 pcs, and remove the top cover of the carburetor.

NOTE! The carburetor on the model 230 (AQ131) is equipped with a full speed jet (A), lower picture. This jet is pressed into the top cover of the carburetor and does not need to be replaced unless damaged.

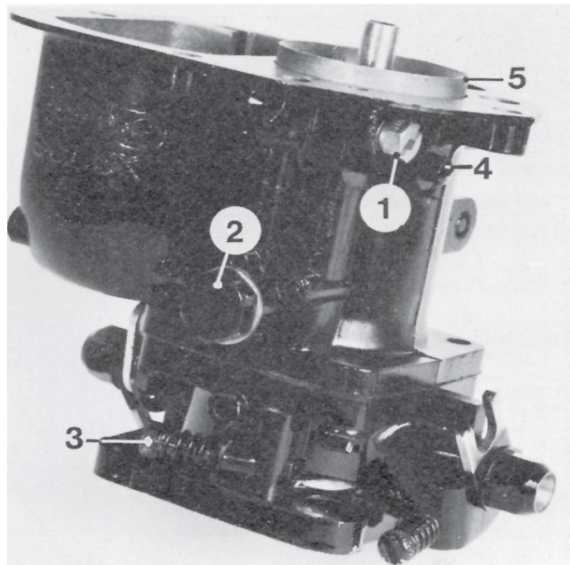


2. Remove the gasket (1) and needle valve (2). Check to make sure that the needle valve does not jam or that it's worn (not sealing). Replace if necessary.

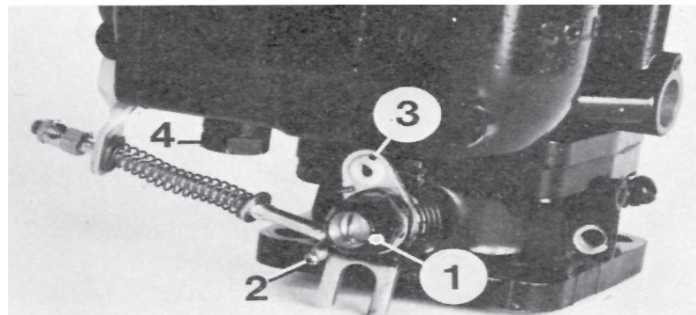


3. Lift out the float and check it for leakage. Should the float leak, the float level will not be correct. The weight of the float should be 7,3 grams (0,26 oz's). Remove the emulsion jet (1) and the acceleration jet (2).

NOTE! Don't forget the gasket! Check and blow clean with compressed air. Replace worn or damaged parts if necessary!



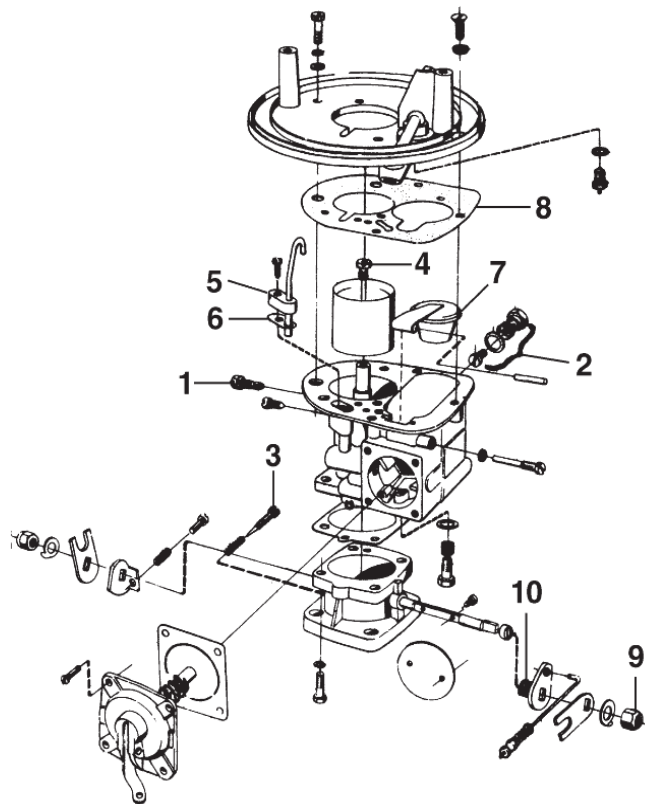
4. Remove the idle jet (1) and the main jet holder (2). Remove the jet from its holder. Clean the jets with compressed air. Replace if necessary. Remove the mixture screw (3) and blow the channel clean. The screw (4) is locking the venturi (5).



5. Turn the throttle spindle (1) and press out the thrust rod (2) from the lever (3). Then turn the thrust rod downward and remove the check valve (4). Use compressed air to clean the check valve and the strainer. Wash the carburetor and use compressed air to clean its channels. Then install the check valve and the strainer.

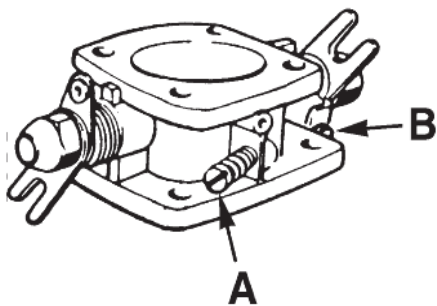
NOTE! Don't forget the copper washer! Turn the throttle shaft and press in the thrust rod into the lever.

The Solex carburetor is available with earlier or later production versions of the butterfly valve housing. The setting of the idle screws differs between the earlier and later versions according to the chart. Setting the idle screws (B): Tighten the screw until it touches the carburetor lever. Then tighten further according to the chart.

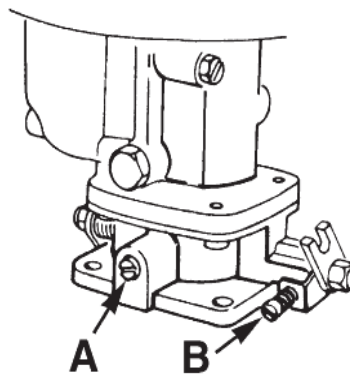


6. Install the idle jet (1), the main jet (2) and the mixture screw (3).

NOTE! The copper washer on the main jet! Install the emulsion jet (4), the acceleration jet (5) and the gasket (6). Put the float (7) into the float housing and add a new gasket (8) and tighten the top cover of the carburetor to the carburetor housing. Remove the nut (9) and the levers to be able to replace the spring (10).



Early version



Late version

The Solex carburetor is available with earlier or later production versions of the butterfly valve housing. The setting of the idle screws differs between the earlier and later versions according to the chart. Setting the idle screws (B): Tighten the screw until it touches the carburetor lever. Then tighten further according to the chart.

	Early Version	Late Version
AQ131	2	2
230	-	2
AQ151	1 1/2	1
250	-	1
AQ171	1 1/2	1 1/4
251DOHC	-	1 1/4

Setting of the idle mixture screws (A): Bottom the screw lightly against the seat. Then back it out according to the chart.

	Early Version	Late Version
AQ131	2	9 1/2
230	-	9 1/2
AQ151	2	8
250	-	8
AQ171	2	10
251DOHC	-	10