



T H E S P E C I A L I S T S I N L A N D R O V E R S • U S A

Preparing or Repairing a Zenith Carburetor

The Zenith 36IV carburetor is probably the most common carburetor found on Series Land Rovers and can provide years of reliable service when properly maintained. Unfortunately, over time, a vacuum leak can occur between the mating surfaces due to heat that caused warping. The symptoms of this problem are a rich running at idle where the mixture screw has no effect, and a stumble on acceleration that clears up at high speed or when the choke is pulled out.

1) First, remove the carburetor. Drain the remaining gas, remove the cotter pins (two each) from the linkage, and disconnect the spring from the top housing. Now separate the top from the bottom by removing the four screws.

2) Flip the top over and separate the emulsion block from the top cover by removing the float, the two screws, and the needle (float) guide. You will also have to remove the throttle linkage by removing the nut and the c-clip, and pulling the throttle linkage out of the top. Remove the accelerator diaphragm located on top of the top cover by removing the three small screws.

3) Now you are ready to lap the top, bottom, and emulsion block mating surfaces (Figure 1). Lay the sandpaper on the glass and spray with penetrating oil. Take one of the carburetor plates with the mating surface down and sand them in a circular motion (Figure 2). Do this until the surface is flat and free of any defects/no longer warped. Now sand the remaining pieces in the same manner. Once finished, spray each piece with the cleaner, making sure that none of the jets or airports are plugged.

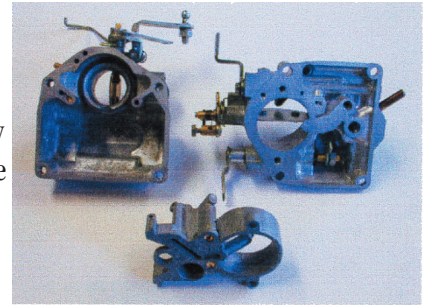


Figure 1

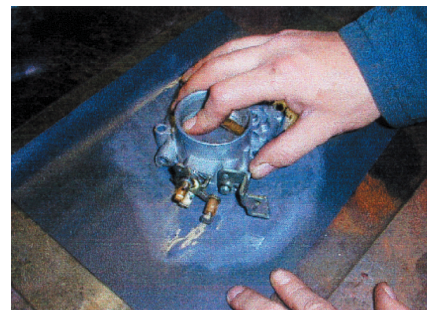


Figure 2

You Will Need:

A piece of glass
Fine grit 160/180 wet/dry sandpaper
Penetrating Oil
About an hour's time

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4) Inspect the carburetor base for a redundant vacuum port (Figure 3). This port is plugged off on the carburetor top but left open on the base. When the carburetor warps, the port is exposed and fuel is siphoned from the float chamber into the throttle opening. If this port is open on your carburetor, plug it prior to assembly using a piece of O-ring slightly larger than the hole (Figure 4).

5) Once the pieces have been cleaned, and the vacuum port plugged (if required) the carburetor can be reassembled. First, install the throttle linkage, then the gasket, making sure the gasket is installed correctly. Then attach the emulsion block to the top cover, install the float, and set the float level to 32mm. Now you can assemble the top and bottom halves, hook up the linkages and reinstall the accelerator diaphragm.

6) Once installed on the engine, prime the fuel pump and start the vehicle. With the engine running, set the idle so the mixture can be adjusted. Turn the mixture screw in (clockwise) until the engine starts to stumble. Once this happens, turn the mixture screw out (counter clockwise) until you reach max RPM. Set the ignition timing and re-adjust the idle.

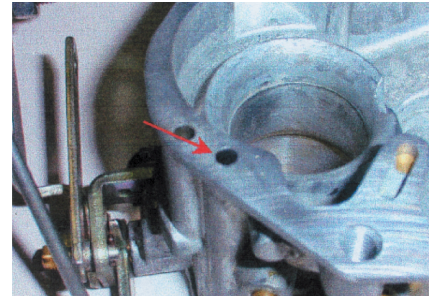


Figure 3

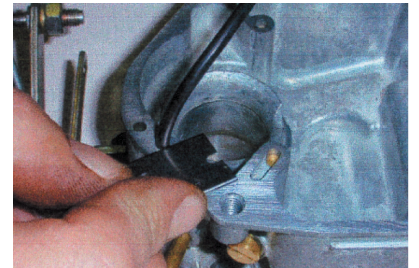


Figure 4

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Overall, how would you rate the quality of this set of instructions? (please circle one):

Poor		Fair		Good		Very Good		Excellent	
1	2	3	4	5	6	7	8	9	10

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THANK YOU!

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