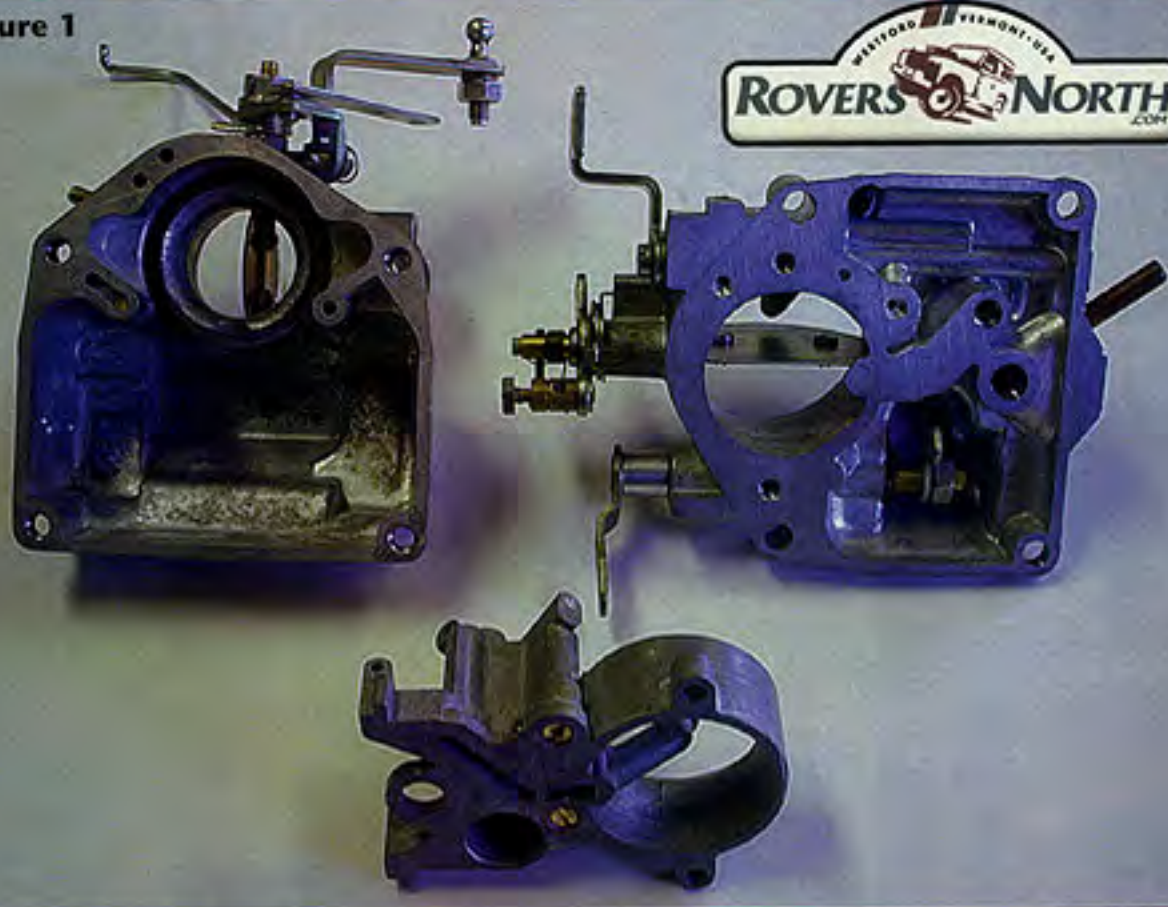


Figure 1



Four-cylinder petrol engines

Sorting out a worn Zenith carburettor

Figure 2



The Zenith 36IV carburettor is probably the most common carburettor 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 warpage. 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.

The good news is that this problem can be resolved in about an hour using a sheet of glass, some fine grit (160-180) wet-or-dry sandpaper, and penetrating oil.

First, remove the carburettor. Drain the remaining petrol, 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.

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.

Now you are ready to lap the top, bottom and emulsion block mating surfaces (see Figure 1). Lay the sandpaper on the glass and spray with penetrating oil. Take one of the carburettor plates with the mating surface down, and sand it in a circular motion (see Figure 2). Do this until the surface is flat and free of any defects or warpage. 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 air ports is blocked.

Inspect the carburettor base for a redundant vacuum port (see Figure 3). This port is blanked off on the carburettor top but left open on the base. When the carburettor warps, the port is exposed and fuel is siphoned from the float chamber into the throttle opening. If this port is open on your



Figure 3



Figure 4

carburettor, plug it prior to assembly, using a piece of O-ring slightly larger than the hole (see Figure 4).

Once the pieces have been cleaned, and the vacuum port plugged (if required) the carburettor can be reassembled.

First install the throttle linkage and 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.

Once the carburettor has been 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 maximum RPM. Set the ignition timing and readjust the idle. ■