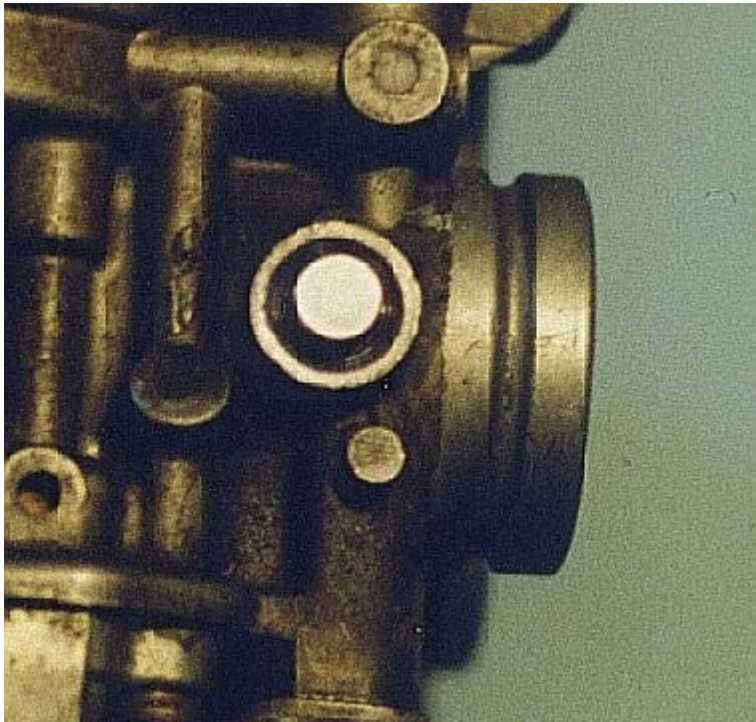


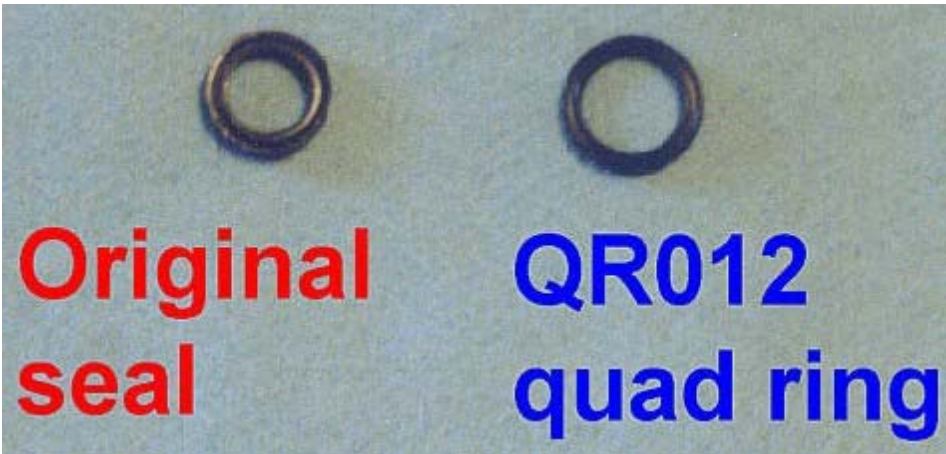
A Replacement for Hitachi Throttle Shaft Seals

By Mal Jarrett (Photos and captions by D. Verhey)

I have been trying to find a solution this carb seal problem, I think I may have found one. I have found a seal which is suitable for rotary or semi-rotary movement, just what we need for the carb throttle spindles. The seals description is a QRO12 Quad Ring. (Editor's note: we have since found the QR011 works better. See note below.) It looks like two O rings stuck together back to back. I have installed them with Teflon grease and they seal perfectly, they also maintain a very light throttle action. But I guess time will be the final test. The best thing about the seals were that they only cost A\$ 1.50 each, fantastic. They are available in Nitrile and Viton materials. I am sure you will be able to find the same seals in the US. But if you would like any further info please let me know. See ya. Mal in Australia.



Trying to fit the QR-012 in around the shaft leaves wrinkles in the ring. The QR-011 sits slightly loose in the body. It may be bedded in a smear of fuel proof silicone, but take care not to get any into the shaft bore!



The QR-012 is noticeably larger than the original Hitachi seal. A QR-011 is slightly smaller than the original.



In order to remove the shaft, the two screws securing the butterfly must first be removed. Put an index mark on the butterfly first, so it can be replaced in the same position. After removing the screws, rotate the shaft so the butterfly is horizontal before attempting to remove it. **Do not force** anything -- a perfect seal is important for smooth and consistent operation. It would be easy to scratch the aluminium body with the sharp edge of the steel butterfly. The screw holes in the butterfly are slotted. When installing, gently tighten the screws and check the seal by holding the carb up to a light. Adjust as necessary before the final tightening of the screws. Locktite might be a good idea, you wouldn't want one of those to get sucked into the engine!