

REAR AXLE HALF SHAFT OIL SEALS/LEAKS MORRIS EIGHT 1934-38

Suggestions from previous experience!

The following assumes that the rear hub bearings/seals and the differential bearings are in good condition, the hub and shaft splines are not worn/loose and that the axle contains the correct SAE 140 EP oil up to a level slightly below the full mark on the dipstick.

N.B. Oil from the axle case does not lubricate the wheel bearing on these axles. If oil/grease is getting through from the bearing it simply may have been over lubricated through the nipple.

To avoid lubricant being forced past the hub bearing seals do not apply more than two strokes of the grease/oil gun to the hub nipple every 1000 miles.

To renew a half shaft oil seal.

- 01) Jack up one end of axle only to tilt axle oil away from seal, remove wheel and support car with an axle stand
- 02) Slacken off adjusters, remove drum, clean off oil from drum, backplate, brake components and wheel. Replace contaminated linings as necessary. Cover brake shoes to prevent soiling
- 03) NB If oil is leaking through hub/spline joint, have a replacement half shaft available**
- 04) Separate half shaft flange from hub flange. This is easier if you carefully insert the two brake drum screws into the 'blind' threaded holes and tighten them
- 05) Withdraw halfshaft and remove old oil seal and hub flange gasket
- 06) Thoroughly remove all debris, clean and degrease hub flange and inner face of axle tube to a depth of about three inches
- 07) Roughen surface of axle tube eg with emery ,and degrease again with solvent thinner
- 08) Fit a new gasket to hub flange using sealing compound
- 09) Clean half shaft flange of debris and dirt, and degrease
- 10) Carefully check half shaft for sharp edges and deburr with a fine file, particularly the splined end and the area where seal will run when assembled
- 11) Check HANDING of new seal, roughen its outer surface with emery or wet/dry and degrease as necessary. **RH 'thread' spiral to RH of car and vice versa.**
- 12) Generously smear inside of axle tube and outside of seal with Super Epoxy two part adhesive, and slide seal into position such that it will coincide with the 'polished' area on half shaft where old seal made contact
- 13) As soon as the adhesive is hard enough to stop movement, VERY CAREFULLY slide in half shaft ensuring that seal does not move. Slide it fully home over wheel studs and turn to engage with the splines at the differential
- 14) LEAVE UNTIL THE ADHESIVE IS AT FULL STRENGTH
- 15) After sufficient time has elapsed, partially withdraw half shaft, lightly oil halfshaft and oil seal, apply sealing compound to outer face of hub flange gasket and slide half shaft/flange back over wheel studs ensuring that the threaded holes in half shaft flange are clear of compound and abut the face of hub flange, and that the slightly larger clearance holes in half shaft flange line up with the threaded holes (that receive brake drum screws) in hub flange
- 16) Remove protection from brake shoes, refit brake drum and screws, adjust brake shoes, fit wheel and lower car

Notes

Personally I prefer the plastic seals glued with Super Epoxy adhesive, even though the adhesive may be more difficult to remove when further replacement is needed. I have found that cork seals tend to stay glued, but they sometimes disintegrate and fail, whereas the plastic ones come unglued but stay in one piece. Evostik type adhesive might be suitable for cork seals, but is definitely unsuitable for the plastic ones.

It is worth remembering that the lubrication of the wheel bearings is topped up via the exposed nipple under the hub cap; the axle oil is (or should be!) entirely separate on these axles.

Finally.....reverse the car as little as possible! Once again we have scroll oil retention which only works in one direction...forwards!

BOB BRYAN 2005

bobbryan@waitrose.com