

## Product Information – Hydraulic O-Rings & Seal Kits

### Applicable to:

All Rolls-Royce & Bentley models with RR363 Brake Fluid systems including Silver Shadow, Silver Shadow II, T1, T2, Corniche & Camargue (to 50001)

**Related Part Numbers:** RH2435, RH2436, RH2438, RH2619, UE36747 (SPC1957), UE32170 & UE35616

### Summary

In early 2018 IntroCar began investigating reported issues with leaking hydraulic units using RR363 brake fluid. Both Original Equipment and Aftermarket seal kits were seemingly shrinking causing leaks and failure.



### Independent Testing

Following extensive independent research, IntroCar was the first company to determine that low-grade EPDM compounds had been used in the commonly available O-rings in the marketplace. Over time the EPDM compound itself, used widely in many applications, had many of the noble elements of the compound removed or decreased in concentration (presumably to reduce cost), with the result that Rolls-Royce hydraulic fluid RR363 and other DOT3 & DOT4 hydraulic oils were able to substantially degrade the molecular bonds in the compound, causing chemical reactions which reduced the size and structural integrity of the product. Engine heat exacerbated this problem, which was experienced by users in the form of leaks from various hydraulic components, which tended to recur after replacement of the seals with products of a similar low standard chemical construction.

With the standard EPDM material no longer fit for purpose, IntroCar began the process of developing a certified high-ENB ethylene propylene diene monomer (EPDM) compound, selected following consultation with a leading laboratory and testing under controlled conditions. Testing included taking measurements, submerging o-rings in RR363, then heating for a hundred hours at 125°C before examining for changes in size and structural integrity.

These high ENB EPDM O-rings were especially tooled for the *Prestige Parts*® range, using chrome plated moulds required when forming products at this compound composition.

In May 2018 IntroCar was proud to begin the release of a range of o-rings and associated seal kits, within the *Prestige Parts*® range, ensuring the elimination of shrinkage issues. As with all *Prestige Parts*® products, they are supplied with a 3-year, 30,000 mile warranty. This range has been successfully distributed worldwide, and now most specialist workshops demand a certified high-ENB EPDM seal for these applications.

### Conforming Parts

High-ENB O-rings may be distinguished by a single yellow dot, to avoid confusion with non-conforming parts. Such o-rings are also distributed under the registered *Prestige Parts*® brand and packaging.