



Fraser Gauge and Tool Company

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ARE YOU REALLY GETTING WHAT YOU EXPECT FROM YOUR CALIPER SUPPLIER?

With our continued pursuit of quality and product enhancement, we feel it important to continue to bring to the industry an awareness of what is and is not a remanufactured Disc Brake Caliper. Undoubtedly we have seen cosmetic improvements in both packaging & the external appearance of some recycled Calipers, however, when you dig a little deeper, the things that really matter don't seem to get quite as much attention.

The Disc Brake Caliper in this document is from a prominent supplier, and is sold in the market place as a remanufactured Caliper. Our findings, once again, prove that this is just not the case. Wearing parts have been continuously re-used throughout the Caliper, from Guide Pins and Bushings to internal mechanisms. Ineffective re-used parts have caused a serious air leak which would also allow the ingress of water. To compound these issues old revisions of components have been used. These components were upgraded many years ago by the manufacturer.

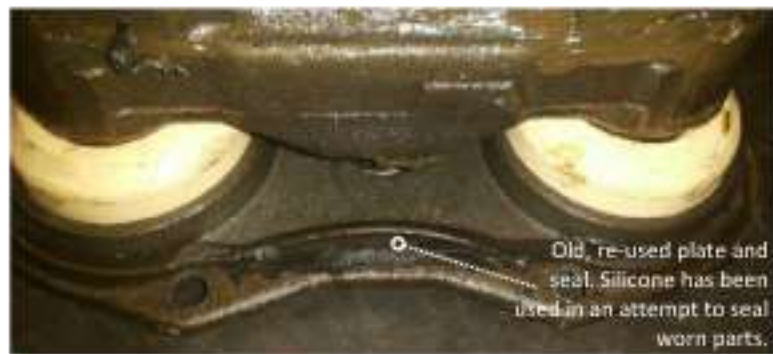


This Rubber/ Metal Bush is the old design revision that Knorr-Bremse replaced some time ago. Fraser Gauge upgrades the most recent.



Air Leak present due to unsuitable, old, re-used parts as seen below.

Upon initial inspection a significant air leak was detected. The Steel Plate had been re-used. The Seal fitted to the Steel Plate was also re-used, and an attempt had been made to use a Silicone Sealant to seal the Steel Cover to the main Caliper Casting as seen below. This was unsuccessful, creating this leak, which, when fitted to a vehicle, would result in the ingress of water & therefore, the premature failure of the Caliper.



Old, re-used plate and seal. Silicone has been used in an attempt to seal worn parts.

Fraser Gauge always uses NEW Steel Plates & Seals, and tests for air leaks.





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After the initial inspection a Fraser Gauge Engineer opened the Caliper to inspect the internal parts. We found inside that nearly all of the internal wearing parts had been re-used and were in poor condition. We have highlighted some of these major parts below.



The Lever Bearing was re-used. This is a wearing part.



The Needle Rollers & Shells had been re-used. The Needle Rollers especially are a wearing part.



Evidence of previous use and score marks present where an attempt has been made to polish away.

The large Guide Pin Bush was an Original Knorr-Bremse Bushing had been re-used. An attempt had been made to "Polish" this Bush. This is a wearing Part. Fraser Gauge has always discarded the Old Bushings, and replaced with NEW. The Large Guide Pin was re-used. This is a wearing Part. Fraser Gauge have always supplied NEW Guide Pins.



Signs of heavy corrosion present.



Signs of wear present

You can check for re-used Guide Pins and Bushes yourself by simply removing the large Guide Pin from the Caliper bore and wiping away any grease surrounding it. If you can see wear marks, corrosion or other signs of damage similar to what can be seen in the pictures above then these parts have been re-used. If this corner has been cut then it is most likely that other wearing parts have also been re-used. Parts such as these are something that you should be getting brand new AS STANDARD when buying a REMANUFACTURED Disc Brake Caliper.

New Needle Rollers & Shells, new Lever Bearings and new Guide Pins & Bushes EVERYTIME!