Ultimate sealing performance

New innovative seal for hub bearing unit

A low friction hub bearing unit seal combining increased sealing performance and 50%* less friction.

Seals are and will remain the main HBU (hub bearing unit) performance differentiator. Customer specifications are more and more challenging in terms of friction and seal-ability requirements. New seal edge design needs to be developed to enable the right performance of SKF HBUs.

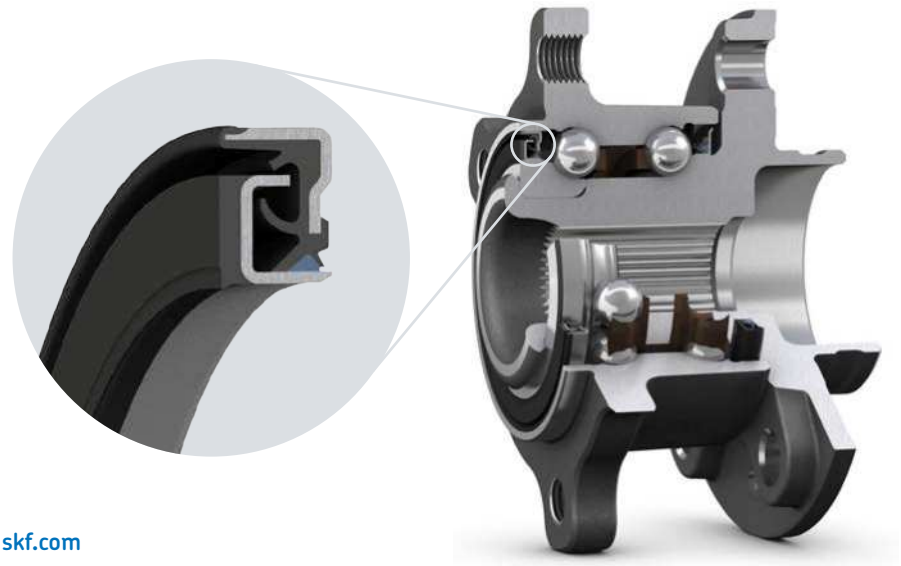
The solution is an SKF in-house developed cassette seal with an ABS encoder for the inboard position of an HBU. The sealing function is provided by a combination of an optimized labyrinth and radial lips. The labyrinth together with the first non-contacting active lip limit, collect and redirect the contamination flow away from the main radial lip. The improved design of the radial lip provides optimum interference and contact pressure distribution while enabling sealing in static conditions. And being less exposed to contamination, it allows for outstanding sealing functionality to meet application requirements and validation tests. With only one contacting sealing lip and a specifically selected grease, the friction of the seal is significantly reduced.

Features

- An external active radial lip limiting the amount of contamination arriving into the seal and acting upon bearing deformations
- Optimized labyrinth design to collect contaminants before reaching the main contacting lip.
- A radial lip with optimized interference and contact pressure distribution

Benefits

- Seal fitted for the Inboard position of of an HBU, including the ABS encoder
- Outstanding sealing performance:
  - performance exceeds all customers requirement of 0.6% of water in grease
- Outstanding friction performance:
  - friction reduction of 50% versus current SKF High Perfomance Seal (HiPer seal)



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