NSK

HI-TF SPHERICAL ROLLER BEARINGS WITH REMOVABLE SEAL

Durability and reliability are of paramount importance for bearings used in mining and quarrying conveyor applications, where failure can impact productivity of the entire operation. For the arduous and highly contaminated operating conditions that typically prevail, NSK has developed our spherical roller bearing with detachable seal. Combining our Hi-TF material technology with an advanced and easy-to-install seal, NSK has delivered a high capacity and high performing solution to contaminant-related bearing failures in conveyor applications.

PROVEN BENEFITS

- NSK Hi-TF long life steel delivers dramatically longer service life in contaminated operating environments
- High-performance seal design, including characteristics to compensate for bearing misalignment
- Removable seal permits measurement of internal clearance during installation
- Easy, bolt-fastened installation of seal
- Dimensionally interchangeable with conventional spherical roller bearings

CONDITIONS

CO CONTAMINATION

HL HIGH LOADS

LU LUBRICATION STRESS

APPLICATIONS

- Mining and Quarrying
- Cement
- Conveyors

STAY IN MOTION. STAY IN CONTROL.

HI-TF SPHERICAL ROLLER BEARINGS WITH REMOVABLE SEAL

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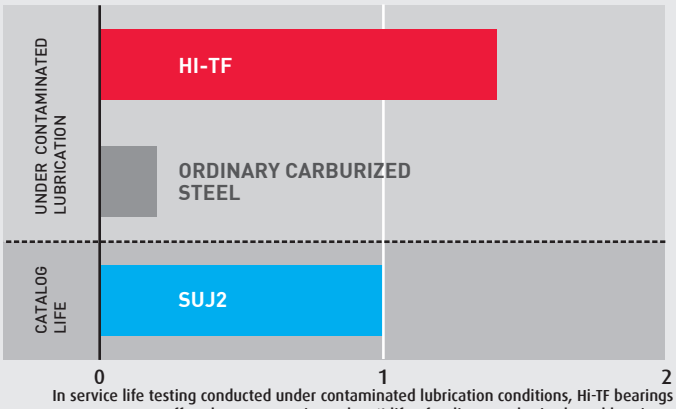
DESIGN FEATURES

- Special design spherical roller bearing with detachable seal
- Manufactured with Hi-TF long life steel
- Dimensionally interchangeable to standard designs
- Removable seal holder locates on bearing inner ring with easy, bolt-fastened installation to bearing outer ring
- Integral garter spring to ensure high sealing performance with ability to compensate for bearing misalignment
- Bearing is equipped with a heavy-duty precision machined brass cage
- Contoured cage pockets optimize roller guidance and lubricant distribution
- With outer ring lubrication groove and holes
- For spherical roller bearing dimensional series 222 and 231

HI-TF LONG LIFE STEEL

- Designed to maximize service life under contaminated environments where bearings are prone to surface-originating flaking
- Advanced material composition containing appropriate levels of chrome for increased hardness
- Innovative and patented heat treatment technology optimizes retained austenite and formation of finer carbide and carbonitride particles
- Significantly outperforms standard bearing steel in seizure resistance, rate of wear and service life

FIG. 1 - COMPARISON OF SERVICE LIFE



In service life testing conducted under contaminated lubrication conditions, Hi-TF bearings offered over seven times the L^{10} life of ordinary carburized steel bearings.