Transmission Bearings - Low-Friction TM-Seal

NSK’s newly developed low-friction seal for transmission bearings reduce the seal friction by 50% in comparison to the old TM-seal design (10% friction reduction on the complete bearing). NSK fitted bearings with TM-seals are used inside transmissions to inhibit the ingress of gear dust and other contaminants.

Product Features

- The seal friction was reduced by narrowing the seal lip by 10% and lengthening it by 70%, compared to conventional bearings
- The seal lip shape was improved based on computer analysis; the new shape improves lip-following and stabilises the contact pressure along the edge.

Benefits

- Seal friction reduced by up to 50% compared to the old TM-seal design and total bearing friction reduction of around 10%.
- Same durability as the replaced TM-bearings by preventing the ingress of contaminants to the transmission oil in the bearing. The bearing life is improved by 5 times in comparison to open bearings.

Condition Description

- Corrosive Environment
- Low Friction

Industries

- Automotive Production

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