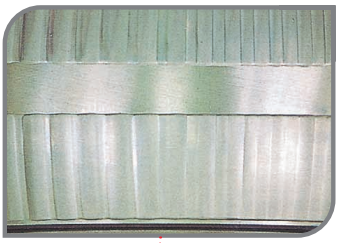
NSK

Think NSK.

Bearing Damage and Countermeasures
WEAR

Damage condition	Possible causes	Countermeasures
Wear is surface deterioration due to sliding friction at the surface of the raceway, rolling elements, roller end faces, rib face, cage pockets, etc.	• Entry of foreign matter • Progression from rust and electrical corrosion • Incorrect lubrication • Sliding due to irregular motion of rolling elements	• Improve the sealing mechanism • Clean the housing • Filter the lubrication oil thoroughly • Check the lubricant and lubrication method • Prevent misalignment



WEAR

Part: Outer ring of a spherical roller bearing

Symptom: Wear having a wavy or concave-and-convex texture on loaded side of raceway surface

Cause: Entry of foreign matter under repeated vibration while stationary

WEAR

Part: Tapered rollers of a double-row tapered roller bearing

Symptom: Stepped wear on the roller end face

Cause: Fretting progression due to excessive load while stationary

WEAR

Part: Inner ring of a double-row tapered roller bearing

Symptom: Fretting wear of raceway and stepped wear on the rib face

Cause: Fretting progression due to excessive load while stationary

WEAR

Part: Inner ring of a cylindrical roller bearing

Symptom: Many pits occur due to electrical corrosion; wave-shaped wear on raceway surface

Cause: Electrical corrosion