

MANUAL

Installation And Maintenance Manual

Mounting, dismounting, lubrication, storage and damage recognition for rolling bearings supplied by XINFEI INDUSTRY GROUP. Where a machine builder has issued its own procedure, that procedure takes priority over this document.

1. Before Mounting

Check the shaft and housing seats for size, roundness and surface damage. Clean both seats. Leave the bearing in its packaging until the moment it is fitted; the preservative is compatible with normal lubricants and does not need washing off.

2. Force Path

Mounting force must pass through the ring being fitted. Pushing on the inner ring when fitting to a shaft, and on the outer ring when fitting into a housing. Force passing through the rolling elements produces brinelling marks that appear later as noise and vibration.

3. Mounting Methods

Method	Suitable for	Notes
Cold with fitting sleeve	Small bearings, light interference	Never strike the ring directly
Induction heater or oil bath	Medium and large bearings	Keep below about 120 °C; never use a flame
Hydraulic oil injection	Large bearings, tapered seats	Use withdrawal sleeves where fitted

4. Setting And Lubrication

Set clearance or preload as the machine drawing specifies. Fill the bearing cavity fully and the surrounding housing space about one third to one half. Packing a housing solid traps heat and raises operating temperature sharply. Turn the assembly by hand and listen before starting.

5. Storage

Store dry, at a stable temperature, away from vibration, with the factory wrapping intact. Store large bearings flat and fully supported. Rotate stock so the oldest is used first.

6. Reading Damage

Pattern	Likely cause
Even spalling in the load zone after long service	Normal fatigue at end of life
Evenly spaced dents at rolling element pitch	Impact during mounting or shock while stationary
Shallow polished or rust coloured marks at pitch	Vibration while stationary, false brinelling
Material transferred between roller and raceway	Skidding from insufficient load for the speed
Regular washboard marks, frosted appearance	Electrical current passing through the bearing
Damage at one end of the roller path	Misalignment or shaft deflection
Pitting and rust	Water ingress or condensation in storage