



Napoleon Engineering Services

Failure Analysis Request Form

Company _____ Address _____

Contact Person _____ Phone _____

E-mail _____

Make and Type of Equipment _____

Type of Drive Unit Used _____

Ring Rotation Inner Outer

Rotational Speed _____

Shaft Axis Vertical Horizontal

Magnitude of axial load _____

Magnitude of radial load _____

Bearing Mounting Orientation DB DF DT Single

Ambient Temperature _____

Bearing Operating Temperature _____

Machine Temperature _____

Product Temperature _____

Type of Environment Clean Wet Dusty

Lubrication Type _____ Amount _____ Replacement Frequency _____

Time bearing was in service _____

Reason removed from service _____

Previous failures and frequency _____

Please include any diagrams and prints of the equipment

Procedures for Failure Investigation during Disassembly

- Examine all hardware of the machine prior to disassembly.
- Make note of visual observations of the entire system.
- This is useful for examination of the bearing.
- Continue documentation during disassembly and removal of the bearing from the machine.
- It is important to have all information regarding the failure to ensure proper diagnosis.
- Extreme care should be taken during removal of the bearing to avoid additional damage, resulting in a skewed analysis.
- Note the bearing orientation with respect to shaft or housing shoulders, especially if the bearing is disassembled.
- Identify all loose components.
- If destructive means are required to remove the bearing, examine the areas carefully making sure not to destroy valuable evidence.
- Do not rotate the bearing after removal due to contamination.
- If water or corrosive solutions are present on the bearing, degrease, preserve, and box without rotating the bearing.

Packaging

- A bearing sent in for failure analysis should be wrapped in Kraft paper (or newspaper) and placed in a box or wooden crate with restraints to avoid movement within the structure.
- Reinforcement tape or straps should be used on the outside of the container to ensure safe shipment to NES.