

It has been identified by a British Drilling Association member that the pillow bearings on cable percussion drilling machines winches are still sometimes failing, and a recap on the reasons and possible resolutions for these failures is required.

The pillow bearing was identified as a weak point on the Dando 2500/3000 machine range several years ago. Strengthening or replacement was recommended, which many companies implemented. Where companies did not to complete the upgrades, they advised to conduct immediate inspections of the pillow bearings and housing and implement improvements to prevent future bearing failure.



Dando 2500



Dando 3000

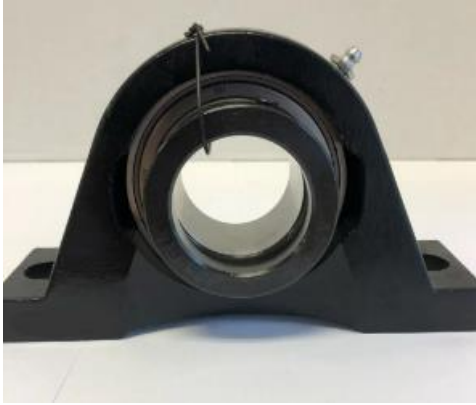


Dando 3000

Identified Causes of Failure:

- Original under-rating by the manufacturer
- Poor-quality replacements
- Inadequate maintenance
- Incorrect storage of wire ropes

Where improvements were made the risk of failure has been eliminated, this is best achieved by upgrading the bearing/housing to a milled or machined component instead of the original cast bearing, or by encasing the original bearing to prevent total failure and minimise the risk of injury. Additionally, securing bolts should be upgraded from 8.8-rated tensile strength to 10.9-rated bolts and be replaced if ever removed for maintenance reasons.



Milled pillow bearing



Encased original bearing



Encased original bearing

Recommended Actions:

1. **Check:** Immediately inspect the integrity of the bearings.
2. **Isolate:** If damage or excessive wear is identified, withdraw the machine from use.
3. **Repair or Replace:** Replace or encase the pillow bearings at the earliest opportunity.
4. **Reel Correctly:** Ensure wire rope is properly reeled, using the centre of the hoist drum for the heaviest loads. Never use the storage area to support heavy loads.

Companies /operators are urged to take these preventive steps promptly.

January 2025

The BDA is committed to Improving Standards in Health & Safety, Quality of Workmanship and Technical Proficiency for the Drilling Industry and its Clients.

www.britishdrillingassociation.co.uk

