

Installation and General Information about EDT Bearings

General installation

Plane bearings and ball bearings must be set up properly in order to get the maximum design life out of each. One installation advantage of a plane bearing over a ball bearing is that, with a plane bearing, there is greater opportunity to detect an out-of-alignment condition before the equipment is put into operation. For each style of bearing, this is addressed in the Installation Instructions (pages U-8 through U-17 of this manual). Always apply threadlocker to locking sleeve setscrews to insure that the locking sleeve will remain SECURELY in place.

New installations

Check new installations at start-up, and periodically for next couple hours.

There is a problem if there is noise or if bearing is too hot to touch. For Troubleshooting Guide see page U-27.

Then check monthly or quarterly that:

- Locking sleeve stays in place
- Polymer is wearing evenly

Dusty environments

In dusty and abrasive environments Forsheda V-ring seals work well to increase bearing life by reducing the exposure to contaminants. Your local EDT bearing distributor will be able to supply you with Forsheda seals. EDT's Bearing Glove® offers 360° protection around 3 kinds of mounted bearings. Refer to catalog or website section I-Misc Products and see page U-18 and 19 in this manual. Lubrication is never recommended for installations in dusty or abrasive environments because the lubricant will attract the dust and create an abrasive paste that will be more detrimental to the operation of the bearing.

Bearing failure is caused by heat

Plane bearings fail because heat is generated faster than it can be dissipated and exceeds the long term temperature tolerance of the material. Maximum bearing life and cost effectiveness can be achieved by keeping plane bearings cool (artificial means such as water, other processing fluid, cooler air, metal housing) OR by upgrading the bearing material. Bearing failure due to heat can occur from any number of conditions, including:

- Use of plastic set collar to control thrust loads
- High loads
- High speeds
- High ambient temperature
- Out of round or bent shafting
- Poor shaft surface finish
- Edge loading caused by misalignment
- Poor bearing design for application
- Inappropriate material selection for application
- Some Special Application Conditions exist (see pages U-20 through U-23) that may not be sufficiently addressed

A secondary reason for plane bearing failure could be a chemical attack on the material that deteriorated the physical properties of the bearing. This will manifest itself primarily in three ways:

- Discoloration in areas of chemical attack
- Softening of the material surface
- Swelling of material or other slight changes in shape or configuration.