Special Application Conditions

Vertical shafts

Vertical shaft applications for rolling element and plane bearings must be carefully considered. There can be problems if details are not anticipated or are overlooked. For rolling element bearings, a tapered roller or an angular contact product is specified on many occasions because of their thrust capabilities.

For plane bearings, the same details that must be known for rolling element bearings apply. On plane bearings, the thrust surface is provided by either the full face of the bearing (in the case of EDT's Poly-Round® bearings) or on the polymer flange (in the case of EDT's ALL-ROUND® series). With both of these bearing styles, the thrust surface and the flange of the Locking Sleeve must be ON TOP of all of the bearings (see Fig 23-1). One bearing is chosen to be the first installed and the flange of the Locking Sleeve will be in full contact with the bearing. For all subsequent bearings on the same shaft, the flange of the Locking Sleeves will also have full contact. After the required "freewheel spin" to test for any misalignment, the units can be locked down and the drives connected. To prevent problems that often occur on vertical shafting, a final safety precaution is required: A SPLIT set collar must be placed directly on top of each locking sleeve flange to insure the shaft remains securely in the bearing despite load and vibration that would loosen the set screws on the flange of the locking sleeve (see Fig 23-1).

It is necessary to use an appropriate threadlocker on ALL setscrews because the continuous expansion and contraction of metals, however slight, cause threaded products to vibrate loose.

For reversing vertical applications with an All-Round® bearing assembly, a polymer thrust washer and split locking collar will be required below one bearing assembly (see Fig 23-1).

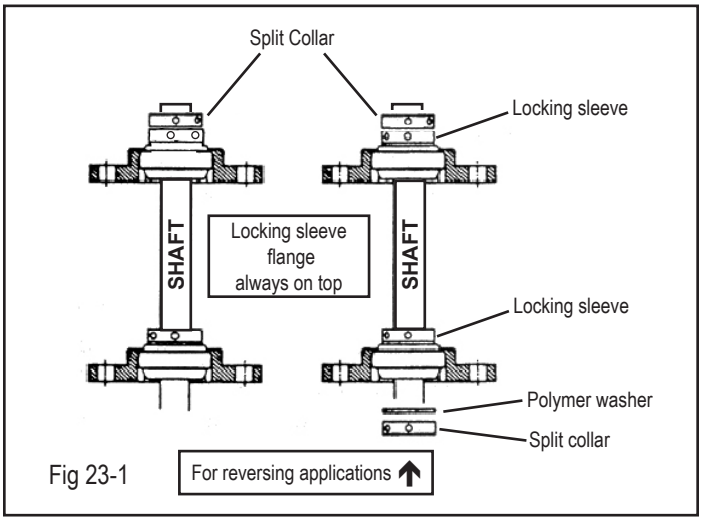

Fig 23-1