Special Application Conditions

Horizontal shafts

The most common mounting orientation for shafting is horizontal. Mainly because of gravity it is easier to manage this orientation. All bearings must generally do three things:

1. Maintain shaft centerline
2. Allow movement in some direction and speed
3. Control shaft movement laterally through the bearing.

When horizontal, item 3 is much more manageable and causes less maintenance headaches.

Mounted ball bearings will generally have an extended inner ring with some type of mechanism for “gripping” the shaft which could be setscrews at 90° or a squeeze- or cam- lock mechanism. This will control the lateral movement of the shaft.

Plane bearings offer their own special challenges. In some applications, shafts are held in place by another machinery-specific mechanism while in others, a separate device is required. Sometimes, a separate locking collar that limits the movement opposite the direction of the collar is used. But EDT uses a built-in flange on the locking sleeve to do that job. The fact that there are usually two bearings on a shaft allows the locking sleeve flange to be faced the opposite direction in order to control the shaft in both directions. On all horizontal installations, the location of the locking sleeve can be determined by the installer, but must either BOTH BE OUTSIDE OR BOTH BE INSIDE of the bearing (see Fig 22-1). Apply threadlocker when tightening the setscrews to insure that the locking sleeve will remain SECURELY in place.

An additional benefit of the locking sleeve is to control the surface finish of the journal under the bearing, which significantly extends the life of the bearing.

Whenever possible, it is best to avoid mounting pillow blocks in an upside down position. If the design does not allow an upright mounting, then a metal housing is recommended.

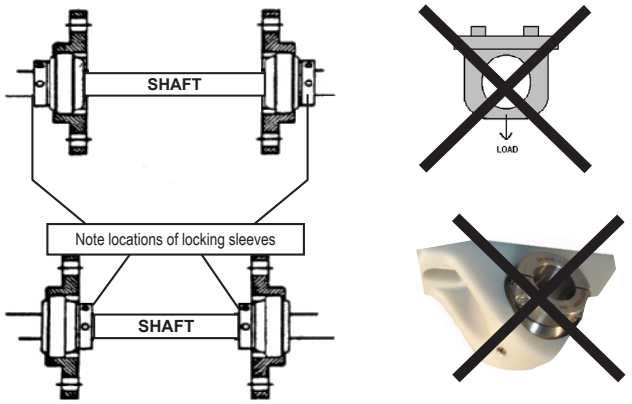

Fig 22-1

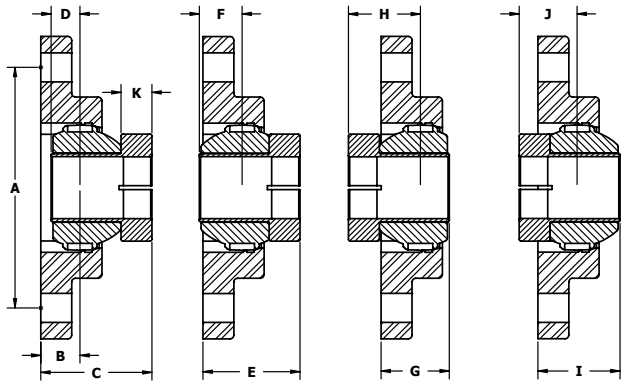

Fig 22-2