

The procedures below should be followed carefully. Failure to do so can result in bearing performance problems as well as serious person injury and or equipment damage.

Non Expansion/Held and Expansion/Free Bearing installation

In most applications where two or more bearings are used on the same shaft, one of the bearings should be of the Non Expansion/Held type to fix the shaft, while the other bearing should be of the Expansion/Free type to allow for mounting variables and normal expansion (heat growth) of the shaft. Ideally, the Expansion bearing should be located on the shaft end furthest from the chain or belt drive. Two Non Expansion/Held bearings may be used on short shaft applications if the shaft growth is minimal.

Step 1. Clean shaft and bore of bearing. The shaft should be straight, free of burrs and nicks, and correct size (see shaft tolerance table).

Recommended Shaft Tolerances

SHAFT SIZE (inches)	TOLERANCES (inches)
Up to 1-15/16"	Nominal to -0.0005"
2" to 4-15/16"	Nominal to -0.0010"

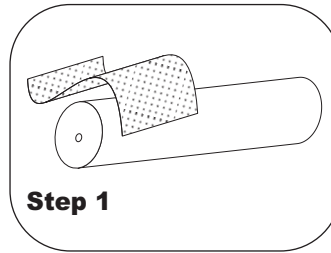
Step 2. Slide the bearing and housing onto the shaft and position them where the pillow block is to be secured. The FREE bearing must be centered in the housing to allow for axial shaft expansion. Move the bearing axially in the housing in both directions as far as it will go and determine the centered position. It will be necessary to remove the bearing load while moving the bearing.

Step 3. Clean the base of the pillow block and the support surface on which it rests. Be sure the supporting surface is flat. Bolt the pillow block securely to the support.

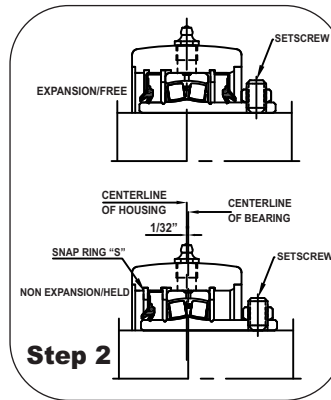
With flanged units, clean the flange mating surface and the support surface. Be sure the support surface is flat. Bolt the flange housing securely to the support.

Step 4. Tighten each set screw alternately with proper hex head socket wrench until they stop turning and the hex head socket wrench starts to spring. When both set screws are tightened on the shaft, the bearing is firmly seated.**

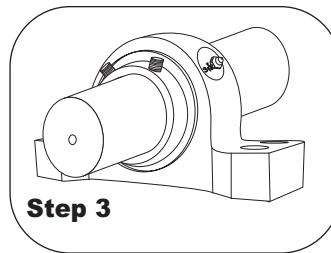
** CAUTION Proper tightness of set screws is necessary to assure adequate bearing service life and axial locating ability. To achieve the full permissible axial load carrying rating without an abutment shoulder, the set screw tightening torques listed in table below.



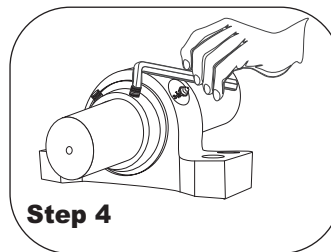
Step 1



Step 2



Step 3



Step 4

TO REMOVE THE BEARING UNIT

First, loosen the set screws and unbolt the housing from its support. The complete housing assembly can then be removed from the shaft. It will be necessary to relieve the bearing load while removing the unit.

LUBRICATION INSTRUCTIONS

All Power Drive unit roller bearing pillow blocks and flange housings are equipped with a grease fitting which allows the roller bearing to be relubricated in service. The standard bearing units are packed with lithium based No.2 grease with EP additives.

EXPANSION – FREE UNIT

- 1) All spherical roller units are shipped from the factory as Non-Expansion units unless other specified.
- 2) To convert Non-Expansion Units to Expansion units remove the snap ring "S" shown in Step 2

Tightening torque for set screw

SHAFT SIZE (inches)	Set Screw (no.) size	Torque (in.-lbs.)	Permissible axial load (lbs.)
1-7/16 to 2-3/16	(2) 3/8" - 24	250	515
2-7/16 to 3-1/2	(2) 1/2" - 20	620	900
3-11/16 to 4	(2) 5/8" - 18	1325	1200
4-7/16 to 4-15/16	(4) 5/8" - 18	1325	2400

Notice : All PowerDrive Spherical Roller Bearing Units are shipped from the factory as Non Expansion/Held Units but easily converted to Expansion/Free type - see instructions above.