



OPERATION & MAINTENANCE

SET-SCREW MOUNT BEARING

INSTALLATION INSTRUCTIONS

1. Clean the shaft and the bearing bore. The shaft should be straight, free of nicks, and burrs and correctly sized. Shaft tolerances should be as follows:

| Shaft Diameter | Recommended Tolerance* |
|-----------------|------------------------|
| 1/2" thru 2" | +0.0000", -0.0005" |
| 2-1/16" thru 4" | +0.0000", -0.0010" |
| 4-1/16" thru 5" | +0.0000", -0.0015" |

*For low speed applications, such as conveyor pulleys, commercial shaft tolerances may be used. For recommendations on a specific application, contact PPI.

2. Lubricate bearing bore and shaft with grease or oil to ease installation of bearing onto shaft. If a light tap or press fit is required, only press on the inner ring of the bearing, not on the housing or seals. Use a hardwood block or soft metal drift on the bearing inner ring if tapping is used.

3. Bolt the bearing to the support. Use shims to align the bearing so that the inner ring has equal clearance around the housing bore. Shims should cover the entire area of the bearing base.
4. Determine proper final shaft position. Tighten collar set screw to the recommended torque listed below:

| Set Screw Size (in) | Hex Size (in) | Torque (in-lb) | Torque (N-M) |
|---------------------|---------------|----------------|--------------|
| 1/4 | 1/8 | 90 | 10 |
| 5/16 | 5/32 | 185 | 21 |
| 3/8 | 3/16 | 325 | 37 |
| 7/16 | 7/32 | 460 | 52 |
| 1/2 | 1/4 | 680 | 77 |
| 5/8 | 5/16 | 1,350 | 153 |
| 3/4 | 3/8 | 2,350 | 266 |

5. Check rotation. If there is irregular resistance, rotation or vibrations, check bearing alignment and straightness of shafting and mounts. Recheck installation and make corrections as necessary.

LUBRICATION INSTRUCTIONS

Bearings are prelubricated with No. 2 lithium base grease. No additional lubrication is necessary before startup. Re-lubricate bearings with a high quality No. 2 lithium base grease that is compatible with original grease and suitable for precision bearing service. Extra protection may be required in environments with excessive moisture, dust, or corrosive vapor. In these cases it is recommended that the bearing contain as much grease as the bearing speed allows.

Generally, unusually high operating temperatures associated with excessive leakage of grease indicates too much grease. High temperatures with no grease showing at seals, particularly if bearing sounds noisy, usually indicate too little grease.

Higher Speed Operation – At higher operating speeds, excess grease may cause overheating. In these cases only experience can determine the proper amount of lubrication. At these higher speeds, small amounts of grease at frequent intervals are preferred to large amounts of grease at less frequent intervals.

Lubrication Guide:

PPI recommends a high quality No. 2 lithium base grease be used on conveyor pulley applications. Suggested grease intervals are as follows:

SUGGESTED GREASING INTERVALS

| Conditions | up to 120°F (up to 50°C) | 120° to 200°F (50° to 90° C) |
|------------------|-----------------------------|---------------------------------|
| Clean | 2 to 6 months | 1 to 2 months |
| Moderate | Monthly | 1 to 4 weeks |
| Dirty | Weekly | 1 to 7 days |
| Extremely Dirty | Daily | Every Shift |
| Turnover Pulleys | Daily to Weekly | Every Shift |

Check the grease for excessive oiliness or dirt, and adjust greasing frequency accordingly.

Special Operating Conditions: For chemical exposure, extreme shock loads or other special operating conditions contact PPI.



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