READ THESE INSTRUCTIONS CAREFULLY BEFORE STARTING INSTALLATION

Precision Pulley & Idler

OPERATION & MAINTENANCE

LONG-TERM STORAGE PROTECTION

OF MOUNTED SPHERICAL ROLLER BEARINGS

PROCEDURE FOR SHOP ASSEMBLED PILLOW BLOCKS

1. Properly mount the bearings on the shaft.
2. It is unnecessary to degrease the bearings if they are mounted immediately after unwrapping. If this is the case, proceed to step 5. If the bearings have been exposed for several hours between unwrapping and mounting, it will be necessary to remove the foreign matter by thoroughly washing out the bearings.
3. After being assured that the bearings are clean, swivel them open and apply a rust preventative solvent liberally to all surfaces. (Example: Ashland Oil Tectyl 511-M, or equivalent)
4. Swivel close the outer rings of the bearings into operating position and rotate them. For Spherical roller bearings, be careful not to use force in the event a roller end catches the corner of the outer ring sphere. A slight lifting of the roller will eliminate the catching of the roller end on the outer ring sphere.
5. Pack each bearing 100% full of grease, it is intended to lubricate the bearings during operation.
6. Inspect and clean the pillow block lower halves as needed. Set the lower halves of the pillow blocks at operating distance from each other and lower the shaft assembly with mounted bearings into pillow blocks.
7. Fill the cavity of the pillow blocks with the same grease as used in the bearings. Then mound up the grease around the bearing to simulate the shape of the inside of the upper half of the pillow block.
8. Inspect and clean the pillow block upper halves and the interfaces of the upper and lower halves as needed. Assemble the upper halves to the lower halves and bolt them together per recommended torque in the pillow block Operation & Maintenance manual.
9. Make sure that the grease fittings are free of contaminants, inject grease into the bearings, lower halves and upper halves through the fittings until grease emerges from the labyrinth seal(s). Rotate the shaft while injecting the grease to ensure even distribution. Apply a protective coating to the unpainted machined base surfaces of the pillow blocks. If the bearing housings are equipped with contact seals in addition to or without enclosure rings, it may be necessary to open plugs in the pillow block lower halves while injecting grease to avoid “blowing out” the seals. Continue greasing until grease emerges from the pipe plug holes. Replace the pipe plugs.
10. Because bearing seals are more effective while running, it is important to protect the bearing and housing from moisture collecting, condensing or falling on the housing and seals during storage.
11. The storage area must be free from dirt and vibration.
12. During storage all bearings shall be rotated in their housings once a month.

PROCEDURE AT INSTALLATION IN THE FIELD FOR PILLOW BLOCKS PREVIOUSLY SHOP ASSEMBLED

1. Immediately prior to operation, the quality of the grease in the pillow blocks should be verified. If there is evidence of contamination,change in the consistency of the grease or excessive oil bleed from the grease, all of the grease should be removed and the pillow blocks cleaned. Also, if different grease is to be used to lubricate the bearing during operation, it will be necessary to remove the storage grease and thoroughly clean the pillow blocks. This procedure is outlined in step 3.

2. If the grease is in good condition and the bearing is to be used in a high speed application, e.g. NOT on a conveyor pulley, enough grease should be removed to place the unit at the proper operating fill. Failure to remove excess grease in a high speed application may result in high operating temperatures and bearing lives that are shorter than either desired or calculated. For assistance with determining the appropriate grease fill, consult a PPI Applications Engineering.

3. If the grease has deteriorated in quality and needs to be removed, follow this procedure:
   a. Remove the pillow block upper halves.
   b. Remove as much grease as possible from the bearings and housings.
   c. Remove the residual grease remaining after step 3b. Use either hot oil under moderate pump pressure or a cold solvent air driven through an aspirator. The hot oil may be any mineral oil with a 100° F. viscosity of 400-800 SUS and the cold spray may be any generally used commercial solvents available. In either case, the drain plugs in the pillow block lower halves must be open and provisions must be made to remove all of the washing agents. Because of the possibility of contamination with lint and pieces, rags are not recommended. Blasts of clean dry air with adequate protection for the operators is preferable. If oil is to lubricate the bearings during operation instead of grease, it is important that all passageways are free of grease. This includes the oil drain-back holes at the bottoms of the labyrinth grooves as well as passageways to the oil sight glass gauges. Remember that failure to remove all traces of the washing agents can render the operating lubricants less effective.

PPI GREASING RECOMMENDATIONS

PPI recommends a high-quality, #2 Lithium Complex based mineral oil grease with a viscosity of 200 to 250. Mobilgrease XHP222 is suggested to be used on conveyor pulley applications, including the SSP. When used with an automatic greasing system, a #1 Lithium Complex grease is recommended, such as Mobilgrease XHP221 This is compatible with the initial grease fill. For ambient temperatures from -40°F to 0°F (-40°C to -18°C), it is recommended that a Lithium Complex based synthetic oil grease is used, such as Mobilith SHC220. Suggested greasing intervals during initial use 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 condition for excessive oiliness or dirt and adjust greasing frequency accordingly. For conditions and/or temperatures outside of this range, consult with a reputable lubricant supplier.

PPI fills conveyor pulley bearings at the factory 100%. This reduces the possibility of condensation in the housing and is the preferred method for larger, slower speed bearings such as those used on pulleys. Therefore, some grease may be purged out during the first run of the pulley. This is considered normal.

Precision Pulley & Idler cannot be held responsible for performance of individual batches of grease. Changes in lubricant specifications, performance and lubricant guarantees are the responsibility of the lubricant manufacturer.

Warranties shall not apply to any product that has been subject to misuse, misapplication, neglect (including but not limited to improper maintenance and storage), accident, improper installation, modification (including but not limited to use of unauthorized parts or attachments) adjustment, repair, or lubrication. Misuse also includes, without implied limitation, deterioration in the product or part caused by chemical action, wear caused by the presence of abrasive materials, and the improper lubrication. Identifiable items manufactured by others but installed in or affixed to our products are not warranted by us, but bear only those warranties, express or implied, given by the manufacturer of that item, if any.

Responsibility for system design to ensure proper use and application of Precision Pulley & Idler products within their published specifications and ratings rest solely with the customer. This includes without implied limitation analysis of loads created by vibrations within the entire system regardless of how induced.

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