PT Select™

PT Select™ Solid Housed Mounted Roller Bearings Installation Instructions

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FORM
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⚠ WARNING Indicates a hazard which, if not avoided, could result in serious injury or death.

NOTICE Indicates information considered important, but not hazard-related (e.g. messages relating to property damage).

GENERAL SAFETY INSTRUCTIONS

⚠ WARNING

These instructions should be read entirely and followed carefully before attempting to install or remove Regal Rexnord Roller Bearings. Failure to do so can result in improper installation which could cause bearing performance problems as well as serious personal injury.

BEARING MOUNTING PROCEDURE

ALL UNITS

1. Inspect shaft size. (See Shaft Tolerance **Table 1** below.) Shaft must be to correct size. Clean shaft and mounting surface as needed.
2. Position bearings on the shaft, applying all driving pressure to the face of the inner ring. Do NOT strike or exert pressure on housing or seals.
3. Align the bearing housing to its mounting base. Where shimming is required, use full shims across the housing base, not just at the bolt holes.
4. Position and loosely bolt housing to mounting base. SAE Grade 5 bolts are recommended.
5. Lock bearing to the shaft. If one unit is an expansion type, lock the fixed bearing first. Tighten the collar set screws on the bearing to the proper tightening torque. (See Set Screw Torque **Table 2.**) Alternate torquing the screws to prevent unequal loading.
6. Fully tighten down housing bolts.
7. Rotate the shaft a few revolutions to locate remaining bearings position on the shaft.

Table 1 — Shaft Tolerance

Shaft Size (in)	Commercial Shaft Tolerance*(Cold Finished Steel, Low Carbon)	Recommended Shaft Tolerance for Severe Loading or High Speed*
1 7/16 - 1 15/16	+.000 to -.003"	+.0000 to -.0005"
2 3/16 - 3 15/16	+.000 to -.004"	+.0000 to -.0010"
4 7/16	+.000 to -.005"	+.0000 to -.0015"

* Recommended shaft tolerances are generally satisfactory for loads up to 7% of C & shaft speeds below 50% of speed ratings (see load & speed ratings in catalog). High load applications will require a press fit to the shaft.

Table 2 — Set Screw Torque

Set Screw Size (in)	Shaft Size (in)	Tightening Torque (in-lbs / N-m)	Axial Load Capacity (lbs)
3/8	1 7/16 - 1 15/16	325 / 36.7	650
7/16	2 3/16	460 / 52.0	825
1/2	2 7/16 - 3 1/2	680 / 76.8	990
5/8	3 15/16 - 4 7/16	1350 / 152.5	1320

ADDITIONAL INSTALLATION COMMENTS

1. Position housings for accessibility of grease fittings.
2. Spot drill or mill flats on shaft for increased holding power of set screws or ease of removal.
3. When an eccentric load condition exists, position set screws directly opposite from eccentric weight.
4. Shaft shoulders are recommended to support vertical shafts and high thrust loads. The shoulder diameter should not exceed the outside diameter of the inner ring.
5. When pillow blocks are mounted on an inclined plane or the work force is parallel with the base, either lateral bolts or welded stop blocks should be used to prevent shifting.
6. Avoid direct hammer blows to the bearing and its components by using a soft drift or block.
7. If an Allen wrench is used as a torque wrench, place a length of pipe over the long end and pull until the wrench begins to twist.

LUBRICATION INFORMATION

Standard bearings come prelubricated from the factory with Mobil™** Ronex™** MP Grease. Mobil Ronex MP is an NLGI Grade 2 EP (extreme pressure) grease with a lithium complex thickener. It can be used for high loads and in some cases at temperatures as low as -40°F or as high as +225°F. For high speeds, other special service conditions, or for inquires on other acceptable greases, please consult your local Regal Rexnord representative or the Regal Rexnord Bearing Engineering Department. Oil lubrication is not recommended.

RELUBRICATION

Bearings should be relubricated at regular intervals. The frequency and amount of lubricant will be determined by the type of service. General guidelines for relubrication frequency and amount are based upon average application conditions. (See Lubrication **Table 3** on page 2.) The presence of dirt, moisture or chemical fumes around the bearings requires more frequent lubrication.

At high temperatures, greases tend to degrade more rapidly and thus require fresh grease more frequently. In general, small amounts of grease added frequently provide better lubrication. At low temperatures, grease can solidify and thus low temperature grease is recommended. When equipment will not be in operation for some time, grease should be added to provide corrosion protection. This is particularly important for equipment exposed to severe weather.

** Mobil and Ronex are believed to be trademarks and/or trade names of Exxon Mobil Corporation and are not owned or controlled by Regal Rexnord™ Corporation or any of its affiliates.

Table 3 — Lubrication*

Shaft Size (in)	Grease Wt. Required (oz)	Recommended Number of Months Between Relubrication (Based on Operating Speed (rpm) & 24/7 Operation)				
		6 Months	4 Months	2 Months	1 Month	2 Weeks
1 7/16	0.4	1000	1550	2400	3800	5250
1 11/16	0.4	870	1350	2100	3300	4450
1 15/16	0.4	700	1100	1700	2700	4050
2 3/16	0.5	630	1000	1500	2400	3650
2 7/16 - 2 1/2	1.1	580	910	1400	2250	3300
2 11/16 - 2 15/16	1.2	460	730	1100	1800	2800
3 7/16 - 3 1/2	2.1	410	640	1000	1550	2400
3 15/16	2.9	350	550	850	1350	2050
4 7/16	3.9	300	470	740	1150	1850
		SHAFT SPEED IN RPM				

* Reduce lubrication intervals by half for vertical shaft applications.

AUTOMATIC LUBRICATION SYSTEMS

A variety of automatic relubrication systems are available for use with roller bearings. Key considerations are:

1. NLGI grade of grease used, consistent with system layout
2. An amount/frequency combination necessary to replenish the grease

MIXING OF GREASES

Mixing of any 2 greases should be checked with the lubricant manufacturer.

NOTICE: If the grease bases are different they should never be mixed.

END CAP INSTALLATION

1. End caps utilize a magnetic mechanism to latch on to the seal area of the bearing.
2. When installing on a clearance seal (C in part number), push cap on and tap with rubber mallet to ensure magnets are seated against seal.
3. When installing on a triple lip seal (T in part number), push the cap on and twist the cap, then tap with rubber mallet to ensure magnets are seated properly.

Table 4 — Cap Kit Part Numbers

Size Code	Shaft Size	Closed Cap
4	1-7/16"	B1086
5	1-11/16"	B1126
6	1-15/16"	B2006
7	2-3/16"	B2046
8	2-7/16"	B2086
	2-1/2"	
9	2-11/16"	B3006
	2-15/16"	
10	3-7/16"	B3086
	3-1/2"	
11	3-15/16"	B4006
12	4-7/16"	B4086

LIMITED WARRANTY – LIABILITY

A. IT IS EXPRESLY AGREED THAT THE FOLLOWING WARRANTY IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESSLY IMPLIED OF STATUTORY. INCLUDING THOSE OF **MERCHANTABILITY** AND FITNESS FOR A PATICULAR PURPOSE, AND OF ANY OTHER OBLIGATION OR LIABILITY ON OR PART OF ANY KIND OR NATURE WHATSOEVER.

No representative of ours has any authority to waive, alter, vary, or add to the terms hereof without prior approval in writing, to our customer, signed by an officer of our company. It is expressly agreed that the entire warranty given to the customer is embodied in this writing. This writing constitutes the final expression of the parties agreement with respect to warranties, and that it is a complete and exclusive statement of the terms of the warranty.

We warrant to our customers that all Products manufactured by us will be free from defects in material and workmanship at the time of shipment to our customer for a period of one (1) year from the date of shipment. All warranty claims must be submitted to us within ten days of discovery of defects within the warranty period, or shall be deemed waived. As to Products or parts thereof that are proven to have been defective at the time of shipment, and that were not damaged in shipment, the sole and exclusive remedy shall be repair or replacement of the defective parts or repayment of the proportionate purchase price for such Products or part, at our option. Replacement parts shall be shipped free of charge f.o.b. from our factory.

This warranty shall not apply to any Product which 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 reaction, wear caused by the presence of abrasive materials, and improper lubrication. Identifiable items manufactured by others but installed in or affixed to our Products are not warranted by use but, bear only those warranties, express or implied, given by the manufacturer of that item, if any. Responsibility for system design to insure proper use and application of Link-Belt® Products within their published specifications and ratings rests solely with customer. This includes without implied limitation analysis of loads created by torsional vibrations within the entire system regardless of how induced.

B. It is expressly agreed that our liability for any damage arising out of or related to this transaction, or the use of our Products, whether in contract or in tort, is limited to the repair or replacement of the Products, or the parts thereof by use, or to a refund of the proportionate purchase price. We will not be liable for any other injury, loss, damage, or expense, whether direct or consequential, including but not limited to use, income, profit, production, or increased cost of operation, or spoilage of or damage to material, arising in connection with the sale, installation, use of, inability to use, or the replacement of, or late delivery of, our Products.