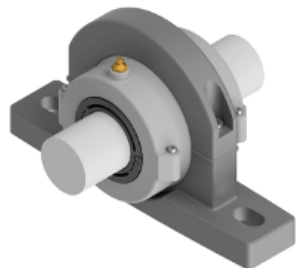


Stage 6:

Apply a thin film of grease to the spherical surfaces of pedestal cap and upper half of inner housing. The pedestal cap can now be fitted, ensuring the matching numbers are together. Fit the joint screws, tighten then release approximately half a turn. Rotate the shaft by hand or under power for a few revolutions before finally tightening the cap screws. This allows the housings to align the bearing with the shaft.



Check List:

- ▶ Clean bearing parts and shaft before installation
- ▶ Measure shaft to ensure it is within tolerance
- ▶ Keep matched component halves together
- ▶ Equalise joint gaps on both sides of inner race and clamp rings
- ▶ Inner race must be fully tightened
- ▶ Lubricate bearing during assembly NOT after
- ▶ Lubricate seals bores, labyrinths and housing spherical surfaces
- ▶ Tighten screws according to torque figures provided

Screw Sizes and Tightening Torques (Clamping ring screws are grade 12.9)

Bearing Size	40mm to 75mm (1.1/2" to 3")	80mm to 90mm (3.1/4" to 3.1/2")	100mm to 130mm (3.3/4" to 5")	135mm to 200mm (5.1/2" to 8")	220mm to 300mm (9" to 12")
Screw Size (mm)	M4	M5	M6	M8	M10
Key Size A/F (mm)	3	4	5	6	8
Torque (Nm)	4.5	8.5	15	35	70

Lubricant Type

Greases of NLGI No. 2 designation are recommended for most applications. For centrally pumped systems a No. 1 grease may be used for increased pumpability.

Greases with extreme pressure (EP) additives are recommended.

Grease with a lithium complex thickener is usually used for normal applications operating at temperatures between 0° and 80°C. When water resistance is required a grease with an aluminium complex thickener can be used. Some greases are immiscible with each other so if changing lubricants, the bearing unit must be solvent-cleaned of the old lubricant before using the new lubricant.

Please contact our Technical Department if lubrication advice is required.

Grease quantity for initial lubrication

The quantity of grease required for initial lubrication is dependent upon operating speed. For slow applications, the bearing can be packed full of grease, however at higher speeds excessive grease will cause the bearing to overheat. Lubricate the bearing surfaces with grease during assembly. The quantity of grease required to fill the housing can be determined according to the housing manufacturer's instructions.

Re-lubrication quantity should be around 2 – 3 grams given at the following interval:

Radial bearing with axial bearing (fixed or thrust arrangement): ▶ 100 operating hours

Radial bearing only (expansion arrangement): ▶ 400 operating hours



Enhanced Replacement Split Roller Bearing

Assembly and Lubrication Instructions

www.gbsplitbearings.co.uk
www.gbsplitbearings.com

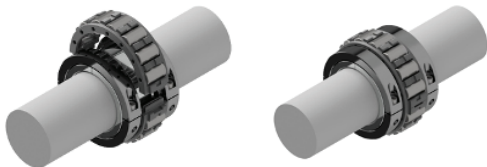
Preliminary Notes

Determine the bearing positions and where possible install the fixed bearing first, as this will locate the shaft axially. Wipe clean all bearing parts to remove preservative oil before fitting. All split components have marking numbers at the joint to identify matching halves. Lightly oil the shaft with thin oil. Other interfaces and threads should also be lubricated.



Stage 2:

Apply a film of grease to the roller path and bore of the cage before placing the cage around the race. The cage halves do not have matching numbers, instead they have a male / female tenon. Push together with firm pressure until the joints lock. Rotate the cage to assemble the second joint.



Stage 1:

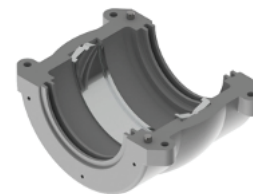
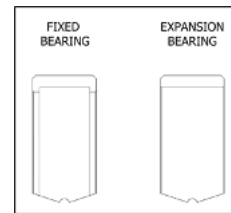
Clean and inspect the shaft at the bearing seating, ensuring it is within the correct tolerance. When the two halves of the inner race are assembled around the shaft there should be a gap at each joint. This feature ensures the race is gripped to the shaft securely by the clamp ring halves. Maintain even joint gaps on the inner race and clamp rings. Soft packing can be used to equalise the inner race joint gaps. Fit the clamp rings with their joints approximately 90° to the inner race joints. Progressively tighten the clamp ring joint screws keeping all gaps equalised. With a soft faced hammer, tap the clamp ring halves to seat in their grooves. Finally, tighten the joint screws to the torque figure indicated in the provided table.

For expansion bearings, the inner race can be offset according to the amount of shaft thermal expansion, so that when operating temperature is reached, the rollers will run central to the outer race. When fitted, re-check the inner race and clamp ring joint gaps are equal, and the race is correctly positioned axially.



Stage 3:

The fixed bearing locates the shaft by axially positioning the rollers between lips on the outer race, and corresponding locating faces on the clamp ringss



Stage 4:

Apply lubricant to the inside surface of the housing, covering the fitted races. Coat the assembled cages & rollers on the inner race and add some grease to the labyrinths of the seals or cartridge end bores.

Note: Lubricate the GB Split bearing surfaces with grease during assembly. The quantity of grease to be used to fill the housing can be determined according to the housing manufacturer's instructions.

Stage 5:

With the pedestal base located in position, place the lower half of the inner housing on top of the shaft. Lubricate the spherical surfaces of pedestal and inner housing. Align the two spherical surfaces, ensure the labyrinth seals (where fitted) mate with their corresponding grooves and rotate the housing around the shaft into the pedestal base and both joint faces are aligned. Place the upper half of the inner housing on top of the shaft, lower gently into position, then fit and progressively tighten the housing joint screws.

Shaft supports or jacks can now be removed.

The lipped outer races of fixed bearings should be installed in cartridge housings with side locating rods and screws, in accordance with housing manufacturer's instructions

Prime the small radial groove of the housing with grease. Take the radial outer race halves, the upper half is identifiable by the radial lubrication holes and must be fitted in the housing top half which has the lubrication nipple. Push the race halves into the seating grooves ensuring match numbers are adjacent. The race joints will protrude slightly beyond the housing joints. Protect these faces when handling the halves.

For fixed bearings, when the race halves are fitted, assemble the two halves of the cartridge together off the shaft and tighten the joint screws. Fully tighten the side screws before separating the cartridge halves.