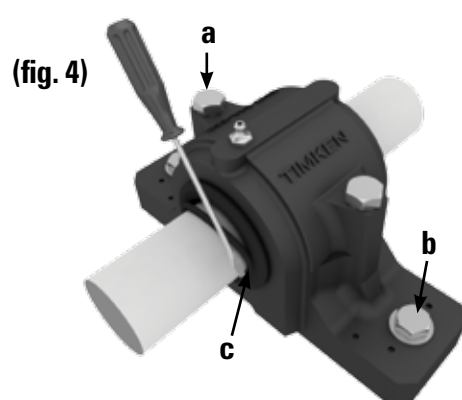
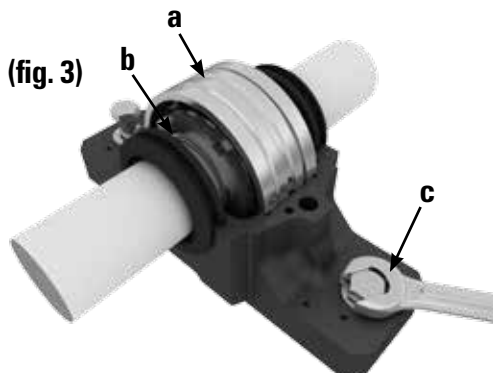
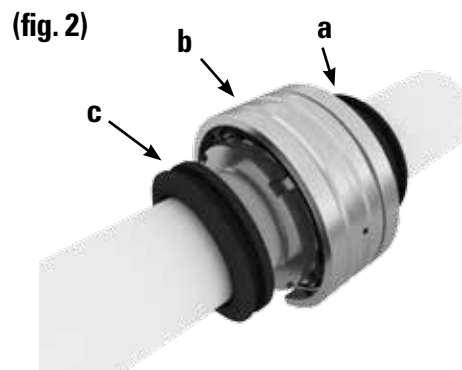
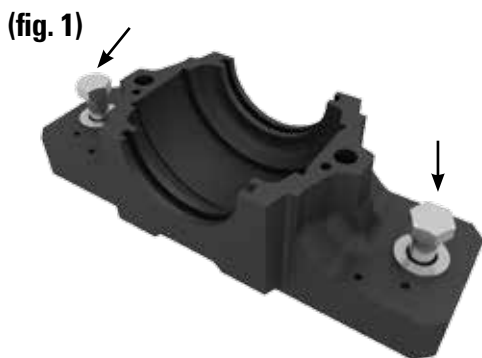


**Prior to starting installation, please read the following instructions. Contact a local Timken engineer with any questions.**

1. Clean the work area. Check the dimensional and form accuracy of the shaft seat. **Note:** The shaft roundness specification should be half of the O.D. tolerance. Ensure the shaft is free from burrs, gouges or other imperfections.
2. Ensure the surface roughness of the support surface  $Ra \leq 12.5 \mu\text{m}$ . Ensure flatness is within 0.08 mm (base) and 0.125 mm aggregate (housing base and mounting surface).
3. For bearings on adapter sleeves, determine the position of the housing relative to the adapter sleeve on the shaft.  
For bearings that have to be relubricated from the side, the grease nipple in the housing cap should always face away from the locknut on the adapter sleeve. Grease should be supplied at the end cover side where housings are mounted on the end of a shaft. Be sure to position the base correctly since the cap only fits in one direction.
4. Position the housing on the support surface. Fit the attachment bolts but do not tighten them (**fig. 1**).
5. Mount the labyrinth ring on the shaft (**fig. 2a**).
6. Mount the bearing on the shaft – either directly on a stepped shaft or using an adapter sleeve (**fig 2b**). Completely fill the bearing with grease. The remainder of the suggested grease quantity can be placed in the housing, equally distributed on each side of the bearing (See **grease fill**).
7. Mount the second labyrinth ring on the shaft in the correct position (**fig. 2c**). If the housing is to be used on the end of a shaft, omit the second labyrinth ring and insert an end cover in the housing base instead.
8. Install the shaft with bearing and labyrinth ring(s) in the housing base (**fig. 3a**).
9. Place one locating ring on each side of the bearing for locating bearing arrangements (**fig. 3b**).
10. Align the housing base. Use the vertical markings at the middle of the side faces and end faces of the housing base to help with this. Tighten the attachment bolts (**fig. 3c**).
11. Check the cap and base to see that they have the same identification. Install the cap onto the base (**fig. 4a**) and tighten the cap bolts to the torque specified in the table.
12. Fully tighten the attachment bolts in the housing base (**fig. 4b**). Suggested tightening torques are given in the table.
13. Insert the hollow O-ring cord of synthetic rubber in the grooves in the labyrinth rings. Use a screwdriver while turning the shaft, take care not to damage the seal (**fig. 4c**).



## Grease Fill

- For normal industrial applications, fill bearing void to 100 percent and housing void to 40-60 percent.
- For low speed applications (less than 20 rpm), fill bearing void to 100 percent and housing void to 60-100 percent.
- For high speed applications (above 60 percent of the bearings thermal speed rating), fill bearing void to 100 percent and housing void to 30-40 percent.

Contact a local Timken engineer with any questions.

## Additional reference for bearing mounting

Timken Industrial Maintenance Manual (Order No. 10213), Timken Spherical Roller Bearing (Order No. 10446) catalog pages 17-41 or [www.timken.com](http://www.timken.com).

Housing SNT	Table 1 • Cap bolts 8.8 • Tightening torque		Table 2 • Attachment bolts 8.8 • Tightening torque	
		Nm		Nm
505, 205	M10x40	50	M12	80
505-605-206-305	M10x40	50	M12	80
507-606, 207	M10x50	50	M12	80
508-607, 208-307	M10x50	50	M12	80
509, 209	M10x50	50	M12	80
510-60, 208-307	M10x55	50	M12	80
511-609, 211	M12x60	80	M16	200
512-610, 212	M12x60	80	M16	200
513-611, 213	M12x65	80	M16	200
515-612, 215	M12x65	80	M16	200
516-613, 216	M12x70	80	M20	385
517, 217	M12x80	80	M20	385
518-615, 218	M16x19	150	M20	385
519-616	M16x19	150	M20	385
520-617	M20x200	200	M24	665
522-619	M20x100	200	M24	665
524-620	M20x110	200	M24	665
526	M24x130	350	M24	665
528	M24x130	350	M30	1310
530	M24x130	350	M30	1310
532	M24x130	350	M30	1310

**⚠ WARNING Failure to observe the following warnings could create a risk of death or serious injury.**

Proper maintenance and handling practices are critical. Always follow installation instructions and maintain proper lubrication. Overheated bearings can ignite explosive atmospheres. Special care must be taken to properly select, install, maintain, and lubricate housed unit bearings that are used in or near atmospheres that may contain explosive levels of combustible gases or accumulations of dust such as from grain, coal, or other combustible materials. Consult your equipment designer or supplier for installation and maintenance instructions.

**⚠ CAUTION Failure to follow these cautions could create a risk of injury.**

If a hammer and bar are used for installation or removal of a part, use a mild steel bar (e.g., 1010 or 1020 grade). Mild steel bars are less likely to cause release of high speed fragments from the hammer or bar or the part being removed.

**CAUTION Failure to follow these cautions may result in property damage.**

Do not use damaged housed units. The use of a damaged housed unit can result in equipment damage and/or injury.

*This information is not intended to substitute for the specific recommendations of your equipment suppliers. Every reasonable effort has been made to ensure the accuracy of the information contained in this writing, but no liability is accepted for errors, omissions or for any other reason.*

# TIMKEN

The Timken team applies their know-how to improve the reliability and performance of machinery in diverse markets worldwide. The company designs, makes and markets high-performance steel as well as mechanical components, including bearings, gears, chain and related mechanical power transmission products and services.

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