Mounting and Lubrication Requirements for Slewing Rings:

1. Before mounting, remove all paint, grease and other foreign substances of both the structures and bearing and check that the finish and flatness of the mounting surfaces are acceptable. The allowable surface finish is 125 rms maximum and the flatness must not exceed the following in any 180° section: .005" (.13mm) for bearings up to 20 inch (50.8 cm) diameter, .006" (.15 mm) to 40 inch (101.6 cm) diameter and .007" (.18 mm) up to 60 inch (152.4 cm) diameter. The maximum out-of-flatness must not occur more than once in any 180° section.

2. The bearing support structures must be sufficiently rigid and free of distortion during operation to avoid uneven or localized loading on the bearing or the fasteners.

3. The non-heat treated zone (soft spot) on the bearing rings are identified by a filler plug on one ring and typically the letter ‘G’ stamped on the other ring. The rings shall be mounted such that the soft spots are located in the application’s most lightly loaded region.

4. The high point of the gear teeth, where the runout is a maximum, is typically identified with blue paint. This is the point where the backlash shall be set to the mating gear as follows: .006/.009" (.15/.23 mm) for 5/7 pitch, .007/.011" (.18/.28 mm) for 4/5 pitch, .008/.013" (.2/.33 mm) for 3.5 pitch, .009/.014" (.23/.36 mm) for 3 pitch, .011/.016" (.28/.41 mm) for 2.5 pitch and .013/.018" (.33/.46 mm) for 2 pitch.

5. Fastener design and performance is not the responsibility of Gear Products, Inc. (GPI). However, the GPI rating of the bearing assumes that the fasteners shall be grade 8 (w/ 120 ksi proof strength) or better and shall be used with flat, hardened washers. Fasteners shall be preloaded to 70% of the proof strength and periodically checked to be sure that this preload is maintained while in service. All fasteners must be accessible. Do not use a thread locker such as Loctite.

6. Welding on or near the slewing ring bearing is not permitted.

7. Although grease is typically installed at the factory, the bearing raceway must be lubricated before operation with an acid-free, non-resinous, water repellant, non-aging, extreme pressure grease recommended for bearings. Relubrication will be needed daily to monthly, depending on the severity of the application. Pump the grease while slowly rotating the bearing until the grease appears around the seal lips. Do not wipe away the ejected grease.

8. If the bearing has gear teeth, the gear teeth will require a different grease than the bearing raceway. Gear teeth are shipped from the factory dry. GPI recommends greases with a high lithium content and which are also recommended for exposed gear teeth by the lubricant manufacturer. Be sure to not mix greases as the grease used on the gear teeth must not be used in the bearing raceway. Relubricate the gear teeth when relubricating the raceway.