

SATURN BEARINGS

These instructions pertain to the bearings used on Saturn Load Banks. See Parts Legend Drawing for the specific bearing used for your unit. It is important that these instructions are read in their entirety before attempting installation and removal. The procedures indicated should be carefully followed. Failure to do so can result in improper installation which could cause bearing performance problems as well as serious personal injury.

Bearings In Bolt-On Housings (Units)

1. Check Area - Clean and organize bearing installation area, keep well lighted. Be sure mounting surfaces are clean and flat.
2. Check Shaft - Shaft should be within tolerance range shown in **Table #1**, clean and free of nicks and burrs. Mount bearing on unused section of shaft or repair/replace shafting as required.
3. Install Unit - Slide unit onto shaft. If it is difficult to mount bearing on shaft, use a piece of emery cloth to reduce any high spots on the shaft. Do not hammer on any component of the bearing.
4. Fasten Unit In Place - Install housing mounting bolts, check and align bearing and tighten mounting bolts to recommended fastener torques. Exercising extreme caution and safety, rotate shaft slowly to center bearing.
5. Skwezloc Inserts
 - a) Be sure that the Skwezloc® collar is fitted square and snug against the shoulder on the inner ring.
 - b) Torque the Skwezloc® collar cap screw to torque recommended in **Table #2**.
6. Monitor Installed Bearing* - After bearing has been run for several minutes, and again after several hours, check bearing for excessive noise or vibration. Shutdown machine and check housing temperature: typical applications operate at 100°F – 150°F (38°C – 66°C) (Similar feel to household hot tap water temperature). Tighten all locking devices after 500 hours or 3 months, whichever comes first.

TABLE #1 - SHAFTING

Shaft Diameter	Shaft Tolerance
2–3 3/16 in. (50–80 mm)	+0 to -0.0010 in. (+0 to -.25 mm)

TABLE #2 - SKWEZLOC® COLLAR TIGHTENING

English Screw Size	Hex Size	Torque	
		(in-lbs.)	(N-m)
#8-32	T-25	65 – 70	7 – 8
#10-24	T-27	90 – 100	10 – 11
1/4-20	T-30	220 – 240	25 – 27
5/16-18	T-45	450 – 495	51 – 56

Relubrication Instructions

Sealmaster® GoldPlex™-HP has been developed based on the performance characteristics of Sealmaster® brand bearings. Sealmaster® brand bearings are factory filled with GoldPlex™-HP and do not need to be greased upon initial installation. GoldPlex™-HP lithium complex base, petroleum oil, NLGI grade 2 consistency. If not using GoldPlex™-HP grease, **Table #3** is given as a very general recommendation for typical lithium or lithium complex, petroleum oil, NLGI#2 greases. Contact the grease supplier for a more specific lubrication schedule.

Relubricatable SealMaster® brand bearings are supplied with grease fittings or zerks for ease of lubrication with hand or automatic grease guns. Always wipe the fitting and grease nozzle clean. For safety stop rotating equipment. Add one half the recommended amount shown in **Table #4**. Start bearing, and run a few minutes. Stop bearing and add the second half of the recommended amount. A temperature rise, sometimes 30°F, after relubrication is normal. Bearing temperatures should not exceed 250°F (121°C). For any applications that are not in the ranges of the table, contact Sealmaster® for suffix modified bearings that can handle temperatures up to 400°F (204°C).

Note: The tables on this page state general lubrication recommendations based on our experience and are intended as suggested or starting points only. For best results, specific applications should be monitored regularly and lubrication intervals and amounts adjusted accordingly.

TABLE #3 - LUBRICATION SCHEDULE FOR SEALMASTER® GOLDPLEX™-HP

Contamination Level - Clean to Light	
Bearing Temperature	500 RPM to 1000 RPM
-50°F to -30°F	12-24 Months
-30°F to 120°F	12-24 Months
120°F to 180°F	6-12 Months
180°F to 250°F	3-6 Months
Contamination Level - Medium	
Bearing Temperature	500 RPM to 1000 RPM
-50°F to 120°F	1 Week - 1 Month
120°F to 250°F	Daily - 2 Weeks
Contamination Level - Heavy	
Bearing Temperature	500 RPM to 1000 RPM
-50°F to 250°F	Daily - 2 Weeks

TABLE #4 - RECOMMENDED RELUBRICATION GREASE CHARGE

Shaft Size (in.)	Oz.	Shaft Size	Grams
2 to 2 7/16	0.30	55-60	8.51

Compatibility of grease is critical, therefore, if not using Sealmaster® GoldPlex™-HP, consult your grease supplier to ensure compatibility. GoldPlex™-HP is a lithium complex base grease, petroleum oil, NLGI grade 2 consistency.

Application Assistance:

Please contact Application Engineering at:

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Sealmaster® brand ball bearings now incorporate a unique, color-coding system to help identify the type of grease in the bearings. Each relubricatable Sealmaster® brand bearing features colored fitting cap to help indicate the type of grease used in the individual bearings. Below is a list of the colored fitting caps and the type of grease they represent.

Yellow - Yellow grease fitting caps indicate that bearings are filled with Sealmaster® GoldPlex™-HP high performance mounted bearing grease.

Red - Red grease fitting caps indicate that bearings are filled with factory standard high-temperature grease. (Lithium complex base with synthetic hydrocarbon oil)

White - White grease fitting caps indicate that bearings are filled with factory standard good grade grease. (Aluminum complex with synthetic oil)

Black - Black grease fitting caps indicate that bearings are filled with a non-standard grease.