SPAW/SPW/SFCW Installation Instructions

The following is the recommended procedure for mounting the SPW, SPAW and SFCW 2200 series heavy duty bearing units.

- 1. Adjust the position of the sleeve so that the tapered part comes to about the center of the bearing. The sleeve should be positioned so that the nut is easily accessible (see Fig. 1).
- 2. The SPW/SPAW/SFCW bearing unit can be adapted to either the fixed or floating configuration. Units are supplied in the floating configuration unless otherwise specified upon ordering.



FIXED CONFIGURATION: Using appropriate size snap ring pliers, position the snap ring in the innermost groove of the housing.

Figure 1



FLOATING CONFIGURATION: Using appropriate size snap ring pliers, position the snap ring in the outermost groove of the housing.

3. Install the unit on the shaft by sliding the bearing onto the adapter sleeve. Adjust the entire assembly as needed until the final bearing location is achieved. For floating configuration, ensure the bearing is centered in the housing before performing final adjustments (as in Figure 2).

Use eye protection and follow appropriate safety practices at all times.

4. It is very important that positive contact is established between the shaft, adapter sleeve and the bearing. Tap the wide end of the adapter sleeve lightly over its entire circumference. A cylindrical sleeve may be placed against the inner ring of the bearing to ensure it remains centered for floating configuration (see Figure 3). Install the lock washer and hand tighten the locknut. Verify that positive contact is made by tapping the groove on the back side of the adapter sleeve. If the sleeve rotates, positive contact has not been established and step 4 will need to be repeated.



Relieving the weight of the shaft on the bearing will help achieve positive contact.

- 5. Tighten the locknut according to the table to the right. A hook spanner or a hammer and punch are commonly used.
- 6. Bend one of the tabs on the circumference of the lock washer into the nearest notch on the rim of the locknut. If no tabs line up, tighten the locknut slightly. The locknut should not be loosened in order to align the tab with a notch.
- 7. Reposition the housing and mount the unit securely to the machine.

Excessive misalignment can cause the bearing seals to become unseated. Seals can only be re-installed if unit has not been run for any length of time, if no contamination of the bearing has occurred, and if even pressure can be applied around the periphery of the seal to prevent bending.

Bearings come pre-lubricated with multi-purpose industrial bearing grease and require no lubrication upon initial installation.

For extremely contaminated environments, external covers are available.

REMOVAL INSTRUCTIONS

- 1. To remove the unit from the shaft, raise the bent lock washer tab, loosen the locknut two or three turns, then tap the nut over its entire circumference with a hammer and punch. Ensure sufficient threads remain engaged as to not damage them. Continue tapping until the adapter sleeve can be moved.
- 2. To remove the bearing insert from the housing, remove one of the snap rings and slide the bearing out.

Appropriate eye protection should be worn when handling snap rings.

GUIDELINES FOR MOUNTING*								
Shaft Diameter Range				Axial Displacement		Recommended	Hydraulic Pressure	
In	Inch		Bearing Number	Inch		Locknut Rotation	lbf/in ²	
over	incl.	Metric		min.	max.	Rotation	min.	max.
	1 ¹⁵ / ₁₆	50mm	MX-W22211EALLKW33C3	0.018	0.024	90°	1700	2250
1 ¹⁵ / ₁₆	2		MX-W22211EALLKW33C3	0.018	0.024	130° **	1700	2250
2	2 ³ /8	60mm	MX-W22213EALLKW33C3	0.018	0.024	90°	1750	2350
2 ³ /8	2 ¹ / ₂	65mm	MX-W22215EALLKW33C3	0.024	0.030	120°	1800	2250
2 ¹ / ₂	3	75mm	MX-W22217EALLKW33C3	0.028	0.035	150°	2050	2700
3	3 ¹ / ₂	90mm	MX-W22220EALLKW33C3	0.028	0.035	150°	2250	3000
3 ¹ / ₂	4	100mm	MX-W22222EALLKW33C3	0.030	0.043	180°	2650	3700
4	4 ¹ / ₄	110mm	MX-W22224EALLKW33C3	0.030	0.043	180°	2750	3850
4 ¹ / ₄	4 ¹ / ₂	115mm	MX-W22226EALLKW33C3	0.043	0.055	210°	3250	4500
4 ¹ / ₂	5	125mm	MX-W22228EALLKW33C3	0.043	0.055	210°	3300	4550
5	5 ¹ / ₂	140mm	MX-W22232EALLKW33C3	0.047	0.063	150° ***	3950	5250





Beyond Bearings

Training. Installation Support. Trouble-shooting. And more.



Technical Training Unit

On-site, mobile training unit offering specialized, hands-on instruction from NTN engineers



Product Training School

Three days of in-depth instruction from NTN engineers at headquarters (go.ntnamericas.com/trainingschool)



eKnowledge

WEB-BASED TRAINING PROGRAM

Six online product training modules covering different bearing types and nomenclature (www.ntnamericas.com/eknowledge)



NTN Bearing Finder

Customizable search tool featuring exhaustive data sets, comprehensive part interchanges and interactive CAD drawings (bearingfinder.ntnamericas.com)



Sign Up for NTN Insider

A monthly email from various NTN experts with tech tips, product information, and special announcements (ntnamericas.com/ntn-insider)

Ready to get rolling? Contact us today for full details at 1-800-323-2358 or eng@ntnamerica.com.

NTN

NTN BEARING CORPORATION OF AMERICA • 1600 E. Bishop Court • Mount Prospect, IL 60056-7604, U.S.A. Tel: 847-298-7500 • Fax: 847-294-1205 • www.ntnamericas.com

NTN is a registered trademark of NTN Corporation. Osaka, Japan