

Bearing Installation Instructions For CRES SS, CS and CZ

Power Transmission Solutions

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FORM

A WARNING

- · Read and follow all instructions carefully.
- Disconnect and lock-out power before installation and maintenance.
 Working on or near energized equipment can result in severe injury or death.
- Do not operate equipment without guards in place. Exposed equipment can result in severe injury or death.

A CAUTION

 Periodic inspections should be performed. Failure to perform proper maintenance can result in premature product failure and personal injury.



- Ensure shafting is clean and within spec. See Table below. Remove all burrs.
- Place back-side shield on shaft, if used. Drain slot must be face down.
- Place first bearing onto shaft. Do not hammer.
- Install bolts and stainless steel washers (if used). Tighten down housing mounting bolts.
- Repeat steps 2-4 for the second bearing but do not tighten down housing mounting bolts yet.
- 6 Align bearings and shaft. Shaft should be within ±2 degrees. Set screws on both bearings should face the same direction. Tighten mounting bolts.
- Bearing one set screw tightening directions: <u>Half</u> - Tighten set screw "A" to 1/2 the recommended torque in Table below. <u>Full</u>- Tighten set screw "B" to the full recommended torque in Table below.

Full - Tighten set screw "A" to the full recommended torque in Table.

- Repeat tightening of the set screws in step 7 for the second bearing. Set screws on both bearings should face the same direction.
- Optional closed end cap instructions: the polymer end cap snaps into the housing.
- The drain hole should be placed so it is facing down when the cap is installed.
- Press the cap into the housing until it snaps into the groove in the housing.
- Closed end cap assembly completed.
- Optional open end cap instructions: the polymer end cap snaps into the housing. The drain hole in the cap must face down.
- Slide the cap over the shaft. Make sure there is no contact between the shaft and the end cap.
- 15 Rotate bearing several times. Look, feel and listen for anything unusual.
- To remove cap, pry the cap off the housing using the pry tab on the top of the cap.

Shaft Tolerances						
Shaft Diameter (in.)	Shaft Tolerance (in.)					
1/2" to 1 15/16"	Plus .0000 to minus .0005					

^{*} CRES SS does not allow for incorporation of backside shields or end caps.





























End caps and backside shields not available on all units. Sold separately.

Skwezloc Collar Tightening									
CRES CS: CPS-S, CF2S-S, CF4S-S, CTBS-S									
CRES SS: SPS-S, SF2S-S, SF4S-S, STBS-S, VS-S (insert)									
CRES CZ: CPS	CRES CZ: CPS-Z, CF2S-Z, CF4S-Z, CTBS-Z, VS-Z (insert)								
Set Screw	Hex size	Torque							
Diameter	across flats	(in-lbs.)							
1/4	1/8	35-45							
5/16	5/32	75-100							

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Lubrication Instructions



Step 1 - Select the proper lubrication, based on Table 1 specifications.

Grease Type	Table #1				
Thickener	Aluminium Complex				
Oil	Mineral				
Thickness	NLGI #2				
Anti wear	Yes				
Operating temperature	10°F to 200° F Intermittent to 250° F				
Viscosity	2200 SUS @ 100°F				
Food Grade Grease					



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Step 2 - Determine the proper lubrication frequency, based on the application environment, speed and temperature.

WITHOUT END CAPS

Read Carefully

Grease compatibility is critical. To ensure proper grease compatibility, choose a grease with the same properties shown in Table #1. For questions regarding grease compatibility, contact Browning Customer Service. or your grease manufacturer. Browning® bearings may be relubricated and are supplied with grease fittings for ease of lubrication with hand or automatic grease guns. Always wipe the fitting and grease nozzle clean.

CAUTION: For safety, stop rotating equipment. Add one half the recommended amount shown in Table #3. Start bearing and run for a few minutes. Stop bearing and add the second half of the recommended amount. A temperature rise, sometimes 30°F (17°C), after relubrication is normal. Bearing should operate at temperatures less than 200°F (94°C) and should not exceed 225°F (107°C) for intermittent operation. Follow steps below for lubrication schedule and amount. For any applications that are not in the ranges of the table, contact Browning Customer Service.

Note: The tables below 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.

Step 3 - Determine lubrication amount based on environment from Step 2.

Clean	Table 2		Speed (RPM)				Table 3	Bore Size				
Clean	Environment	Temperature	100 - 500				Environment	3/4", 1"		1 7/16"	1 1/2"	
175° F to 200° F 1 - 2 Months 1 - 3 Months 1 - 3 Months 1 - 3 Months 1 - 3 Months 1 - 20° F to 150° F Daily - 1 Week Daily D		-20° F to 150° F 4 - 10 Months 2 - 4 Months 1 - 2 Months			1 1/4							
175° F to 200° F 1-2 Months 1-3 Months 1-3 Months 1-3 Months 1-3 Months 1-3 Months -20° F to 150° F Daily - 1 Week Daily - 1 Week Daily - 1 Week -150° F to 175° F Daily - 1 Week Daily - 1 Week Daily - 1 Week -175° F to 200° F Daily Daily Daily	Clean	150° F to 175° F	2 - 4 Months	2 - 4 Months	1 - 2 Months	\Rightarrow	Clean	0.1 oz.	0.1 oz.	0.1 oz.	0.1 oz.	
Dirty / Moist 150° F to 175° F Daily - 1 Week Daily - 1 Week Daily - 1 Week		175° F to 200° F	1 - 2 Months	1 - 2 Months	1 - 3 Months							
T75° F to 200° F Daily - 1 Week Daily - 1 Week Daily - 1 Week Daily Very Dirty / Wet		-20° F to 150° F	Daily - 1 Week	Daily - 1 Week	Daily - 1 Week	→						
175° F to 200° F Daily - 1 Week Daily Daily Daily Daily Daily	Very Dirty /	150° F to 175° F	Daily - 1 Week	Daily - 1 Week	Daily - 1 Week		Dirty / Moist					
Very Dirty / Wet 150° F to 175° F Daily Daily Daily Severe Dry Contami- Very Dirty / Wet 150° F to 175° F Daily Daily Daily Daily Daily Daily Severe Dry Contami-		175° F to 200° F	Daily - 1 Week	Daily - 1 Week	Daily - 1 Week							
Wet 150 F to 175 F Daily Daily Daily Very Dirty / Wet Add sufficient grease to purge bearing / seals Severe Dry Contami- Severe Dry Contami-		-20° F to 150° F	Daily	Daily	Daily			Add sufficient grease to purge hearing / seals				
Severe Dry Contami- Severe Dry Contami- Severe Dry Contami- Severe Dry Contami- Severe Dry Contami- Severe Dry Contami- Severe Dry Contamin- Seve		150° F to 175° F	Daily	Daily	Daily							
Severe Dry Containin-		175° F to 200° F	Daily	Daily	Daily			And summer grease to purge bearing / seals				
	Severe Dry Contami- nated / Frequent High Pressure Washdown	-20° F to 150° F	Daily	Daily	Daily							
Mated / Frequent High 150 F to 175 F Daily Daily Daily Frequent High Pressure		150° F to 175° F	Daily	Daily	Daily		Severe Dry Contaminated / Frequent High Pressure					
Pressure Washdown 175° F to 200° F Daily Daily Daily Washdown Washdown		175° F to 200° F	Daily	Daily	Daily							

WITH END CAPS

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Step 3 - Determine lubrication amount based on environment from Step 2.

Table 4		Speed (RPM)				Table 5 Bore Size					
Environment	Temperature	100 - 500	500 to 1/2 Max. Catalog	1/2 Maximum to Max. Catalog		Environment	3/4", 1"	1 3/16", 1 1/4"	1 7/16"	1 1/2"	
Clean	-20° F to 150° F	4 - 10 Months	2 - 4 Months	1 - 2 Months	<u> </u>			1 1/4			
	150° F to 175° F	2 - 4 Months	2 - 4 Months	1 - 2 Months	\rightarrow	Clean	0.1 oz.	0.1 oz.	0.1 oz.		
	175° F to 200° F	1 - 2 Months	1 - 2 Months	1 - 2 Months						0.1 oz.	
Dirty / Moist	-20° F to 150° F	4 - 10 Months	2 - 4 Months	1 - 2 Months	H						
	150° F to 175° F	2 - 4 Months	2 - 4 Months	1 - 2 Months	\Rightarrow	Dirty / Moist	0.1 oz	0.2 oz.	0.2 oz.	0.2 oz.	
	175° F to 200° F	1 - 2 Months	1 - 2 Months	1 - 2 Months							
Very Dirty / Wet	-20° F to 150° F	Daily - 1 Week	Daily - 1 Week	Daily - 1 Week	-						
	150° F to 175° F	Daily - 1 Week	Daily - 1 Week	Daily - 1 Week		Very Dirty / Wet					
	175° F to 200° F	Daily - 1 Week	Daily - 1 Week	Daily - 1 Week							
Severe Dry Contami- nated / Frequent High Pressure Washdown	-20° F to 150° F	Daily	Daily	Daily		Add sufficient grease to purge bearing / seals					
	150° F to 175° F	Daily	Daily	Daily		Severe Dry Contaminated / Frequent High Pressure					
	175° F to 200° F	Daily	Daily	Daily		Washdown					

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