



Ball Bearing Installation Instructions CRES SS

FORM

PN 784370, PS-740-0001

9564E

Revised

August 2016

⚠ 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.

⚠ CAUTION

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



NOTICE

• These bearings are designed for maximum permissible static misalignment of ± 2 degrees. Installation, handling or operation of the bearing in excess of the maximum of ± 2 degrees can cause reduction in bearing performance and may lead to equipment failure.

• Do not strike or hammer on any component of the bearing and/or shaft. Impact can result in damage to the bearing that may cause reduction in bearing performance and may lead to equipment failure.



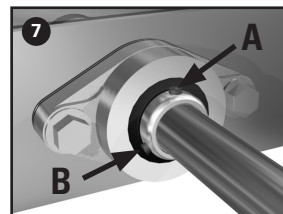
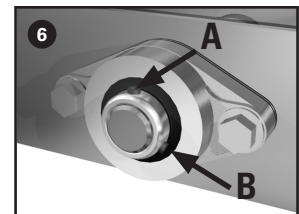
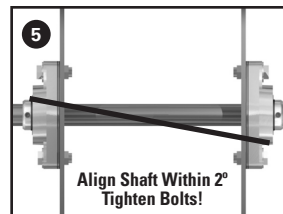
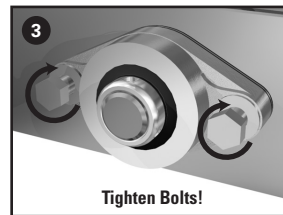
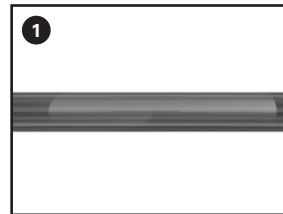
- 1 Ensure shafting is clean and within spec. See Table 1 below. Remove all burrs.
- 2 Place first bearing onto shaft. Do not hammer.
- 3 Install bolts and stainless steel washers (if used). **Tighten down housing mounting bolts.**
- 4 Repeat steps 2-4 for the second bearing but do not tighten down housing mounting bolts yet.
- 5 Align bearings and shaft. Shaft should be within ± 2 degrees. Set screws on both bearings should face the same direction. **Tighten mounting bolts.**
- 6 Bearing one - set screw tightening directions:
Half - Tighten set screw "A" to 1/2 the recommended torque in Table 2 below.
Full - Tighten set screw "B" to the full recommended torque in Table below.
Full - Tighten set screw "A" to the full recommended torque in Table.
- 7 Repeat tightening of the set screws in step 6 for the second bearing. Set screws on both bearings should face the same direction.
- 8 Rotate bearing several times. Look, feel and listen for anything unusual.

TABLE 1

SHAFT TOLERANCES	
SHAFT DIAMETER (IN.)	SHAFT TOLERANCE (IN.)
1/2" to 1 15/16"	Plus .0000 to minus .0005

TABLE 2

SETSCREW TORQUE		
CRES SS: SPS-S, SF2S-S, SF4S-S, STBS-S, VS-S (INSERT)		
SET SCREW DIAMETER	HEX SIZE ACROSS FLATS	TORQUE (IN-LBS.)
1/4	1/8	35-45
5/16	5/32	75-100



LUBRICATION:

All Browning CRES SS Ball Bearings are delivered with a high quality food grade grease with an EP additive. The bearing is ready for use with no initial lubrication required. The grease consists of an aluminum complex, mineral oil, and NLGI grade 2 consistency.

Compatibility of grease is critical; therefore consult with Application Engineering and your grease supplier to insure greases are compatible. For best performance it is recommended to relubricate with aluminum complex thickened grease with a comparable NLGI consistency and base oil properties.

Relubricatable Browning 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.

Caution: If possible, it is recommended to lubricate the bearing while rotating, until grease purge is seen from the seals. If this is not an option due to safety reasons, follow the alternate lubrication procedure below.

ALTERNATE LUBRICATION PROCEDURE:

Stop rotating equipment. Add one half of the recommended amount shown in Table 3. Start the bearing and run for a few minutes. Stop the bearing and add the second half of the recommended amount. A temperature rise after lubrication, sometimes 30°F (17°C), is normal. Bearing should operate at temperatures less than 200°F (94°C) and should not exceed 250° (121°C) for intermittent operation. For lubrication guidelines, see Tables 4 and 5.

Note: Table 4 is a general recommendation. Experience and testing may be required for specific applications.

Note: Grease charges in Table 3 are based on the use of aluminum complex thickened grease with a NLGI grade 2 consistency.

TABLE 3

GREASE CHARGE FOR RELUBRICATION	
SHAFT SIZE	GREASE CHARGE (MASS - OUNCES)
3/4	0.05
1	0.06
1 3/16 - 1 1/4S	0.12
1 1/4 - 1 7/16	0.18
1 1/2	0.27

TABLE 4

RELUBRICATION RECOMMENDATIONS			
ENVIRONMENT	TEMPERATURE (°F)	SPEED (% CATALOG MAX)	FREQUENCY
Dirty	-20 to 200	0 - 100%	Daily to 1 Week
		0 - 25%	4 to 10 Months
Clean	-20 to 125	26 - 50%	1 to 4 Months
		51 - 75%	1 Week to 1 Month
		76 - 100%	Daily to 1 Week
		0 - 25%	2 to 6 Weeks
	125 to 175	26 - 50%	1 Week to 1 Month
		51 - 75%	Daily to 1 Week
		76 - 100%	
	175 to 200	0 - 100%	Daily to 1 Week

TABLE 5

MAXIMUM OPERATIONAL SPEED	
SHAFT SIZE	SPEED (RPM)
3/4	2000
1	2000
1 3/16 - 1 1/4S	2000
1 1/4 - 1 7/16	1750
1 1/2	1500

