

# INSTALLATION INSTRUCTIONS BROWNING BALL BEARING INSERT

Replacement Browning bearing inserts are intended for use in Browning housings. Housings should be thoroughly inspected for cracks, excessive wear or galling, obstruction of grease port, etc. prior to installation.

**SPHERICAL O.D. INSERTS** -Place into housing load slot, positioning the anti-rotation rivet in the load slot. Using a bar slipped into the insert bore, swing insert into place within the housing. A snug fit should result\*. If insert can swivel by hand\*, the housing fit is too loose, replace entire unit. If heavy force is required, fit is too tight (**Do not hammer**). - replace entire unit. Insure alignment of the lube hole in outer race and the grease groove in housing bore.

**CYLINDRICAL OD INSERTS** - Be sure housing bore is clean and free of debris. Press bearing into housing by applying force to face of outer ring. **Do not hammer on any component of the bearing or apply force to inner ring.** For recommended housing bore tolerance, consult Browning Application Engineering.

**UNIT INSTALLATION**

**CHECK SHAFT** - Shaft to be within 0.0005" of nominal dia. Mount on unused section - repair/replace shafting as required.

**INSTALL UNIT** - Slide onto shaft. 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.

**Set Screw Inserts**

- a. Set screws in opposing bearings in a multiple bearing application should be aligned.
- b. Torque first set screw to one half recommended torque in Table #1. Torque second set screw to full torque. Torque first set screw to full torque.

**BOA Inserts**

- a. Be sure that BOA collar is fitted square and snug against the shoulder on the inner ring.
- b. Torque BOA cap screw to recommended torque - Table #2

**Eccentric Lock Inserts**

- a. Rotate collar by hand in direction of shaft rotation until eccentrics are positively engaged.
- b. Insert drift pin into the hole on the collar and lock tightly in direction of shaft rotation with aid of small hammer.
- c. Tighten collar set screw to recommended torque - Table #1.

**RELUBRICATION INSTRUCTIONS**

Use NLGI grade 2 mineral oil lithium or lithium complex base grease. For safety, stop rotating equipment. For relubrication schedule see Table #3.

**TABLE #3**

**RELUBRICATION INTERVALS  
Use NLGI #2 Lithium or Lithium Complex Grease**

Speed	Temperature	Cleanliness	Relub. Intervals
100 rpm	-20°F to 125°F	Clean	4 - 10 months
500 rpm	-20°F to 150°F	Clean	1 - 4 months
1000 rpm	-20°F to 200°F	Clean	1 wk - 1 mth
1500 rpm	-20°F - 200°F	Clean	Biweekly
1500 rpm to Max Catalog Rating	Up to 150°F	Dirty	Daily to 1 week
	150°F - 200°F	Dirty	Daily to 1 week
	-20°F to 200°F	Very Dirty	Daily to 1 week
	-20°F to 200°F	Extreme Cond.	Daily to 1 week

**TECHNICAL PRODUCT ASSISTANCE:**

**Phone: (630) 898-9620**  
**browningbearing.eng@emerson-ept.com**  
**www.emerson-ept.com**

TABLE #1 SET SCREW TIGHTENING			
Screw Size	Hex Size	Torque	
		(in-lbs)	(ft-lbs)
10-32	3/32	28-36	-----
1/4-28	1/8	65 - 85	-----
5/16-24	5/32	125 - 165	-----
3/8-24	3/16	230 - 300	-----
7/16-20	7/32	350 - 450	30 - 40
1/2-20	1/4	500 - 650	40 - 55
5/8-18	5/16	1100 - 1440	90 - 120

TABLE #2 BOA CONCENTRIC TIGHTENING			
Srew Size		Torx Size	Torque (in-lbs)
English	Metric		
#8	M4 x .7	T-25	63 - 70
#10	M5 x .8	T-27	81 - 90
1/4	M6 x 1	T-30	162 - 180
5/16	M8 x 1.25	T-45	360 - 400