

# INSTALLATION INSTRUCTIONS

## BROWNING BALL BEARINGS

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 sizes shown in Table#1. 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.

**TABLE #1**

SHAFTING	
Shaft Dia. (in)	Tolerance (in)
1/2 - 1 15/16 (12 - 49mm)	+0 to -.0005 in. (+0 to -.125mm)
2 - 3 3/16 (50 - 80mm)	+0 to -.0010 in. (+0 to -.025mm)
3 1/4 - 4 15/16 (82 - 125mm)	+0 to -.0015 in. (+0 to -.040mm)

### 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 #2. 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 #3.

### 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 #2.

**TABLE #2**

SET SCREW TIGHTENING					
Set Screw Locking		Eccentric Lock			
Bore Size (in) 100 & 200	Bore Size (in) 300	Bore Size (in)	Screw Size	Hex Size	Torque (in-lbs.)
1/2 - 5/8	-----	-----	10-32	3/32	28-36
3/4 - 1 1/4R	15/16 - 1	1/2 - 1	1/4-28	1/8	66 - 85
1 1/4 - 1 3/4	1 3/16 - 1 1/2	1 1/8 - 1 1/4R	5/16-24	5/32	126 - 164
1 15/16 - 2 7/16	1 11/16 - 2 3/16	1 1/4 - 1 15/16	3/8-24	3/16	228 - 296
2 1/2 - 3 15/16	2 7/16 - 3 15/16	2 - 2 7/16	7/16-20	7/32	348 - 452
-----	-----	2 11/16 - 2 15/16	1/2-20	1/4	504 - 655

**TABLE #3**

BOA CONCENTRIC TIGHTENING				
Screw Size	Bore Size 100 & 200	Bore Size 300	Torx Size	Torque (in-lbs.)
8-32	3/4 - 1 1/4R	15/16 - 1	T-25	63 - 70
10-24	1 1/4 - 1 3/4	1 3/16 - 1 1/2	T-27	81 - 90
1/4-20	1 13/16 - 2 3/16	1 11/16 - 1 15/16	T-30	162 - 180
5/16-18	2 1/4 - 2 7/16	2 3/16	T-45	360 - 400

### RELUBRICATION INSTRUCTIONS

Use NLGI grade 2 mineral oil lithium or lithium complex base grease . For safety, stop rotating equipment. For relubrication schedule see Table #4.

**TABLE #4**

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 to 200: F	Clean	Biweekly
1500 rpm to Max Catalog Rating	Up to 150: F 150: F - 200: F -20: F to 200: F -20: F to 200: F	Dirty Dirty Very Dirty Extreme Cond.	Daily to 1 week Daily to 1 week Daily to 1 week Daily to 1 week

### TECHNICAL PRODUCT ASSISTANCE:

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