

# INSTALLATION AND REMOVAL INSTRUCTIONS FOR B-LOC® SHRINK DISCS

**B-LOC®** Keyless Bushings provide a high capacity, zero-backlash shaft/hub or coupling connection by means of a mechanical interference fit. Please follow these **INSTALLATION AND REMOVAL INSTRUCTIONS** carefully to ensure proper performance of this **B-LOC®** unit.

## ⓘ WARNING ⓘ

When installing or removing **B-LOC®** products, always adhere to the following safety standards:

1. Be sure that all power switches are locked out before installing or removing **B-LOC®** products.
2. Eye protection is required when installing or removing **B-LOC®** products. Please wear safety glasses and protective clothing.

## INSTALLATION

(Refer to Figure 1)

**B-LOC®** Shrink Discs are supplied ready for installation. However, prior to tightening of locking screws it is necessary to remove wooden spacers that may have been used during shipping.

**Important:** Never tighten locking screws before shaft installation, as inner ring of Shrink Disc and/or hub can be permanently contracted even at relatively low tightening torques.

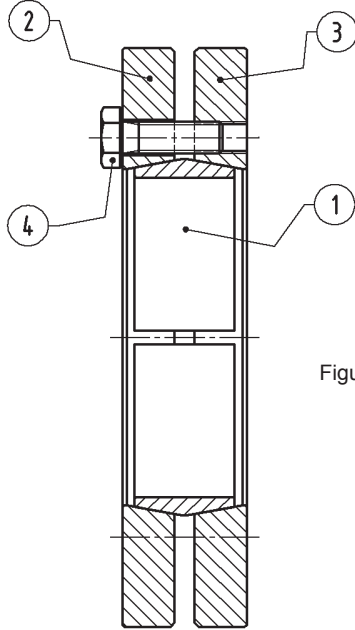


Figure 1

1. Clean hub O.D. and Shrink Disc bore. Lightly lubricate hub O.D. before assembling Shrink Disc on hub.
2. Carefully clean shaft and hub bore of any lubricant prior to mounting hub onto shaft. **This step is critical, as any lubricant on the shaft/hub bore interface will greatly reduce the torque transmitting capacity of a B-LOC® Shrink Disc connection.**
3. After confirming correct position of hub and Shrink Disc, hand-tighten three (3) or four (4) equally spaced locking screws and make sure that outer collars of Shrink Disc are parallel. Hand-tighten remaining locking screws.
4. Use torque wrench and set it approximately 5% higher than specified tightening torque  $M_a$ . Tighten locking screws in either a clockwise or counterclockwise sequence, using approx. 1/4 (i.e., 90°) turns (even if initially some locking screws require a very low tightening torque to achieve 1/4 turns) for several passes until 1/4 turns can no longer be achieved.
5. Continue to apply overtorque for 1 to 2 more passes. This is required to compensate for a system-related relaxation of locking screws since tightening of a given screw will always relax adjacent screws. Without overtorquing, an infinite number of passes would be needed to reach specified tightening torque.
6. Reset torque wrench to specified torque ( $M_a$ ) and check all locking screws. No screw should turn at this point, otherwise repeat Step 5 for 1 or 2 more passes. It is not necessary to re-check tightening torque after equipment has been in operation.

## REMOVAL

(Refer to Figure 2)

**Prior to initiating the following removal procedure, check to ensure that no torque or thrust loads are acting on the Keyless Bushing, shaft or any mounted components.**

1. Loosen all locking screws in several stages by using approx. 1/2 turns, following either a clockwise or counterclockwise sequence, until Shrink Disc can be moved on hub. The Shrink Disc, hub and shaft will return to their original clearance fits.

## ⓘ WARNING ⓘ

**DO NOT** completely remove locking screws before outer collars are disengaged from inner ring. A sudden release of the outer collars involves high separating forces and could result in permanent injury or death. Be certain that outer collars are disengaged from inner ring before completely removing locking screws.

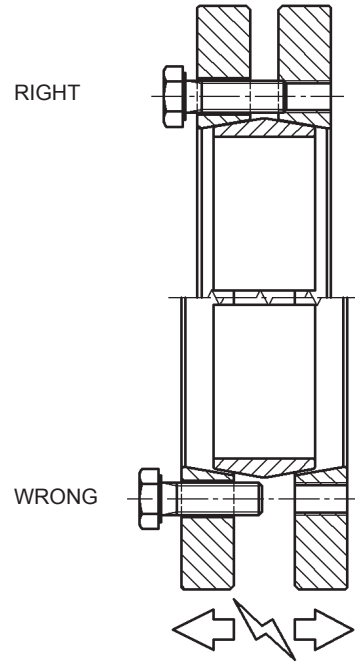


Figure 2

## REINSTALLATION OF SHRINK DISCS

In relatively clean operating conditions, Shrink Discs can be re-used without prior cleaning. Shrink Discs used under severe conditions, however, require thorough cleaning and re-lubrication with Dow Corning® Molykote® G-n Metal Assembly Paste or equivalent.

### LOCKING SCREW SIZES AND SPECIFIED TIGHTENING TORQUE $M_a$

Screw Size	M5	M6	M8	M10	M12	M16	M20	M24	M27
Tightening Torque $M_a$ (ft-lbs)	3.6	8.7	22	44	74	185	362	620	922
Wrench Size Across Flats (mm)	8	10	13	17	19	24	30	36	41