

# LOCKNUT INSTALLATION & ADJUSTMENT INSTRUCTIONS

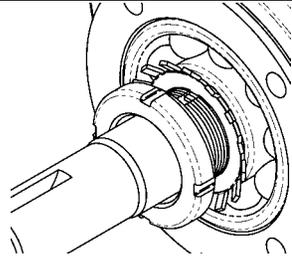
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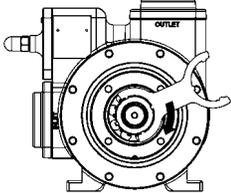
Section	
Effective	June 2003
Replaces	New

### NOTICE:

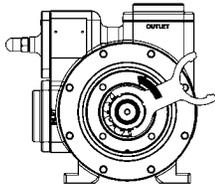
SEE THE APPROPRIATE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR IMPORTANT WARNINGS AND COMPLETE PUMP MAINTENANCE INSTRUCTIONS. THE APPROPRIATE PUMP MANUAL AND PARTS LIST MAY BE OBTAINED FROM THE BLACKMER WEBSITE ([WWW.BLACKMER.COM](http://WWW.BLACKMER.COM)) OR BY CONTACTING BLACKMER CUSTOMER SERVICE.



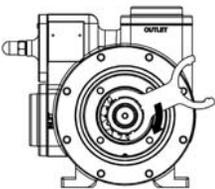
On both ends of the pump shaft, install a lockwasher (24B) with the tangs facing outward, followed by a locknut (24A) with the tapered end inward. Ensure the inner tang of the lockwasher is located in the slot in the shaft threads, bending it slightly, if necessary.



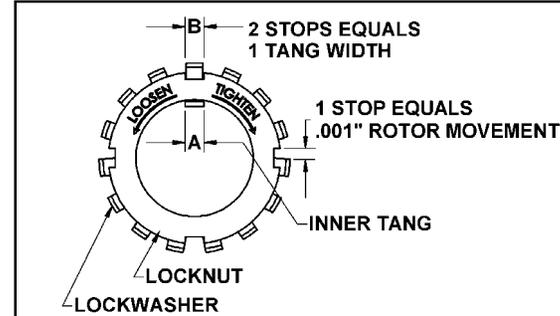
Tighten both locknuts (24A) to ensure that the bearings (24) are bottomed in the head recess. DO NOT overtighten and bend or shear the lockwasher inner tang.



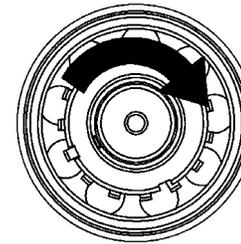
Loosen both locknuts (24A) one complete turn.



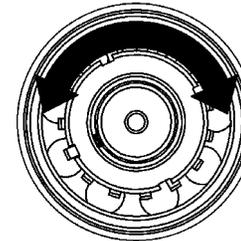
Tighten one locknut (24A) until a slight rotor drag is felt when turning the shaft by hand.



Back off the nut the width of one lockwasher tang "B". Secure the nut by bending the closest aligned lockwasher tang into the slot in the locknut. The pump should turn freely when rotated by hand.



Tighten the opposite locknut (24A) by hand until it is snug against the bearing (24). Then, using a spanner wrench, tighten the nut the width of one lockwasher tang "B". Tighten just past the desired tang, then back off the nut to align the tang with the locknut slot. Secure the nut by bending the aligned lockwasher tang into the slot in the locknut. The pump should continue to turn freely when rotated by hand.



To check adjustment, grasp the nut and washer with fingers and rotate back and forth. If this cannot be done, one or both locknuts (24A) are too tight and should be alternately loosened one stop at a time (.001") (25 microns). Begin by loosening the locknut adjusted last. If used, tighten the locknut set screws (24C) securely.

**NOTE:** It is important that the bearing locknuts (24A) and lockwashers (24B) be installed and adjusted properly. Overtightening locknuts can cause bearing (24) failure or a broken lockwasher tang. Loose locknuts will allow the rotor (13) to shift against the heads, causing wear.



1809 Century Avenue, Grand Rapids, Michigan 49503-1530 U.S.A.

Telephone: (616) 241-1611 • Fax: (616) 241-3752

E-mail: [blackmer@blackmer.com](mailto:blackmer@blackmer.com) • Internet Address: [www.blackmer.com](http://www.blackmer.com)