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## **Rebuilding a Jerguson Level Gage**

Note: A Jerguson level gage may be repaired while installed on a vessel. However, it is easier to perform the following steps in a workshop on an appropriate work table.

## Disassembly

- Isolate gage from service, relieve internal pressure, and drain.
- 2. Remove the gage from the vessel (if conducting rebuild in a workshop).
- Loosen end bolts first, then work towards center, alternating from top to bottom and following 3. the sequence for tightening in reverse.
- Remove glass, gaskets, cushions, and shields from assembly. Promptly dispose of all used 4. components. NEVER REUSE GLASS, GASKETS, CUSHIONS, OR SHIELDS!
- Clean chamber gasket surface and cover cushion seating area. Remove all debris or residual 5. gasket material.
- 6. maintained.

### Reassembly

- 1. cushion.
- 2. of the glass. This will prevent any glass-to-metal contact.
- 3. they should be discarded.
- 4. surface.
- If the gage includes an option for Belleville spring washers, reference Figure B for proper 5. orientation of the washer stacks.
- 6.
- 7. seal(s).
- 8. value after the gage has been in hot operation for 30 minutes.
- For additional maintenance tips, refer to Jerguson bulletin J500.05. 9.

### **Notice to Plant Operators**

The use of non-Original Equipment Manufacturer parts (such as glass, gaskets, etc.) will void the Agency Approval (FM, UL, CSA, CRN, ABS, etc.), pressure/temperature rating, and warranty of this equipment. Clark-Reliance requires the use of OEM parts for all repairs on this product in order to maintain plant and personnel safety, and reliable operation.

JERGUSON<sup>®</sup> GAGE & VALVE

A PRODUCT OF CLARK-RELIANCE 16633 Foltz Parkway • Strongsville, Ohio 44149, U.S.A. Telephone (440) 572-1500 • sales@clark-reliance.com www.clark-reliance.com

Thoroughly inspect chamber gasket surface seating area. Remove any pitting damage, steam cuts, gouges, or scars on a milling machine. The minimum dimension shown in Figure A must be

Place seal gasket in chamber seat and cushion gasket in cover seat. Do NOT lubricate gasket or

Locate the glass centrally in the chamber seat and cover to avoid glass-to-metal contact at the ends or sides. (This is best done with the gage lying flat on a bench.) If the gage must be reassembled in the vertical position, use a small strip of gasket material as a spacer at each end

Inspect bolt and nut threads. If the nut cannot be freely spun down the length of the bolt threads, then the nut and/or bolt should be discarded. If nuts and bolts show signs of excessive corrosion,

Apply Molykote or similar molybdenum disulfide lubricant to the bolt threads and nut seating

Tighten nuts finger-tight, working from the middle set, alternating outward (See Figure C). Next, tighten with a torque wrench in the same sequence in 5 ft.-lb. (6.7 N-m) increments. (See Figure D) It is recommended that all reassembled gages be hydrotested for a minimum of five minutes before returning the gage to service. This is in order to verify the integrity of the renewed pressure

Note: New gaskets often become permanently compressed after a short time in service (especially if the gage operates hot). This causes slight leaks or apparent loosening of bolts. If the gage has not been provided with spring washers, isolate and relieve the gage and retorque to the original

"PARTS-PLUS" **Critical spare parts for** overnight delivery, direct from the manufacturer.

Figure A

.100 MIN. FROM GASKET SEATING SURFACE TO I.D. OF THRU BORE



REFLEX WASHER STACK **UNDER EACH** STUD NUT OR **U-BOLT NUT** 

TRANSPARENT WASHER STACK UNDER EACH **BOLT NUT** 

## Figure C **SEQUENCE FOR TIGHTENING COVER BOLTS**

ALWAYS START IN THE CENTER AND WORK OUT IN EACH DIRECTION. START WITH FINGER-TIGHT AND INCREASE IN 5 FT-LB INCREMENTS UNTIL REACHING THE FINAL TORQUE SETTING. (SEE BELOW)

#### Figure D

#### **PROCESS GAGES TORQUE DATA REFLEX AND TRANSPARENT GAGES**

GAGE SERIES	FINAL TORQUE	
12 (Obsolete)	22 FT-LBS.	29 N-m
L10	30 FT-LBS.	40 N-m
300L	30 FT-LBS.	40 N-m
18 (Obsolete)	32 FT-LBS.	43 N-m
20	40 FT-LBS.	54 N-m
30 & 32	50 FT-LBS.	67 N-m
40	80 FT-LBS.	108 N-m

### **TORQUE VALUES ARE THE SAME** FOR ALL GASKET MATERIALS

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JERGUSON WILL ONLY WARRANT THE USE OF JERGUSON REPLACEMENT PARTS, WHICH CAN BE OBTAINED FROM THE REPRESENTATIVE OR MANUFACTURER. THE USE OF NONAUTHORIZED PARTS RESULTS IN A GAGE NOT TESTED OR RATED BY THE JERGUSON ENGINEERING GROUP. CATALOG RATINGS APPLY ONLY TO JERGUSON GAGES CONTAINING AUTHENTIC REPAIR PARTS.