



**Taper-Lok®**

*(An Ameri-Forge Group Company)*

# Taper-Lok

## FIELD REPAIR PROCEDURES FOR (MISALIGNMENT/ SWIVEL/ WELDNECK)

Reference

**Used for:**  
**ITF / ConocoPhillips China**  
**Bohai Bay Project**

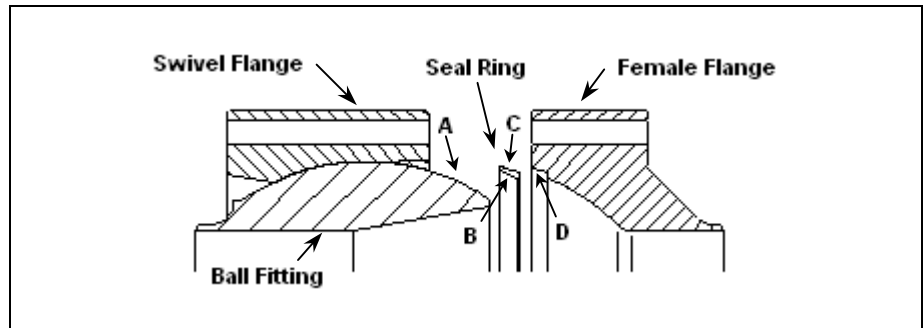
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**Document Number: TLFRP-05-4667**

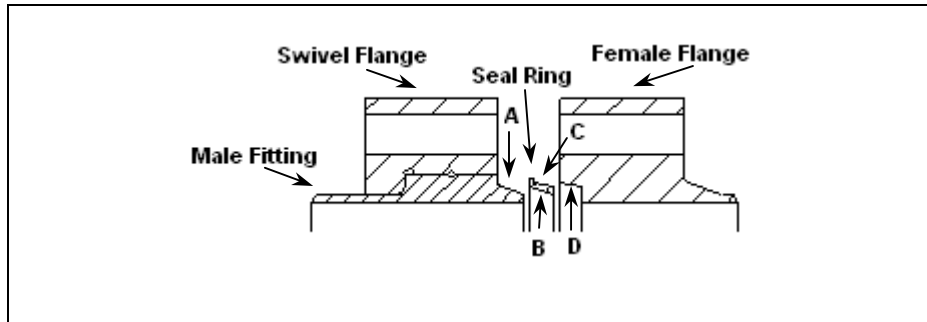
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Date:			
Originated by:	RSM		
Checked by:	REA		
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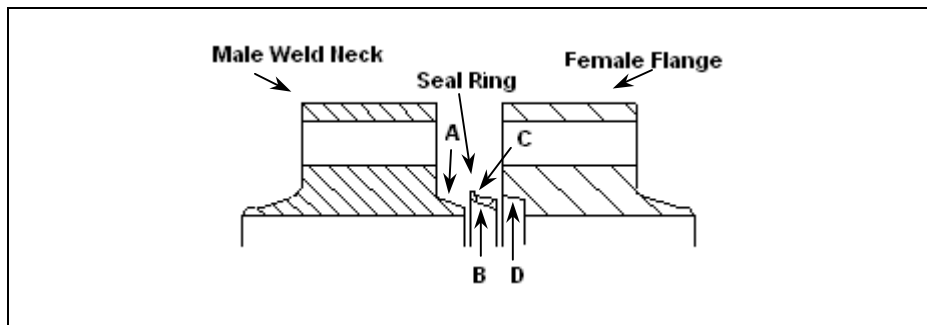
This procedure discusses about the Repair Of Minor Damage To Seal Surfaces. First, contact Taper-Lok for evaluation of any damage to the sealing surfaces. The sealing surfaces for Misalignment Flange are shown in Figure 1-1, for Swivel Flange in 1-2, and Weld Neck Flange in 1-3 below respectively. NOTE: The following procedure is for informational purposes only. Please do not perform any actions of repair till Taper-Lok is contacted.



**FIGURE 1-1**



**FIGURE 1-2**



**FIGURE 1-3**

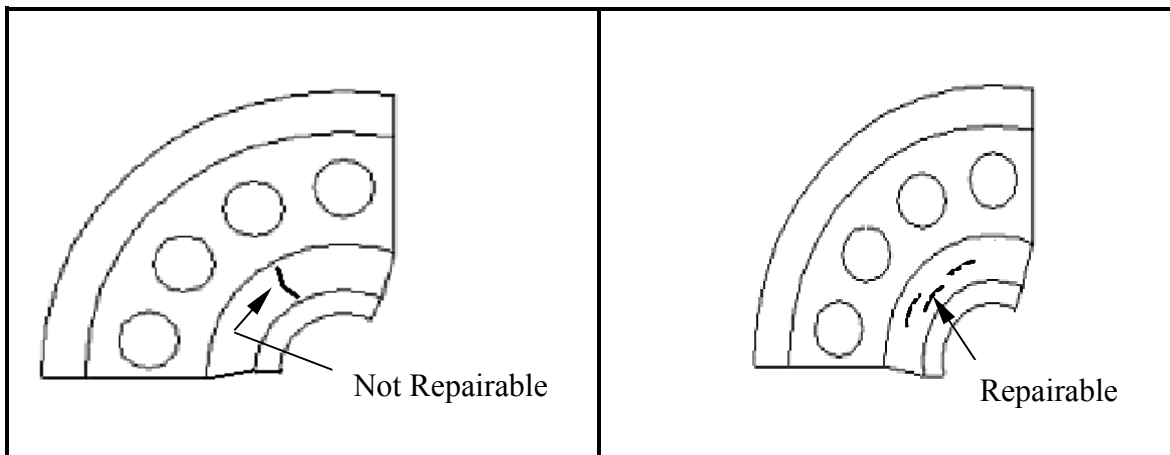
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The following is the procedure for repairing minor damage to sealing surfaces and corners (shown in Figures 1-1, 1-2, & 1-3 above) of Male Seal Surface (A), Seal Ring ID Seal Surface (B), Seal Ring OD Seal Surface (C), and Female Seal Surface (D), where damage marks are (3/16") or less in length.

**Note: Because A, B, C, and D are sealing surfaces, great care should be exercised in repairing this area.**

Equipment Required:     240 Grit Emery Cloth  
                                   320 Grit Emery Cloth

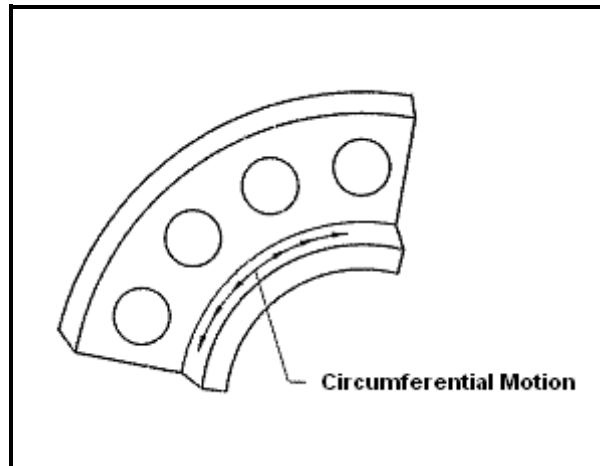
- Figure 1-4 shows a Male seal surface that is not repairable and one that is repairable. **Contact Taper-Lok for both situations before taking any actions.** The following steps indicate how to repair the repairable portion of damage. Shallow scratches (shown in the repairable section of Figure 1-4 below) and any surface blemishes can be removed by lightly buffing first with (240) grit followed by (320) grit emery cloth.



**FIGURE 1-4**

- When buffing, it is important to use a circumferential motion. The buffing action to be directed along the circumference of the seal surface area (as shown by arrows in Figure 1-5 below).

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**FIGURE 1-5**

3. At the termination of buffing activity, the repaired area should be flush with the seal surface. Any detection of elevated surface blemishes indicates that further buffing is required.

This method is only for repair of minor damages to seal surfaces without the use of welding or shop/works machining. Any displaced material that is not removed will cause the seal ring to be damaged during installation. Consequently, leakage will certainly result.

Damage severe enough to cause metal displacement should be evaluated to determine if this repair method is suitable. Taper-Lok will review and advise of appropriate actions to be taken for repairable or not repairable conditions.

Severe damage will require machining of the entire seal surface. Although Taper-Lok seal rings can be used 10 or more times before replacing them, severely damaged seal rings should be replaced to prevent damage to the female pocket or male seal surface during installation.