

# Safety Bulletin

No: SB046

Rev: 0

11 March 2009

Description: HMI Grabber Die Holder Failure



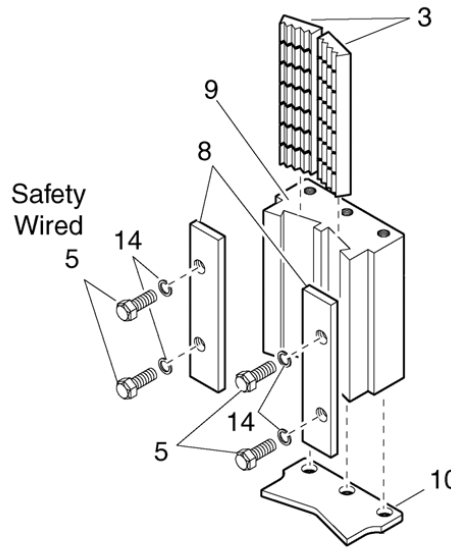
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## BACKGROUND INFORMATION:

A grabber die holder that forms part of the grabber assembly on an HMI suffered a mechanical failure. The failure occurred at the web between the slots machined to hold the grabber dies as shown in Figures 1a (photo) and 1b (Item 9 in illustration).



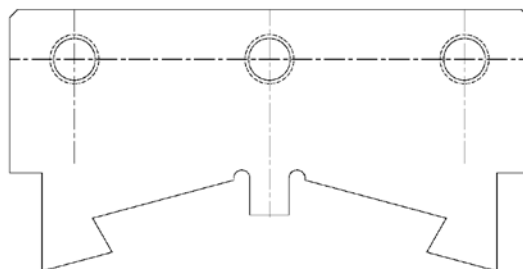
(a)



(b)

**Figure 1** – (a) Photo of failed component, (b) Die holder assembly

The failed piece was disposed of before a full inspection could be made to determine the exact nature of the failure, for example metallurgical, mechanical overload or fatigue. Instead, an engineering review of the basic design was undertaken to look for opportunities to improve the design to prevent re-occurrence. Two changes that were identified include upgrading the material spec to a higher yield material and introducing a radius to decrease the notch stress at the root of the web as shown in Figure 2.



**Figure 2** – Re-entrant radius at web to reduce notch stress

**AFFECTED PRODUCT:**

This bulletin applies to all TESCO HMI model Top Drives.

**ACTION REQUIRED:**

Failure of the grabber die holder can lead to unsafe conditions, including the potential for a dropped object incident as well as a sudden unexpected release of torque. TESCO recommends the following steps be taken to address this hazard:

1. The grabber should be disassembled and the die holder (Item 9 in Figure 1b) removed.
2. Clean and degrease the die holder and perform a full wet fluorescence magnetic particle inspection.
3. If no cracks are found, return the unit to service.
4. Institute a 60 day inspection interval for this component until such time as an upgraded replacement component can be obtained. For convenience this can be scheduled to coincide with the quill pin inspection.
5. Please contact your local TESCO representative to order a replacement component.

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**Contact your local TESCO Parts and Service Center for further information regarding this bulletin and/or supply of affected components noted above.**