Technical Bulletin				Tesco Corporation 5616 – 80th Avenue SE	
No: TB101	Rev: 0	Date: August 08, 2014		Calgary, Alberta, Canada T2C 4N5 Tel: 1-877-TESCO-77 (North America)	
Die Trap Pipe Guide Upgrade			TESCO	Tel: 1 (713) 359-7195 (AMSS 24-hour support) Tel: 1 (713) 359-7295 (International) Email: <u>bulletins@tescocorp.com</u> <u>www.tescocorp.com</u> <u>www.tescoparts.com</u>	
🗹 Interna	al Use Only	/ 🗌 External Use	🗆 Mano	datory	Recommended

BACKGROUND INFORMATION:

An incident occurred on a customer rig where the grabber on a TESCO EXI Top Drive was engaged on a tool joint and the top drive was hoisted. This caused the load of the drill string to be applied to the grabber tong dies. The dies were forced downward by the weight of the drill string, breaking the die keeper plate capscrews. This resulted in the tong dies, keeper plates and capscrew heads to fall out of the grabber. No personnel were injured and the items did not fall into the well bore.

The TESCO control system incorporates an interlock to prevent such an incident from happening if the top drive is operated as described in the EXI Operations Guide. One feature of the interlock system is the bypass button located in the brake handle control box. The purpose of the bypass button is to allow the driller to hoist with the grabber closed on a saver sub or mudsaver valve only to facilitate the assembly/disassembly of the load path. If there is a deviation from the standard operating procedures, it is possible to bypass the interlock and hoist the drill string with the grabber closed. When operating the grabber, a certain amount of time is required for it to fully open and disengage. If the appropriate time is not given, a similar event could occur by immediately hoisting with the draw works after selecting Grabber Open.

To eliminate the possibility of dropped objects from any of these scenarios, TESCO has developed a Die Catcher (Die Trap) pipe guide (Figure 1). The guide fastens to the grabber torque box in the same manner as the standard pipe guide but is designed in such a way that it will trap capscrews, die keeper plates and dies in the event of an operator error.

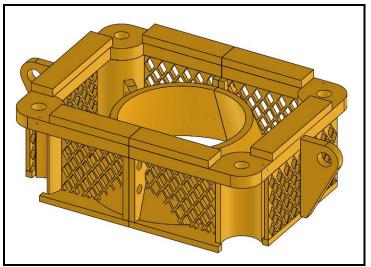


Figure 1: Die trap pipe guide

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AFFECTED PRODUCTS:

All TESCO Top Drive Products including legacy products may be affected. The optional Die Catcher/Die Trap design implementation is shown in Figure 2.

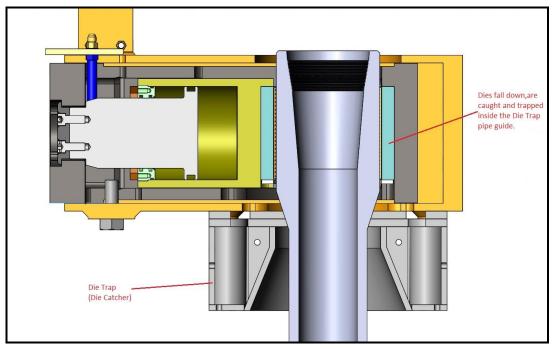


Figure 2: Die Trap design implementation

ACTION REQUIRED:

No immediate action is required. TESCO strongly recommends that operators evaluate any historical occurrences of die keeper failure leading to the drop object incident, and assess whether the need for the Die Trap (Die Catcher) upgrade is required.

The Die Trap for the 9" grabber is currently available in these sizes:

Description	TESCO Part #
Guide, Die Trap, 5" Drill Pipe, 9" Grabber	5045220
Guide, Die Trap, 5-1/2" Drill Pipe, 9" Grabber	5045221
Guide, Die Trap, 4" Drill Pipe, 9" Grabber	5045222
Guide, Die Trap, 4-1/2" Drill Pipe, 9" Grabber	5045223

Designs are in progress for all of TESCO's Top Drive grabbers and a notification will be issued when these are complete.

For more information about the optional Die Trap upgrade, contact your local TESCO service center.

Version	Date (D/M/Y)	ECN	Description of changes
Rev 0	18/08/2014	190-0021	Initial release of document

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