



SAFETY BULLETIN – PRODUCT ALERT – SB001

To: Operators of Tesco Top Drives

Models Affected: 500EC 500HC 500/650HS Top Drives

From: Tesco Health Safety and Environment Department

Date: May 13 2002

Re: Pipe Handler Lock Arm

Problem Area: Pipe Handler Lock Arm Tooth engagement

It has come to Tesco's attention that in certain circumstances, subsequent to the rotation and repositioning of the pipe handler, failure of the pipe handler lock to fully engage the slewing gear profile may occur. The pipe handler locking segment tooth tip may come into direct contact with the slewing gear tooth tip preventing full engagement needed to react makeup or breakout connection torque when the grabber has been closed and the grabber switch is returned to neutral. This may cause the pipe handler to rotate unexpectedly upon application of torque and if the elevator links are in a position other than vertical, the unexpected rotation of the pipe handler may cause them to strike personnel working in proximity and cause serious injury.

Action Required:

1. Conduct a visual inspection of the pipe handler lock arm tooth profile for mechanical damage or excessive wear. This disposition should be undertaken at the earliest opportunity, assistance to completing this can be provided by contacting Tesco directly. Guidelines of acceptable locking arm tooth dimensions are:
 - Minimum tooth height 0.355"
 - Maximum backlash of 0.030"
2. When the Top Drive mode is set to connect, ensure that the auxiliary pump is operating and the grabber is closed on the tool joint, and prior to selecting quill direction, **ensure** the grabber close switch remains in the closed position (**not** returned to neutral). This will command hydraulic pressure to the locking cylinder and force the locking arm into the slewing gear when torque is applied.
3. At each shift record the open loop system pressure displayed at the auxiliary manifold within the Top Drive Main frame while functioning the pipe handler lock and note this supply pressure value in the drilling records. System pressure at the Top Drive should be a minimum of 2,000 psi when the auxiliary system is functioned.

Models Affected: 500/650EC 500/650HC 500/650HS

Models not Affected: HMI, HCI, and ECI.

***If there are any questions related to this Safety Bulletin please contact
Tesco HSE Department Calgary. (403) 233-0757***