



CANRIG DRILLING TECHNOLOGY LTD

PRODUCT BULLETIN NUMBER: 60

SAFETY ALERT

DATE: 6 October, 2000

SUBJECT: PINCH POINTS

SERIAL NUMBERS: ALL

DISCUSSION: While working on the Top Drive, PINCH POINTS are critical whenever motion is involved. Every part of the CANRIG Top Drive can become a PINCH POINT – **exercise extreme caution.**

RECOMMENDATION: Be aware of the following critical PINCH POINTS:

1. Hydraulic Energy - stored and (inadvertently) released

- ◆ Link Support (counter balance accumulator)
 - Will drop when pressure is bled-off – Collar pinch point
- ◆ Link Tilt Assy - Could rotate & swing links such as to trap someone
- ◆ Handler Rotate
- ◆ Handler Lock
- ◆ BUW - Up or Down travel
- ◆ BUW - Gripper mechanism
 - Will open and drop what was gripped, when hydraulic power is released (HPU stopped).

2. Drawworks related Motion

If the drawworks is moved while work is in progress at the Top Drive, **serious** pinch point danger exists as follows:

- ◆ Whole Top Drive (when moving could trap or crush body parts)
- ◆ Block Interface and Travelling Block (especially fingers and arms)
- ◆ Upper Links
- ◆ Elevator Support Unit or Elevator Links (bails)
- ◆ Floating Quill – especially washpipe packing nut
- ◆ Guide Runner to track interference

3. Gravity related

- ◆ Any component or part, where the mounting arrangement is altered (i.e. loosening bolts, pry or break supports, cut welds, etc)
- ◆ Elevators (could tilt unexpectedly)
- ◆ Hinged components:
 - Lube Cooler
 - Blower Assy
 - Junction Box Covers
 - Elevator & Bails

4. Other external forces

- ◆ *Electrical (Control & Power)*
 - Unexpected start of:
 - DC or AC motors
 - Any function induced by a hydraulic or pneumatic valve**LOCK-OUT before working on equipment**

- ◆ *Wind*
 - Mud Line & Kelly (Rotary) Hose
 - Service Loops (electrical and hydraulic)
 - Tugger Lines

- ◆ *Trapped energy*
 - Torque in drill pipe may rotate quill or handler
 - Elevators
 - Back-up Wrench Assy (spring loaded Up/Down motion)
 - While working with tools:
 - Slippage of wrench, socket, key or screw driver
 - Breakage of tool
 - Release of bolt

Think of where your hands will be in a second!

INFORMATION:

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