



Safety Alert

From the International Association of Drilling Contractors

ALERT 04 – 38

JOINT OF DRILL PIPE FALLS TO RIG FLOOR

WHAT HAPPENED:

A locking safety hook and 4½” IF thread drill pipe lift cap was being used to pick up a single joint of 5” drill pipe from the V-Door. As the joint of drill pipe was raised with the air hoist and was being held several feet above the floor, an employee attempted to remove the pin end protector. The hook and drill pipe lift cap separated and the joint of drill pipe struck the floor and then fell across the floor.

WHAT CAUSED IT:

Although not a contributing factor in this incident, the investigation revealed that the locking safety hook was worn beyond the manufacturer’s maximum clearance. A copy of the manufacturer’s inspection data sheet for Maximum In-Service Clearance is shown. (See Figure 1) Figure 2 shows over 0.3” or just under 3/8” opening between the latch and the body of the hook. According to the manufacturer, the maximum allowable clearance between the body and the latch on this 3/8” hook is 0.09” or 3/32”.

The employee indicated that he heard the hook close but did not see the locking safety hook close around the lift cap. Based on that, the assumption is made that the hook was never latched around the lift cap. It probably closed on the lift cap and never locked; thereby the lift cap was not sitting in the throat, but on the tip of the hook. (See Photo in Figure 3) The twisting motion when the employee attempted to remove the protector from the joint of pipe resulted in the lift cap twisting out of the hook tip and falling to the floor and across the derrick.

CORRECTIVE ACTIONS: To address this incident, this company did the following:

1. When using a locking safety hook the employee shall visually inspect prior to use and ensure that the hook is latched and locked prior to lifting the load.
2. Inspect all locking safety hooks immediately and remove from service all hooks that have a gap between the hook and the latch larger than specified by the manufacture.
3. Include all locking safety hooks in the rigs lifting gear register and ensure all lifting appliances are inspected in accordance with the manufacturer recommendations.
4. A copy of the attached inspection data sheet showing maximum allowable clearance for locking safety hooks shall be available on board the rig.
5. Existing (old style) Locking Safety Hooks currently in use be replaced as they become unserviceable with one that has side safety guards to keep the latch from accidentally opening if hit or bumped. (See figure 4 attached.)

The Corrective Actions stated in this alert are one company’s attempts to address the incident, and do not necessarily reflect the position of IADC or the IADC HSE Committee.



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LOCKING SAFETY HOOKS				
MAXIMUM IN-SERVICE CLEARANCE				
HOOK SIZE		"A" CLEARANCE		
MILLIMETER	INCH	MILLIMETER	INCH (100 th)	INCH
10	3/8	2.2	.09	3/32
13	1/2	2.6	.11	7/64
16	5/8	3.2	.13	1/8

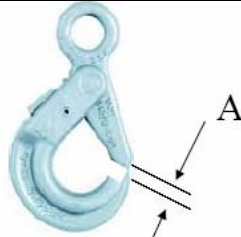


Figure 1

Figure 2 = 0.3 inch



Figure 3



Figure 4 Safety locking hook with safety guards.



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