



Safety Alert

From the International Association of Drilling Contractors

ALERT 03 – 50

IMPROPER INSTALLATION, COMMISSIONING & TESTING OF CROWN SAVER DEVICE

WHAT HAPPENED:

The traveling block made contact with the crown bumpers after tripping the setting of the crown saver device and not coming to a full stop. The crown saver device was not properly installed during the rig upgrade. Post upgrade commissioning and numerous required daily and monthly tests failed to identify the problem and as a result, the crown saver device was not capable of fully arresting the travel of the block.

WHAT CAUSED IT:

The crown saver device was not properly connected. The commissioning and subsequent testing failed to discover that all the air to the drawworks drum clutch was not being released. This allowed the drawworks to crawl after the brake had set. Also, because of problems with the plastic coated drill line not properly spooling on the drawworks drum, the foot throttle had been adjusted to limit the speed of the drawworks. It appears that to speed up the drawworks that the hand throttle was being used, instead of the foot throttle, and this contributed to the incident.

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

Issued the following action items to rig supervisors:

1. All crown saver devices are to be inspected for the correct installation and condition of control valves, piping and air cylinders
2. After inspection, the crown saver device is to be function-tested to ensure that the air to the clutch control valves is shut off disengaging the clutch and rendering it inoperable upon the actuation of the crown saver device.
3. Ensure the drawworks brakes are fully set after actuation of the crown saver device.
4. Discuss with all Drillers that the hand throttle is not to be used as the normal method to control trip speed, as this necessitates taking one hand off the clutch or brake and significantly hampers quick response to stop the drawworks.
5. Refer to the manufacturer's instructions for complete guidance on the setting and testing procedures for the crown saver device.

Refer to IADC Safety Alerts: 99-03, [00-21](#), [02-02](#), [03-34](#)

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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