

SAFETY ALERT - #03 - 2009
COILED TUBING INJECTOR HEAD FAILURE
RELEASE DATE: APRIL 7, 2009

Function: Well Servicing Hazard	Incident Date: January 11, 2009
Location: Onshore	Location Detail: Wellsite
Incident Type: Equipment Failure	Country / Region: Western Canada

Summary

A coiled tubing injector head failed due to insufficient lubrication of drive shaft bearings.

Description of Incident:

A service company was performing a coiled tubing milling job. After completing a third run, the crew was pulling out of the hole at 25 meters per minute. When they reached 2200 meters, the bearings on the main drive shaft in the injector head overheated and failed. This allowed the coiled tubing string to run uncontrolled back into the well. During the runaway, the reel motor seized up stopping the reel from turning. The resulting forces caused the bolts to shear off at the crane turret causing the crane boom and injector to fall to the ground.

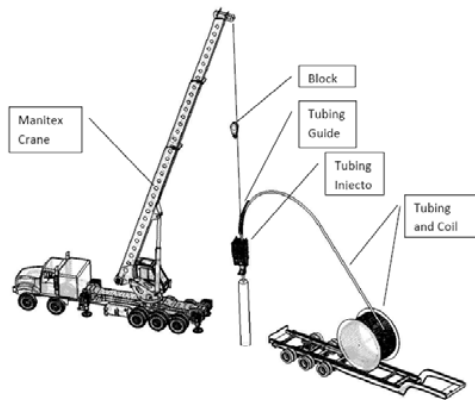


Diagram of Typical CTU Operation



Post Incident Photograph

Important investigation results:

- The injector gear box was low on oil.
- The oil sight glass on the injector head was positioned too low to monitor correct level of oil.
- The manufacturer's maintenance requirements for the gear box were not clear.
- There was no means of monitoring the temperature of the injector head gear box.

Recommendations for Preventing Future Incidents:

Based on the findings from this incident, coiled tubing operators are advised to:

1. Confirm the required oil levels to be maintained with the injector head manufacturer.
2. Review procedures for checking and maintaining adequate oil levels in the injector head.
3. Review design of injector head to ensure that there is a means for monitoring gear box oil levels and temperatures.

Contact:

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DISCLAIMER:

This Safety Alert is designed to prevent similar incidents by communicating the information at the earliest possible opportunity. Accordingly, the information may change over time. It may be necessary to obtain updates from the source before relying upon the accuracy of the information contained herein. This material is presented for information purposes only. Managers and supervisors should evaluate this information to determine if it can be applied to their own situations and practices.