



GEODYNAMICS  
LIMITED



easternwell  
GROUP

# Dropped Sheave Saddle Bracket



# Dropped Sheave Bracket - Chronology

**Date and Time of incident**

28<sup>th</sup> August 2007 @ 00:15 hrs

**Location of Incident**

RIG 100 Work floor

**Severity**

High Potential

**Chronology**

28th August 2007, 10:45 hrs

Tool box meeting (TBM) - fold back the stabbing board into the drillers side of the mast.

- Operation required two Floormen to work at heights, one in a man rider and the other working from the mast ladder.
- A winch line to secure the monkey board when unpinned was required.
- While passing the winch line at height, the line over balanced and jammed in a crown mounted winch sheave.
- The driller suspended the task and informed the Tourpusher.

At 23:30 hrs A TBM to plan recovery of the winch line was held.

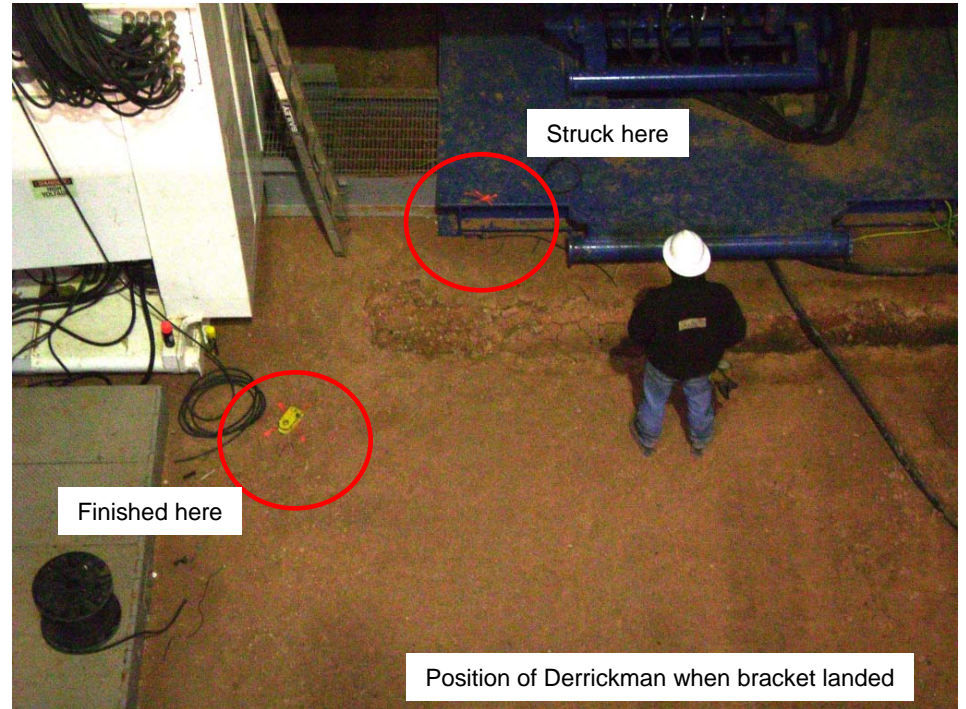
- Attempt to free the jammed winch line without success.
- Need to detach sheave - a harness was placed around the sheave to secure it when detached.
- A locking pin and nut was removed from the bolt that secured the sheave bracket to the pad eye. When the bolt was removed the bracket twisted around and fell free from the sheave block.

# Dropped Sheave Bracket - Chronology

- The 2.5 kg bracket fell approx 12m striking a cross beam above the monkey board level (where the assisting Floorman was located) and then deviated through the back of the mast, falling another 46m.
- The bracket landed on the edge of a mud pump skid and bounced back towards the drawworks.
- At that time the oncoming Derrickman was walking towards the mud pumps near where the bracket landed.
- The Tourpusher was alerted immediately and all operations were suspended and crew mustered.



# Dropped Sheave Bracket



# Dropped Sheave Bracket - Findings

1. Lack of knowledge / experience/ training on rig specific new design equipment. No SOP for stabbing board operation available.
2. No counter weight on the end of the winch line.
3. Winch line sheave position in relation to the task resulted in an over head work position.
4. Driller was fatigued after ascending and descending the mast twice, as well as pulling through the winch line. Incident happened at end of shift at midnight.
5. Design of equipment (2 piece sheave block): Failure to identify risk of the sheave design fault during rig assembly & commissioning process.

# Dropped Sheave Bracket - Actions

## Immediate Actions:

1. Suspended all rig operations until risk has been reduced to a tolerable level.
2. Conduct inspection of the mast for other potential dropped objects and secure any new items.
3. Expedite counter weight chain and swivel for winch line and install.
4. Initiate Taproot investigation.
5. Locate and mobilise a 3rd party to conduct a Dropped Object Survey of mast and substructure and prepare corrective action list.

# Dropped Sheave Bracket

## Long Term Corrective Actions:

A total of 34 long term actions were recommended from the Taproot investigation including:

- Obtain manufacturers drawings and procedures for stowing stabbing board.
- Review and revise SOP for stabbing board operations to include manufacturers recommendations and include workers positioning when folding the stabbing board away and to include winch operations into the SOP.
- Obtain and install one piece sheave blocks in place of the two piece design.
- Update JHA training gaps within Rig 100 crews.
- Increase of key GDY/EWG personnel in future new plant acceptance - familiarise themselves with equipment, its installation, operation and removal; and to assist in creating SOP's for new equipment.
- EWG to review and update the pre spud checklist to ensure the winch line has adequate counter weight and tail chain in place before use.
- EWG to raise Safety/Hazard alert and issue to the industry to inspect all winch lines for adequate counter weights.
- EWG to review and update the communication standard to improve crew handover at shift change.
- EWG to develop and implement a Management of Change (MOC) standard.

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Questions please?

