

UNITED STATES DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE
GULF OF MEXICO REGION

ACCIDENT INVESTIGATION REPORT

1. OCCURRED

DATE: 19-FEB-2010 TIME: 1905 HOURS

2. OPERATOR:

Hess Corporation

REPRESENTATIVE: Ehlinger, James

TELEPHONE: (713) 609-4265

CONTRACTOR: Stena Drilling

REPRESENTATIVE: Baggally, Stephen

TELEPHONE: (224) 372-2222

3. OPERATOR/CONTRACTOR REPRESENTATIVE/SUPERVISOR
ON SITE AT TIME OF INCIDENT:

4. LEASE:

G25153

AREA: GC LATITUDE:

BLOCK: 469 LONGITUDE:

5. PLATFORM:

RIG NAME: STENA FORTH

6. ACTIVITY:

EXPLORATION(POE)
 DEVELOPMENT/PRODUCTION
(DOCD/POD)

7. TYPE:

HISTORIC INJURY

REQUIRED EVACUATION
 LTA (1-3 days)
 LTA (>3 days)
 RW/JT (1-3 days)
 RW/JT (>3 days)
 Other Injury

FATALITY
 POLLUTION
 FIRE
 EXPLOSION

LWC HISTORIC BLOWOUT
 UNDERGROUND
 SURFACE
 DEVERTER
 SURFACE EQUIPMENT FAILURE OR PROCEDURES

COLLISION HISTORIC >\$25K <=\$25K

STRUCTURAL DAMAGE
 CRANE
 OTHER LIFTING DEVICE
 DAMAGED/DISABLED SAFETY SYS.
 INCIDENT >\$25K Crane & misc. equipment
 H2S/15MIN./20PPM
 REQUIRED MUSTER
 SHUTDOWN FROM GAS RELEASE
 OTHER

6. OPERATION:

PRODUCTION
 DRILLING
 WORKOVER
 COMPLETION
 HELICOPTER
 MOTOR VESSEL
 PIPELINE SEGMENT NO.
 OTHER

8. CAUSE:

EQUIPMENT FAILURE
 HUMAN ERROR
 EXTERNAL DAMAGE
 SLIP/TRIP/FALL
 WEATHER RELATED
 LEAK
 UPSET H2O TREATING
 OVERBOARD DRILLING FLUID
 OTHER _____

9. WATER DEPTH: 3355 FT.

10. DISTANCE FROM SHORE: 114 MI.

11. WIND DIRECTION: ENE
SPEED: 28 M.P.H.

12. CURRENT DIRECTION: ENE
SPEED: 0 M.P.H.

13. SEA STATE: 5 FT.

17. INVESTIGATION FINDINGS:

On 19-Feb-2010, the Stena Forth day crew was moving a Bottom Hole Assembly (BHA) with the port crane from the aft riser catwalk to the port side pipe deck. When the day crew was released from their shift, they left the port crane placed over the aft riser cat walk to connect 50 feet of the BHA section which was already in place.

Once the night crew started their shift, they attended a pre-tower safety meeting around 1745 hours. After this pre-tower meeting, the Crane Operator finished the lifting/assessment plan with blind lifts identified as a hazard. The Crane Operator then held a toolbox talk with his crew which consisted of a Crane Operator, a Banksman and two Roustabouts. Once the toolbox talk was completed, the crew advanced to the drill floor to meet with the Toolpusher on duty. The Toolpusher also informed the crew about the blind lifts.

Before the crew began their first lift, they made certain that all barriers were in place to restrict access under the path of the crane during lifting operations. Since the crane was already left in position from the day shift, the crew connected the BHA and pulled up on the line. The Banksman was closest to the load so he was the one giving radio directions to the Crane Operator on where to place the BHA. Once the load was pulled up on the line, the Crane Operator boomed over the riser support crane and swung right to place the BHA onto the port side pipe deck. Once the first lift was completed successfully, the crew made their way back to the drill floor to conduct the second lift with the crane was already in position.

The second lift consisted of picking up 20 feet of a long stabilizer joint and moving it from the aft riser catwalk to the port side pipe deck. At 1905 hours, the crew lifted the load with the Banksman and both Roustabouts reporting that there were no further instructions given to the Crane Operator for booming-up or swinging the crane, however; the Crane Operator boomed-up and the crane boom struck the derrick wind-wall at a height of approximately 108 feet. At the time of the incident, the Banksman and one of the Roustabouts were located at the forward end of the catwalk and the other Roustabout was located at the aft end of the catwalk acting as another Crane Operator signaler. Subsequent to the incident, the Offshore Installation Manager, Barge Master and Safety Officer were notified and the damaged areas were barricaded with the load safely transferred to the port side pipe deck. It was reported for the first lift only, that the crane boom was angled further aft which effectively placed the boom clear of the wind-wall.

Subsequent to the incident, personnel did a visual inspection of the damage to observe that the derrick walkway and wind-wall around the mid-section of the derrick and the crane boom handrails were damaged. It was also observed that a piece of crane boom handrail chain weighing 0.9 pounds fell from the drill floor, and 6 feet of wind-wall weighing approximately 26 pounds was lodged into the crane boom.

Subsequent to the operator's final investigation, it was determined that human error by the Crane Operator was the cause of the incident. Contributing causes were two-fold: 1) an ineffective pre-job briefing since there was no consideration given to the proximity of the crane boom to the walkway around the mast and 2) an improper walk-through resulting from the Crane Operator not involving everyone in the walk-around.

18. LIST THE PROBABLE CAUSE(S) OF ACCIDENT:

Human error by the Crane Operator was evident from the Banksman and both Roustabouts

reporting that there were no instructions given to boom up or swing the crane; however, the Crane Operator boomed-up resulting in striking the wind-wall.

19. LIST THE CONTRIBUTING CAUSE(S) OF ACCIDENT:

Contributing causes include:

- * An ineffective pre-job briefing since there was no consideration given to the proximity of the crane boom to the walkway around the mast.
- * An improper walk-through resulting from the Crane Operator not involving everyone in the walk-around.

20. LIST THE ADDITIONAL INFORMATION:

*The incident's estimated damage amount may change depending on a more detailed inspection of the damaged equipment.

*Corrective and preventative actions are being put in place from this incident as follows:

- In-house test questions on the lifting manual are being written to be given to the Crane Operators to establish a better level of understanding and knowledge.
- All other rigs in the Stena Fleet were informed of the incident to raise their level of awareness.
- The lifting assessment/plan will identify that all personnel involved in lifts in which the crane boom is in close proximity to the mast will need additional personnel to watch the distance and confirm the boom is clear before it is raised.
- Meetings were held with crews to identify the hazards of blind lifts and the importance of more effective pre-job planning with proper participation during walk-throughs.

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

The derrick walkway, wind-wall and walkway support beam around the mid-section of the derrick was damaged in addition to the crane boom handrails. All equipment was bent/distorted.

ESTIMATED AMOUNT (TOTAL): \$75,000

22. RECOMMENDATIONS TO PREVENT RECCURANCE NARRATIVE:

Due to the specific nature of this incident, the Houma District has no recommendations to report to the Regional Office.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: NO

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

N/A

25. DATE OF ONSITE INVESTIGATION:

26. ONSITE TEAM MEMBERS:

Casey Bisso /

29. ACCIDENT INVESTIGATION

PANEL FORMED: NO

OCS REPORT:

30. DISTRICT SUPERVISOR:

Bryan A. Domangue

APPROVED

DATE: **17-MAY-2010**

INJURY/FATALITY/WITNESS ATTACHMENT

OPERATOR REPRESENTATIVE

CONTRACTOR REPRESENTATIVE

OTHER _____

INJURY

FATALITY

WITNESS

NAME :

HOME ADDRESS :

CITY :

STATE :

WORK PHONE :

TOTAL OFFSHORE EXPERIENCE :

YEARS

EMPLOYED BY :

BUSINESS ADDRESS :

CITY :

STATE :

ZIP CODE :

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OTHER _____

WITNESS

NAME :

HOME ADDRESS :

CITY :

STATE :

WORK PHONE :

TOTAL OFFSHORE EXPERIENCE :

YEARS

EMPLOYED BY :

BUSINESS ADDRESS :

CITY :

STATE :

ZIP CODE :

Crane/Other Material-Handling Equipment Attachment

Equipment Information

Installation date: **13-AUG-2009**

Manufacturer: **NOV**

Manufacture date: **13-DEC-2008**

Make/Model: **KNUCKLE BOOM CRANE NO. 1 / V1080**

Any modifications since manufactured? Describe and include date(s).

None

What was the maximum lifting capacity at the time of the lift?

Static: **34** Dynamic: **26**

Was a tag line utilized during the lift? **Y**

Were there any known documented deficiencies prior to conducting the lift? If yes, what were the deficiencies?

N/A

List specific type of failure that occurred during this incident. (e.g. cable parted, sticking control valve, etc.)

Crane boom came into contact with derrick windwall.

If sling/loose gear failure occurred does operator have a sling/loose gear inspection program in place? **NA**

Type of lift: **DD**

For crane only:

Type of crane: **HYDRAULIC**

Boom angle at time of incident: Degrees: **67** Radius: **65**

What was load limit at that angle? **30**

Crane equipped with: **B**

Which line was in use at time of incident? **L**

If load line involved, what configuration is the load block: **1** part.

Load Information

What was being lifted? **OTHER**

Description of what was being lifted (e.g. 10 joints of 2 3/8-inch pipe, ten 500-lb. sacks of sand, 2 employees, etc.)

Approximately 20feet of bottom hole assembly.

Approximate weight of load being lifted: **8000**

Was crane/lifting device equipped with an operable weight indicator? **N**

Was the load identified with the correct or approximate weight? **N**

Where was the lift started, where was it destined to finish, and at what point in the lift did the incident occur? Give specific details (e.g. pipe rack, riser cart, drill floor, etc.)

Started at the aft riser catwalk and was destined to land at the port pipe deck. However, during the lift, the crane boom struck the derrick windwall.

If personnel was being lifted at the time of this incident, give specific details of lifting device and riding apparatus in use (e.g. 1) crane-personnel basket, 2) air hoist-boatswain chair, other)

N/A

Were personnel wearing a safety harness? **NA**

Was a lifeline available and utilized? **NA**

List property lost overboard.

NONE

Rigger/Operator Information

How many years of rigger experience did rigger have?
Has rigger had rigger training?

If yes, date of last training:

How many hours was the operator on duty prior to the incident?

1

How much sleep did operator have in the 24 hours preceding this incident? **12**

How many hours was the rigger on duty prior to the incident?
Was operator on medication when incident occurred?

How much sleep did rigger have in the 24 hours preceding this incident?

Was a registered medical professional involved in the incident? **N**

While conducting the lift, was line of sight between operator and load maintained? **N**

Does operator wear glasses or contact lenses? **Y**

If so, were glasses or contacts in use at time of the incident? **Y**

Does operator wear a hearing aid? **N**

If so, was operator using hearing aid at time of the incident? **N**

What type of communication system was being utilized between operator and rigger at time of this incident?

RADIO/VHF

For crane only:

What crane training institution did crane operator attend?
SPARROW AND ENERMECH

Where was institution located? **ABERDEEN**

Was operator qualified on this type of crane? **Y**

How much actual operational time did operator have on this particular crane involved in this incident?

Years: **1** Months: **6**

List recent crane operator training dates.

STAGE 3 CRANE OPERATOR ASSESSMENT WAS HELD WITH ENERMECH ON 16-FEB-2010.

For other material-handling equipment only:

Has operator been trained to operate the lifting device involved in the incident? **N**

How many years of experience did operator have operating the specific type of lifting device involved in the incident?

Inspection/Maintenance Information

For crane only:

Is the crane involved classified as Heavy, Moderate or Infrequent use.

Was pre-use inspection conducted?

Y

For the annual/quarterly/monthly crane inspections, please fill out the following information:

What was the date of the last inspection? **31-JUL-2009**

Who performed the last inspection? **SHI, DNV**

Was inspection conducted in-house or by a 3rd party? **TP**

Who qualified the inspector? **DNV**

Does operators' policy require load or pull test prior to heavy lift? **N**

Which type of test was conducted prior to heavy lift?

Date of last pull test: Load test:

Results:

If fail explain why:

Test Parameters: Boom angle: Radius:

What was the date of most recent crane maintenance performed? **07-FEB-2010**

Who performed crane maintenance? (Please clarify persons name or company name.)

STENA

Was crane maintenance performed in-house or by a third party? **IH**

What type of maintenance was performed?

Continuous planned maintenance.

For other material-handling equipment only:

Was equipment visually inspected before the lift took place?

What is the manufacture's recommendation for performing periodic inspection on the equipment involved in this incident?

Safety Management Systems

Does the company have a safety management program in place? **N**

Does the company's safety management program address crane/other material-handling equipment operations?

N

Provide any remarks you may have that applies to the company's safety management program and this incident?

Crane operator completed a tool box talk and a lifting plan.

Did operator fill out a Job Safety Analysis (JSA) prior to job being performed?

Y

Did operator have an operational or safety meeting prior to job being performed?

Y

What precautions were taken by operator before conducting lift resulting in incident?

Tool box talk was conducted and the lifting area was cleared.

Procedures in place for crane/other material-handling equipment activities:

Did operator have procedures written? **Y**

Did procedures cover the circumstances of this incident? **N**

Was a copy available for review prior to incident? **Y**

Were procedures available to MMS upon request? **Y**

Is it documented that operator's representative reviewed procedures before conducting lift?

N

Additional observations or concerns: