ALERT 12 – 10

LOSS OF BALANCE RESULTS IN LACERATION TO LEG FROM GRINDER

WHAT HAPPENED:

A vessel was on standby located near an offshore platform and waiting on orders. While the vessel was on standby, an Able Seaman was ordered to brush the upper stern part of the crash-bar (starboard side) with an electric grinding machine. He was attempting to perform the activity while working on the top of a ladder. The seaman lost his balance and the control of the grinder, dropping it to the deck. As the “uncontrolled” grinder fell toward the deck it cut the seaman just above the right knee. The injured person suffered an injury to his right leg (just above the knee) resulting in a 5 cm (2”) cut. After the incident, the seaman was given medical assistance from the vessel’s crew members and then examined by the platform doctor. After performing his examination, the doctor recommended sending the injured person to an onshore hospital. The injured person was disembarked and directed to the emergency room of the local hospital for medical assistance.

Wheel after incident

Grinder involved

Work area

Ladder used

Deck boards and partial wheel

WHAT CAUSED IT:

Technical Findings

- The grinder had no emergency stop system in place. Therefore the grinder continued its rotational movement once it was not under the control of the AB Seaman. This rotation resulted in cutting the seafarer and the wood deck;

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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Improper position to perform the activity (on top of a ladder) and ladder was not properly secured;  
Deck space was not sufficient to perform the maintenance activity and was reported as being slippery;  
The condition of the crash-bar and this planned activity did not justify the urgency to perform this specific maintenance activity during the stand-by position at an offshore platform.

Procedural and/or Organizational Findings

- No evidence of Planning the Activity/Toolbox Talk;  
- No evidence of Permit to Work issued (Hot work Permit/Working at Heights);  
- The two seafarers working on deck (AB Seaman and Bosun) were working independently (not as per PTW requirements – supervisory needs);  
- No evidence of a Task Risk Assessment being performed;  
- General Risk Assessment (RA) Document/Manual was available onboard that vessel that incorporates a general RA sheet pertaining to surface preparation for painting.

Human Factor Findings

- The Able Seaman had been trained in accordance with the Safety Management System (SMS) in place and was competent in using of the specific tool;  
- The Captain and Crew have proper knowledge of the SMS in place and of safety law requirements;  
- No enforcement of Company rules by the crew;  
- Lack of Risk Awareness & judgment by the crew.

Other information

- The sea-state had been officially reported as calm. During the investigation it was reported as long dead swells resulting in vessel slow rolling, compatible with unpredictable/anomalous sea movements. The weather was recovering from the previous adverse conditions.

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

- Conducted an inventory of the portable power tools available onboard all vessels and replaced the ones without an emergency stop system;  
- Issued an instruction/circular aimed to control certain non-urgent maintenance activities on deck in particular circumstances (e.g. potential vessel instability/unpredictable movements);  
- Reinforced instruction to personnel regarding the Stop the Job Authority;  
- Reinforced instruction to personnel about the importance of Permit To Work, Risk Assessment and Toolbox Talk system to identify risk so as to become aware and reduce them;  
- Issued instruction/circular aimed to limit the use of electrical tools under particular circumstances and to reinforce the proper use of support equipment (e.g. Ladder to be secured).

Preventive Actions

- Reinforced the core of the SMS and Company Values to crewmembers and Captains;  
- Reviewed the PTW / RA and Toolbox Procedures.

**IADC Note: Please refer to the IADC HSE Reference Guide on Equipment Safety (Section 3), Safety Meeting Topic Book (Hand and Power Tools) and past Safety Alerts: 01-06, 02-33, 02-36.**

**Credit to the Marine Safety Forum - Safety Flash 12-17 for distributing this safety alert. **