Maersk Completer

DROPS – Incident sharing and Awareness
**Facts**

After racking back a stand of drill pipes in the aft setback area a Floorhand heard something land on the Drill Floor. When investigated one half of a roller bearing from the X/Y-Racker main arm was found on deck between the X/Y-Racker and the drill pipe stands. The landing area was inside the ‘Red Zone’. There were 3 people on the Rig Floor, 1 was inside the ‘Step Back Safety Area’, 1 was moving towards that same area after setting the manual slips, 1 had been monitoring the fingerboard and about to head for the ‘Step Back Safety Area’. From the DROPs calculator this indicates a potential ‘first aid’ case.

Weight 220 grams  
Height 16 m  
= 34.5 joules

**Causes**

Unknown at this time. 
Possible mechanical stress or metal fatigue in the bearing. 

**Corrective measures/ learnings**

Called out for TOFS immediately. 
Maintenance Supervisor carried out a thorough visual inspection of the X/Y-Racker. During the inspection the other half of the bearing was found and removed from its position.

**Additional information**

Investigation ongoing and further findings to follow. 
No personnel were injured.
Lesson Learned

Incident: Dropped object – Metal sign dropped to Drill Floor
Synergi Case: 451625
Location: MAERSK COMPLETER, FADP-03, Brunei Darussalam
Date: 17th May 2010

What Happened:
At approximately 3:20 pm, while using Cherry Picker for making up casing spear, the Cherry Picker hit a stand of 6 3/4" drill collars in the aft setback area. This caused a metal NOV sign to brake off and fall about 8 mtr to the Drill Floor inside the Red Zone. No personnel are allowed in the red zone while cherry picker is moving.

Findings and Learnings
1. The energy created from the drops was 59.6 Joule.
2. The DROPS calculator classifies this as a "recordable case" – 2c
3. Sign sitting in a exposed position and likely to hit stands in aft setback area.
4. Sign had not been identified in Maersk Completer DROPS register as a potential dropped object
5. It has no functionality

Immediate actions
1. A TOFS was held immediately after the incident
2. Maersk and BSP management were informed.

Long term actions
1. Check other Drill Floor equipment for similar signs and remove them.
2. Re-visit the need for 3rd Party review of DROPS manual on the Maersk Completer

Position of Cherry Picker regarding Drill collar stand
Weight of sign is 0.76 kg
Original position of sign
Position of personnel
Sign landed here
DROPPED OBJECTS REMEDIAL ACTIONS
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MUSTER ALARM
(GENERAL EM’CY ALARM)
GENERAL ALARM
(FIRE/COMB. GAS ALARM)
H2S GAS ALARM

INTERMITTENT
DROPPED OBJECTS – RAISING CREW AWARENESS

What did I do to prevent one on the Maersk Compieter today?

Apakah tindakan saya untuk mengelakkan nya dari berlaku di Maersk Compieter pada hari ini?
Crew involvement in Potential DROPS Awareness
Improvement – this week:
The engine house ventilation flaps on the deck cranes have been fitted with secondary fall prevention after it was reported that they did not have any method.

Jalil Sajai, Crane Operator noticed this after finding corrosion beginning around the hinges during an inspection. Which could, in time, lead to them become dropped objects.
We are always encouraging and promoting the attitude, “if you see it, you own it”, and in this case, Jalil adopted that very concept. His own observation and reporting, resulted in the preventative measures being put in place by the man himself.
January 2011 On a number of rigs, dropped objects have occurred last month. Some of these could have been caught by inspections. See some examples below along with an idea for preventing DO’s:

**Drill Crew** were in the process of recovering riser. When they came to split the Upper Flexible Joint from the spacer joint the dummy finger and box detached and dropped into the sea via the Moon Pool. There were no personnel in the Moon Pool area at the time. On examination it would appear that at some time prior to pulling the UFJ the finger and box situated on the spacer received damage shearing the 2 Allen headed bolts.

**Protector** fell off 24" conductor when lifted off boat deck, and a second one fell off as conductor was landed in cantilever pipe bay. Protectors weighed 9.6 kgs, one fell from 0.5 metre and other from 1.0 metre. Protectors may not have been fully secured inside conductor box ends when loaded on to boat in town. Request better inspection from client suppliers to ensure potential dropped objects are eliminated.

**Potential dropped object relay**
The baton travels from department to department changing hands every day. When in possession of the baton it is your responsibility to discover at least one potential dropped object before passing on the baton to a random colleague from another department on the next day.

**Main PTA**, main arm roller foundation bolts sheared during operation and the job was stopped. PTA was supporting 20" cgs jnt. Hanging vertical in TDS elevators, when the 6 foundation bolts sheared causing the main arm to drop down 1½ ft. and hang in actuator piston. No personnel were inside dropzone. Handling capacity of the PTA according to the manual is 36". After checking the Auxillary side bolts they also showed signs of fatigue. Investigation showed that the bolts already had fatigue caused by constant impact / shearing force by tubular handling to and from the VPC/RPS tripping in and out as well as single jet handling.
Thank you for your attention

Any questions?