

- A 4-ton lift bag was identified in the procedure but was not available;
- The inverter rigging was not one size fit all, as the bags were different sizes, thus creating a scenario where diver rigging was required to lengthen or shorten the existing rigging;
- There were changes of personnel during the job:
 - Superintendents were changed out;
 - The bell run was split such that the diver that de-rigged the spool was not the same diver as inflated the lift bag that came loose.
- During the job, a finger incident occurred on the bell clump basket, and there was a safety stand down.



Black Duct Tape added to “hold” the rigging in place

Lessons learned

- Ensure one single person is accountable for rigging, reporting to the Superintendent and collaborating with the dive team;
- Improve management and installation of rigging configurations;
- Ensure written procedures are not generic, are up to date, and reflect the details of the task in hand;
- Minimise multitasking to eliminate distractions and fatigue;
- Be additionally vigilant and ensure there is thorough communication:
 - At crew change and at shift change;
 - Between shore-side or yard and vessel;
 - Between crew of different departments – dive, deck, bridge, project, etc.



Note the middle leg is not choked, as per the drawing, change not noticed, nor articulated to the divers

Members may wish to refer to

- [Lift bag lost when rigging parted \(2009\)](#)
- [Uncontrolled ascent – loss of lift bag to surface \(2010\)](#)
- [Uncontrolled ascent of lift bag \(2012\)](#)

2 Finger crushed under Tether Management System (TMS) protection guard

What happened

A worker suffered a crushed finger when the protection guard of a Saab Seaeye TMS8 Tether Management System fell on their finger. The worker was closing and securing the protection guard and lost grip on the guard. The guard fell down and trapped the left ring fingertip between the guard and the TMS frame. Upon removal of the glove it was identified the fingertip was damaged. The injured person went straight to the medic, who verified that the injury warranted hospitalisation, and the injured person was taken to hospital onshore.

What went right

- The injured person received medical help immediately and could be taken ashore for treatment quickly.

What went wrong – what was the cause

- With the two top pins removed the TMS guard can fall down if not safely supported – as when grip is lost;
- It was cold; there was no weather protection – cold hands;
- The worker was keen to complete the task in hand;
- The worker was not wearing the correct type of gloves;
- The task not fully risk assessed; there was no specific procedure/training to follow for guard removal.

Actions

The design of guards and securing method is under review for potential improvements. In the meantime a procedure for safe guard removal and refitting was generated and issued to all TMS8 owners as detailed in the bulletin copied at the foot of this incident.

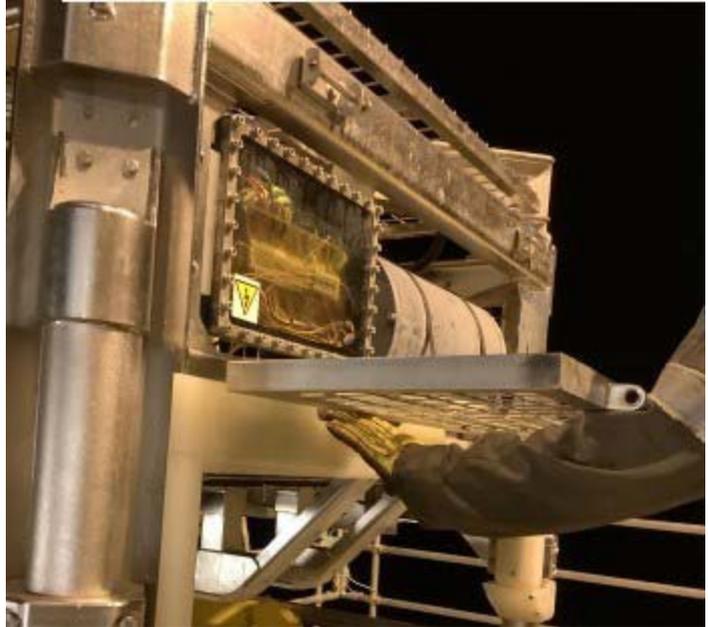
Members may wish to refer to:

- [Lost time injury \(LTI\): Finger injury whilst working in engine room \[the trainee wiper's hand slipped from the rope causing sudden drop of the pipe\]](#)
- [Dropped Object – door detached from TMS during dive](#)

Applicable
Life Saving
Rule(s)



Line of Fire



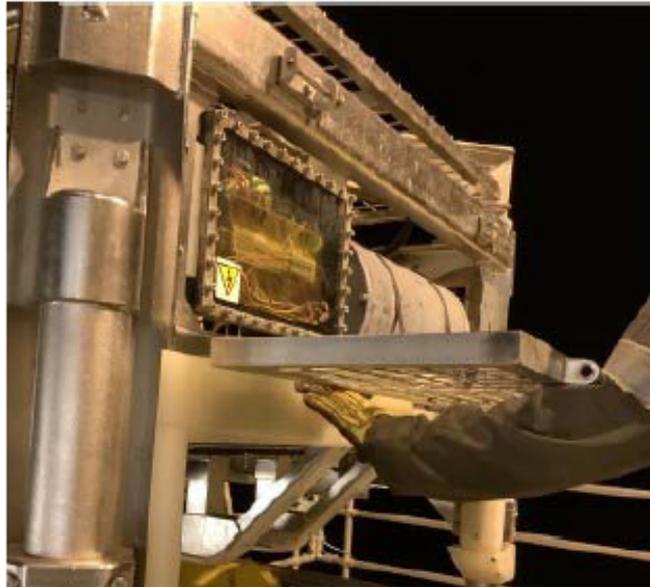
Engineering Advice Note (EAN) No. 183

URGENT SAFETY ADVICE - TMS8 SIDE PROTECTION GUARDS

Affected parts: All Systems which use Saab Seaeye TMS8 system.

Introduction

An incident occurred whereby a person working on a Saab Seaeye TMS8 sustained a finger injury as they were closing/locking a protection guard on the TMS8. The person lost grip of the guard and with only the lower pins being secured, the guard fell back down and the persons ring finger got caught between the guard and the TMS frame (see example picture #1).



Picture #1

Please follow the below procedure to remove and refit the guards in order to prevent this type of incident from reoccurring.

WARNING:

- Correct PPE to be worn when handling the guards.
- 2 people are recommended for safe removal and refitting.
- Never remove the top pins first as the guard will fall down if unsupported, risking injury or damage.
- Do not attempt to work with the guard only secured by two pins (either top or bottom).
- Do not prop or tie up the guard in any way.
- Complete removal of the guard from the TMS8 is required before any further work is carried out.

Removal: Step 1
Remove the two bottom pins only.



Removal – Step 2
With two people, support the guard from both ends securely and remove the two top pins.



Removal – Step 3
With two people, carefully take the guard away from the TMS frame and store in a suitable location.



Refitting – Step 1

With 2 people, lift the guard into position, locating the guard into the two top receptacles.



Refitting – Step 2

Fit the 2 top pins, and carefully locate the guard into the two bottom receptacles. Close the top drop nose pins end securing pivot catches.



Refitting – Step 3

Fit the two bottom pins and check that all drop nose pins have had their end securing pivot catch closed over to prevent them from falling out.



3 Sudden and uncontrollable move of A&R head

What happened?

At the end of offshore pipeline installation operations, a vessel was preparing for pipeline abandonment. The pipe end clamp was in the Hand-off Module (HOM) and had been bevelled and prepared; and the team were in the process of installing and aligning the Abandonment & Recovery (A&R) head for welding. Prior to installing the A&R head, the required volume of water had been removed from the flooded pipe clamped in the HOM.

The A&R head was then lifted into position using the workstation crane. With the A&R head lifted into position, an external pipe clamp was used to help with line-up and to secure the head in the required welding position. As the final adjustments were being made, the A&R head assembly was moved upwards and then ejected in an uncontrolled manner from the pipe end. It swung uncontrollably for a short period but did not drop as it was still supported by the workstation crane. This was brought under control quickly by one of the deck team.

Crew members were nearby (see images) but no-one was injured.

Applicable
Life Saving
Rule(s)



Energy
Isolation



Line of Fire



Showing work area before event



Showing A&R head ejected due to pressure

What went wrong

- There were no vent holes in the A&R head, as was specified by the client;
- The 'suck and blow' effect from the residual water in the pipe had not been recognised as a risk, as this incident/event had never occurred at this magnitude before;
- There were more people present (and hence at risk) than strictly necessary.

Lessons learned

- A renewed focus on controls, barriers, and risk management where Line of Fire risks have been identified;
- Can the task be done safely with fewer people present?
- Challenge norms and specifications and assess if they introduce changes with additional risks;
- Consider and plan for "suck and blow" effects for similar operations.

Members may wish to refer to

- [High potential stored energy incident: inner buoyancy module clamp failure during removal](#)
- [High potential near miss: working on pressurised pipeline](#)
- [Fatality: Stored pressure release](#)