

IMCA Safety Flash 09/07

October 2007

These flashes summarise key safety matters and incidents, allowing wider dissemination of lessons learned from them. The information below has been provided in good faith by members and should be reviewed individually by recipients, who will determine its relevance to their own operations.

The effectiveness of the IMCA safety flash system depends on receiving reports from members in order to pass on information and avoid repeat incidents. Please consider adding the IMCA secretariat (imca@imca-int.com) to your internal distribution list for safety alerts and/or manually submitting information on specific incidents you consider may be relevant. All information will be anonymised or sanitised, as appropriate.

A number of other organisations issue safety flashes and similar documents which may be of interest to IMCA members. Where these are particularly relevant, these may be summarised or highlighted here. Links to known relevant websites are provided at www.imca-int.com/links. Additional links should be submitted to webmaster@imca-int.com

I Pinch Points on Winches – Hand Safety

A member has identified a potentially serious hazard on a tugger winch, temporarily installed on a vessel deck, wherein a hand could be ‘drawn in’ between the winch drum cheek plate and the winch base.



Figure 1 – Typical tugger winch



Rotating ring of bolts Stationary winch base
Figure 2 – Detail of gap between winch drum cheek plate and the winch base

The operator for such a winch would typically stand with his right hand on the control lever. It is possible that an operator (or colleague standing nearby) could put his left hand on the winch base, for example to brace against vessel movement. If the winch was pulling in at the same time a hand could be drawn into the gap between the bolts and the base.

These winches or similar models are in widespread use and not all of them have adequate guards. It is recommended that winches with unguarded pinch-point hazards are identified and appropriate actions taken as an immediate measure:

- ◆ Hazard warning signs should be applied to the winches;
- ◆ Personnel operating or working in the vicinity of the winches should be briefed about the potential hazard.

An example of an appropriate guard that could be fitted to such a winch is shown below:



Figure 3 – Example guard for tugger winch

2 Uncontrolled Lifts of Hinged Deck Hatches

A member has reported a number of incidents of uncontrolled lifts of a hinged deck hatch which resulted in damage to equipment onboard a vessel. There was no injury to any personnel. One incident happened during the lifting of a hinged hatch using webbing slings and a crane; the strops failed during the lift causing the hinged hatch to fall back to the deck. The other incident resulted in failure of the hatch hinges.

Because of the potential to cause harm and because of the recurrence of similar kinds of incident, a full investigation was carried out.

The investigation team noted the following:

- ◆ Opening of this hatch has been considered a routine activity;
- ◆ In both incidents, sufficient force was applied to the strops or the hatch hinges for them to fail;
- ◆ Lifting operations where the load remained attached at one end to the vessel via a hinge or other device represents an additional hazard that needs to be taken into account in risk assessment and lift methodology.

The investigation team recommended the following actions:

- ◆ Systematic review of all hatches which are required to be opened on a routine or infrequent basis using mechanical lifting equipment, i.e. cranes or hoists;
- ◆ Review or completion of a risk assessment for the operation of these hatches;
- ◆ Ensuring controls are adequate to prevent failure of lifting equipment or hatches;
- ◆ Where controls are identified as inadequate, minimising risk, e.g. with a safe system of work or additional equipment or other means of control.

3 Lifting Rigging on 'Frog' Personnel Transfer Capsule

A recent incident has been reported in which there was a failure of both the primary and back up slings of a 'Frog' personnel transfer capsule, which was under low load conditions (a single passenger). The personnel capsule with its passenger was dropped on to the deck of the vessel. The occupant received injuries to his back and neck resulting in a medical evacuation.

The Frog sling set comprises a primary and a back-up sling, each constructed of non-rotating steel wire rope. A high visibility sling cover, closed by a Velcro fastening, is fitted, to

- i) keep both legs of the sling set together; and
- ii) assist both crane driver and deck crews in monitoring the position of the sling set during Frog operations.

Subsequent investigations conducted by the operator indicated that the slings failed due to corrosion. The manufacturer was unable to confirm the age of the sling set. This corrosion may have been accelerated due to the hot and humid tropical operating environment in which the equipment was deployed, causing condensation to collect inside the high visibility cover.

The incident further highlights the importance of adhering to a rigorous inspection and maintenance procedure, particularly regular inspections of sling sets by a competent person, and periodic replacement of sling sets.

The manufacturer has noted the following:

- ◆ The lifting sling set's high visibility cover is closed by means of a Velcro seam, to allow convenient opening for sling inspection. This cover should always be opened to allow a full visual inspection prior to use of the unit. Plastic cable ties or other securing devices which prevent convenient opening of the cover should not be used;
- ◆ Users of the Frog sling sets should conduct a one-off inspection to check the condition of the slings and their maintenance and inspection records, in order to ensure that preventative measures are being carried out and any sling sets showing signs of significant deterioration are replaced;
- ◆ Frog sling sets should now be replaced every 12 months (the previous recommended interval was up to 24 months);
- ◆ The specifications of the standard sling set were changed earlier in 2007 to a more corrosion resistant material;
- ◆ Users in tropical environments (or environments which may cause accelerated corrosion) should change their sling sets to the new specification at the earliest opportunity.

4 Confined Space Fatality

A member has reported an incident onboard a vessel in dry dock involving a number of fatalities caused by an explosion in a confined space. The explosion occurred in a machinery space and caused a serious fire. Though the incident is still under investigation, it is considered possible that a build-up of flammable gas had occurred, which was ignited by an as yet unknown source.

The company involved has recommended the following actions:

Ensure that confined or enclosed spaces are certified 'gas free' before work is commenced within them. It is also vital that to highlight the need to ensure that appropriate atmosphere monitoring within confined or enclosed spaces is undertaken throughout the period of work in a confined or enclosed space.

The following precautions should also be taken:

1. All hoses carrying flammable gas should be isolated at the supply source shut-off valve and depressurised during short breaks in the work, especially during tea breaks, lunch breaks etc.
2. All hoses carrying flammable gas should be removed from spaces during longer breaks in the work, i.e. any duration in excess of one hour.

These precautions should ensure that the potential for build-up of flammable gases is minimised or prevented from reaching hazardous levels.