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1. Wind storm - are you prepared?

As the North Atlantic hurricane season has officially started, it is timely to remind readers of the information and advice that has been put together on the subject. Last year the Club published 'WindStorm II - Practical risk management guidance for marine & inland terminals', which covered very practical topics of ensuring that there is an operative emergency plan and steps to take to minimise the impact of a storm, before, during and after.

Tropical Storm Risk (TSR), who supply the Club with forecasting data worldwide on a daily basis (see the Club's homepage), recently released a pre-season outlook report, which indicated that there is a 77% chance of an above-normal Atlantic hurricane season, an 18% expectation of a near-normal season while only 5% of a below-normal season. There could be 16 tropical storms, including eight hurricanes and four intense hurricanes in comparison to long-term norms of 10, six and three respectively.

TSR predicted 74% probability of above-normal US land falling hurricane activity, a 19% chance of a near-normal season but only a 7% likelihood of a below-normal season. It is predicted that there will be five tropical storm strikes on the US, which include two hurricanes as against the long term trend of three and 1.5 respectively.

There will be three determining factors for measuring the level of hurricane activity in the Atlantic basin, which would occur in August 2010 and September 2010. They are 'the speed of trade winds over the tropical North Atlantic, sea temperatures in the tropical North Atlantic, and the sign and strength of El Niño Southern Oscillation. US land falling hurricane activity is influenced by the level of hurricane activity occurring at sea, the pre-season North Atlantic Oscillation and by July 2010 tropospheric wind patterns over the North Atlantic and US.'

Professor Mark Saunders at Tropical Storm Risk said, 'Every main climate indicator points to the 2010 hurricane season being active. If La Niña develops during the second half of 2010 the above-norm hurricane levels will be even higher.'

Impact Forecasting, Associate director and lead meteorologist, Steve Drews said, 'TSR's pre-season outlooks correctly anticipated the active 2004, 2005 and 2008 hurricane seasons and the quiet 2009 season. 2004's hurricanes barraged Florida, 2005's hurricanes Katrina, Rita and

Wilma slammed the Louisiana, Mississippi, Alabama and Florida coastlines, and 2008's hurricane Ike affected the major Texas coastal cities of Galveston and Houston.'

The Club's WindStorm II guide, produced in collaboration with the International Safety Panel of ICHCA International, is available both in printed form and in a web-based version, the latter providing links to further information. It is available free to Members of the TT Club and ICHCA International, and can be purchased by non-members at £36 through the TT Club website www.ttclub.com and from ICHCA at www.ichca.com.

2. Safety Alert - Serious Injury from Sudden Depressurisation of Lift Truck Tyre

The Club has been alerted to a serious accident where a fitter was removing wheels from a lift truck to carry out planned maintenance work. One wheel flew off as the pneumatic tyre suddenly and unexpectedly depressurised. The wheel struck the fitter and caused serious injuries. TT Talk Edition 115 - 27 Jan 2009 highlighted this type of incident involving split wheel rims, providing advice based on an information paper by ICHCA International. The main elements of that advice are repeated here, urging increased vigilance.

Modern cargo handling terminals are equipped with mobile lifting and carrying machines. One of features of these is the use of large pneumatic tyres requiring high internal pressures. Most such tyres have split rim wheel assemblies and inflating and/or changing them can be extremely hazardous if not carried out properly. These hazards and the ways to avoid them have been known for a long time but they still continue to be a source of injury, which in most instances prove to be fatal.

Such assemblies can come apart due to a variety of reasons including:

- Damaged or mismatched rim parts
- Corroded or dirty rim parts
- Failure to deflate tyre before removal
- Incorrect tyre size
- Over inflating tyres
- Fitting tubed tyres on a rim designed for tubeless tyres
- Removing the nut which holds the wheel rim together (on some designs of split rim)

Whilst workshops provide a frame behind which a tyre can be placed whilst it is worked on (and this should always be used), this is not possible if work is necessary on the terminal itself and the main circumstance and site of fatal accidents is in the latter situation. It must be emphasised that to avoid such accidents, if a cage or frame cannot be used to give the worker protection, the tyre must be deflated before it is removed. Similarly, tyres should not be inflated prior to correct fitting. Manufacturers' recommendations on the safe removal and replacement of tyres and or rims must be incorporated into a safe system of work. Those who are employed to carry out such tasks should receive suitable and proper training on the correct procedures. Supervision is needed to ensure that these procedures are correctly followed.

Recent advice from the UK Health & Safety Executive may also assist:

<http://www.hse.gov.uk/pubns/indg433.pdf>

It is recommended that operators of this type of equipment review their procedures and ensure through instruction, supervision and training that safe arrangements are in place and followed.

3. Safety warning over ship's crane

The UK Maritime Administration's Marine Accident Investigation Branch (MAIB) publishes a regular Safety Digest and a recent issue contained an accident involving a stores crane on a ship.

According to the Digest, a product tanker was loading a cargo of gas oil and a stores barge was secured on the outboard quarter of the ship. The ship was fitted with a stores crane with a SWL (safe working load) of 0.8t on that side. It was mounted on a pedestal above the deck and the bosun climbed up onto the platform mounted on the side of the pedestal to operate the controls. In that position he had a good view of the stores barge.

When a second load, which weighed 788kg (and therefore within the SWL of the crane), started to lift it suddenly lowered and landed heavily and a crewman saw both the crane and the bosun falling. The crane struck the side of the ship, hit the deck of the barge, crushed a rubbish skip and finally fell into the sea. The bosun fell onto a lifeboat deck some 5-6m below and, although he suffered serious injuries, he survived but was very fortunate not to be killed.

The crane had passed a five yearly load test less than three years before and the most recent annual inspection had been conducted by a classification society six months previously. Furthermore, the ship's managers had a detailed planned maintenance system in place for the cranes on board with inspections completed at regular intervals. All of the records appeared to be in order and, therefore, the reason for such a catastrophic failure was not immediately clear.

However, when the nuts and bolts holding the crane pedestal to the ship's superstructure were examined, the cause became very clear. They showed extensive and long-term corrosion to such an extent that the threaded parts were reduced to 50% of their original diameter. Furthermore, very few of the nuts were complete and none would have provided any significant holding down force. It also became apparent that the nuts and bolts had been heavily painted thus disguising their underlying condition. The other cranes on the vessel were inspected and they showed similar corrosion on the holding down bolts.

It is clear that the failure was caused by lack of maintenance over a lengthy period of time. What, for example, can be reasonably expected to be done by way of maintenance of items such as holding down bolts and who should do it? With ship crew numbers now down to the bare minimum, can it be expected that they will do what is necessary or is it a shipyard job when the ship is dry-docked? This was a non cargo-handling crane but the same problem could apply to cargo cranes as well. With the latter, ILO Convention 152 specifies a regular testing and thorough examination regime and what should an Inspector or Surveyor do when faced with those items? Are they, in fact, considered to be part of the lifting appliance at all? An investigation is currently underway but in the meantime, readers are alerted to this situation.

4. Dangerous Goods Declarations and Material Safety Data Sheets

Mike Compton, the Technical Advisor for ICHCA International, writes:

A document that is increasingly being used in relation to the conveyance of packaged dangerous goods is a Material Safety Data Sheet (MSDS) or, as it is becoming more commonly known, the Safety Data Sheet (SDS). Often dangerous goods declarations for conveyance of packaged goods by sea are accompanied by an SDS and, if there is any doubt about the substance or material, the person taking the bookings and/or receiving the declaration may ask for an SDS and they are relied upon for specific information relative to conveyance, stowage and segregation.

Whilst, apart from cargoes shipped in bulk carriers, there is believed to be no legal obligation for SDS to be supplied to organisations in the transport chain, the TT Club encourages the practice of providing them.

However, ICHCA International has informed its members that recent discussions have shown that the contents of SDSs can vary and that this could pose a problem for the recipient shipping companies, ports and terminals. In one instance, a well known chemical manufacturer issued separate SDSs over three successive months each with a different UN Number but for the same

product. This happened because the individuals preparing each SDS had insufficient training on how correctly to choose UN Numbers and to classify goods in the first place. There are reasons for believing that this kind of situation is not uncommon.

The legal situation is that a shipper signs a dangerous goods note and this implies that the consignment has been classified and identified correctly and legal liability is attached to this statement. Furthermore, from January 2010 all such persons involved with packaged DG on the shoreside must be trained, including those who prepare SDSs (see TT Talk 121 for practical guidance on encouraging compliance with this new requirement). In addition, specialist shipping line and port staff could usefully be trained in how to read and interpret SDSs.

However, from a practical point of view what is the booking clerk or person receiving the declaration to do when faced with an SDS? More specifically, what should they be trained to do? The implications of the above are that we should all be more circumspect when using SDSs. The following are example scenarios:

Example 1

- A shipper submits an SDS which shows that a substance or material that is in the IMDG Code is really not dangerous for transport by sea, eg carbon black of mineral origin.
- This should be checked with the shipper and/or an in-house or outside expert who can advise on what should be the response. If the shipper insists that the SDS is correct, it is suggested that a categorical written statement be obtained before accepting it.
- The booking clerk's training should enable him/her to consider whether the data presented in these sections support the transport class, subsidiary class, packing group, proper shipping name and packing group and aquatic pollutant classification presented in the transport section including whether confirmation as being not dangerous for transport is supported.

Example 2

- A shipper submits an SDS which shows that a substance is a flammable liquid even though not specifically in the IMDG Code but should be, eg a flammable liquid with a flashpoint at or below 600C.
- Generally this would be accepted, unless there is any reason to doubt it.

Example 3

- A shipper submits an SDS which shows that the substance or material is not dangerous but the stowage information includes advice regarding stowage away from heat and/or away from other substances such as organic peroxides.
- It is thought that there are a number of substances that this situation can apply to and, at the very least, the relevant stowage information must be noted and implemented during the stowage and segregation provisions on shore and on ship.

Readers who deal with SDSs are alerted to this situation and advised to treat them carefully. There should always be someone in-house or outside who can assist in cases of doubt and those details should be readily to hand.

5. Conclusion

We hope that you will have found the above items interesting. If you would like to have further information about any of them, or have any comments you would like to make, please email the editor at peter.stockli@thomasmiller.com We look forward to hearing from you.

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for the TT Club

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