Bulk cargo – know the risks

The issue of piracy, and the risks it causes to ships and crew, has rightly attracted a great deal of media attention. But the rate of crew loss in bulk carriers remains almost twice as high as that attributed to piracy, with an average of 24 deaths per year in bulk carrier incidents over the last ten years – a rate which still represents a considerable improvement over earlier years. With this in mind, perhaps the shipping industry needs to pay more attention to everyday risks, suggested a speaker at the launch of the solid bulk cargo pocket guide published by Lloyd’s Register, in association with the UK P&I Club and Intercargo.

When bulk cargoes shift, liquefy, catch fire or explode as a consequence of poor loading procedures, the consequences can be massive. Ships may capsize, lose stability or sustain severe structural damage. Such happenings enhance the risks – and the occurrence – of death, injury, insurance claims, operational delay and considerable expense. Unfortunately, it is often assumed that dry bulk cargoes are less hazardous, and require less expertise, than liquid bulk or containers. This is quite clearly not the case, with some 24% of large P&I claims coming from bulk carriers, of which 40% are cargo related.

Despite what should already be a good level of knowledge, bulk carrier accidents continue to happen for a variety of reasons including:

- Trade names of product used instead of correct shipping name according to the International Maritime Solid Bulk Cargoes (IMSBC) Code;
- Misdeclaration of hazardous cargo as Group C (ie no risk of liquefaction or chemical hazard);
- Poor compliance with testing and certification requirements;
- Inaccurate and unreliable data;
- Incorrect documentation for cargo not listed in IMSBC Code;
- Lack of crew awareness of cargo, Code – or even knowledge that the IMSBC Code exists.

These risks have now drawn the attention of the industry. Carrying solid bulk cargoes safely: Guidance for crews on the International Maritime Solid Bulk Cargoes Code, produced by Lloyd’s Register in association with the UK P&I Club and Intercargo, is a pocket guide that outlines the precautions to be taken before accepting solid bulk cargoes for shipment, and aims to raise awareness of the Code as a whole, as well as the steps to be taken when accepting a cargo for carriage.

It sets out procedures for safe loading and carriage, and details the primary hazards associated with different types of cargoes. It concludes with a two page reference checklist, and a flowchart outlining the risks of each class of cargo, and summarises the steps to be followed. While this information should be nothing new to the seafarer, it is intended to be a useful and convenient guide to be referred to during the loading procedure, and may provide a handy reference in case of dispute.

The guide reflects the compliance requirements of the IMSBC Code, which became mandatory on January 1st 2011 under the SOLAS Convention. It addresses the Code’s three key groups: A (which may liquefy), B (chemical hazards) and C (all others). Appendices cover IMO regulations and guidance relating to the transport of solid bulk cargoes and provide an overview of the IMSBC Code.

“We’re so focused on finding efficiencies that safety doesn’t get the attention it should. You cannot be a high-performing organisation unless you are also a safe organisation,” said Nick Brown from Lloyd’s Register. Rob Lomas from Intercargo agreed that we have to regard safety as a key business driver, and that the attention now being paid to dangerous cargoes is long overdue. However, he emphasised that, despite the production of the guide, the last thing the industry needs is for more responsibility to be placed on seafarers. Ensuring the safety of the shipment must be the shipper’s responsibility. ‘We need to involve the shippers, in the same way that we did in developing Best Management Practices for dealing with piracy.’ Even once this has been done, however, it will still be important for crew to be familiar with the IMSBC.

Sam James, Lloyd’s Register’s Global Head of Fire and Safety, said that, although both officers and shippers should be well aware of the risks of bulk cargo, the guide would be extremely useful to an aide memoire. ‘This guide will heighten awareness of seafarers, managers, charterers and shippers to the hazards associated with carrying solid bulk cargoes. Everyone involved has a responsibility to ensure cargo is accurately declared and the hazards mitigated.’

Intercargo Secretary General Rob Lomas said: ‘The guide underlines the importance of proper cargo declarations and will be a useful tool for the wider maritime community, including shippers and charterers and those who do not regularly carry dry cargoes in bulk. Getting the checklist on board ships will help expand seafarers’ knowledge, which will be of great value.’

UK Club Loss Prevention Director Karl Lumbres emphasises that the new Code has significantly increased the obligations on both suppliers and recipients of solid cargoes. ‘The main purpose of the Guide is to provide on the spot references to help in practical situations. It outlines the precautions to be taken before accepting cargoes for shipment and the procedures to be followed for safe loading and carriage, and details the primary hazards associated with different solid bulk cargoes. In giving all parties a better appreciation of the IMSBC Code, the Guide provides greater confidence in managing the risks of carrying solid bulk cargoes and achieving compliance with SOLAS.’

Solid bulk cargoes loading flowchart
Follow the steps to see if it is safe to load your cargo

YES

Shipper has delivered all required cargo information?
IMSBC Code consulted regarding cargo and associated hazards?
Master and crew have the necessary ship data and information to prepare ship for loading?
Cargo spaces inspected and prepared for cargo loading and stowage?

Cargo Group?

A

TML Certificate?
Moisture content (MC) declaration?
MC lower than TML?
Cargo spaces free from liquids?
Visual monitoring conducted?
Trimming considered?

B

Stowage/segregation acceptable?
Atmospheric conditions suitable and monitoring tools operational?
Applicable dust precautions in place?
Ventilation meets operational and IMSBC requirements?

C

IMBC Cargo Schedule consulted?
Applicable precautions taken?

Not listed in IMSBC Code?

Competent authority has provided the Master with certificate stating carriage requirements (if Group A or B, agreed by authority of port of unloading and flag)?

DO NOT LOAD

YES

Is the cargo categorised as ‘dangerous goods in solid form in bulk’ by SOLAS regulation VII/7?

NO

Does the Master have a special list/manifest/stowage plan identifying its location, are there instructions on board for emergency response, and does the ship have a ‘Document of Compliance for the Carriage of Dangerous Goods’?

NO

Has the Loading Plan been agreed with the Master and terminal representative?

NO

Are there instructions to suspend the loading/unloading operation if the ship’s limits are exceeded, or are likely to be exceeded if continued?

LOAD (monitoring the cargo loading operation)