



# Standard Bulletin

## Special Edition – Cargo



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to seek specific legal or technical  
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about any specific matter.

Welcome to this special cargo edition of *Standard Bulletin*.

### Cover

Cargo claims and cargo's proportion of General Average continue to represent almost one-third of the claims payments made by the Club. The Club covers a member's liability not only for loss of or damage to cargo, but also for delay, loss of market or consequential losses.

A prerequisite of cover is that the contract of carriage (usually the bill of lading) must be subject to the Hague, Hague-Visby or, where compulsorily applicable, the Hamburg Rules or equally wide terms. If it is not, then any recovery from the Club is at the Board's discretion. However, we recognise that some members may decide to contract on wider terms or may need extensions of cover. On page 3, we review the cover that can be provided by the Club for such additional liabilities, together with deviation, through transport, consortium and slot charter packages.

### UNCITRAL Convention

After so many years without major change, shippers, carriers, lawyers and clubs have become very familiar with the Hague, Hague-Visby and Hamburg Rules. We may shortly be faced, however, with a new Carriage of Goods by Sea Convention. The United Nations Commission on International Trade Law (UNCITRAL) has been working on this for some

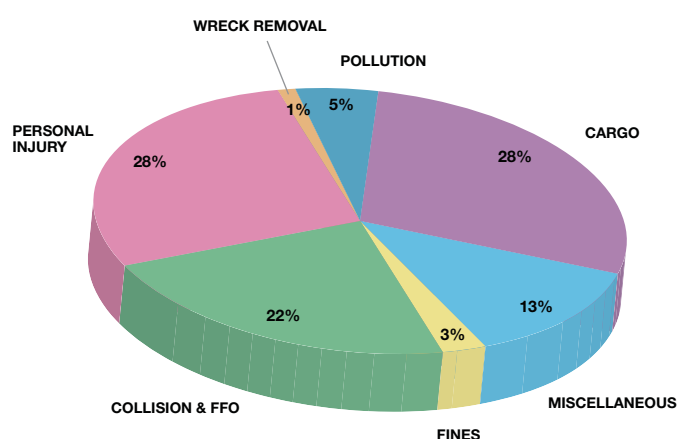
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CLAIMS PAYMENTS BY MAIN RISK TYPES FOR POLICY YEARS 2000-2005



time, and there now seems to be light at the end of the tunnel. The Convention is likely to be finalized and adopted in 2008 and come into force 2-3 years thereafter. This would replace the existing conventions in many jurisdictions and might even be ratified by the United States if sufficiently supported elsewhere. We have no doubt that, as currently drafted, the Convention would lead to an increase in claims on the Club. On page 5, we review the main changes envisaged by the Convention.

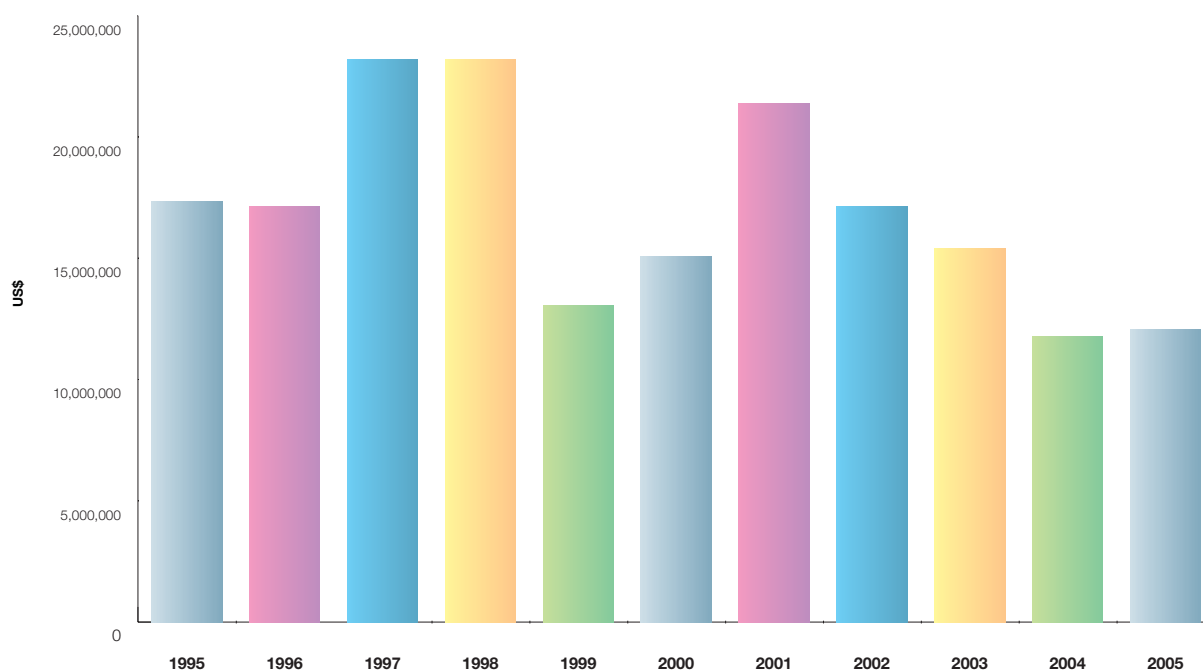
## Dangerous Cargo

Recently, we have had experience of explosions and fires in container ships and general cargo ships carrying hazardous cargo. Problems have been caused not only where hazardous cargo has been mis-declared and then incorrectly stowed, but also where inadequately stowed cargo has been carried under deck and has suffered in adverse weather conditions. On pages 13-15 we examine the loss prevention and legal issues arising from the carriage of dangerous cargo.

## Fully Automatic Twistlocks

Following a number of high-profile incidents in which a large number of containers have been lost overboard, it was reported in the maritime press that fully automatic twistlocks might have been to blame. On pages 19-21, we examine the use of fully automatic twistlocks and what steps members can take to minimise possible problems.

CARGO EXPENDITURE FOR POLICY YEARS 1995-2005





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## Club Cover

### Cargo Cover and Extensions of Cover

#### Ordinary Cargo Cover

We discuss in other articles in this issue of the *Standard Bulletin* the likely entry into force in the foreseeable future of a new legal regime for cargo carriage liability as a result of the work of UNCITRAL. However, until that time, and as has been the case for many decades, most contracts of carriage by sea are subject to the Hague or Hague-Visby Rules, or to similar domestically legislated versions of them, such as US COGSA. In order to ensure consistency and fairness between all members, normal Club cover is premised upon the member contracting on such terms. If the member contracts on terms less favourable to the carrier, then recovery from the Club is at the Board's discretion.

More onerous liability regimes, such as the Hamburg Rules, are only acceptable from a Club cover perspective if they are compulsorily applicable by law – in other words, a member is not covered if he decides voluntarily to accept them.

#### Additional Cargo Cover

However, we recognise that some members may decide to contract on more onerous terms and, for example, give higher limits or contract on terms that are closer to strict cargo liability or 'insured' bills of lading. The Club can provide cover for additional liabilities arising out of such contracts.

#### Deviation Cover

The Club can also provide additional cover where members need cover for one-off deviations, or on an annual basis to cover multiple possible deviations during the normal course of trading. This deviation cover protects members when there is what might be considered legally an 'unreasonable' deviation, either contractually or geographically, from the contractually agreed voyage, such as to potentially deny him his normal defences and limitation rights, and which might therefore prejudice his normal P&I cover.



#### Through Transport Liabilities

It is typical for Club cover to be extended to include not only 'ship's rail to ship's rail' liabilities but also liabilities to cargo when carried under through bills of lading. Through transport cargo cover includes liabilities

arising while on land, for example, road and rail sectors of the transportation, and at sea, including feeder vessels, provided the carriage is to be performed partly on the entered ship. Members should ensure that they have told the Club that they need such cover and the extension of cover will be documented in the certificate of entry.

In addition, members operating in through transport trades, who also need cover for liabilities on land arising *out of* the cargo, as well as *to* the cargo (for example, if a container were to fall off a train and cause injury) need to ensure that they have obtained a further specific extension of cover for such risks.

#### Consortiums and Slot or Space Charters

Members who operate in consortiums or other space-sharing arrangements with other carriers can be insured by the Club for their liabilities arising to or out of cargo being carried under their bills of lading on ships other than their own or time-chartered ships. This cover is generally provided without additional premium, provided that the exchange of containers or space between the consortium partners is broadly reciprocal, so that the member's risk measured by cargo volume is similar to that which it would have been if he had fully utilised his own ships only. However, the member must inform the Club if he needs this consortium extension of cover.

Where the member's participation in a consortium or space-sharing arrangement is such that he bears more risk by cargo volume than his own and his time-chartered ships' capacity, then he needs to buy additional cover as a space or slot charterer. Similarly, if he participates in a consortium, or otherwise operates in a trade, where he contributes no owned or time-chartered ships to it, then he is considered to be a Non-Vessel Operating Common Carrier (NVOCC) and needs cover for his liabilities in that capacity.

The member may also have liability arising out of cargo carried under his bills of lading for damage to the carrying ship in consortiums or, in any case, where he is not the owner of the ship. The Club can provide cover for that risk.

#### Limits

All of these additional covers are subject to specific limits. Consortium cargo liabilities are generally subject to the normal charterers' P&I limit of US\$300m, as set out in the Rules. Other additional cargo risks and cover extensions are subject to limits as agreed with the Club and set out in the certificate of entry. The additional covers are available as a result of the Club's extensive 'non-Pool' reinsurance programme, under which high limits can be given, up to US\$1bn if required, although lower amounts are normally adequate for cargo liabilities.

#### Specific Agreement for Club Cover

All of these covers must be specifically agreed in writing with the Club and specified in the member's certificate of entry. All underwriting and claims issues are dealt with by the Managers in-house, enabling a fast and efficient service to be provided.





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## Bills of Lading

### Clausing Bills of Lading

**One of the most important ways that a master can protect the shipowner's position in respect of potential cargo claims is to ensure that the description of the cargo on the bill of lading accurately describes its condition as established by the ship's crew.**

The remarks made on the bill of lading by the carrier are a representation as to its condition upon shipment. The remarks refer to the apparent condition in so far as the carrier or its agent is able to judge by a reasonable outward inspection. As more and more cargo is shipped in containers, such statements may only be of limited value as they merely describe the outward appearance of the containers or other packaging, not the actual condition of the goods inside.

### Damaged Cargo

However, when the ship's crew does observe that the cargo is damaged, substandard or suffers from defective packaging, it is vital that such observations are accurately noted on the bill of lading. The crew can only comment on the condition of the cargo as seen, the number of units tallied or the weight as shown in the shipping documents and confirmed by the draft survey.

The shipper will usually be reluctant for the bill to contain any remark that the goods or packaging may be defective as this will mean that the bill is not 'clean'. That is, it contains a clause or notation declaring the defective condition of the goods or packages. Such a bill of lading may not be acceptable to the buyer and, in most circumstances, will not meet the letter of credit requirements under the sale contract.

While, in theory, this is the shipper's problem, and the master is justified in not signing a bill of lading that does not accurately reflect the

description of the cargo as found, in practice, the master will come under considerable pressure from the shipper to issue a clean bill or one with acceptable remarks for, as stated above, the shipper may be unable to negotiate the bill or draw upon a letter of credit.

### Letter of Indemnity

The shipper may attempt to persuade the carrier to accept a letter of indemnity to cover any losses that might arise from an action brought by a consignee of the goods. However, the carrier would then have no defence to claims brought by the consignee or holder of the bill of lading. Also, under English law it would not be possible to enforce a letter of indemnity where the bill of lading is clearly wrong as such an indemnity is illegal and void on the basis that it amounts to an attempt to defraud the consignee and its bank (*Brown Jenkinson V Percy Dalton* [1957] 2 All ER 844).

### Club Cover

A further serious consequence is that Club cover becomes discretionary in the event of a claim *"arising out of a bill of lading.....containing or evidencing the contract of carriage issued with the knowledge of the member or his master with an incorrect description of the cargo, or its quantity or its condition"*.

### Prompt Notification

**The master is often placed under considerable pressure to acquiesce to the shipper's demands, and it is therefore vitally important that he involves the Club's local correspondent as soon as possible to protect the owner's position. Very often, a prompt and robust response will result in the shipper backing down.**





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## Cargo Conventions

### UNCITRAL and the Carriage of Cargo

#### New Convention

The maritime industry is in a constant state of evolution. Maritime law and the marine insurance sector are inevitably drawn along in the wake of the changes. The United Nations Commission on International Trade (UNCITRAL) has been working on a draft Convention for some time and it is nearing completion. The Convention is intended to bring about greater uniformity in the terms and conditions under which the cargoes of the world should be transported. Inevitably, given the number of interested parties and the diversity of vested interests, so far it has not been an easy process. For example, the US has already formulated its own updated COGSA, and the Spanish government is in the process of preparing its own updated maritime code for submission to the Spanish parliament. However, the draft Convention may be finalized and adopted in 2008 and come into force 2-3 years later.

#### Uniformity

It should be borne in mind that the rationale for this latest round of discussions is the achievement of some uniformity worldwide, which is a worthy aim. The mandate of UNCITRAL is to "further the progressive harmonization and unification of the law of international trade". It is the same concept that resulted in the Hague Rules of 1924, which were widely adopted. Years of the Rules' application and the outcomes of various cases tried by the courts meant that there was eventually a general understanding by most, if not all concerned, as to what should be in the contemplation of the parties when they entered into a contractual relationship, either as a carrier or as a shipper or receiver of cargo.

#### A Question of Balance

It is certainly arguable that sometimes changes are driven by forces other than the evident need to fill an obvious gap in existing systems, services or laws. A prime example of this has been the ever accelerating erosion of defences available to the carrier in the provisions of the conventions. A review of the provisions of the Hague/Hague-Visby Rules and a further comparison with the convention that followed, the Hamburg Rules, demonstrate this evolution. Shipowners and charterers are naturally anxious not to lose defences and, clearly, a balanced approach is required unless contractual carriers are to end up taking over a large part of the role cargo insurers currently play.

#### Issues

The discussions are focusing on:

- Potential conflicts with national laws
- The new instrument covering not only 'tackle to tackle' movements but also multi-modal carriage
- Extending the applicability of the new instrument to include maritime subcontractors, known as 'maritime performing parties'



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- A possible revision of the per package or customary freight unit limit, including an agreed basis for amendment of limits as may be required due to inflation or other factors
- The exclusion of the existing error of navigation or management of vessel defence.
- Liability for delay on the part of both cargo interests and the carrier.
- A more equitable system for dealing with the burden of proof and apportionment of fault between ship and cargo, where two events may be causative but only one is the carrier's responsibility.
- An examination of how shippers' declarations regarding quantities and weights loaded, as they appear on the face of bills of lading, are treated, with particular reference to FCL shipments.
- Jurisdiction provisions giving a choice of stated forums to cargo interests.
- The extent to which individual service agreements between carriers and cargo interests can be free from mandatory imposition of the terms of the new instrument.

The stated intention is for the new cargo rules to be finalized during 2008, and one can only wait to see what the final agreement contains. Certainly, one hopes that it will be a balanced instrument with which both carrier and cargo interests can live without too much complaint.

**Further information on the draft Convention can be obtained from UNCITRAL's website:**

**[www.uncitral.org/uncitral/en/commission/working\\_groups/3Transport.html](http://www.uncitral.org/uncitral/en/commission/working_groups/3Transport.html)**





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## Charterparty Claims – NYPE Inter-Club Agreement

### Inter-Club Agreement Checklist

The Inter-Club Agreement (ICA) is designed to promote amicable and equitable settlements of cargo claims under the New York Produce Exchange (NYPE) form of charterparty between owners and charterers. It does this by providing a formula for the apportionment of cargo claims in a rough and ready way. The latest version of the ICA is the 1996 form, and its full terms can be found on the Club's website at: <http://www.standard-club.com/content/documents/Interclubagreement.pdf>

### What is a Cargo Claim?

The ICA's definition of a cargo claim expressly includes losses arising from:

- Damage
- Shortage (including pilferage, ullage and slackage)
- Overcarriage
- Delay
- Customs fines or dues (these were previously excluded under the 1984 version of the ICA).

### Interest and Costs

A party may claim any legal costs claimed by the original cargo claimant, and the costs reasonably incurred in the defence or settlement of the original cargo claim. The costs in making a claim under the agreement or in seeking an indemnity under the charterparty are excluded, but if there is a dispute, then these would form part of the costs of prosecuting the claim. Interest claimed by the original cargo claimant is also allowed.

### Approved Contracts of Carriage and Through or Combined Transport Documents

For the ICA to apply, the cargo claim must have been made under a contract of carriage authorised under the charterparty. The contract of carriage must have been performed on terms no less favourable than the Hague/Hague-Visby Rules or the Hamburg Rules, when compulsorily applicable by operation of the law to the contract of carriage, or any national law giving effect thereto.

The ICA will apply in respect of cargo claims made under a through or combined transport document only if the contract of carriage would have been authorised under the charterparty and to the extent that the loss or damage to cargo arose during the period for which the shipowner was responsible (i.e. not prior to loading or after discharge).

### Material Amendments

A material amendment is defined as one that makes liability for cargo claims clear. The 1996 ICA expressly refers to the addition of the words "and responsibility" to NYPE form clause 8, which is not a material amendment for the purposes of the ICA 1996 but does change the apportionment to be applied to claims concerning cargo-handling from 100% to charterers to 50/50; however, the addition of the words "cargo" to clause 26 remains a material amendment and will render the ICA inoperative.

### Claims to be Properly Settled or Compromised and Paid

The ICA 1996 widened the condition precedent contained in the ICA 1984 by requiring that the cargo claim be not only properly settled and compromised, but that it must also be paid. It is advisable that, in all but unusual circumstances, a proper investigation of the cargo claim is conducted before it is negotiated and settled.

**The Club's recommendation is that any advice received as to the merits of the claim should be confirmed in writing as this will greatly assist in proving the claim was reasonably settled at the time.**

The meaning of the words "properly settled and compromised" was considered by London arbitrators (LMLN 29/04) in a case in which the charterers disputed the owners' right to an indemnity under the ICA because they had settled a cargo claim for commercial reasons in order to avoid their ship being detained by receivers in the Yemen. It was held that, in certain circumstances, a party could settle a cargo claim for reasons of commercial expediency if it could be shown that, had it not done so, it would have been liable to the claimant for an amount equal to or greater than that paid in settlement. This decision was one peculiar to the facts of the case.



### Time Bar

Notice of a claim under the ICA 1996 should be given to the other party in writing within 24 months of the date of delivery of the cargo or the date the cargo should have been delivered, except where the Hamburg Rules are compulsorily applicable, in which case the time limit is 36 months from the date of delivery.

The ICA 1996 differs from the 1984 version, which referred to the date of discharge. This change can bring forward or put back the date on which time begins to run. For example, where the cargo is delivered on “free out” terms, leaving it to the receivers to perform discharge, “delivery” will commence as soon as the hatches are opened and the cargo is made available to the receivers.

An indemnity claim under the ICA shall itself remain subject to the statutory time bars applicable to the governing charterparty as long as the notice provision has been complied with. Under English law, this would be six years.

The question of when time begins to run against the six-year time limit was considered by a London arbitral tribunal (LMLN 32/04). In that case, the cargo was discharged at Abu Dhabi in 1995 in a seemingly damaged condition. The ship was subsequently arrested in 1996 and a bank guarantee was given to the cargo underwriters. The cargo underwriters’ claim was eventually dismissed on appeal to the Abu Dhabi Higher Federal Court, but in December 2002, the Abu Dhabi Court of Execution nevertheless ordered that payment be made to the cargo underwriters. Payment was accordingly made by the bank in January 2003. The owners sought an indemnity under the terms of the ICA, and in August 2003, they commenced arbitration against the charterers. The charterers contended that the owners were time barred under English law. The tribunal found that time would not begin until the underlying liability had been established and ascertained, confirming the general position of English law on indemnities under charterparties.

Thus, provided notice is given by a party to the other within 24 months from the date of delivery (ICA 1996) / discharge (ICA 1984), or within 36 months if carriage is subject to the Hamburg Rules, under English law, a party will have six years commencing from the crystallisation of the underlying cargo liability to bring their claim formally for a contribution under the terms of the ICA.

## Apportionment

The formula for apportioning liability is clearly set out in the ICA. Liabilities to be apportioned shall be limited to those arising under the governing charterparty. This can be of significance where there is a chain of charterparties involved and the underlying liability is to be split equally between the parties pursuant to the formula as prescribed by the ICA (for example, in claims for cargo shortage not caused by pilferage or by the act, neglect or fault of either party) as the amount of the contribution due from the other party will gradually diminish by 50% as it passes up or down each chain of charterparties.

Sometimes, the advantages that the ICA can bring in providing rough and ready justice to apportioning liability for cargo claims without the need for costly legal proceedings means that, in certain cases, a party may be held disproportionately liable in relation to its own culpability. This issue was brought into stark focus in a recent decision of the English High Court in the case of *The Kamilla* (2006).

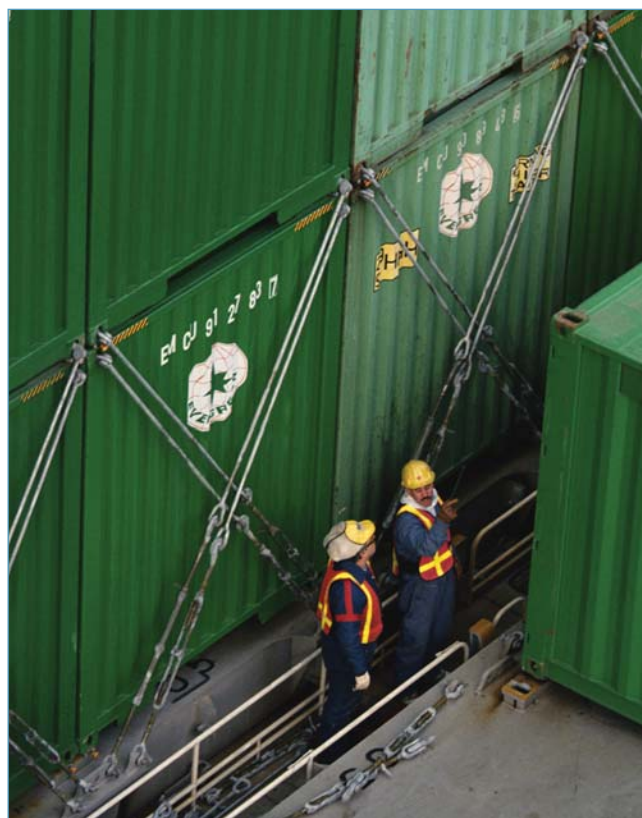
The ship bound for Algeria was loaded with lentils in bulk. Her hatch covers were not secure, rendering her unseaworthy and resulting in seawater damage to 1% of the cargo. The Algerian authorities nevertheless rejected the entire cargo. The charterers argued that the owners must bear 100% of the loss under the ICA because the loss was caused by unseaworthiness. The owners argued that the loss was not due to unseaworthiness, because it was not reasonably foreseeable that the minimal amount of seawater damage that occurred would cause the entire cargo to be rejected.

The court refused to enquire what was the effective cause of the loss, which it considered would be contrary to the objectives of the ICA, when the unseaworthiness of the ship could be said to be a practical cause of the loss. Therefore, even though the unseaworthiness caused only 1% of the loss, the owners recovered nothing from the charterers.

## Summary

The ICA remains an effective means for owners and charterers to obtain relatively prompt and straightforward resolution of claims for indemnity in respect of losses arising from cargo claims, although there are occasions when it can produce unfair results.

**The Club’s advice to its members, when seeking a contribution under the ICA, is to pay close regard to the time bar provisions and to ensure that they always leave a documentary trail when settling cargo claims in order to demonstrate that the settlement was reasonable.**





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## Italian Law

### Italian Cargo Claims

#### Introduction

Whilst Italy is a party to the Hague-Visby Rules, there are a number of situations relating to both international and national carriage of goods by sea that are specifically subject to the provisions of Italian law contained in the Code of Navigation (the Code). This article is intended to identify such situations and to provide members with a general overview of the provisions of the Code relevant to the handling of cargo claims.

#### General Principles for the Application of the Code of Navigation

The provisions of Italian law relating to the carriage of goods by sea contained in the Code apply when:

- The Hague-Visby Rules are not applicable (e.g. because the bill of lading was issued in a non-contracting state, coastal trade, etc.), and
- The parties to the contract of carriage choose Italian law as the law applicable to the contract (e.g. by virtue of a clause contained in the bill of lading), or
- In the absence of such choice, because of the operation of the law, i.e. in the case of carriage to or from an Italian port and/or performed by an Italian sea carrier.

The mere fact that a claim is brought before an Italian court is not by itself sufficient to make Italian law and the provisions of the Code applicable.

#### Liability for Cargo Claims

The provisions concerning the liability of sea carriers for damage to cargo are contained in Articles 421 to 424 of the Code. Generally, the Articles are similar if not identical to those contained in the Hague-Visby Rules:

- Article 421 provides for the carrier's obligation to provide a seaworthy ship
- Article 422 provides for the carrier's liability for loss or damage to cargo arising from its and/or the crew's negligence in the care, custody and handling of such cargo
- Article 422 also sets out a number of "excepted perils", identical to those contained at Article IV rule 2 of the Hague-Visby Rules for which the carrier is not responsible.

The principal difference between the Code regime and that of the Hague-Visby Rules relates to damage to cargo caused by fire. According to the Hague-Visby Rules, the carrier is relieved from liability if it proves that the damage to cargo occurred because of fire, unless cargo interests can prove that the fire is attributable to the negligence of the carrier. However, under Article 422 of the Code, in order to bring itself within the exception, the carrier must prove not only how the fire occurred but also that such occurrence was not due to its negligence.

#### Package Limitation

Under Article 423 of the Code, "Compensation for damage caused by the carrier cannot exceed €103.29 per cargo unit". The Code does not contemplate any alternative limitation calculated on the basis of the weight of cargo. Cargo unit means the 'unit' used for carriage, such as a pallet or a bundle.

If the damaged thing is not consolidated into a 'unit', as defined above, but still consists of a single consolidated piece (e.g. a car or an engine), such thing is to be regarded as a 'unit' or a 'package' for the purpose of package limitation. The position is different when the freight for such things has been calculated taking into account units of weight or dimension, in which case, the package limitation will be calculated by reference to the number of such units.

For instance, in connection with the carriage of cars subject to the Code, Italian Courts have held that a car constitutes a single unit so that the limit of the carrier's liability for damage is €103.29. The position is different in cases where the freight due for the carriage of a car has been calculated by multiplying the freight unit by the number of cargo units, such as the length in metres of the car. In this case, each of the units would be regarded as a package (or cargo unit) for the purpose of calculation of package limitation. Thus, for damage to a car 4 metres long paying a freight of €40 calculated on a freight unit of €10 per metre, the liability of the carrier would be limited to €413.16 (€103.29 x 4).

Originally, Article 423 of the Code did not provide for any exception to the applicability of package limitation. Theoretically, this meant that the carrier was entitled to rely on package limitation in all cases, even where damage to cargo was caused intentionally, or due to the reckless or negligent conduct of the carrier or its servants.

This exposed Article 423 to criticism in so far as it conflicted with general principles of Italian constitutional law. Recently, in judgment no. 199 of 2005, the Constitutional Court held that Article 423 of the Code is unconstitutional in that it does not exclude the carrier's right to limit in cases where cargo damage has been caused by the intentional or grossly negligent conduct of the carrier or its servants.

The current limitation figure of €103.29 per cargo unit was fixed in 1954. Inflation has eroded this figure, and the above-mentioned decision of the Constitutional Court may increase the number of cases in which the Italian courts hold that cargo damage is attributable to the intentional or grossly negligent conduct of the carrier, thus excluding the right to rely upon package limitation.

#### Time Bar

According to Article 438 of the Code, cargo claims are subject to time limits of:

- six months from the date of delivery or the date on which delivery ought to have taken place, for carriages between European and/or Mediterranean ports
- one year from the date of delivery or the date on which delivery ought to have taken place in all other cases.

The time bar can be avoided by means of the service of a writ or of a written request of payment of the claim. The service of a writ suspends the running of the limitation period until a final and enforceable judgment is issued. The service of a written request creates a new time bar period running from the date of each service.

The time limit cannot be extended by agreement. Agreements concerning extensions of time are null and void, unless they are entered into after the claim is time barred.





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## US Law

### US COGSA – 70 Years Old and Going Strong?

Last year marked the 70th anniversary of the US Carriage of Goods by Sea Act (COGSA). This important federal statutory scheme provides the main framework for dealing with cargo claims in the US.

#### Scope of Coverage

COGSA applies by law to all contracts of common carriage by sea to or from ports of the US in foreign trade. This is to be contrasted with some other cargo regimes, such as the Hague-Visby Rules, which only apply to outbound shipments. There is no compulsory application of COGSA where the US port is only a trans-shipment port and not a port of origin or port of final destination.

COGSA excludes live animals and certain deck cargo. It applies by law from the time loading of the goods commences to the time the goods are landed at the discharge port. This is sometimes called its 'tackle-to-tackle' coverage. It does not apply by law to charterparties unless bills of lading are issued under the charterparty. A carrier subject to COGSA may not contractually reduce its obligations below the minimum requirements of COGSA.

Bills of lading involving US trade often extend COGSA by contract beyond the tackle-to-tackle period. This provides additional benefits to a carrier, such as the US\$500 per package limitation of liability and the short one-year time bar. US courts have generally upheld such contractual extensions of COGSA, even to inland segments of multimodal carriage.

However, the recent decision by the Second Circuit Court of Appeals in *Sompo Japan v. Union Pacific* held that, where the inland carriage of an intermodal through bill of lading is subject to the Carmack Amendment (a federal statute governing interstate rail and motor carriage), the provisions of Carmack will trump COGSA if there is a conflict. This has cast some doubt on whether a carrier's inland subcontractor, such as a rail carrier, can take advantage of COGSA's US\$500 per package limit,

even if expressly permitted to do so by the intermodal bill of lading. The issue addressed in *Sompo Japan* may well find its way to the US Supreme Court.

#### Carrier

In contrast to some other regimes, COGSA recognises that there may be more than one carrier. The shipowner is almost always a carrier. The charterer who has issued a bill of lading on its own form pursuant to authority from the owner or master is also a COGSA carrier. Where there is a string of charterers, an intermediate 'pass-through' charterer is not likely to be a carrier unless it takes an active role in some aspect of the shipment.

#### Limitation of Liability

COGSA permits a carrier to limit its liability to US\$500 per package or customary freight unit. For non-containerised shipments, a COGSA package may include a multimillion dollar generator or printing press if it is shipped in a crate or otherwise protected for shipment. The general analysis depends largely upon the entries made in the 'No. of Pkgs.' column of the bill of lading.

For non-containerised cargo, US courts will apply a 'bright line' rule based upon the entry in this column. Where there is ambiguity, the courts will often look to the other shipping documents, such as packing lists, dock receipts and invoices to determine the intent of the parties.

Where containerised shipments are involved, the container itself will hardly ever constitute the COGSA package. The narrow exception involves a bill of lading where, for example, the number '1' is entered in the 'No. of Pkgs.' column and the contents are not enumerated in the 'Description' field or the contents are 'pieces', i.e. not packaged in any way.

The customary freight unit analysis generally comes into play for unpackaged bulk shipments, wet or dry. The way the carrier charges the freight (for example, per ton) determines the unit for limitation purposes. A free-standing unprotected vehicle is also subject to the customary freight unit analysis.

The US\$500 package limitation issue under COGSA has been a battleground for generations of US maritime attorneys. While US\$500 may have been a reasonable limit in 1936, many would argue that it is grossly inadequate by today's values and sometimes leads to highly inequitable results. Cargo claimants have attacked the limitation mainly through deviation arguments and the Fair Opportunity Doctrine.

If an unreasonable deviation is found, the carrier generally loses the benefit of the COGSA exemptions, including the package limitation. Some US courts have applied a restrictive approach, holding that only an unauthorised, unreasonable geographic deviation or unauthorised deck stowage will deprive the carrier of its COGSA defences. Other US courts have held that any serious departure from the bill of lading contract will oust COGSA.



Under the Fair Opportunity Doctrine, a carrier must give the shipper a fair opportunity to declare the true value of the shipment. If such a declaration is made, the shipper, by paying a freight surcharge, avoids the US\$500 per package limitation. In practice, such declarations are hardly ever made. To satisfy this judicially created requirement, most carriers include a box on the face of their standard bill of lading for such a 'Declared Value' and/or include a clause on the reverse side setting forth the Declared Value right.

It should be noted that some standard bill of lading forms do not include this 'magic language'. Where, for example, a negotiable bill of lading on the Congenbill form is used for a shipment of steel to the US, the addition of a 'Declared Value' option would greatly benefit the carrier in resisting a fair opportunity challenge to the US\$500 package limitation.

### Time Bar

Cargo claims under COGSA are subject to a one-year statute of limitations. The time begins to run from the date of delivery of the goods or the date when they should have been delivered. Such date does not always coincide with the expiration of free time.

For suits filed in a US federal court (where the vast majority of COGSA cargo cases are filed), the date the complaint is filed, rather than the date of service of process, ends the running of the statute. Cargo claimants may not avoid the one-year time bar by pleading alternative causes of action such as tort or bailment against a COGSA carrier. Decisions have stated that COGSA is the exclusive remedy. An unreasonable deviation will not necessarily deprive the carrier of the one-year time bar defence.

### Forum Selection Clauses

In 1995, the Supreme Court in *The Sky Reefer* ruled that forum selection clauses in bills of lading governed by COGSA are presumptively

enforceable. An owner or a charterer, therefore, has the power to require a cargo claimant proceeding under COGSA to sue in a non-US court, even if such foreign jurisdiction has no direct connection to the shipment. This rule applies also to foreign arbitration clauses. To be enforceable, such forum selection clauses must be mandatory and specific as to the designated forum.

Occasionally, a challenge to such a foreign jurisdiction clause is successful on the basis that the foreign proceeding would deny the plaintiff a basic COGSA protection. The claimant would have to demonstrate that the foreign tribunal does not recognise the minimum protections provided by COGSA. A plaintiff succeeded in one such challenge, for example, where he was able to establish that the foreign jurisdiction did not recognise the right of subrogation.

Procedurally, it is worth noting that a cargo claimant's wrong choice of forum can be fatal to the claim. If suit is filed in a US court and the carrier is successful in obtaining a dismissal on the basis of a foreign forum selection clause, the dismissal is absolute. The US court will not condition the dismissal on the basis of the carrier waiving the time bar defence in any foreign action commenced after one year.

### The Future of COGSA

Approximately ten years ago, US maritime interests mounted a strong campaign for the enactment of a new Carriage of Goods by Sea Act. One of the main features in the new draft was the abandonment of the US\$500 per package limitation. This effort was, however, not successful. If COGSA does change in the foreseeable future, it will most likely occur within the framework of the UNCITRAL proposals on international transport currently under discussion (see page 5).





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## Deck Cargo

### Deck Cargo – Protection for the Carrier (if not the Cargo)

In a number of trades, cargo is routinely carried on deck and, in other trades, cargo may find itself stowed on deck for one reason or another. Cargo on deck is, of course, normally at much greater risk of loss and damage due to its direct exposure to the elements. Accordingly, when cargo is to be carried on deck, how may a shipowner best be protected under English law from any liability for loss or damage to the cargo?

#### Authorised and Unauthorised Deck Cargo

The suggestions that can be made with regard to protective wording to be included in a bill of lading will only apply if the carriage on deck is authorised. If there has been no agreement permitting the cargo to be carried on deck, the shipowner will invariably be liable for breach of contract, with the result that any exclusions from liability obtained in the contract are unlikely to be effective. At the same time, the shipowner is likely to be in breach of the Hague/Hague-Visby Rules if they apply to the particular trade. This is because there is likely to be a failure by the shipowner to “carefully ... carry, keep, care for ... the goods carried” under Article III, rule 2.



TIMBER DECK CARGO LASHINGS. PHOTO SUPPLIED BY CHECKMATE UK

#### Protection in the Case of Authorised Carriage on Deck

Where the parties have agreed that the cargo can be carried on deck, and the cargo is stated to be on deck in the bill of lading, the Hague/Hague-Visby Rules will not apply and so the shipowner is free to exclude liability for loss or damage to the cargo. However, how effective are the words and phrases often inserted in bills of lading in actually reducing or excluding the shipowner's exposure?

There are a number of general rules that apply to the words and phrases commonly found in bills of lading, examples of which include:

##### (a) “On deck at shipper's risk”

These words will protect the shipowner if the damage results from inadequate packaging of the goods, or if the goods are stowed badly by the shipper. However, if damage is caused by crew negligence (such as failing to tighten lashings during the voyage, or failing to reduce the ship's speed or alter direction in bad weather), the shipowner will still be liable as these words offer no protection against negligence. The shipowner will also be liable for loss caused by unseaworthiness of the ship.

##### (b) “On deck at shipper's risk and carrier not responsible for loss or damage howsoever caused”

These words will exclude the shipowner's liability for loss caused by crew negligence, but will not exclude liability for loss caused by unseaworthiness.

##### (c) “On deck at shipper's risk and carrier not responsible for loss or damage of any kind whatsoever (including deterioration, delay or loss of market) howsoever caused (whether by unseaworthiness or unfitness of the vessel ... or by faults, errors or negligence, or otherwise howsoever)”

These words have been held to protect the shipowner even when the loss or damage to the cargo was caused by unseaworthiness of the ship.

Of course, whether or not a shipowner can negotiate the inclusion of such words in a bill of lading will often depend on the relative commercial bargaining positions of the shipowner and the shipper.

Whilst the above words may provide the shipowner with protection from cargo claims under bills of lading, the shipowner may incur other losses when deck cargo shifts or goes overboard, such as pollution liability, clean-up costs and the costs of the ship deviating so that the cargo can be restowed.

A shipowner will usually require express words covering such liabilities to be included in the charterparty or bill of lading in order to be able to claim an indemnity in respect of such liabilities from the charterer or bill of lading holder.







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## Jurisdiction

### Bills of Lading – Jurisdiction Clauses

**Horn Linie GmbH v Panamericana Formas e Impresos SA (in the English High Court)**

There are many cases where an issue arises as to whether a jurisdiction clause in a bill of lading should be upheld. This case was unusual in that it was argued that to uphold the jurisdiction clause would be contrary to the law of another country.

#### Facts

Panamericana was the consignee of cargo, which became a constructive total loss during a voyage from Germany to Colombia. The bill of lading contained an exclusive English jurisdiction clause. Panamericana issued proceedings in Colombia against the shipowners' local agent, relying on a provision in Colombian law by which the local agent was liable under the contract.

The owners issued English proceedings, claiming a declaration of non-liability. Panamericana applied to have the proceedings in England stayed, on the basis that the English courts did not have jurisdiction, and the owners applied for an anti-suit injunction (an order restraining Panamericana from proceeding further with its legal action in Colombia).

#### Consignee's Arguments

Panamericana argued that the validity or otherwise of the jurisdiction clause should be decided under Colombian law. Under that law, a clause expressing a choice of law and court for a contract to be performed in Colombia was void and contrary to public policy. Secondly, it said that the liability of the owners' agent had to be determined in accordance with Colombian law, because that liability arose under a Colombian statute. There was no breach of the jurisdiction clause because that did not apply to the question of the liability of the agent to Panamericana.



THE ROYAL COURTS OF JUSTICE, LONDON



#### Court's Decision

Mr Justice Morison in the Commercial Court said that, on the first point, it was reasonable to consider the decision whether to uphold the jurisdiction clause under English law since that was the law to which Panamericana had consented by entering into the contract. It appeared that it had entered into that contract willingly and had given consent to its terms.

**The mere fact that, by agreeing to an English law and jurisdiction clause, Panamericana might have offended Colombian public policy was not of itself a good reason for releasing it from its bargain.**

As to the second argument, the agent was being sued in Colombia under the contract of carriage, and any liability the agent was under was derived from the contract of carriage. That contract of carriage was evidenced by the bill of lading, including all its terms. It was clear that an action against the agent was effectively an action against the owners and, on that basis, the owners had the benefit of the jurisdiction clause. England was a convenient forum for the dispute. The judge therefore agreed to grant an anti-suit injunction against Panamericana, to require them to withdraw their claim in Colombia.



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## Legal - Misdeclared Dangerous Goods

### Rights of Recovery in Respect of Misdeclared Dangerous Cargoes

#### Background

Whether intentional or accidental, the misdeclaration of cargo is not a new phenomenon. However, recently there appears to have been a steep increase in the number of incidents attributable to cargo misdeclaration.

Cargo might be intentionally misdeclared for a number of reasons: usually to obtain cheaper freight rates, but, more sinisterly to avoid safety or security considerations. While misdeclaring cargo is not new, the liability and risks incurred have increased dramatically. Not only are misdeclared cargoes a source of concern for the safety of the ship's crew, but in today's world, the potential implications make this issue a threat to national security as well.

#### Misdeclaration: Duty under English Common Law

It is an established principle that a shipper is under a duty not to load dangerous cargo that might damage a ship without the carrier's knowledge and consent. All contracts of carriage between a shipper and carrier contain this duty either as an express or implied term, and sometimes both. The implied duty under English common law is absolute and requires a shipper not to load dangerous cargo that is likely to damage the ship, or expose the ship or cargo to the risk of detention and delay. Article IV rule 6 of the Hague/Hague-Visby Rules on the other hand, as an express term, only encompasses physical damage to the ship and provides:

*"Goods of an inflammable, explosive or dangerous nature to the shipment whereof the carrier, Master or agent of the carrier has not consented with knowledge of their nature and character, may at any time before discharge be landed at any place, or destroyed or rendered innocuous by the carrier without compensation and the shipper of such goods shall be liable for all damages and expenses directly or indirectly arising out of or resulting from such shipment..."*

Whether implied or express, these duties require that the carrier is given sufficient information to appreciate the risks of carrying a cargo.

#### Does the Implied Duty Apply to Charterers?

The leading textbooks assert unanimously that, in appropriate circumstances, the implied duty also applies to charterers even where they are not the actual shippers of the cargo. Unfortunately, however, there is no English court decision stating definitively that all charterers are subject to this implied duty. Often, where the implied duty is purported to apply, the charterer will be the actual shipper.

The most compelling argument against the application of the implied duty to charterers is that (unlike shippers) the f.o.b buyer chartering the ship is unlikely to know the true characteristics of a cargo and may not have the opportunity of inspection before shipment. The seller, on the other hand, does and, therefore, it would seem logical for this implied duty to bind him. Applying the same logic, the charterer who ships the cargo as c.i.f seller should be bound. In reality, however, for commercial reasons, the shipper is not always the party actually shipping the cargo and is no more knowledgeable than the carrier. Nevertheless, English law still makes the shipper liable under the implied duty.

#### Why?

The application of the implied duty under English common law is a means of risk allocation. The fact that the shipper might not have an opportunity to inspect the cargo and is unaware of potential dangers or peculiar characteristics is irrelevant. The shipper can still be found liable (*The Giannis NK* [1998] 1 Lloyd's Rep. 377). The same logic applies to the relationship between charterer and owner, with the former probably bearing the risk. The charterer's only safeguard is to ensure that as much information as possible is given to the owner regarding the cargo, either in the charterparty or by way of instructions.

#### Express Terms within Charterparties

A number of charterparty forms contain express clauses dealing with dangerous cargo. An example is Clause 4 of the NYPE '93 form, which provides:

*"The Vessel shall be employed in carrying the lawful merchandise excluding any goods of a dangerous, injurious flammable or corrosive nature unless carried in accordance with the requirements or recommendations of the competent authorities of the country of the Vessel's registry and of ports of shipment and discharge....."*

Therefore, charterers will be in breach if they load cargo falling within such clauses or if they fail to treat it before shipment in the manner stipulated by the contract. If charterers are in breach, then unless the owners have consented by words or conduct to the carriage of a dangerous cargo, owners may be entitled either to reject the cargo or terminate the contract.

#### US COGSA

Under COGSA, 46 U.S.C § 1304(6) the US Second Circuit Court of Appeals in *Senator Lines GmbH & Co. KG v Sunway Line.*, 2002 U.S. App.9551 has held that a shipper is strictly liable for damages and expenses arising out of shipment of inherently dangerous cargo where neither shipper or carrier had actual or constructive pre-shipment knowledge of the inherently dangerous nature of the shipped goods. The court noted that this interpretation was directly in line with English case law.

#### Conclusion

Whether intentional or accidental, a shipper is under a duty not to load dangerous cargo that might damage a ship without the carrier's knowledge or consent. The sanctions for failure to comply with these requirements provide the carrier with a right of recovery against the shipper for any loss, either physical or due to a delay resulting from their shipment. In addition, the carrier is empowered at any time to unload, destroy or render the cargo innocuous, "as the circumstances may require", without payment of compensation. Where the carrier has consented to the shipment, they may take similar action should the cargo become an actual danger to life or property during the voyage.

As to charterers' position, if they are in breach of the express or implied terms of the charterparty, then unless the owners have consented by words or conduct to the carriage of a dangerous cargo, the owners may be entitled either to reject the cargo or terminate the contract.





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## Loss Prevention - Misdeclared Dangerous Goods

### Misdeclared or Undeclared Dangerous Goods Cargoes – Ignorance, Incompetence or Deceit?

Possible outcomes of a contravention of the IMDG Code and the IMO Bulk Cargo Code are loss of life, injury and material damage.

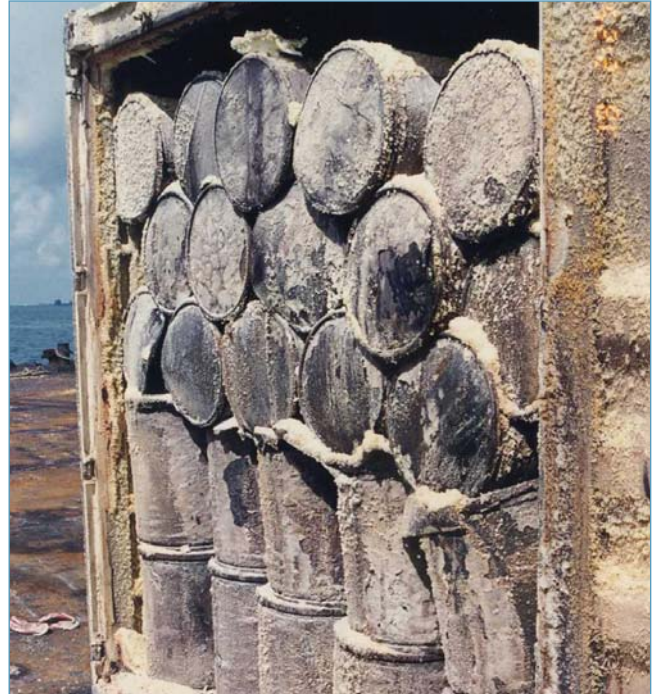
#### Scale of the Problem

In recent years, there has been a noticeable increase in serious fires, explosions and chemical incidents involving containerised and bulk cargoes. Investigations carried out on container ships in the wake of some of these accidents have found that shippers are flouting the provisions of the IMDG Code on an alarming scale.

Motives for failing to declare a dangerous cargo or for providing a misleading description of the material include avoiding higher freight charges and circumventing restrictions on the carriage of the material. There are serious consequences of such behaviour.

#### Undeclared Hazardous Cargo

- In July 1993, a catastrophic explosion among deck containers on the *Kapitan Sakharov* eventually caused the ship to sink. The container from the Far East identified as the source of the incident was shown on the manifest to contain rubber tyres and inner tubes, and the surrounding containers had no declared dangerous cargo. Ownership of the suspect container was never claimed and, unsurprisingly, the consignees made no claim.



PHOTOGRAPH 2 – DRUMS OF DECOMPOSED THIOUREA DIOXIDE IN A CONTAINER DECLARED TO CONTAIN TOYS

- There have been several incidents involving the spontaneous exothermic decomposition of thiourea dioxide manufactured in China. The material, carried in drums in containers, was not originally listed as an IMDG cargo. Products of the reaction are highly toxic sulphur dioxide gas and sulphur, the latter of which caused widespread contamination of surrounding areas, which required expensive remedial action (see photograph 1). For these reasons, the material is frequently refused for carriage. Some Chinese shippers have responded by simply changing the name of the chemical to 'thiourea DE' or 'thiourea D', claiming that these materials do not have the same hazardous properties. In one incident, the container of decomposed thiourea dioxide shown in photograph 2 was declared on the manifest to contain toys.

#### Misdeclared Cargo and Misleading Cargo Description

- In February 2000, the *Thor Emilie*, a single hold bulk cargo vessel of 1655 GRT, loaded 2,000 metric tonnes 'oxyde zinc ore' from Dunkirk to Porto Vesme, Italy. The ship sailed on 9 February and, on 17 February, when she was off Ibiza, there was a catastrophic explosion in the cargo space that caused the ship to sink rapidly, and only the master survived. 'Oxyde zinc ore' is not a recognised cargo description. It is a name contrived by the shippers. There is little doubt that the explosion resulted from the ignition of hydrogen gas evolved from the wet cargo, which should have been listed properly as IMO Class 4.3 in Appendix B of the IMO Bulk Code.



PHOTOGRAPH 1 – EXTENSIVE CONTAMINATION OF THE HOLD AFTER DECOMPOSITION OF THIOUREA DIOXIDE



- In February 2004, the *Ythan*, a 35,310 deadweight bulk carrier, loaded a cargo variously described as ‘metallic HBI fines’, ‘Orinoco iron remet fines’, ‘remet fines (HBI)’, ‘Orinoco remet fines in bulk’ and ‘HBI fines’. The master was given written advice that “Orinoco Iron remet fines, to be loaded on your vessel are safe to transport without the use of inert gas or other special precautions”. On 28 February, the ship experienced a series of violent explosions in the cargo holds when she was north of Santa Martha, Columbia. The master and five engine room personnel were killed, and the ship sank. The cargo should have been described as a DRI derivative (e.g. DRI fines) that evolves hydrogen when wet and yet, the term DRI was absent from any of the cargo descriptions given in this case. The more cynical amongst us may wonder whether the term ‘HBI fines’ was chosen to claim the relaxation in conditions of transport afforded to HBI.

### Accountability within the Transport Chain

Manufacturers are responsible for preparing accurate Material Safety Data Sheets (MSDSs) to include the assignation of correct UN Numbers

and IMDG classifications. MSDSs prepared by some chemical companies, particularly those in the Far East, have been found wanting in this regard.

Shippers, cargo brokers, freight forwarders, freight consolidators and shipping lines are also important links in the transport chain. Each has a responsibility for ensuring that dangerous goods are correctly and honestly declared and, where necessary, segregated. The loss of revenue to shippers and commodity brokers created by an embargo on the shipment of a suspect hazardous material may encourage a greater responsibility on their part to investigate the authenticity of cargo information received further up the chain.

### Recommendation to Members

When there are uncertainties about the true identity of a chemical cargo offered for carriage, members are encouraged to seek assistance from the Club without delay so that advice can be sought from experienced consultants.



FIRE INVOLVING ‘PASSIVATED’ DRI PELLETS



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## Loss Prevention – Oil Cargoes

### “But It’s Only Crude Oil....” – New Quality Issues in the Shipment of Oil

#### Introduction

Oil cargo contamination in the shipping industry has been occurring since the earliest days of bulk liquid shipments. Contaminations on board can arise through incorrect procedures, such as admixtures between the grades or insufficient or improper tank cleaning. The situation has potentially improved over the years, with most ships now equipped with modern cargo-handling systems, better tank coatings and fixed tank washing equipment.

However, parallel with the improvements to tankers, quality specifications for oil cargoes have considerably tightened, often driven by environmental concerns. Coupled with this, sophisticated analytical techniques now allow detection of trace levels of contamination at part-per-million or even part-per-billion levels that previously would have been undetectable.

All this has led to shipowners and crew facing new challenges as they strive to avoid potentially costly cargo contaminations. In the following sections, we outline some of the modern quality issues faced when handling supposedly traditional cargoes.

#### Crude Oil

Crude oil is predominantly a complex mixture of hydrocarbons ranging from C1 (methane) to molecules containing more than 40 carbon atoms. A typical crude oil contains several thousand different hydrocarbon compounds. Although the quality of crude oils from different sources will vary significantly, minor contamination between grades was not previously considered to be a problem, as the only likely effect to subsequent refining processes would be a possible miniscule change to the refining yield (the quantity and quality of the products produced from the refining process).

The carriage of crude oil used to pose few quality problems for shipowners. Cargo tanks were merely drained between successive cargoes, and no tank cleaning was undertaken unless required for ballasting purposes.

However, some of the crude oils carried today are intended for direct use as fuel rather than for refining. Accordingly, crude oils can have strict quality specifications, sometimes imposed for environmental reasons. Some crude oils are destined for direct use in gas turbines and have extremely tight quality specifications for contaminants such as Vanadium (<0.5ppm).

Many crudes can have high Vanadium content. For example, the Venezuelan crude BCF-17 has a typical Vanadium content of 400ppm. It can be seen that very low levels of a previous cargo of BCF-17 (or indeed any high Vanadium content cargo) could lead to contamination of a subsequent crude cargo intended for use as a gas turbine fuel. In those circumstances, the cargo tanks would require thorough water washing between cargoes to prevent contamination.

Crude oil intended for fuel use can also have a very tight sodium content specification. Tank washing with seawater, which obviously contains high levels of salt, could result in a subsequent crude oil cargo failing to meet its sodium specification unless the tanks are thoroughly drained and then flushed with fresh water.



THE ‘ADDITIVE PACKAGE’ FOR A DIESEL CARGO



SEGREGATED BALLAST SYSTEMS HELP REDUCE CHANCES OF WATER OR SODIUM CONTAMINANTS

#### Diesel

Traditionally, the quality parameter for diesel that was most likely to be adversely affected by contamination was flashpoint. Relatively low contamination levels with low flashpoint cargoes such as gasoline could render a diesel cargo off specification. However, diesel was unlikely to be adversely affected by low level contaminations of high flashpoint cargoes. Cargo tanks were rarely washed when loading diesel after a previous high flashpoint cargo such as kerosene or gasoil.

Nowadays, most quality specifications for diesel have tightened considerably in response to environmental concerns. The sulphur specification for European (EN590) diesel is now 50ppm maximum, and many companies are shipping ‘city diesel’ at 30ppm maximum, or even ‘zero sulphur diesel’ at 1ppm maximum.

However, many kerosenes and gasoils are still carried at 0.2% (2,000ppm) sulphur (or up to 1% for some gasoils). Accordingly, contamination could result unless the cargo tanks are washed between the grades, and admixtures are avoided.

#### Jet Fuel

The specification for jet kerosene has not changed greatly over the years. In general, low level contaminations were not considered significant provided the cargo still met all specified quality parameters. However, the jet fuel specifications required the fuel to consist wholly of hydrocarbons and certain approved additives. If a contaminant included any non-

hydrocarbons that were not approved additives, it could no longer be used as a jet fuel, even if it met the specified quality parameters. Contamination with even trace quantities of cargoes containing additives (for example, tetra-ethyl lead in leaded gasoline) would render a jet kerosene unsuitable for use as jet fuel.

Nowadays, although no longer containing lead, many of the diesel and gasoline fuels shipped contain a number of additives designed to improve their performance. In general, the additives in diesel and gasoline (the identities of which are often commercial secrets, typically described as 'multifunctional additive packages') do not fall within the approved list. If a jet kerosene is contaminated with fuels known or even considered possibly to contain additives, it cannot then be used as jet fuel. (This requirement is strictly enforced nowadays.) The product would then have to be downgraded, with the obvious cost implications.

## Gasoline

Similar to the specification for diesel, the sulphur specification for gasoline has tightened considerably over recent years. Obviously, similar concerns arise when loading gasoline after a relatively high sulphur previous cargo.

Since the changeover to unleaded fuels, the maximum lead content has been reduced in stages. The current specification for European EN228 unleaded gasoline is 0.005g/litre maximum. Leaded gasoline can contain up to 1.1g/litre. Obviously, contamination could lead to unleaded gasoline being off specification for lead content.

Many gasolines now require dyeing to a specific colour (for example, French unleaded gasoline is dyed green), and charterers often require the dyeing process to be undertaken in ships' tanks. Typically, this process is achieved by simply pouring the concentrated dye into the ship's cargo tanks through the main or tank cleaning hatches. This can lead to concentrated dye clinging to the ship's tank coating in the area around the hatches and failing to be absorbed into the cargo.

As the dyes are not water-soluble, subsequent water washing might not remove the dye, and it can then lead to discolouration of the next cargo carried. If that cargo is colour critical, then it can render the cargo off specification.

We suggest that crews should be instructed to ensure that dyes are diluted with a small amount of the cargo prior to their addition to the bulk of the cargo, and that care should be taken to avoid splashing internal tank structures.

## Summary

From the above, it is apparent that tighter quality specifications coupled with improved analytical techniques have increased the chance that a contaminated cargo will fail to meet its original specification. Accordingly, it is more important than ever to ensure that grades are kept properly segregated and that tanks are properly cleaned between cargoes.

Typically, the industry follows the cleaning procedures prescribed in publications such as *Verwey's Tank Cleaning Guide*. However, that publication does not necessarily provide suitable procedures for every instance. We would recommend consideration of the quality parameters of the previous cargo discharged, and the specification and, if possible, the end-use of the subsequent cargo to determine suitable cleaning strategies.

However, it is not all bad news for shipowners. Although advances in analytical techniques have made detection of contamination more accurate, proper tank preparation and cargo-handling via segregated systems has led to few contamination incidents, despite the challenges outlined above.

## Recommendations to Masters/Owners

- Do not necessarily rely on traditional or published procedures when determining tank washing strategy
- Try to ascertain quality specifications of the cargoes previously carried and the cargoes to be loaded prior to planning tank preparation/washing procedures
- Be aware of likely contamination issues, such as a high flashpoint cargo after a low flashpoint cargo, a low sulphur cargo after a high sulphur cargo, etc.
- If in any doubt, seek guidance from charterers concerning the quality parameters of their cargoes.



SLUDGE AND WATER REMAINING IN A VLCC'S TANK AFTER WATER WASHING



CHECKING WHETHER THE CARGO IS ON SPECIFICATION



## Loss Prevention – Club Guide

### A Master's Guide to Container Securing

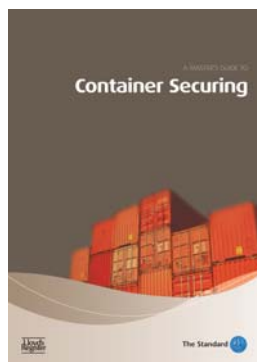
The Club's *Master's Guide to Container Securing* was written in co-operation with Lloyd's Register, with the objective of providing mariners with the information they need to know about container securing. Throughout the Guide, attention is given to providing practical information on container-securing requirements, and to explaining the issues, and the strengths and weaknesses of different securing systems and components, so that mariners can fully understand how the equipment operates.

The Guide contains illustrated methods of how to secure containers, a discussion on best practice and the principles of stowage and securing.

Chapters include:

- Basic Advice
- Do's and Don'ts
- Lashing Systems
- Safe Working
- Ships and Containers
- Lashing Components
- Principles of Stowage
- Ship's Behaviour

The Guide will not change the technological challenges of securing stacks of containers six or seven high, but it does explain the dangers so that mariners can take precautionary action.



The Guide can either be downloaded from the Club's website ([www.standard-club.com/content/SL-P-Containersecuring.aspx](http://www.standard-club.com/content/SL-P-Containersecuring.aspx)) or copies can be obtained from Suzie Mate ([Suzie.Mate@ctcplc.com](mailto:Suzie.Mate@ctcplc.com)).





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## Loss Prevention – Containers

### Fully Automatic Twistlock Losses

The Club's *Master's Guide to Container Securing* gives an overview of container securing, advises on best practice, and looks at the various types of container lashings in use. The latest development in this regard has been the fully automatic twistlock (FAT) which was designed to save time and minimise accidents by reducing the human involvement in the process of fitting a twistlock to a container.

The FAT is designed so that it can be fitted to a container on the quayside before loading and will lock the containers together without further action from the stevedores. It is also designed so that it will become unlocked when lifted from all four corners simultaneously.

Thus a container can be discharged from a ship without any stevedore involvement apart from them inserting the twistlocks whilst loading and removing them on the quayside when discharging. This theoretically saves time and reduces the risk of personal injury to the stevedores.

Following on from a number of incidents of containers being lost overboard from ships at sea, it was reported in the maritime press that fully automatic twistlocks were responsible. The Club commissioned TMC Marine Consultants Ltd to determine whether the reports were correct and to find out what, if anything, could be done to prevent this from recurring.

### Design

The design of a FAT is based on the assumption that, during a voyage, a container will not simultaneously experience transverse and vertical accelerations at all four corners of a sufficient magnitude or for long enough to lift it clear of the corner casting fittings of the container below. Designers have therefore assumed that one side of the container will always be in compression due to the normal rolling motion of the ship.

### Ship Movement at Sea

In a storm or heavy swell, a ship will move in six degrees of freedom: roll, pitch, heave, sway, surge and yaw. The first three are the most frequently experienced movements and cause the greatest accelerations.

An important point to consider is whether the resultant acceleration and applied force experienced by a container, due to the combined motions of pitch, heave and roll, are sufficient to create the force needed to lift a FAT clear of the corner casting.

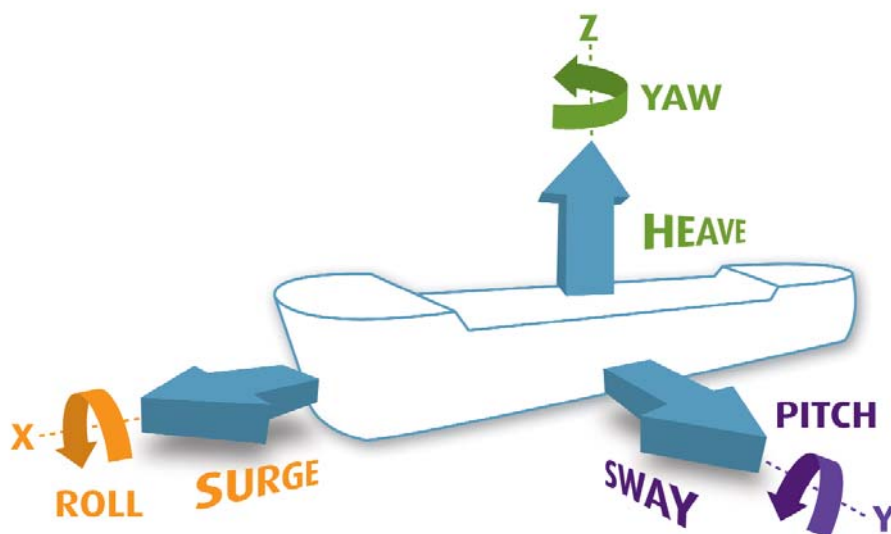
Stacks of light or empty containers are more vulnerable because the normal force acting to compress the corner castings of an upper and lower container together on the low side of a roll will be reduced.

### International Group Seminar

The International Group of P&I Clubs' Ships Technical Committee, at its meeting in May 2006, raised concerns about container losses allegedly attributed to the use of FATs. As a result, survey specialists BMT de Beer and Dutch research institute Marin were invited to speak to the International Group about the causes of container losses and research into the forces acting on ships.

The main issues that emerged from the meeting were:

- The dearth of industry knowledge concerning the real, as opposed to modelled, dynamic forces to which container lashing systems are subject and the way in which changes in ship design affect the operation of these forces
- International Standards Organisation standards have lagged behind the manufacture, functional testing and widespread deployment of the locking systems



SHIP MOVEMENTS AT SEA. ROLL, PITCH AND HEAVE ARE THE MOST FREQUENTLY EXPERIENCED MOVEMENTS

- The apparent correlation between the introduction of such locking systems and the increased number of container losses per incident
- Difficulties in the handling, lashing and securing of containers associated with the de-standardisation of container dimensions and the continuing drive to reduce handling costs.

## Type of Twistlocks

The most commonly used FATs and their manufacturers are:

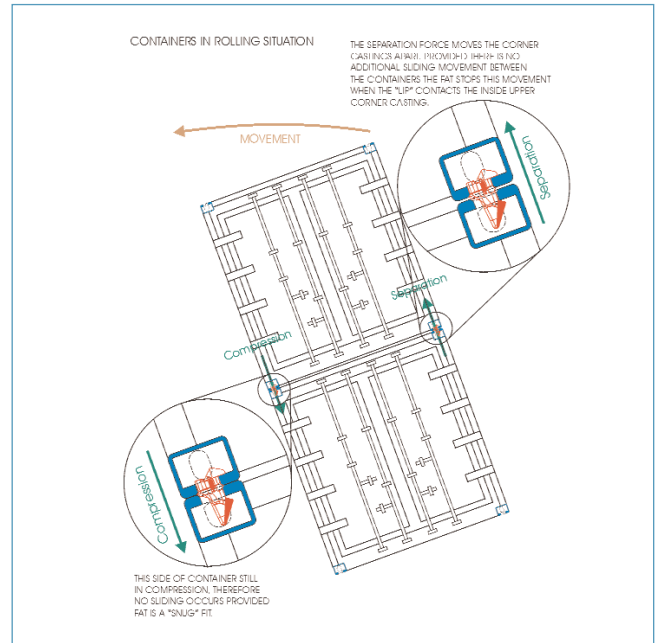
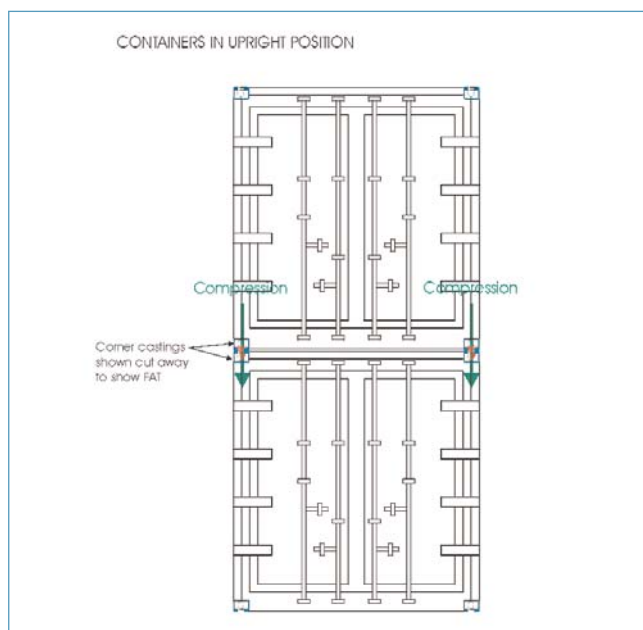
TL-FA	Ships Equipment Centre
T4 & T5	German Lashing
ALC-2 & 2/1	MacGregor
FA 8	Taiyo

FATs are a single casting with no moving parts. The key design variation between products is that some have a flange while others do not. Unlike the semi-automatic twistlocks (SATs) and manual twistlocks, which are covered by ISO standards, there are no ISO standards for the FATs. Tests for FATs consist of tensile testing of the material, but not of their functionality.

In the last three years, FATs have replaced SATs in many ships, mainly new builds. Unlike other manual and semi-automatic twistlocks, FATs work in pairs; hence, if a pair is inserted incorrectly or one is missing, that end of the container – and the containers above it – are not secured.

## Container Losses

The annual figure for the number of containers lost at sea is uncertain, but may be as high as 5,000. Analysis carried out by BMT de Beer covering the period 2005-2006, and involving eight ships varying in size between 800 TEU and 8,500 TEU where containers had been lost, revealed the following:



- In all but one ship, the lost containers came from stacks located behind the bridge
- In every case, containers that were lost came from tiers 4 and above. (Lashing bar systems extend up to the base of the containers on the third tier)
- In some cases, containers below tier 4 were lost, but these were located on the outer edges of the stack where lashing systems may have been damaged by containers falling from above
- Examination of collapsed stacks revealed a noticeable lack of damage to FATs and corner castings.

BMT suggested that the recent losses have been more than in the past and have coincided with the introduction of FATs; equally, the recent designs of container ships tend to have large overhanging sterns that present flat surfaces to the sea, making them prone to slamming.

Reports and pictures received from ships at sea indicate that the containers had either become disconnected from those below, or had not been stacked correctly and had moved sideways, or had slid forward.

## Lashing Methodology

Manual twistlocks and SATs enter and leave the lashing points without the need to make contact with the corner casting. FATs need to enter the lashing point at an angle and rely on sideways contact with the lashing point in order to finally slide down and lock into the lashing point. Removal also involves contact with the lashing point. These necessary manoeuvres in themselves cause wear to the lashing points, the fine tolerances of which are critical to the effectiveness of the device. Some FATs also allow some sideways movement, producing further wear and tear on the corner casting facings and the lashing points, and reducing their effectiveness.



Metal fragments are commonly found at the base of corner castings, demonstrating that lashing systems in general do cause physical damage to the corner castings and, by implication, the lashing points within the casting.

Whilst FATs were the focus of the presentation, it was felt that they were not the only potential cause of these failures. Consideration should also be given to ship design and size, hydrodynamic factors, parametric rolling, undeclared weights in containers, Class rules and human factors.

## Design & Regulation

Particular mention was made of the gross tonnage (GT) regulations. As GT is used to calculate port dues, naval architects are encouraged to build ships with the minimum amount of GT, meaning the majority of the containers are on deck. BMT suggested that the shipping industry should be encouraged to change the basis on which port dues are calculated and remove the financial benefits of placing containers on deck. In future, container ships should look more like car carriers, and the IMO is currently reviewing the regulations covering GT.

The classification societies have also turned their attention to ship design, and Germanischer Lloyd (GL), for one, has begun an investigation in order to ascertain why a majority of the containers that have fallen overboard were loaded in the aft sections of ships. GL believes that the larger container ships, with a wide stern, are vulnerable to slamming and to massive vertical accelerations, which may be contributing to the problems now being encountered.

Tests carried out by GL within Class rule criteria, which are based on tensile testing and not on function, show that the FATs comply with the rules; however, they have been shown to fail at far lower loadings. This would indicate that further research into the testing standards is required. As FATs comply with present Class requirements, they continue to have Class approval.

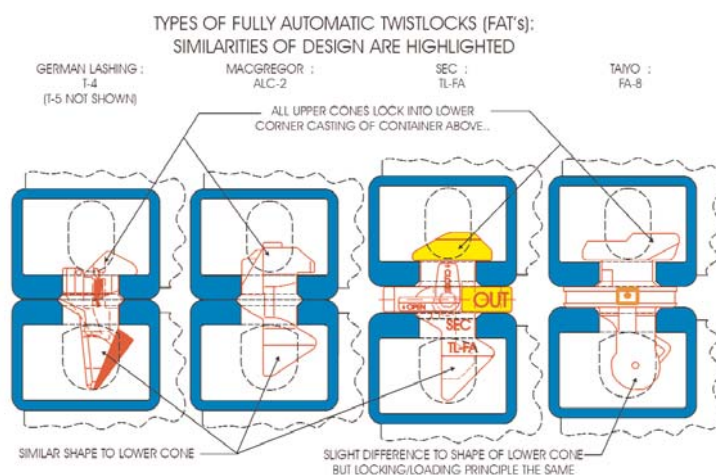
Bureau Veritas, on the other hand, says it has “identified a number of problems with certain container lashing equipment procedures, which it believes may have contributed to a spate of recent incidents of container losses at sea. Preliminary studies show that defective positioning of twistlocks, and wear on the locks and container corners, are contributory factors in the losses. Other significant factors are an exceptionally large roll amplitude, combined with severe pitching and slamming on the after body of the vessel”.

## Summary

To summarise, the main issues are:

- The gap between the inner face of the container shoe and the upper edge of the lower cone of a FAT needs to be small enough to prevent the shoe from releasing in certain heavy weather conditions
- Manufacturing tolerances on the dimensions of ISO containers and corner castings may allow a limited sliding movement between containers. Tolerances of the corner castings can increase due to wear and tear.
- A combination of motions and accelerations may occur in heavy weather capable of disengaging both FATs at one end of a container. Empty or lightly loaded containers are particularly susceptible.
- Small changes to the geometry of the FATs do significantly improve the ability of the FAT to remain in place in heavy weather, but it is not possible to guarantee that FATs will not break free when a ship is rolling and pitching heavily
- It is virtually impossible for all four FATs to disengage at the same time if the FATs at each end of the container are facing in opposite directions, as each end of the container would have to lift, translate and rotate.

**Members are encouraged to follow manufacturers' guidelines and if problems arise liaise with the Club.**





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## Loss Prevention – Steel Cargoes

### Problems Encountered During Steel Preloading Surveys

The Club's requirement for members to undertake a survey of finished steel products prior to loading has been a condition of cover for two years. During this period, the Club has arranged a large number of surveys, which have been completed with satisfactory results. However, a number of practical issues can be encountered that can lead to problems when bills of lading are endorsed with a description of the pre-shipment damage. These problems relate mainly to surveying difficulties, such as when steel is loaded:

- in more than one port
- during a 24-hour period, but loading is erratic and intermittent
- continuously in more than one hold
- in bundles and individual items cannot easily be identified

and

- cannot be examined on the quay before loading

or

- has small blemishes but appears in overall good order.

These problems can lead to issues when bills are endorsed, because the damage or damaged steel component has not been clearly identified.

However, by following the basic principles mapped out below, the quality of a survey will be improved and the possibility of pre-shipment damage remaining undetected reduced.

1. Instruct ship's officers on the requirements of a preloading steel survey and on survey procedures. Ship's officers should be sufficiently knowledgeable so as to assist and/or oversee the surveyor.
2. If multiple loading cannot be avoided, then multiple surveys are required, except when very small parcels of cargo are loaded.



3. If loading is simultaneous, intermittent or continuous in more than one hold, then arrange for more than one surveyor to attend.
4. It is preferable to examine cargo on the quay before loading. However, the examination sometimes takes place on board rather than on the quay because the surveyor wants to observe the stowage. This is acceptable when the cargo has been examined before it reaches the berth, for example when in a marshalling area, otherwise the examination should always take place on the quay. It is the ship's crew who have responsibility for safe storage, not the surveyor.



5. When recording details of the cargo's condition, surveyors should always make detailed notes of any damage (see article on page 4 on 'Clousing bills of lading'). Whether it is damaged packaging or very minor blemishes on the cargo, everything needs to be accurately recorded by the surveyor in his report. At times, the cargo may appear to be in 'typical' condition for the type of cargo even though there are minor blemishes. However, if cargo is in less than perfect condition, then the true condition of the cargo should be recorded by the surveyor and itemised in his report. The description has to be precise, because it may be necessary to prove to the receivers, for example, that "bundle 'A' had six bent bars" and "bundle 'B' five", etc. It is no good writing... "150 bundles of steel bars loaded and 95 showing minor buckling", because nobody will know which 95 are damaged. The 95 bundles with damaged bars will need to be clearly identified by the steel mill's marks so that the receivers can verify that the 95 bundles they found damaged are the same 95 bundles found damaged by the surveyor during loading.

**It is essential that the bill of lading accurately reflects the condition when loaded. The role of the surveyor is crucial and by following the steps set out above, any problems encountered should be minimised or eradicated.**

## General Average Bonds

### BIMCO Average Bond Clause

Serious container ship casualties – particularly fires originating in cargoes – continue to hit the headlines and overshadow the generally excellent safety record in this sector, which completes more than 350 million container movements annually.

Container shipowners have long recognised the importance of general average ‘absorption’ clauses (whereby the hull insurer agrees to pay general average/salvage in full, up to a specified limit) so that the cost and disruption of collecting security and contributions from multiple interests can be avoided in the less serious cases. Some operators have purchased an additional layer of insurance to extend the limit to cover more serious incidents and to provide similar protection for their customers when the operators are slot charterers aboard the stricken ship.

### Satisfactory Security

However, for all owners and operators, there remains a level of exposure against which it is uneconomic to insure, and security has to be collected from cargo. Such cases are usually driven by the anticipated cost of LOF salvage awards, which can exceed US\$20 million in some instances. Less frequently, they arise from cargo sacrifice – the flooding of a hold to extinguish a fire can give rise to losses in excess of US\$10 million, particularly on East/West trades in Asia involving hi-tech manufactured goods.

Achieving the twin goals of obtaining satisfactory security for the owner and salvors, while minimising delay to important cargo customers, requires a high degree of organisation and plentiful skilled manpower – our Liverpool office has become a recognised centre of excellence for this work.

### Average Bond

As most owners will be aware, the normal general average security for insured cargo consists of an average bond signed by the receiver and an average guarantee signed by the cargo insurer.

If an average guarantee has been provided by a first-class insurer, it is often asked why the bond is also necessary. In some situations, the average bond can have an important legal or practical role to play, but in cases involving thousands of interests, the exposure to the failure of an individual insurer’s guarantee is manageable. In some container ship cases, we have therefore recommended that only guarantees are collected. However, owners are understandably reluctant to abandon the ‘belt and braces’ approach, particularly in cases where the scale of the ultimate liabilities is unclear at the time of collecting the security. The ideal solution would therefore be to enjoy the legal advantages of a bond, without having to collect a piece of paper from an already disgruntled customer.

### New Average Bond Clause

BIMCO, helped by significant input from the Fellows of the Association of Average Adjusters, has now gone a significant way to achieving this by recommending an additional clause in the bill of lading.

The average bond clause provides that, on presentation of the bill of lading, payment of any freight due and provision of satisfactory security for general average and salvage (whether by the insurer or a cash deposit), the presenter of the bill of lading agrees to pay the “proper” proportion of the general average, etc. The insertion of the word “proper” preserves all the defences to contribution (under Rule D of the York-Antwerp Rules) that the cargo interests had under the traditional bond. In other words, the promise given in the separate bond sits in the bill of lading and is triggered when it is needed by presentation of the bill and provision of security.

Inclusion of the average bond clause in the bill is a very neat solution, which we would commend to container shipowners and operators, whether on feeder or mainline services. With bulk cargoes, we would probably recommend continuing to rely on the existing procedure of obtaining a separate bond, not least because specific terms may be required for a particular case. However, for container ships, this is an appropriate and useful innovation that will reduce costs and take customers (at least those prudent enough to insure) out of the general average loop.

**The new average bond clause can be downloaded from BIMCO’s website: [www.bimco.dk](http://www.bimco.dk)**



**ON 21 MARCH 2006 THE HYUNDAI FORTUNE SUFFERED A CARGO EXPLOSION AND FIRE. GENERAL AVERAGE WAS DECLARED AND AT LEAST ONE-THIRD OF THE CONTAINERS WERE DAMAGED BY THE BLAZE.**



# List of Countries Applying the Cargo Conventions

COUNTRY	CONVENTIONS
A	
Algeria	Hague
Angola	Hague
Antigua & Barbuda	Hague
Argentina	Hague/Hague-Visby (National Law)
Australia	Hague-Visby/SDR Protocol
Austria	Hamburg
B	
Bahamas	Hague
Bangladesh	Hague (National Law)
Barbados	Hamburg
Belgium	Hague-Visby/SDR Protocol
Belize	Hague
Bermuda	Hague-Visby/SDR Protocol
Bolivia	Hague
Botswana	Hamburg
British Virgin Islands	Hague-Visby/SDR Protocol
Bulgaria	Hague-Visby (National Law)
Burkina Faso	Hamburg
C	
Cameroon	Hamburg
Canada	Hague-Visby/SDR Protocol (National Law)
Cape Verde Islands	Hague
Cayman Islands	Hague-Visby/SDR Protocol
Chile	Hamburg
China	Hague-Visby/SDR Protocol/ Hamburg (National Law)
Croatia	Hague-Visby/SDR Protocol
Cuba	Hague
Cyprus	Hague
Czech Republic	Hamburg
D	
Denmark	Hague-Visby/SDR Protocol
Dominican Republic	Hague
E	
Ecuador	Hague-Visby
Egypt	Hamburg
Estonia	Hague (National Law)
F	
Fiji	Hague
Finland	Hague-Visby/SDR Protocol
France	Hague-Visby/SDR Protocol
G	
Gambia	Hamburg
Georgia	Hamburg
Germany	Hague-Visby/SDR Protocol
Ghana	Hague
Gibraltar	Hague-Visby
Goa	Hague
Greece	Hague-Visby/SDR Protocol
Grenada	Hague
Guinea	Hamburg
Guinea Bissau	Hague
Guyana	Hague
H	
Hong Kong	Hague-Visby/SDR Protocol
Hungary	Hamburg
I	
Iceland	Hague-Visby/SDR Protocol (National Law)
India	Hague/Hague-Visby/SDR Protocol (National Law)
Indonesia	Hague-Visby (National Law)
Iran	Hague
Iraq	Hamburg (National Law)
Ireland	Hague/Hague-Visby (National Law)
Israel	Hague/Hague-Visby/SDR Protocol (National Law)
Italy	Hague-Visby/SDR Protocol
Ivory Coast	Hague
J	
Jamaica	Hague
Japan	Hague-Visby/SDR Protocol
Jordan	Hamburg
K	
Kenya	Hamburg
Kiribati	Hague
Kuwait	Hague
L	
Latvia	Hague-Visby (National Law)
Lebanon	Hamburg

COUNTRY	CONVENTIONS
Lesotho	Hamburg
Liberia	Hamburg
Luxembourg	Hague-Visby/SDR Protocol
M	
Madagascar	Hague
Malawi	Hamburg
Malaysia	Hague (National Law)
Mauritius	Hague
Mexico	Hague-Visby/SDR Protocol
Monaco	Hague
Montserrat	Hague-Visby/SDR Protocol
Montenegro	Hague
Morocco	Hamburg
Mozambique	Hague
N	
Netherlands	Hague-Visby/SDR Protocol
New Zealand	Hague-Visby/SDR Protocol
Nigeria	Hamburg
Norway	Hague-Visby/SDR Protocol
O	
Oman	Hague-Visby/SDR Protocol (National Law)
P	
Papua New Guinea	Hague
Pakistan	Hague (National Law)
Panama	Hague (National Law)
Paraguay	Hamburg
Peru	Hague
Philippines	Hague (National Law)
Poland	Hague-Visby/SDR Protocol
Portugal	Hague/Hague-Visby (National Law)
R	
Romania	Hamburg
Russian Federation	Hague-Visby/SDR Protocol
S	
Sao Tome & Principe	Hague
Senegal	Hamburg
Serbia	Hague
Seychelles	Hague
Sierra Leone	Hamburg
Singapore	Hague-Visby (National Law)
Slovenia	Hague
Solomon Islands	Hague
Somalia	Hague
South Africa	Hague-Visby (National Law)
South Korea	Hague-Visby (National Law)
Spain	Hague-Visby/SDR Protocol
Sri Lanka	Hague-Visby
St. Kitts-Nevis	Hague
St. Lucia	Hague
St. Vincent & Grenadines	Hague
Sweden	Hague-Visby/SDR Protocol
Switzerland	Hague-Visby/SDR Protocol
Syria	Hamburg
T	
Taiwan	Hague-Visby/SDR Protocol (National Law)
Tanzania	Hamburg
Thailand	Hague-Visby (National Law)
Timor	Hague
Tonga	Hague-Visby
Trinidad & Tobago	Hague
Tunisia	Hamburg
Turkey	Hague
Turks & Caicos Islands	Hague-Visby/SDR Protocol
Tuvalu	Hague
U	
Uganda	Hamburg
Ukraine	Hague-Visby/SDR Protocol (National Law)
United Arab Emirates	Hague-Visby (National Law)
United Kingdom	Hague-Visby/SDR Protocol
USA	Hague
V	
Venezuela	Hague-Visby (National Law)
Vietnam	Hague-Visby (National Law)
Z	
Zaire	Hague
Zambia	Hamburg