LP 15/2025 Carriage of Steel Cargoes and Damage Prevention

Bulk carriers are increasingly used to transport steel and other general cargo. Major routes run from Asian countries like China, South Korea, Malaysia, and India to European and African destinations including Italy, Turkey, and Egypt. Despite mandatory pre-loading survey by P&I Clubs for finished steel, cargo damage claims at discharge ports remain common. In 2024 alone, nearly 100 such cases were reported, mostly involving ports in Europe and West Asia. Given the high value of steel cargoes, it's common to see expensive claims and demand for guarantees from cargo interests. Based on our experience in handling steel cargo claims, we prepared this article to raise awareness of the risks of shipping steel products via bulk carriers.

I. Main Causes of Damage

In practice, steel cargoes are often subject to physical damage and/or moisture damage arising from ingress of seawater, ship sweat, or cargo sweat.

1. Ingress of seawater

During the sea passage, there can be sea water on deck or in cargo holds if hatch covers have weathertightness problems, leaving distinct watermarks on bulkheads and damaging steel goods. The potential back flow of water from bilge wells into the hold can also contaminate the bottom cargoes. A silver nitrate test with positive results can indicate whether sea water is involved. If the silver nitrate solution goes milky white when in contact with the rusty area of the cargo, then it's likely that the steel has been damaged by salt water.

Case No.1: A ship was loading cold-rolled coils in China to an Italian port. Water was found on the bottom-layer coils, with a positive silver nitrate test result. Multiple consignees demanded a guarantee, or the vessel will be subject to detention. The ship departed only after a guarantee of over USD 1 million was issued. Investigation later revealed that contamination was caused by back flow of sea water due to unsecured bilge valves.

2. Sweat

The problem of sweat includes both ship sweat and cargo sweat. While the test result of silver nitrate is usually negative, the condensation forming on the surface of the cargo could result in corrosion, and consignees may demand guarantees or file claims upon discovery of damage.

Case No.2: A ship was discharging steel in Greece and water stains was found on the surface of the cargoes. A guarantee of hundreds of thousands of dollars was demanded, or the vessel will be subject to detention. The surveyor later found water in the bottom and suspected it was caused by sweat with the silver nitrate test being negative. The vessel was released only after the guarantee was issued.

3. Physical Damage

(1) Pre-shipment Damage

Steel cargoes are sometimes damaged even before commencement of loading in the process of transportation, storage, and handling. If not detected during loading, such damage can also provoke claims.

(2) Rough Handling

Stevedores rough handling of the steel cargoes often cause cargo damage and may go undetected by ships staff during loading/discharging.

Case No.3: A ship carrying steel coils from China was found with dozens of coils flattened and bent with physical damage when unloading at a Turkish port. Discharge was suspended as the consignee demanded a guarantee, and operations resumed only after a guarantee of tens of thousands of US dollars was issued. Subsequent survey results indicated the damage was most likely caused by rough handling by stevedores at the loading port.

(3) Incorrect Stowage and Securing

Most claims for steel cargo physical damage result from improper stowage and lashing. Poor stowage and lashing plans can easily cause the cargo to be shifted or squeezed during voyage and even threatening safety of the ship.

Case No.4: A ship carrying steel pipes to an Egyptian port found dozens of distorted pipes during unloading. The consignee refused to put the damaged pipes into production and claimed approximately one million US dollars. Surveyors believed the damage was due to improper stowage — heavier cargo was stacked on top of the pipes with uneven weight distribution.

(4) Inadequate Packaging

Inadequate packaging is another major cause of physical damage. Even with proper stowage, inadequate packaging cannot prevent damage, especially when stacks are excessive in bulk carriers without tween decks.

(5) Other Causes

Apart from claims on finished steel products, there might be claims for damage to raw materials like steel billets in Europe.

Case No.5: A ship was unloading steel billets at an Italian port. The consignee claimed that the billets were bent exceeding allowable limits and demanded a guarantee. To avoid detention of the ship, a guarantee of tens of thousands of dollars was issued.

II. Preventive Measures to Reduce Steel Cargo Damage

1. Pre-shipment cargo survey

Given instances of cargo damage prior to shipping — such as when cargoes are stored at terminals uncovered or exposed to rain/snow, or when shippers mix defective products with good ones — the Club has issued a circular in 1996 to address frequent steel cargo damages, requiring mandatory pre-shipment surveys on the following types of steel cargoes:

(1) Hot-rolled steel wire, bars, plates;
(2) Cold-rolled steel wire, bars, plates;
(3) Electroplated steel products;
(4) Stainless steel products;
(5) Tinplate;
(6) All types of steel pipes;
(7) All types of steel coils;
(8) Steel products used in construction industry (angle steel, rebar, wire rod, steel bars, etc.).

2. Accurate Mate's Receipts/Bills of Lading

When surveyors provide descriptive clauses of the condition of cargo, chief officers and masters should endorse mate's receipts/bills of lading to reflect the truth condition of cargo. This prevents potential cover issues from inaccurate endorsements and protects shipowners from undertaking liabilities for damage caused by shippers or charterers. For instance, an entered ship faced consignee claims for surface damage and deformation at an African port, but since the bill of lading identified the damage prior to loading, the Association managed to take the damage to parties that should be responsible.

3. Cargo Care on the Voyage

For cargo damage by ingress of seawater due to hatch cover watertightness issues or wear on bilge valves are particularly harmful to the carrier's interest. Claimants may argue unseaworthiness or cargo worthiness failure, leaving the members in weakened positions when negotiating claims.

4. Supervision of Discharge

Some members tend to arrange local surveyors to supervise discharge upon arrival to verify cargo condition prior to unloading and to prevent claims for damage during or after discharge of the cargo, which falls outside of the period where the carrier is liable.

III. Handling of Steel Cargo Claims

1. Prompt Reporting

Masters must immediately report any cargo damage notices during discharge to shipowners. Per Club Rules, shipowners must notify the Club promptly upon receiving damage notices post discharge and departure. Immediate reporting is crucial for initiating the claims process and preserving evidence.

2. Assessment of Damage

Upon receiving a member's report, the Club will, as appropriate, instruct local correspondents to arrange cargo surveys. Surveyors will evaluate the nature, cause, and extent of damage and secure evidence to protect shipowners' interests.

3. Joint Surveys

Given its high value, the discharged steel cargo is often stored in the warehouse. To determine liability and loss, receivers/shippers (or their agents), insurers, and surveyors may request joint surveys (e.g., surveys on un-packed goods for packaged hot/cold coils). Shipowners must immediately notify the Club of such requests so it can arrange surveyors to determine damage and causes.

4. Cargo Disposal

Even when shipowner liability cannot be excluded, cargo interests have a duty to mitigate losses. Practices like refusing to use damaged steel in production while claiming total loss or mishandling damaged steel resulting in unreasonably low residual value undermine shipowners' interests. To address this, the Club would arrange correspondents and surveyors to monitor subsequent cargo disposal and assess cargo residual value.

5. Negotiation with Charterers

A substantial number of steel cargo damage incidents arise from improper stowage or rough handling by stevedores — typically the charterers' responsibilities under NYPE time charterparties. Shipowners should promptly notify charterers of such damage, requiring them to address receivers' claims and assume liability. In cases where charterers may fail to act, shipowners should, if the Inter-Club Agreement incorporated into the time charterparty as per Club advice, issue timely notifications and, when appropriate, request reciprocal guarantees to preserve their recourse against charterers.

IV. Conclusion

Given the frequency of steel cargo claims, the above content may not be all-encompassing. Shipowners are recommended to promptly notify the Club when incidents occur to enable its timely intervention and optimal protection of members' rights.

For more information, please contact Managers of the Association.