



**MSIG**  
SPECIALTY MARINE



# SCRAP UPDATE

## CIRCULAR

In the past years, we have noticed an increase of claims caused by fires in scrap metal cargoes. The consequences of these fires can be disastrous, reason why we are issuing an updated version of our circular of November 2022 about the underestimated risk of scrap metal cargoes. In this circular MSIG Specialty Marine highlights some of the dangers and risks associated with loading and transporting scrap metal cargoes, and provides recommendations on improving safety.

**SEPTEMBER 2025**

## Scrap Metal Cargoes

1. Mixed scrap, which comes in different sizes. It may contain car body parts or shredded pieces of metal, the size of coins.
2. Ferrous metal borings, shavings, turnings or cuttings turnings, shavings and cuttings formed by drilling, turning or cutting steel

Turnings can be long and form a tangled mass or be cut in shorter pieces.

Borings are the rest material of iron castings and tend to be finer and have a greater bulk density than turnings.

## Risks

Transporting scrap metal cargoes can be a lucrative business due to the value of the cargo. However, it is also dangerous as hazardous materials may be present in the cargo. Hazardous materials can ignite or explode at any time, causing damage to the vessel and environmental damage, as well as personal injury or even death.

The most common risks of handling and transporting scrap metal cargo:

1. Spontaneous combustion  
Iron can oxidise rapidly, which releases heat. In large compact quantities of scrap, this heat will be largely retained and the temperature of the mass will rise. There are known cases where the temperature has reached an incredible 500 °C just a few metres below the surface of the cargo without producing flames.
2. Fire  
Cargoes of mixed scrap may be contaminated with paper, car tyres, rags and all kinds of flammable material. If seawater and salt crystals are present in the cargo hold, this can lead to rapid oxidation. The result is a rise in temperature and the contaminants catching fire. Given how common lithium batteries are these days, there is an increased risk that scrap metal contains these batteries or parts of them. Lithium batteries in the cargo increase the fire hazard. Broken, cracked or crushed battery cases allow moisture and oxygen to enter the battery cells and oxidise the lithium components, causing a heat reaction. Ultimately, this can lead to fires or explosions. Moreover, lithium battery fires can release irritating vapours and toxic fumes, and the fires are difficult to put

out. In fact, the only effective way of extinguishing fires caused by lithium batteries is 'total flooding'

3. Damage to the cargo hold during loading  
Scrap metal consists of heavy pieces which can easily penetrate the tank top and the sides of the cargo hold. As a result, ballast and fuel tanks may be ruptured and start leaking, which can be difficult to detect when the cargo holds are full of cargo.

Moreover, pieces of scrap can fall from the grab or magnet during cargo operations and damage decks, railings and hatch coamings.

## Contractual Considerations

In accordance with most standard charter parties, the charterer is responsible for loading and discharging the cargo under the supervision of the Master. During loading, however, the parties may not notice damage to the vessel caused by the scrap metal cargo as the holds are full. To protect both the owner and charterer in case of damage to the vessel's holds, special rider clauses can be inserted in the charter party.

In 1998, BIMCO published the "BIMCO Scrap Metal Clause 1998". This clause states that cargo must be loaded in accordance with Annex 9 of the IMO Code of Safe Practice for Cargo Stowage and Securing. If a charterer does not comply with these provisions, the costs of damage caused to the vessel shall be for the charterer's account. Another commonly used clause is a "soft landing clause", stating that the first layer of scrap must be dropped from the crane as close to the tank top as possible to form a 'cushion'. Compliance with this clause minimises damage to a vessel's cargo holds.

However, the contractual position always depends on the negotiating position of the parties and all other terms of the charter party.



## Recommendations

MSIG Specialty Marine recommends appointing the professional services of a qualified cargo surveying company to assist the Master prior and during loading. Furthermore, the following precautionary measures should be taken:

- ◆ As with any other cargo, the cargo spaces must be prepared as per general loading practice.
- ◆ A continuous watch to be arranged during cargo operations by ship staff to monitor for impurities in the cargo and check the temperature of the cargo, preferably using a thermal imager.
- ◆ Loading must be performed in accordance with the International Maritime Solid Bulk Cargoes Code (IMSBC Code).
- ◆ The shipper has to declare in writing that the scrap metal cargo does not include lithium batteries borings, shavings, turnings or cuttings that encourage self-heating.
- ◆ Do not load items containing pressurized gases, oil and/or fuel (engines), bombs, radio-active and material of an inflammable nature (like timber or rubber tyres). Lithium batteries must be immediately isolated from the scrap metal cargo.
- ◆ Temperatures must be checked regularly. If the temperature is higher than 55 °C, the cargo must not be loaded. If, during the voyage the temperature rises to 80 °C, this is a potential fire risk and the vessel must immediately proceed to the nearest port.
- ◆ If the crew has to enter the cargo hold, entry into enclosed spaces procedures are to be followed and special breathing apparatus must be used, as oxygen levels may be low with a risk of suffocation.
- ◆ Do not pump bilge wells unless absolutely necessary; a certain amount of dirt and oil can be expected, which can result in an oil pollution claim.
- ◆ Amend charter parties accordingly, by inserting special clauses which allocate liabilities between the parties in a clear and unambiguous way. When sub-chartering, make sure that such clauses are contracted back-to-back with the sub-charterer.



**Pieter Bruins**  
**Head of Loss Prevention Services**

+31 10 799 5800  
[pieter.bruins@msigspecialtymarine.com](mailto:pieter.bruins@msigspecialtymarine.com)

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