



# **Guidelines for the Carriage of Metal Scrap in Containers**

**A Publication of CINS (the Cargo Incident Notification System)**

**January 2018**

# INTRODUCTION

## Background

A working group of CINS (Cargo Incident Network System) has prepared these Guidelines for carrying metal scrap as bulk in containers.

## CINS – Cargo Incident Notification System

CINS is a shipping line initiative, launched in September 2011, to increase safety in the supply chain, reduce the number of cargo incidents on-board ships and on land, and highlight the risks caused by certain cargoes and/or packing failures. Membership of CINS comprises over 80 percent of the world's container slot capacity.

CINS permits analysis of operational information on all cargo and container incidents that lead to injury or loss of life, loss or serious damage of assets or environmental concerns.

Data relating to any cargo incident on-board a ship is uploaded to the CINS database. The data includes information on cargo type, nature, packaging, weight, journey (load and discharge ports), type of incident and root cause.

## Acknowledgements

The input and contribution of the following CINS Members who participated in the Work Group is acknowledged:

- CMA CGM
- Evergreen Line
- Hapag Lloyd
- Hamburg Süd
- HMM Hyundai Merchant Marine
- Maersk Line
- MSC
- Yang Ming
- Zim Line
- TT Club

# Guidelines for the Carriage of Metal Scrap in Containers

Heavy pieces of metal scrap might damage soft sidewalls and floor of containers if wrong sizes of metal scrap are loaded or the wrong loading method is used. Scrap containing radioactivity is a further issue. The intention of this document is to reduce claims from the carriage of metal scrap by ensuring that it is properly packed, declared and carried.



## 1. CARGO NATURE

Scrap consists of recyclable materials left over from product manufacturing and consumption, such as parts of vehicles, building supplies, and surplus materials. Scrap has monetary value, especially recovered metals, and non-metallic materials are also recovered for recycling.<sup>1</sup>

Great potential risk of accidents exists within the metal scrap industry, where a hazardous material is present and may cause death, injury or environmental damage. An example is radioactivity in scrap. Please refer to the latest version of Recommendations on Monitoring and Response Procedures for Radioactive Scrap Metal of the UNECE - Metals such as beryllium, cadmium, or mercury may pose dangers to personnel, as well as contaminating materials intended for metal smelters. Refer to the Basel Convention as well as to national and/or local legislation specific requirements and restrictions and to the latest IMDG Code for compliance.

Metal scrap is considered waste, under applicable national and international regulations, and shippers are required to make sure their shipments are in full compliance. Other potential dangers are fire, auto-ignition/explosion, damage to the container, risk of leakage (e.g. from motor parts not being drained from any remaining oil or fluids) or overweight.

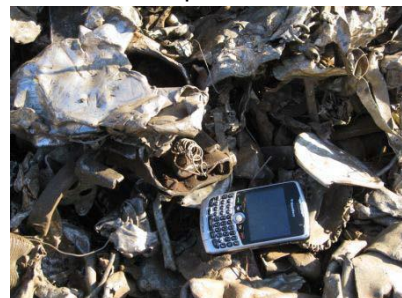
Turning:



Punching:



Shredded scrap:



HeavymixedScrap:



Plate and structures:



Engines and transmissions:



<sup>1</sup> Wikipedia, <https://en.wikipedia.org/wiki/Scrap>

## 2. CONTAINER SELECTION

### 2.1. Standard Containers

Metal scrap is shipped usually in standard dry freight containers. Given the risk of damage to the containers, it is recommended to select older container units for the carriage of such commodities.

### 2.2. Open top containers

Metal scrap might be shipped in an open top container, making the stuffing possible by way of a peel grab. The container operator or carrier must explicitly permit the use of an open top container.

## 3. CONTAINER PACKING

### 3.1. Packaging

Metal scrap packed in big bags, on pallets or pressed in bundles usually do not harm the container if correctly packed and secured and is therefore not considered in these Guidelines. However, usually metal scrap is shipped loose, in bulk, inside the container.



### 3.2. Container preparation

For metal scrap in bulk, the container walls and floor should be protected by plywood or similar, depending on the nature and shape of the scrap.

It is important to make sure that the cargo will not push against the doors during transport. This is usually achieved by inserting a bulkhead at door end (refer to CTU code, Annex 7 Chapter 5.3).

### 3.3. Loading and discharging cargo

Stuffing by way of pouring scrap into the container tilted on its front end is extremely damaging to containers and is not allowed. The scrap must be loaded into the container in a horizontal position, for example by means of a bob cat.

The container load must be balanced. Cargo must be loaded and/or secured in such a manner that it is not able to move during transportation. The container payload must not to be exceeded.



Discharging a container must be done in a horizontal position as well. Tipping the container to empty metal scrap damages the container floor and side walls.



Remember that cargo interests are liable to the container operator for any damage caused to the containers by their cargoes and the way they are stuffed and secured. Cargo interests may also be liable for other damages caused.

## 4. BEST PRACTICES AND TRANSPORT RECOMMENDATIONS

### 4.1. Agents / Shipping lines

- a. Request a shipper's declaration that the cargo is free from radioactivity.
- b. Request information regarding scrap nature and stuffing. For European Union Basel Convention Annex VII is required, additionally international, national and local legislation may apply. Ensure that the customer is aware and compliant with the requirements for waste/scrap movements.

## **4.2. Shipper / Consignor / Customer / Container Packer**

- a. Classify the scrap, to fully comply with waste movement international and local regulations in force.
- b. Drain off all liquids like oil, fuel, water from cargoes like transmissions or motors.
- c. Protect container's floor and sidewalls by using plywood sheets or liners.
- d. Ensure that loading operation is done with the container placed horizontally and not turned vertically.
- e. Do not load more than the permitted payload of this specific container unit or more than any permitted gross weight during the transport by local authorities. Verify gross weight.
- f. Any compaction of the cargo during packing is strictly forbidden. Compacting causes damage to container sidewalls and frames.
- g. Secure and lash larger pieces of scrap to prevent any movement.
- h. Ensure no load to container doors during whole transport. This ensures no damages to doors and possible safe opening of doors by consignee or checking authorities, like inspecting authorities. This is achieved by installing a bulkhead (see CTU Code).

## **4.3. Intermodal Operators including Terminal Operators should alert the Container Operator or Carrier.**

- a. Check for leakages.
- b. Check possible radioactivity if available at gate.
- c. Check for abnormal heat at the container walls.
- d. Check external visible container damages.

## **5. CROSS REFERENCES**

- a. IMO/ILO/UNECE - Code of Practice for Packing of Cargo Transport Units – Annex 7 Part 5 Packing Bulk Material
- b. UNECE - Recommendations on Monitoring and Response Procedures for Radioactive Scrap Metal
- c. UNECE - Report on the UNECE Recommendations on Monitoring and Response Procedures for Radioactive Metal Scrap
- d. Basel convention

## Contact Information

### **CINS – Cargo Incident Notification System**

Suite 3, Charter House  
26 Claremont Road  
Surbiton KT6 4QU  
United Kingdom

T: +44 (0)20 8390 0000

E: [secretary@cinsnet.com](mailto:secretary@cinsnet.com)

W: [www.cinsnet.com](http://www.cinsnet.com)