

EMD RESTRICTED COMMODITIES GUIDELINE

Pages: 9

Bulletin: Cargo

Prepared by: David Tan

Effective: 20 May 2005

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Validated by: Christopher Lee

14.0 Steel coils / Paper reels / Granite blocks

As containers are designed and rated for uniformly distributed loads, heavy steel coils with small contact area exert very high bending moment and shear forces on the container base, often exceeding the design limits, damaging container and becoming a safety hazard.

Note: Cargo units exceeding 10tons cannot be loaded in ISO containers, use flat-racks. Containers carrying such cargos must be stowed within 0.2L of mid ship, and no higher than 2nd tier on deck to minimize acceleration forces.

Blocking, bracing and securing of steel coils must be in accordance with IMO guidelines.

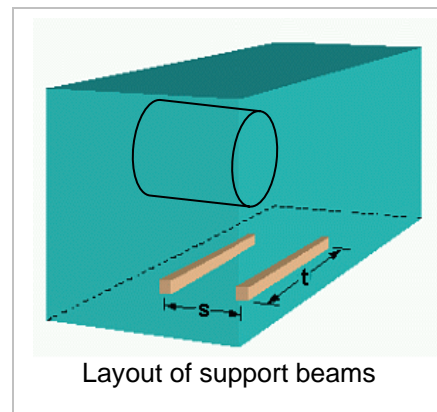
Steel coils are prohibited by railways, please check.

Proper load distribution and securing of steel coils is absolutely critical for operational safety and to prevent damage to containers.

A pair of timber/steel beams must be used to distribute the weight longitudinally.



Loose coils, breaking floor and panels



Layout of support beams

The spacing, length and thickness of the timber beams must meet or exceed the table below.

Weight (tons)	s (Meters) minimum	t (Meters)	Beam cross-section(cm)
2.5	1	0.6	10x10
3	1	0.7	10x10
4	1	1	10x10
5	1	1.3	12x12
6	1	1.45	12x12
7	1	1.7	12x12
8	1.2	1.6	12x12
9	1.2	1.8	15x15
10	1.4	1.6	15x15

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Strap down, prevent coil jumping and shifting.

Example: Coil assist to sky



Example: Coil axis to front



Example: Coil axis to side

15.0 US Railroad Restrictions

US Railroad restrict and forbids certain cargoes on the rail, please check with Service integrity NAM for clearance.

14.1 Union Pacific (UP)

UP forbids the carriage of several types of cargoes such as carbon and oil black, metal products, sodium compound and coal.

Please see UP website <http://www.uprr.com/customers/dam-prev/loading/intguide/intgui4.shtml> for more details.



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14.2 CSX Intermodal Policy

In 1996, several railroads issued an embargo on shipping concentrated metal products ("CMP") (including, but not limited to all coil, plate, roll, spool or reel metal products) due to the increase in damage potential in these products. The weight and configuration of these products pose a unique problem for shipping via railroad.

Therefore, in order to ship CMP the shipper, at its own expense, must adhere to strict rules for blocking and bracing, identification and safety and receive prior approval from CSX Intermodal's Risk Management Group. In addition, shippers must sign an in favor of CSX Intermodal and all carriers involved.

In general CSX applies the following policy

Concentrated Metal Products of 3,500 lbs. total or less do not require an indemnification agreement.

Concentrated Metal Products in excess of 3,500 lbs. each are to move in containers only.

Concentrated Metal Product in excess of 12,500 lbs. (5681.8 kg) will not be accepted.

Please click <http://www.csxi.com/index.cfm?fuseaction=services.special> for more details.

Conclusion

The list above captured the most common sensitive cargoes. If you wish to carry any of them, please take note of the potential damages to the container and discuss with your regional M&R manager on the precautionary measure to be taken.

The list is by no means exhaustive and there could be other commodities that are not included yet. In general, damages are a result of three main causes. The first concentrated loading or improper load distribution in which we will have to look at spreading the load throughout the container floor. Second, are cargo movements that would require proper cargo bracing. The third, cargo characteristics, residue and spillage that would require appropriate lining to protect the container. If there is any cargo that you think may damage the container, please refer to your regional M&R team or EMD.

In all cases, whether they are cleared by Regional M&R or not, we recommend a clause for full liability by the customer if a container is damaged in any way due to any of these commodities.

Should there be any comment or clarification on the guideline, please email to christopher_t_h_lee@apl.com or david_c_h_tan@apl.com