

Cargo Operation Circular

Ref No.CMSWM0392017

Date: 23rd March 2017

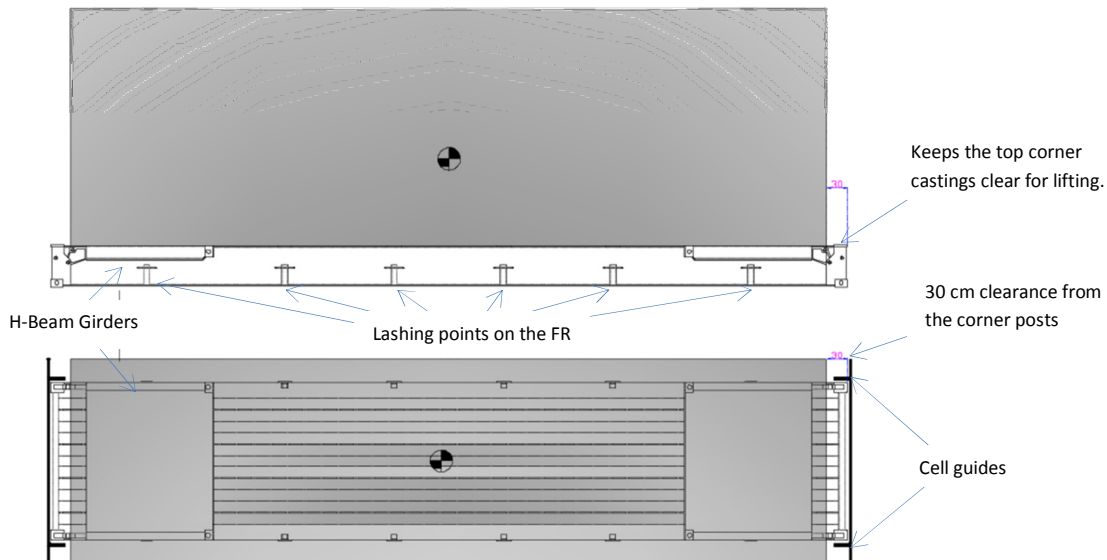
Dear Valued customer,

Sub: Guide to stowage and securing of cargo on flat-racks.

The cargo must be properly stowed and secured on the Flatrack in compliance with applicable national and international regulations including the IMO/ILO/UNECE - Code of practice for packing of Cargo Transport Units (2014) and IMO Cargo Stowage & Securing code, as its utmost importance for the safety of the crew, the vessel and the items of the cargo themselves.

In view of the above,

- ✓ The cargo payload must be homogeneously distributed over the loading floor. Concentrated load should be expanded by bedding on longitudinal H-beam girders and it may be necessary to transfer the weight to the corner posts by supporting the cargo on strong timber or steel beams as appropriate.
- ❖ The cargo should be so arranged that its centre of gravity is closer to the mid-length and mid-width of the Flatrack container. As a rule of thumb, **60% of the cargo's total mass loaded in 50% of the freight container's length.**
- ✓ Cargo packed on the Flat rack must not obscure the top corner castings, and
- ✓ Where flat rack is required to be loaded underdeck cell guide holds, cargo and respective blocking/bracing materials should be stowed within 30cm of the corner posts of the flatrack, required for cell guide clearance.



For securing of cargo units, strong lashing rings & brackets are welded to the outer sides of the longitudinal bottom H-Beam Girders with a MSL of at least 30 kN according to the standard and also have additional lashing points with MSL of 50 kN and 100Kn.

- ✓ All lashing materials must be of an approved type and of suitable size and capacity taking into consideration the weight of cargo to be secured.
- ✓ There must be a balanced number of lashings on each side of the unit and lashings should be made up comprising the same components so that they have the same elasticity.
- ✓ As a rule of thumb, **the total of the Maximum Securing Load (MSL) values of the securing devices on each side of the unit of cargo (port as well as starboard) should be equal to the weight of the unit.** Combination of “preferred lashing method” (see Annex 1) must be taken against both longitudinal and transverse sliding & tipping forces.
 - Direct Lashing: Prevents sliding and tipping but needs strong securing points on the cargo unit.
 - Loop Lashing: Prevents transverse sliding and tipping but to be used in pairs.
 - Spring Lashing: Prevents longitudinal sliding and tipping.
 - *Top Over Lashing: Increase friction only (to be used minimum for sea carriage)*Cargo may also be secured in longitudinal direction by shoring to the end walls of flatracks.
- ✓ Suitable “chafing gear” and/or “softeners” must be fitted on the lashings in any areas where the lashings make contact with the cargo, other lashings, or the structure of the flat rack itself, in order to prevent damage or excessive wear and subsequent failure of the lashings.
- ✓ Any cargo sitting on the side steel girders must be segregated by rubber, wood or similar anti-slip materials.
- ✓ Where the cargo is over height, over length, and/or over width, the protruding dimensions should be protected and clearly marked.

Acceptance:

Safety is paramount to our business, accordingly Swire Shipping requires all flat racks to be safely loaded and lashed to meet SOLAS requirements and for protection of cargo against the normal risks of ocean transportation.

Swire Shipping strongly recommends shippers provide a lashing certificate issued by a competent cargo surveyor.

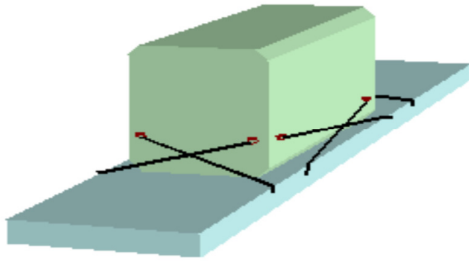
Where a lashing certificate is not supplied, Swire Shipping reserves the right to carry out its own inspection prior to loading. Flat racks found not meeting the required lashing standard will not be shipped until remedial work is undertaken, which may result in extra charges for the shipper. Swire Shipping will assist where possible in carrying out the remedial work on the shipper’s behalf, or the shipper may make their own arrangements and re-present the flatrack for further inspection after the remedial work is completed.

Swire Shipping

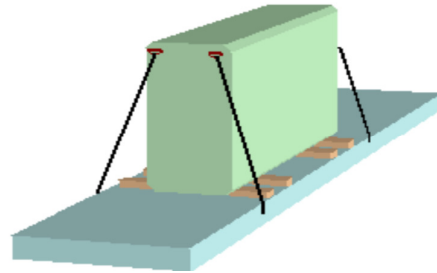
The China Navigation Co.Pte.Ltd
300 Beach Road #27-01 The Concourse Singapore 199555
Tel (65) 6603 9400 Fax (65) 6603 9401 www.swirecnco.com

Annex 1.

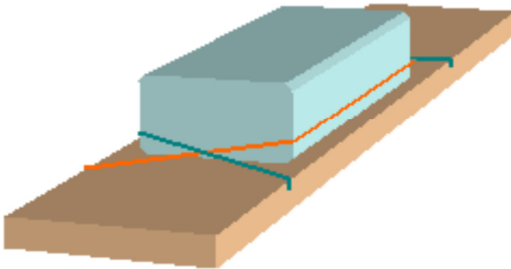
Preferred lashing methods



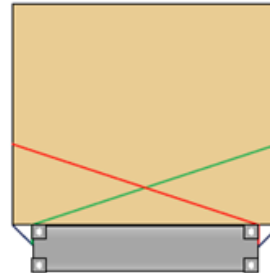
Direct lashing against sliding



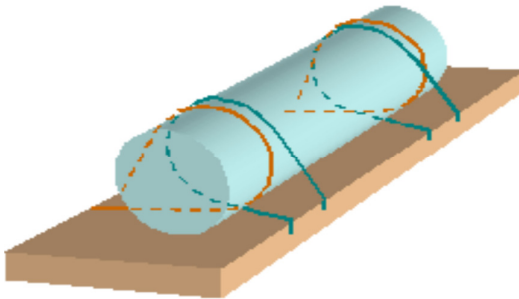
Direct lashing against tipping



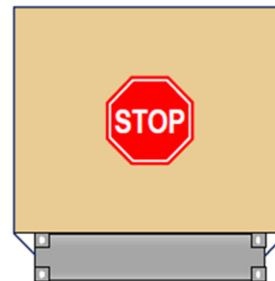
Horizontal half-loop lashing



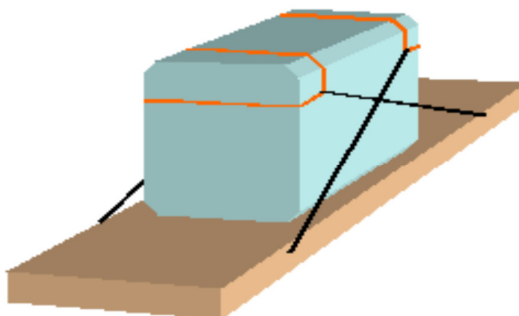
Horizontal half loop lashing



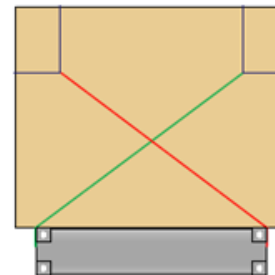
Vertical half-loop lashing



Top over lashing *(to be used minimum)*



Longitudinal Spring Lashing



Transverse Spring lashing