## -RHENUS Labistics

## RAILWAY REQUIREMENTS

## CARGO PACKAGING, CONTAINER STUFFING, LASHING AND SECURING



The loading and reinforcements of a container destined for railway transport is subject to strict requirements. These requirements have to be met in order to ensure smooth entry at terminal and safe loading onto the wagon.

The maximum allowed weight is 22 T for a $20^{\prime}$ container and is 23 T for a $40^{\prime}$ container. If the weight limit is exceeded this needs to be requested to and agreed upon by the Shanghai Landbridge Office to the Railway operator

Cargo should be arranged according to the size, type and weight.

## PACKAGING REQUIREMENTS

- If the weight of a single piece of cargo exceeds 100kg, the cargo must be packed in such a way that it will minimize the forces of impact during transport.
- The material of the packaging itself must be of firm material and the gap between the goods needs to be minimized so that the goods can support each other by making sure the pressure on the packaging itself is minimized
- Depending on size, weight, the position of the gravita tional center and other provided information, a loa ding plan will be delivered on instruction of the railway operator, to the requester of the shipment, by Shanghai Landbridge Office
- After the requirements of the railway operator have been met and cargo is accepted on the Landbridge the stuffing of the container must be done in accordance to the provided loading plan.
- Secure lashing is a requirement for wooden pallets as well. If these pallets are solid wood, it is required to have IPPC fumigation marks and the supporting documents.


## STUFFING REQUIREMENTS

- A full container needs to be secured on both ends, if the shipment is a partial load all cargo needs to be evenly spread out and stabilized.
- Goods should be spread out evenly over the container floor during loading
- The gravitational center and de containers physical center should not exceed a difference of 6 cm .
- Different type goods or goods with a different density should be placed symmetrically to avoid partial over weight in the front ot be loaded.
When the container tilts more than 50 cm whilst being picked up during loading onto the wagon, the gravitati onal center is considered to be too heavy, and the container will not be loaded
- The difference in weight of the front and rear side should not exceed 2T.


## INCORRECT STUFFING

- When discrepancies such as partial load, incorrect gravitational center and overweight are found, the gravitational center and overweight are found, the
station will require reloading of the container. Note that such mistakes will most likely result in additional costs.
- Reloading will also increase the operation time, which may result in the goods not being able to be loaded on the wagon in time for departure and thus will be shor shipped.
- When goods with multiple customs codes (HSCODE) are placed in the same container, it is recommended to have samples of all the goods at the door of the box to facilitate commodity inspection and customs inspection. This will help minimizing the delay of your shipment.


## IMPORTANT NOTICE: <br> DO NOT MAKE ANY CHANGES TO YOUR SHIPMENT

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\begin{aligned}
& \text { In case of changes to your shipment and its content a new loading plan must be requested from } \\
& \text { the Shanghai Landbridge Office. } \\
& \text { Upon receiving the changes, the Shanghai Landbridge Office will need to get confirmation from } \\
& \text { the railway operator that cargo is still acceptable and that a new loading plan can be obtained. } \\
& \text { Many shippers do not reinforce the goods at the back of a rail container, because they are ac- } \\
& \text { customed to shipping by sea. } \\
& \text { When the container is placed on the ground, the stacking of the packages within the container is } \\
& \text { likely to collapse. In that case damage can occur and repacking of the boxes will be necessary. } \\
& \text { This will generate additional costs. }
\end{aligned}
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## REGULAR CARGO PACKAGING SPECIFICATIONS



## CRATE AND PALLET CARGO

- This cargo is distinguished from carton cargo because they are packed as a crate or on a pallet. The crate packaging material usually consists of wood or iron. The pallets can be made out of plastic or solid/pressed wood.
- In accordance with the loading plan, the cargo must be closely placed next to each other, whilst attached to the front and back of the container. The cargo should clo sely it the full frame of the container including the iron frame of the container door once closed. This way no frame of the container door once closed. This way
- If the length of a single piece of cargo exceeds 2200 mm and the sides of the cargo is closely to the left and right side of the frame of the container, 2 wooden reinforce ment blocks should support the cargo either in the front ment blocks should support
- Fumigation reinforcement blocks requirements: wood for reinforcement purposes consist of solid wood. A clear record number fumigation mark is mandatory for these blocks
Standard size: no less than $20 \mathrm{~cm} * 10 \mathrm{~cm} * 4 \mathrm{~cm}$
- If the weight of a single piece of cargo exceeds 1.5T, the previously explained rectangular block reinforcement will not bear the weight. It is in this case necessary to reinforce the cargo as a wooden triangle of dimensions no less than $20 \mathrm{~cm} * 20 \mathrm{~cm} * 20 \mathrm{~cm}$.


## PACKING METHOD:

Before loading the goods, we must first determine the quantity and size of the goods and whether it can fully fill the entire container.

- If it would seem that a large gap remains after loading, the height of the entire cargo combined should be adjus the height of the entire cargo combined should be adjus
ted on the loading plan. This way the goods can be tiled and piled up so that they can cover top to bottom of the container:

If the container is to be stuffed with small cartons of the same size, it is easier to tightly pack the inner bottom area


## CARTON CARGO

- Tail stuffing requirements: for the last rows of goods the lamination method (1) or the criss-cross stacking method (2) should be applied.
- If the overall height of the stacked cargo exceeds 1.5 meters, bandages, ropes and nets are needed. Upon opening the doors, do not immediately pull these ropes or nets as this can cause the cargo to fall out of the container.


## PACKING EXAMPLE

Cargo with a single piece weight of $\leq 100 \mathrm{~kg}$, usually packed in carton, fiber strapping bag (belt), etc.

Carton packaging is the most widely seen type of container cargo and is generally equipped with relatively fine and lightweight products. It accounts for about $70 \%$ of the total container cargo volume.

If different sizes of cartons are mixed, match their size to stack and eliminate the unused space.

If the container is filled with large cartons, a gap is often generated between the goods in the container.

- Gap $\leq 300 \mathrm{~mm}$ : it is generally not necessary to reinforce the goods. Such gaps can be squeezed artificially by the weight of the goods themselves.
- Gap (>300mm: filler material e.g. bubble packing, must be used to support and/or reinforce the cargo.


