## TATA STEEL



# LOAD CONFIGURATION GUIDELINE

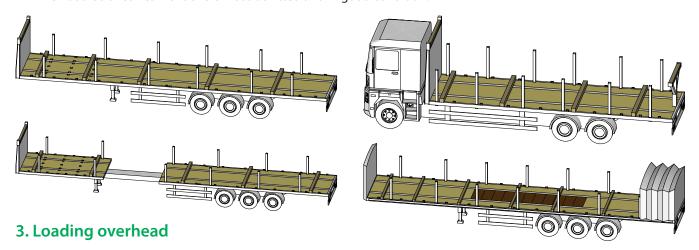
## **Multi-product loads**

#### 1. Introduction

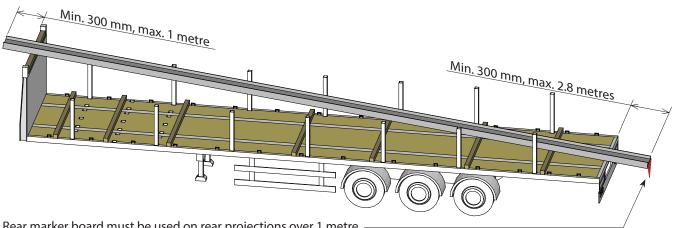
This guideline presents the basic principles which are to be adhered to when configuring multi-product loads.

#### 2. Essential trailer/rigid requirements

- Headboard must be 1.5 metres high or greater than material.
- Trailer deck must be in good condition and free from holes.
- Minimum of 6 pairs of side pins at least 1 metre in height.
- Base dunnage must be 150 mm square timbers minimum.
- All gantries must have fixed timbers 100 mm square minimum.
- Well boards of coil carrier trailers must be fitted and in good condition.



🗶 Overhead material is NOT permitted when trailer is extended.

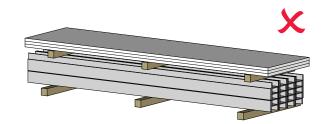


Rear marker board must be used on rear projections over 1 metre

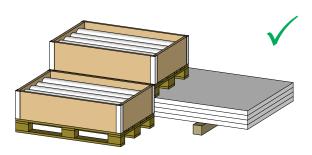
## LOAD CONFIGURATION GUIDELINE

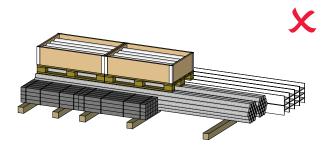
# **Multi-product loads**



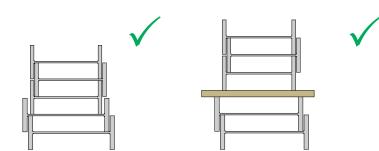


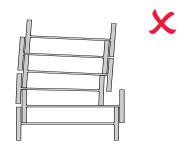
Light sheet and plate to be loaded first, onto base timbers.





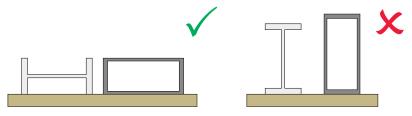
Pallets may only be placed directly on the trailer deck, or on top of plates if appropriate. Consider use of anti-slip matting beneath plastic wrapped pallets.

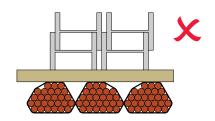




Loading narrow on top of wide sections is preferable. If customer cannot off-load in this configuration, narrow sections need to be timbered up.

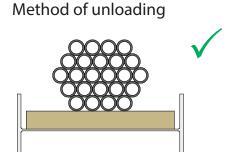
Stacking sections with different flange sizes can lead to unstable stacks.

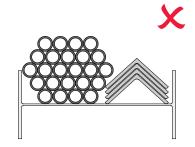




Rectangular material must be stacked flat.

Do not load on top of round material.





Overhead crane offload.

Forklift and sideloader offload.

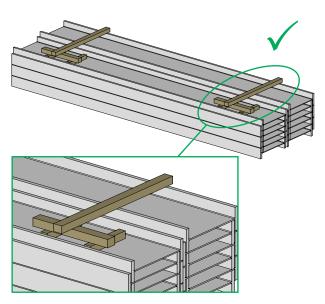
No access for slings or tines.

# LOAD CONFIGURATION GUIDELINE

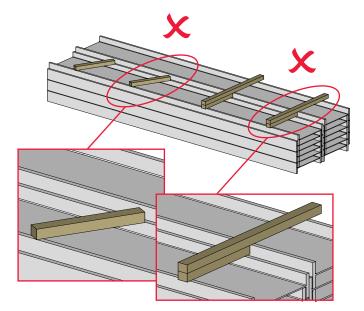
# **Multi-product loads**

#### 5. Dunnage requirements

### 5.1 Creating levels with timbers



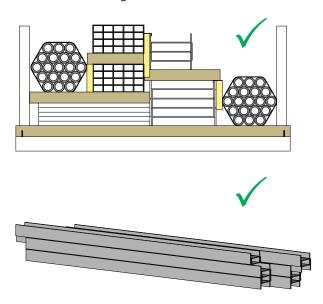
When creating levels using timbers for the next layer of product, always create a grillage.



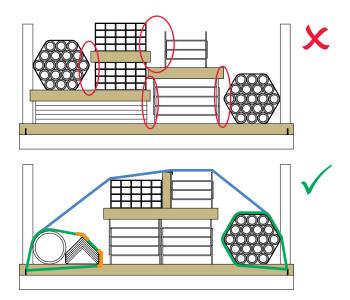
Double stacking of timbers and balancing the corners of a timber on the flanges of a beam is a dangerous practice. In an emergency braking situation, the product on top will not be adequately supported.

#### 5.2 Chain gaps

- No uncontrolled gaps between product. Gaps between product can close up during transport, resulting in a loss in tension in the restraints.
- Where loading or unloading requirements stipulate a gap between product, then these must be controlled by implementing vertical dunnage. See TIS-0007 for possible solutions.
- Vertical dunnage must be secure within the load to prevent it coming loose in transit.



Stagger and launch can aid unloading requirements without the need to leave gaps.



Small bundles of material can be loaded to the side pins and restrained using opposing loops.

## TATA STEEL



# LOAD RESTRAINT GUIDELINE

## **Multi-product loads**

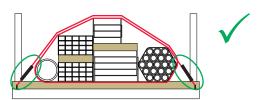
#### 1. Introduction

This guideline presents the restraint requirements which are to be adhered to when securing multi-product loads.

### 2. Essential restraint requirements

#### 2.1 Primary restraints

- A minimum of 6 chains is required for a full load.
- All material must be secured at 2 points minimum.
- Chains must be minimum Grade 8 and be compliant with EN 12195-3:2001.
  See TIS-0004.
- Where belly-wraps are applied, 2 tensioners are required. See TIS-0001.



One tensioner each side of a belly-wrap

#### 2.2 Additional restraints

- Webbing straps may only be used when the load configuration requires a greater number of lashings than the 6 chains.
- Webbing straps may be used to secure small packs of material that are not restrained by the 6 chains.
- Webbing straps are preferably used on parts of the load which are blocked.
- Do not mix and match chains and webbing straps on the same part of the load, unless that part of the load is blocked.
- Webbing straps must be minimum LC 2000 daN and be compliant with EN 12195-2:2001. See TIS-0003.
- Webbing straps must be protected from abrasive surfaces and sharp edges.
  See TIS-0005.

## 2.3 Severe Winter Weather advisory periods

Additional restraint is required during Severe Winter Weather advisory periods.



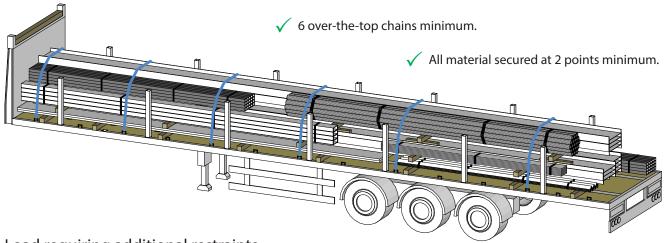


## LOAD RESTRAINT GUIDELINE

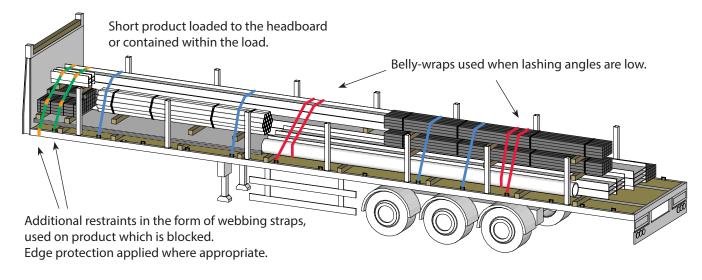
# **Multi-product loads**

## 3. Sample loads and restraining solutions

Pyramid load with good lashing angles on all parts of the load

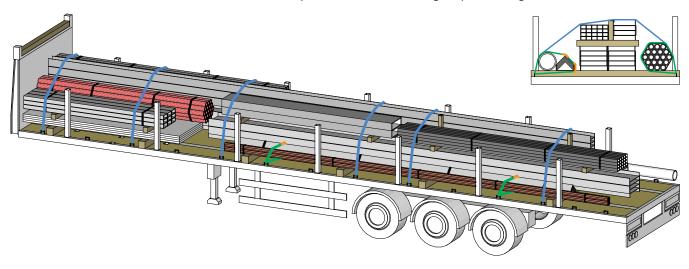


## Load requiring additional restraints



#### Using looped lashings to control chain gaps

Small bundles of material can be loaded to the side pins and restrained using looped lashings.

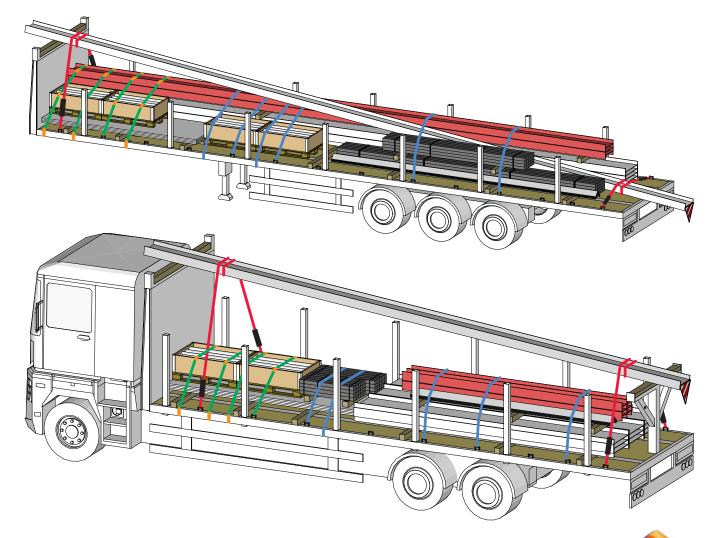


## LOAD RESTRAINT GUIDELINE

# **Multi-product loads**

## 4. Sample overhead loads and restraining solutions

- Items that are loaded overhead are to be belly-wrapped at each end, as close to the gantries as possible.
- 2 tensioners are required for all belly-wraps.



- For added security, direct lashings may be applied around the rear of the overhanging items.
- Consider use of a purpose-made head pocket around the rear end of the product.

## 5. Guidance for transport planning of sheeted product

- Sheeted material must be first drop, or delivered on its own.
- Painted material should not be sheeted.
- · Challenge every sheeted request from customer.
- Where possible, deliver sheeted product on a Slidaflex trailer.

#### Where sheeting of product is required:

- Restraints are to be applied prior to sheeting the load.
- Sheeting to be carried out from the ground. Where possible, driver should seek assistance when handling sheets.

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