

# LOAD RESTRAINT GUIDELINE

## Wide coil in cradle

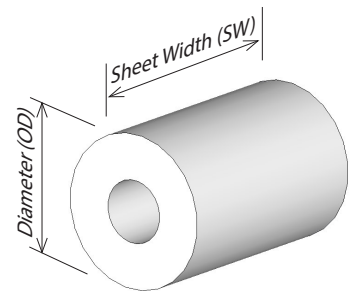
Sheet width > diameter/1.4

### 1. This guideline applies to:

- Wide coils up to 7 tonnes loaded in cradles.
- Coils with diameter less than 1.4 times sheet width.

### 2. Essential requirements

- Edge protection must be used on all sharp edges.
- Coils must be securely banded to cradles.
- Weight limit for individual coils must be observed.
- Chock angle 23 degrees minimum.
- All restraints must be webbing straps compliant with EN 12195-2, minimum lashing capacity of 2000 daN.
- Posts used for blocking must be in good condition. Minimum acceptable size in S355 steel is 80 x 80 x 4.



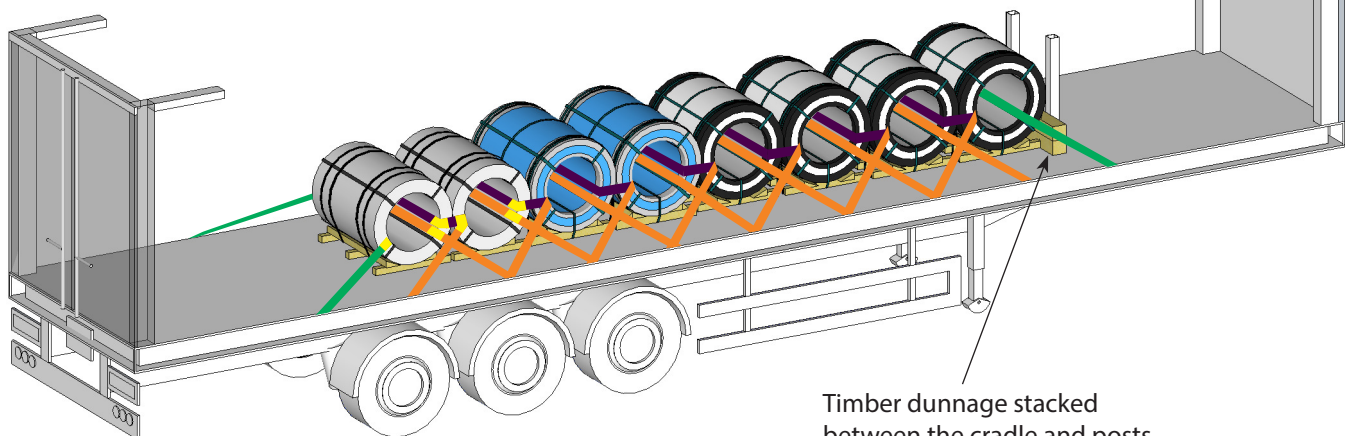
$$OD < 1.4 \times SW$$

### 3. Coils up to 5 tonnes each - road transport.



#### 3.1 Blocked against the posts

- ✓ Pairs of **alpha straps**, binding coils together.
- ✓ Cradle blocked against posts.
- ✓ **Direct lashings** pulling rearwards and forwards.



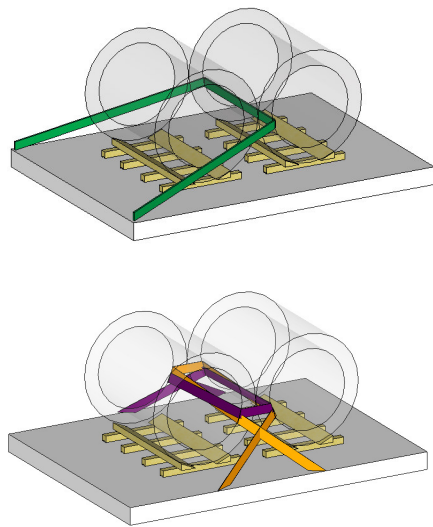
Timber dunnage stacked between the cradle and posts.

This Load Restraint Guideline has been designed and tested to meet the forces for road and sea transport as stated in EN 12195-1:2010 and VDI 2700.

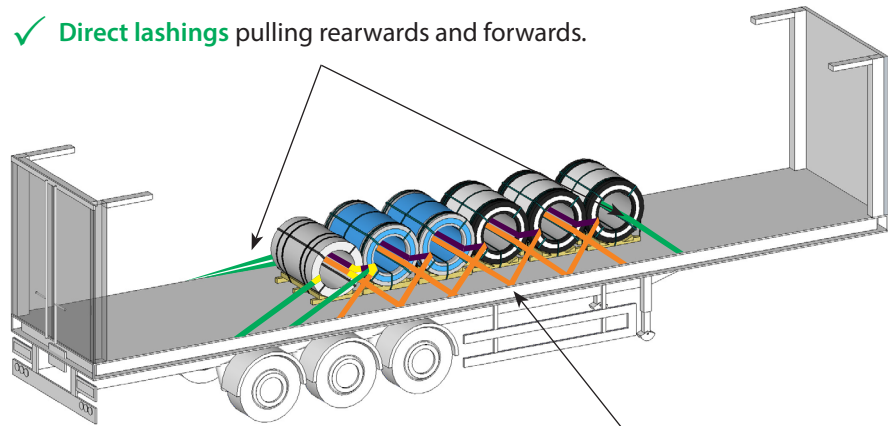
# LOAD RESTRAINT GUIDELINE

## Wide coil in cradle

### 3.2 Coils secured with direct straps



✓ **Direct lashings** pulling rearwards and forwards.



✓ Pairs of **alpha straps**, binding coils together.

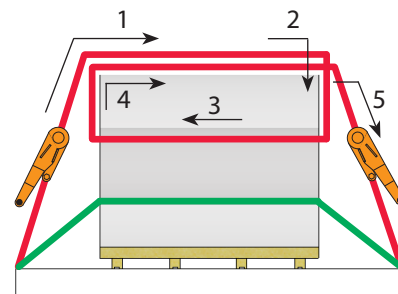
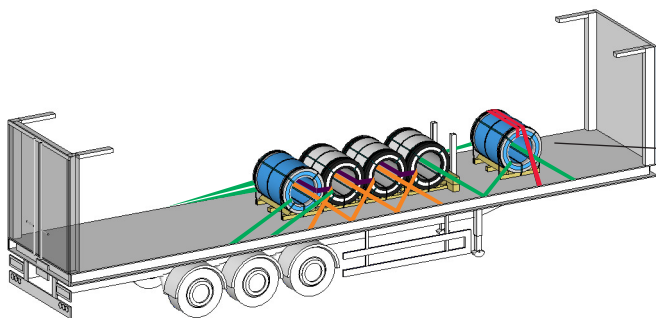
### 4. Coils up to 6 tonnes each - road transport.



#### 4.1 Coils blocked against the posts

- ✓ Pairs of **alpha straps**, binding coils together.
- ✓ **Direct lashings** pulling rearwards and forwards.
- ✓ Cradle blocked against posts.

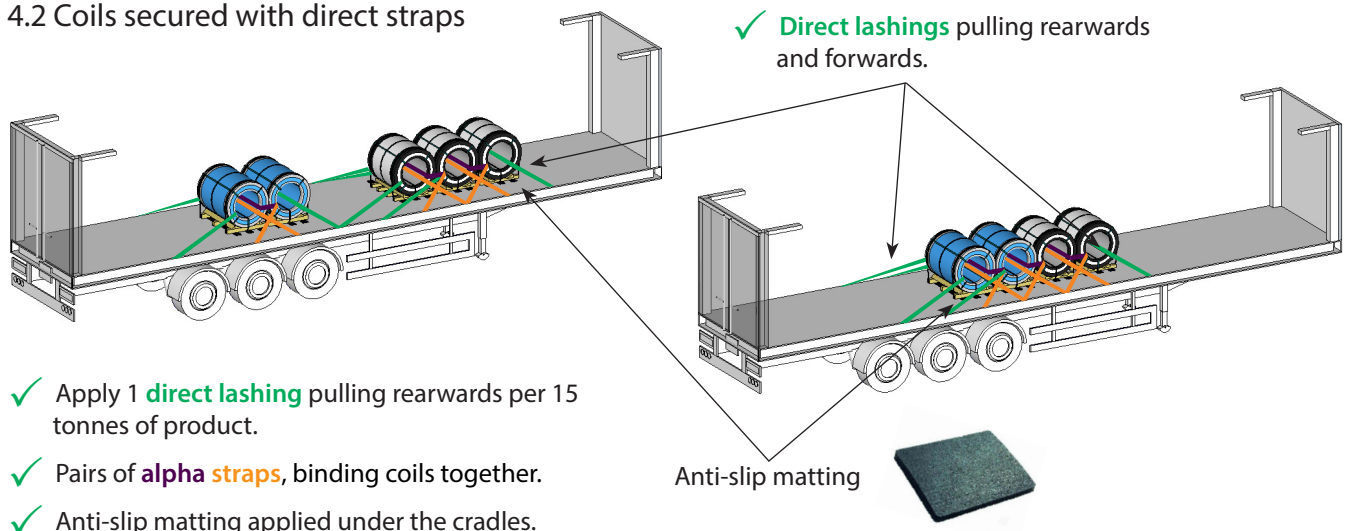
- To meet axle load weight limits coils can be loaded individually and secured using **direct lashings** and **belly-wrap** lashing with ratchet tensioner on each side.



Cross-sectional view of **belly-wrap** restraint showing ratchet tensioners on both sides.

#### 4.2 Coils secured with direct straps

✓ **Direct lashings** pulling rearwards and forwards.



- ✓ Apply 1 **direct lashing** pulling rearwards per 15 tonnes of product.
- ✓ Pairs of **alpha straps**, binding coils together.
- ✓ Anti-slip matting applied under the cradles.

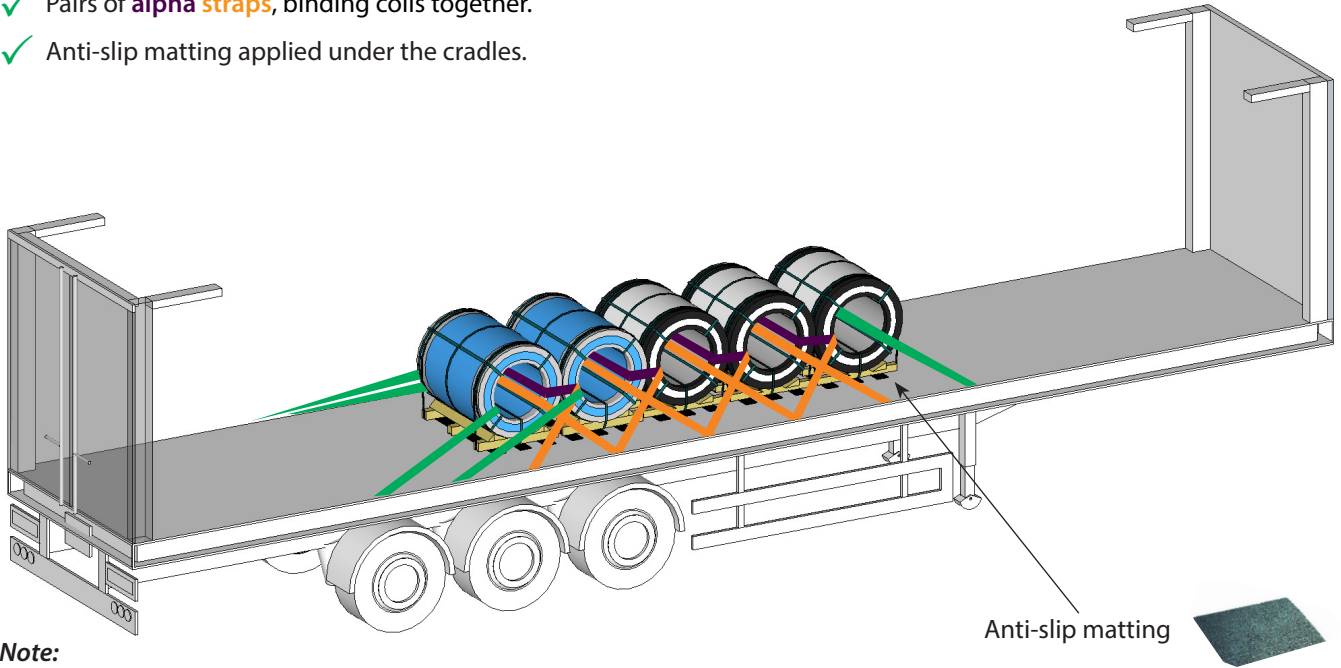
# LOAD RESTRAINT GUIDELINE

## Wide coil in cradle

### 5. Coils up to 5 tonnes each - export loads.

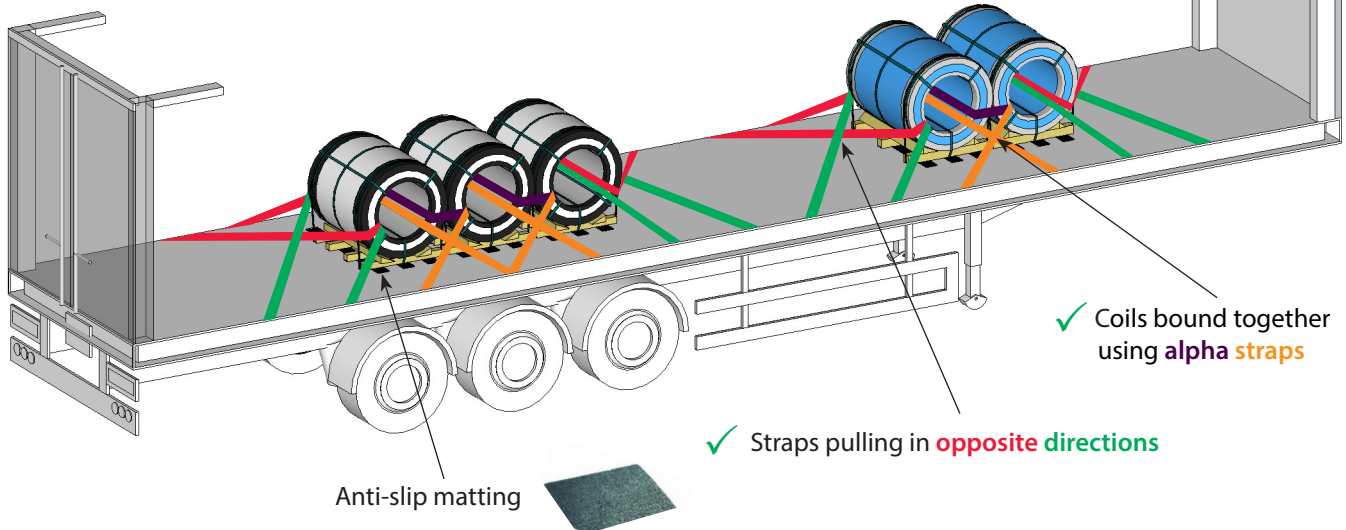
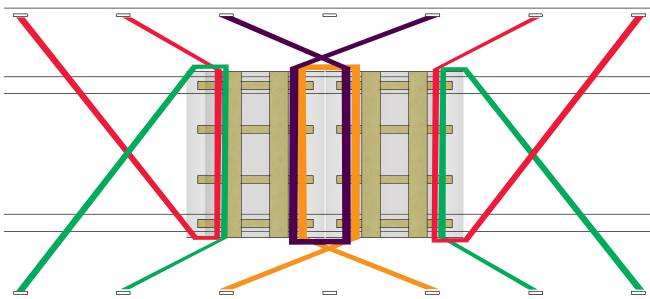


- ✓ Pairs of **alpha straps**, binding coils together.
- ✓ Anti-slip matting applied under the cradles.



**Note:**  
Coils can also be blocked against the posts.

### 6. Coils up to 6 tonnes each - export loads.



✓ Coils bound together using **alpha straps**

✓ Straps pulling in **opposite directions**



**Note:**  
Anti-slip matting must be spaced adequately to prevent contact between the cradle and the trailer bed.

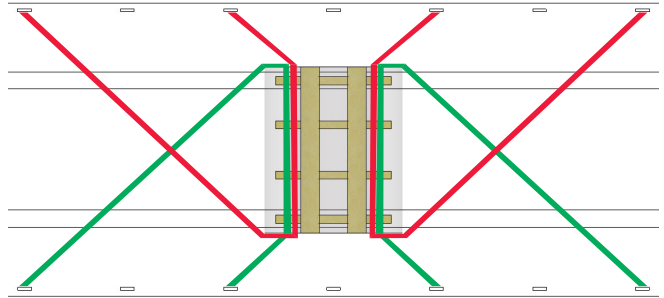
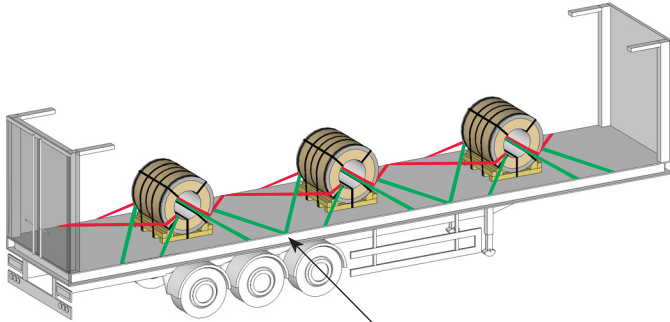
# LOAD RESTRAINT GUIDELINE

## Wide coil in cradle

### 7. Coils up to 7 tonnes each - UK and export loads.



#### 7.1 Coils loaded eye-to-the-side

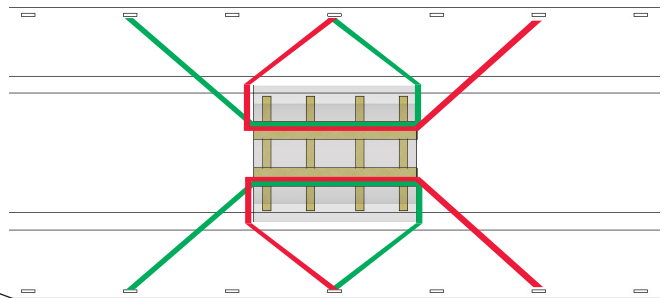
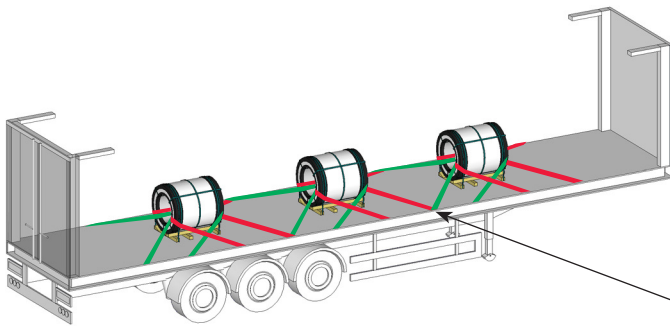


Straps pulling in opposite directions can be attached to the same lashing point.

- ✓ 4 straps per coil.
- ✓ Straps pulling in **opposite directions**.

#### 7.2 Coils loaded gunbarrel

! Gunbarrel load configuration applies only to coils with diameter less than or equal to sheet width.



- ✓ 4 straps per coil.
- ✓ Straps pulling in **opposite directions**.

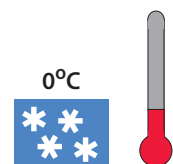
Straps pulling in **opposite directions** can be attached to the same lashing point.



**Note:**  
Edge protection must be applied to webbing straps in contact with sharp edges.  
Use of anti-slip matting is recommended on export loads configured as per Section 7.

### 8. Winter weather UK and export loads

During severe winter weather advisory periods when the air temperature is below 0°C and there is a risk of frost, ice or snow anti slip must be positioned between cradles and trailer.



The information and guidance contained in this document is intended for use only by Tata Steel UK Limited and its associated and subsidiary companies ("Tata Steel") in relation to its operations. All information and guidance in this document is based on Tata Steel's interpretation of prevailing legislation and best practice. Tata Steel gives no warranty or representation as to the accuracy of the information or for the guidance being for, or suitable for, a specific purpose. The information and guidance does not constitute legal or professional advice. All implied warranties and conditions are excluded, to the maximum extent permitted by law. Use of this document by any third party is at your own risk. Save to the extent that liability cannot be excluded by law, Tata Steel is in no way responsible or liable for any damage or loss whatsoever arising from the use of or reliance on the information and guidance contained in this document.