

1. This guideline applies to:

- Scrap rail loaded in a bundle onto a flat-bed trailer.

Note: Payload will be limited due to loading against the headboard, refer to Section 6.

2. Essential requirements

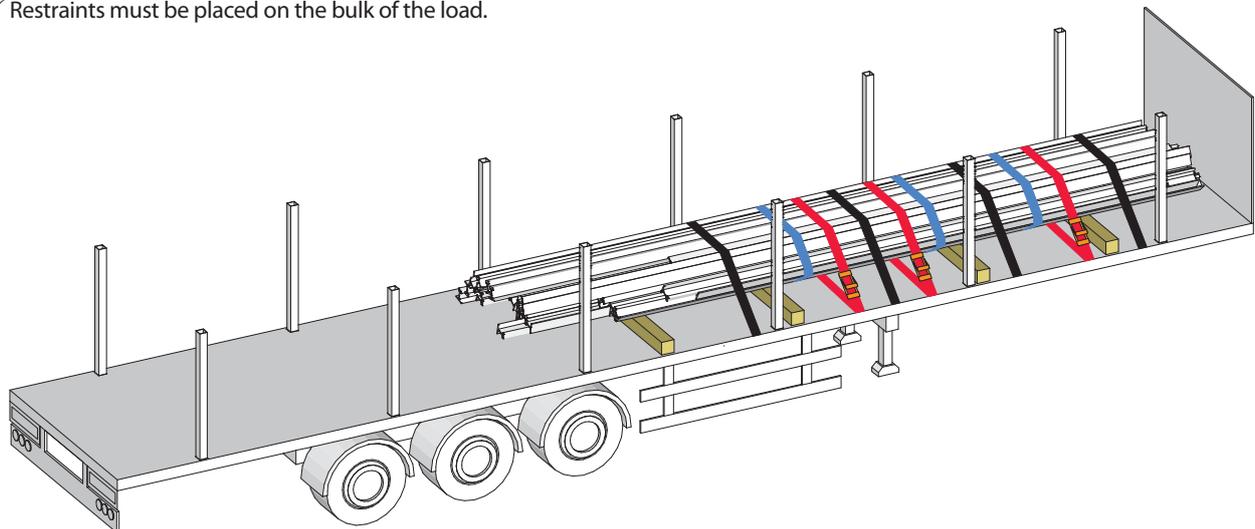
- Use transport chains compliant with EN 12195-3, minimum 8 mm Grade 8, LC 40 kN.
- Bundling straps must be webbing straps compliant with EN 12195-2, minimum LC 2000 daN.
- Base dunnage must be a single layer of square section timber.
- Minimum 4-off base dunnage on standard trailers and 5-off base dunnage on extendable trailers.
- Headboard to cover the height of the load with a minimum load bearing capacity of 5 tonnes.
- Side pins are mandatory - at least 2 pairs covering the length of the shortest rails.

3. Overview of restraint systems

- ✓ Load the rails as close as possible to the trailer headboard.

Note: Individual rails within the bundle may be set back from the headboard.

- ✓ For bundling the load together apply 3 pairs of **opposing loop** webbing straps.
- ✓ For restraining the load apply 4 over-the-top transport chains.
- ✓ Restraints must be placed on the bulk of the load.



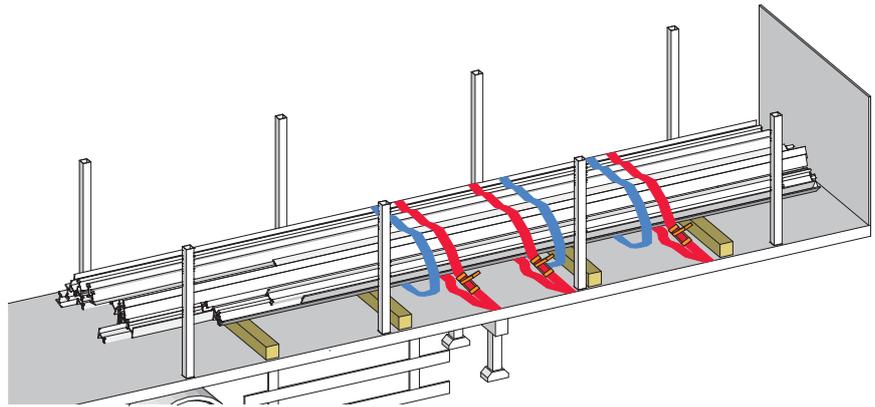
Note: For this Load Restraint Guideline only, webbing straps and transport chains are mixed on the load as the straps and chains are applied for different purposes.

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

4. Application of restraints

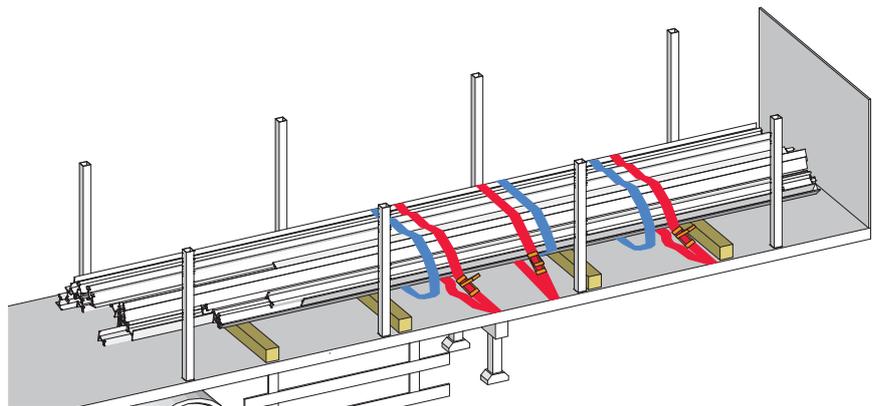
Step 1

Apply bundling straps to pull the pack together.



Step 2

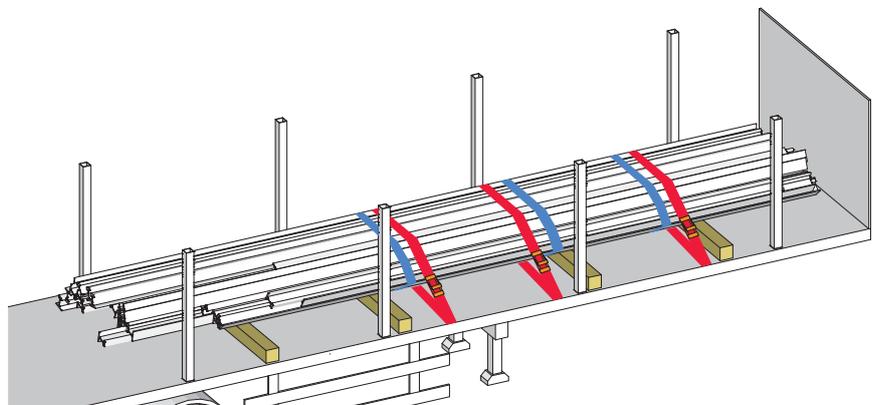
Tighten the centre pair of straps, pulling the pack together as much as possible.



Step 3

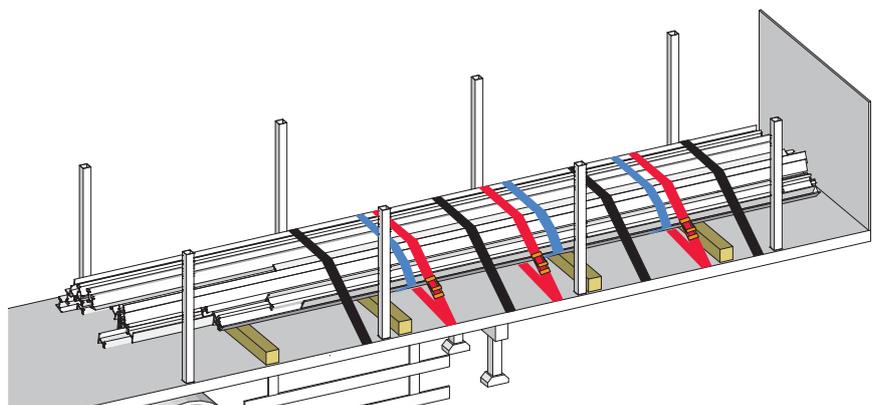
Continue to tighten all of the pairs of straps in turn, pulling the pack tight together to prevent spearing.

Repeat the sequence of tightening the straps until the pack is fully compacted.



Step 4

Apply 4 over-the-top chains to secure the bundle to the trailer.



Note: Check tensions of all restraints before transporting and en-route as necessary. The uneven nature of the bundle may result in settlement of the rails.

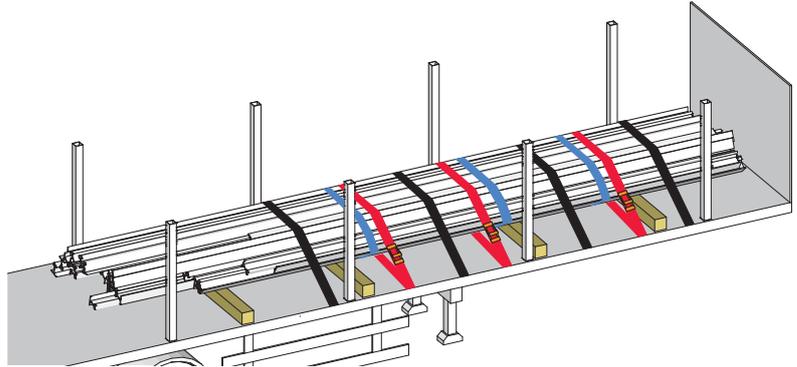
5. Removal of restraints



Warning - rails may move as restraints are removed.

Step 1

Ensure side pins are in place.

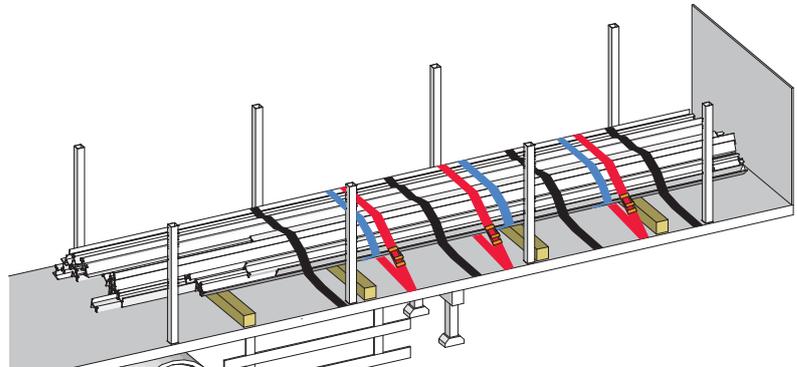


Step 2

Remove the over-the-top chains.



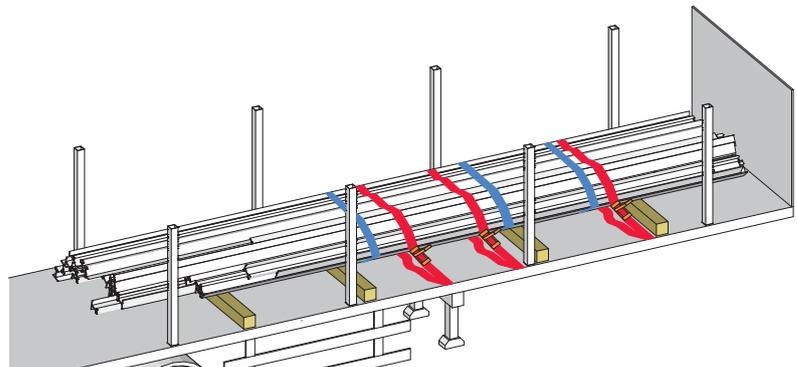
Assess stability of the load



Step 3

Release tension from webbing ratchets from one side of the trailer, allowing rails to settle away from the operator.

Release tension from webbing ratchets from the other side of the trailer, again allowing rails to settle away from the operator.

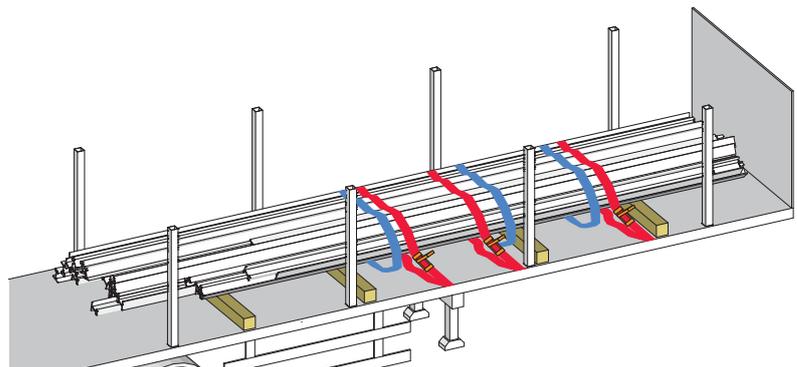


Step 4



Assess stability of the load

If safe to do so, remove all webbing straps.



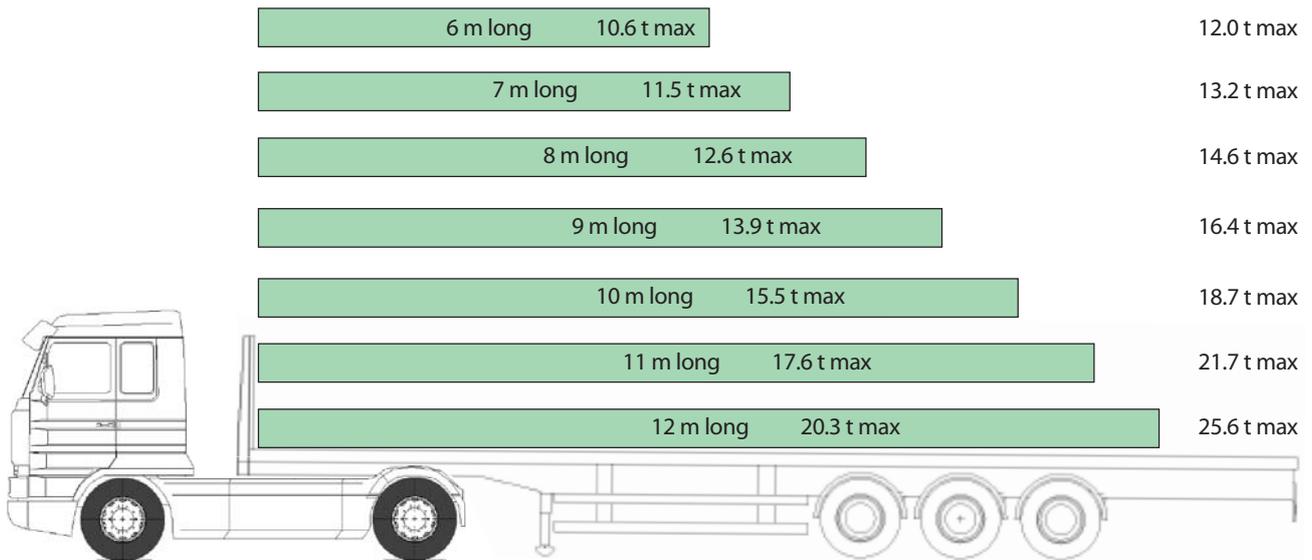
6. Typical maximum payload when loaded to the trailer headboard

The diagrams below show the maximum payload for different length product when loaded to the trailer headboard based on typical 2 and 3 axle tractor units and trailers. The figures below are based on vehicle tare weights of 14.8 tonnes for a 5 axle combination, and 15.9 tonnes for a 6 axle combination with 13.6 m (45') trailers.

Note: Payload will be limited due to loading against the headboard. Refer to TIS-0012 Axle loads and weight distribution for more information.

6.1 Two axle tractor unit / 5 axle combination

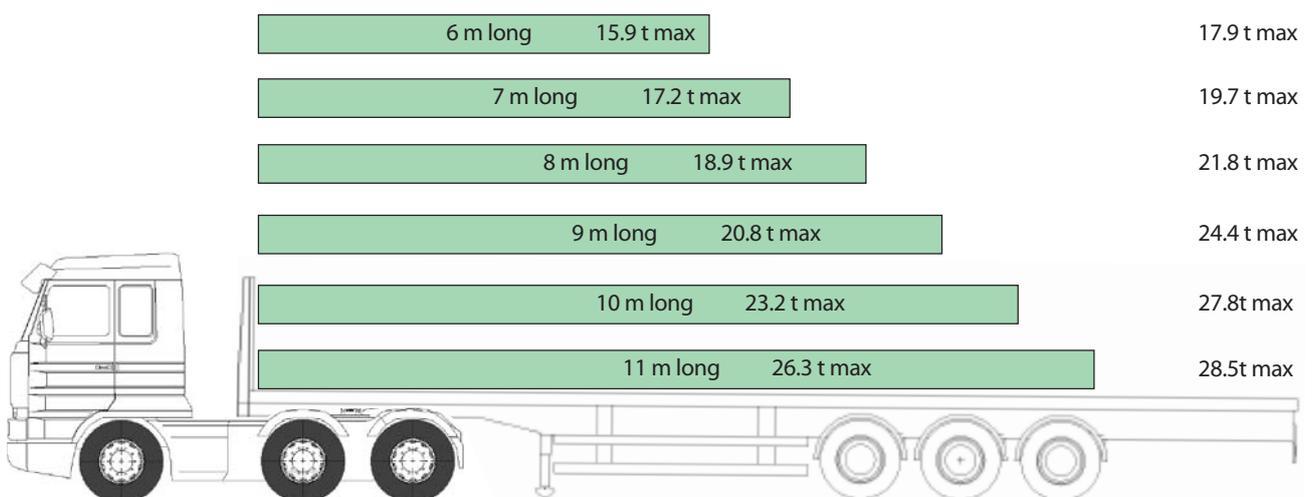
Weight limits for a
12.2 m (40') trailer



Maximum payload for different length product loaded to the headboard with a typical 2 axle tractor unit and a 13.6 m (45') trailer

6.2 Three axle tractor unit / 6 axle combination

Weight limits for a
12.2 m (40') trailer



Maximum payload for different length product loaded to the headboard with a typical 3 axle tractor unit and a 13.6 m (45') trailer

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