

## 1. This guideline applies to:

- Square billets 75 mm x 75 mm.
- Typical billet lengths of 12 m.
- Bundled into packs of 8 billets and banded with tie-wire or steel banding.

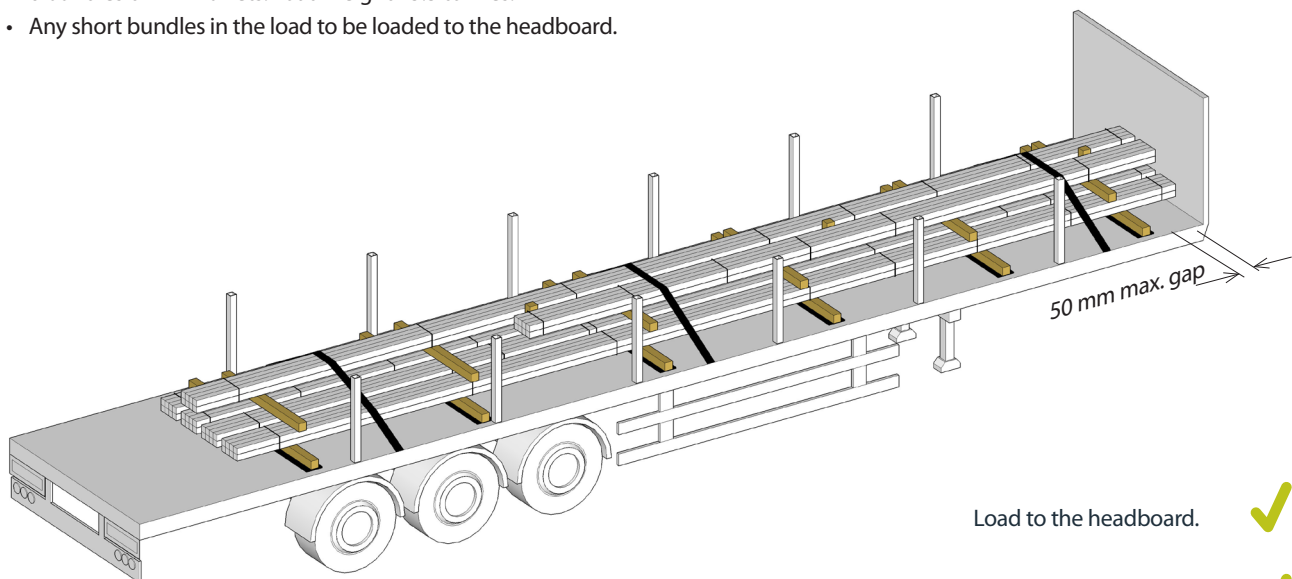
The lowest friction factor determined as per EN 12195-1: 2010 Annex B.1.2 is  $\mu = 0.60$ .

## 2. Essential requirements

- All restraints for UK loads must be a minimum of 8 mm Grade 8 chains compliant with EN 12195-3.
- All restraints for the export market to be a minimum of LC 2000 daN webbing straps compliant with EN 12195-2.
- Edge protection must be fitted to webbing straps in contact with the product and chassis frame.
- Anti-slip matting to be placed between the base layer of dunnage and the trailer deck. \*
- Billets must be placed on timber dunnage with a cross-section of at least 75 x 75 mm.

## 3. UK loads

- 6 bundles of 12 m billets: Load weight 25.3 tonnes.
- Any short bundles in the load to be loaded to the headboard.



Load to the headboard. ✓

Square base timbers on anti-slip matting\*. ✓

3 over-the-top LC 40 kN 8 mm chains. ✓

Pyramid load with maximum of 2 bundles on top row. ✓

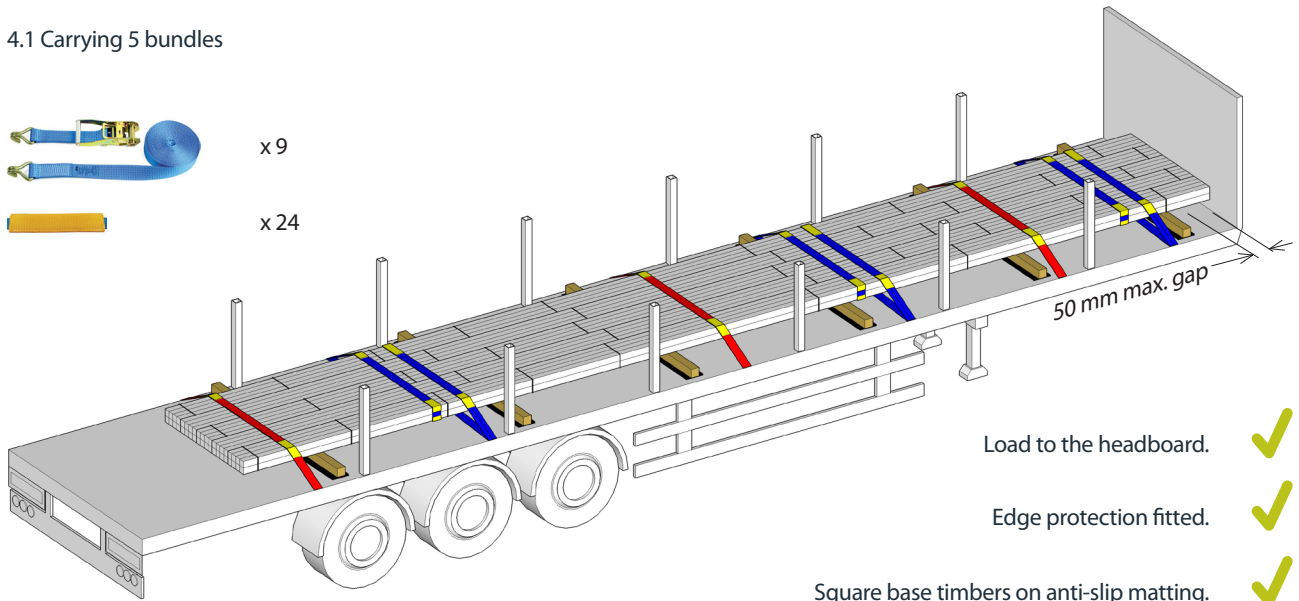
Side pins fitted for loading and unloading safety.

\* Anti-slip matting is not required for trailers with 10 tonne capacity headboards.

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

## 4. Export loads

### 4.1 Carrying 5 bundles



Load to the headboard. ✓

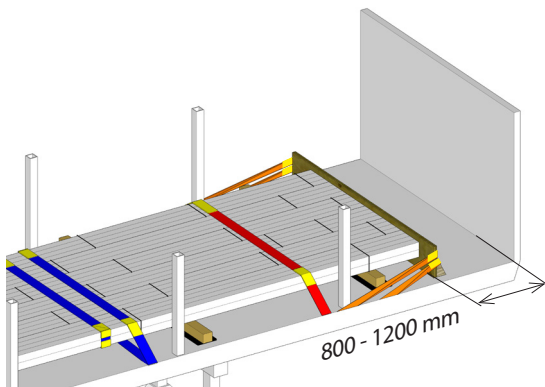
Edge protection fitted. ✓

Square base timbers on anti-slip matting. ✓

3 pairs of opposing loops and 3 over-the-top restraints. ✓

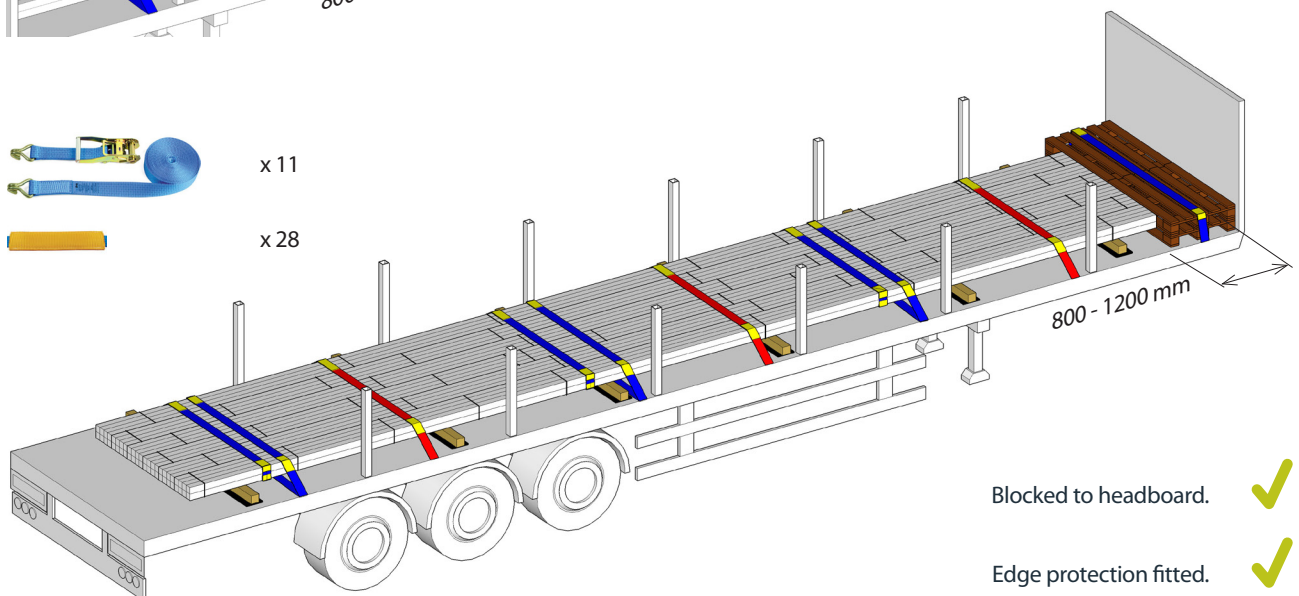
All gaps to be blocked with timber dunnage. ✓

### 4.2 Carrying 6 bundles



To achieve correct axle loadings of 25.3 t export loads must be loaded between 800 mm and 1200 mm away from the headboard, and the gap must be either:

- blocked with timber dunnage, such as euro pallets, or
- a false headboard fitted with 2 off 2000 daN webbing straps as shown.



Blocked to headboard. ✓

Edge protection fitted. ✓

Euro pallets to be held in place with LC 2000 daN strap. ✓

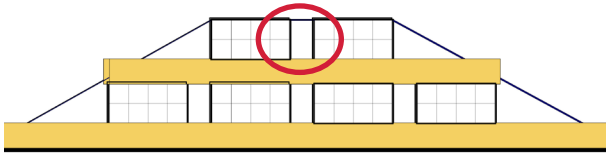
Square base timbers on anti-slip matting. ✓

3 pairs of opposing loops and 3 over-the-top restraints. ✓

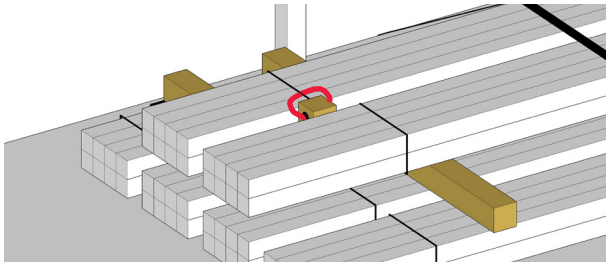
All gaps to be blocked with timber dunnage. ✓



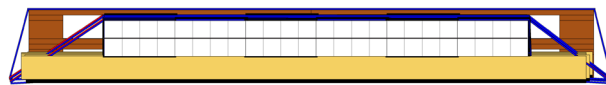
## 5. Load gaps



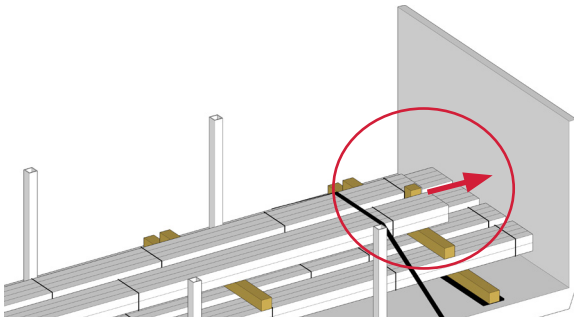
Incorrect loading. No unblocked gaps allowed in the top tier of the load.



Where chain gaps are required, vertical timbers are to be used to control the gaps. Timbers are to be secured to the tie-wires on the product.

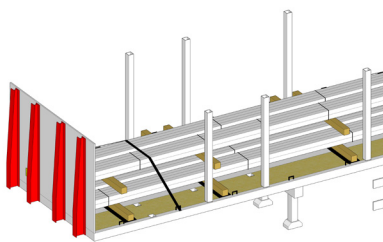


For export market, billets to be loaded without gaps across the trailer width.



Incorrect loading. All layers of the product must be up to the trailer headboard when using over-the-top restraints.

## 6. Requirements for trailer headboards used for blocking

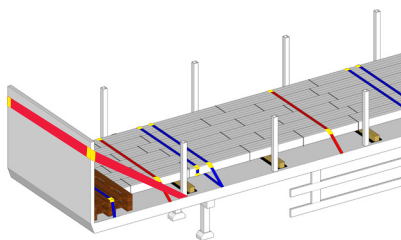


Trailer headboards must be capable of providing a minimum of 5 tonnes of restraint. This may be achieved from any of the following:

- EN 12642 Code L or XL rated headboard.

Fahrzeugaufbau entspricht	<b>EN 12642-L</b>
Voertuigopbouw voldoet aan norm	
Vehicle body in compliance with	2008
LAG TRAILERS N.V.	

Typical trailer label to display EN 12642 conformance.



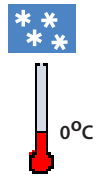
- Headboard constructed from :
  - 2 vertical supports each with 2 weld runs of 155 mm,
  - or
  - 4 vertical supports each with 2 weld runs of 110 mm.

Where the above specification has not been met or cannot be verified, the existing trailer headboard must be lashed back on both sides as shown.

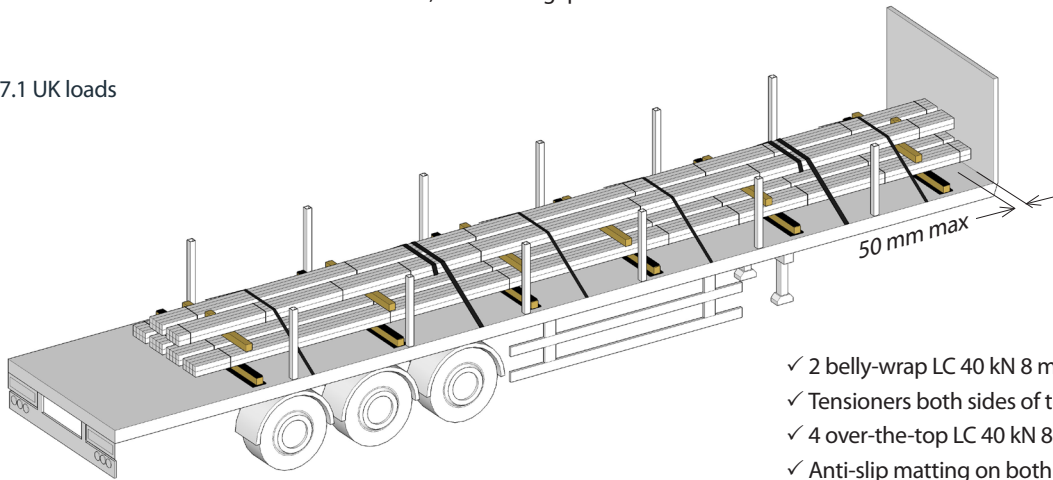


## 7. Severe winter weather advisory periods

- During severe winter weather periods additional restraints are required (see below).
- Anti-slip matting to be placed on both sides of base timber dunnage.
- Material must be loaded to the headboard, maximum gap of 50 mm.

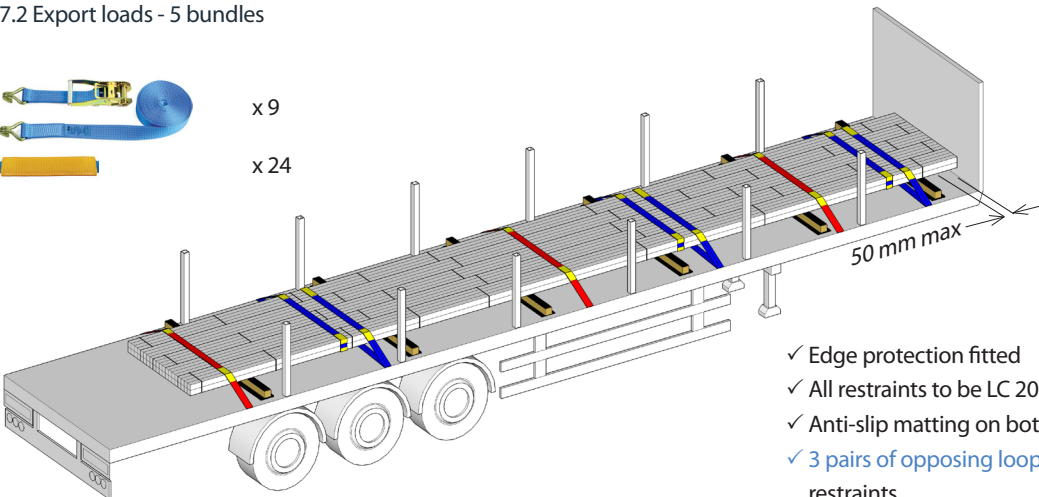


### 7.1 UK loads



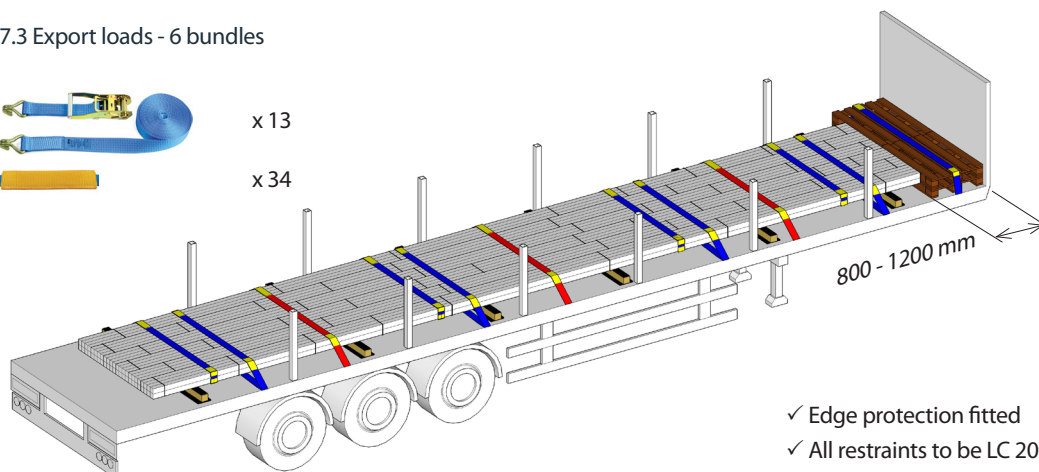
- ✓ 2 belly-wrap LC 40 kN 8 mm chains.
- ✓ Tensioners both sides of the belly-wrap chains.
- ✓ 4 over-the-top LC 40 kN 8 mm chains.
- ✓ Anti-slip matting on both sides of base timbers.

### 7.2 Export loads - 5 bundles



- ✓ Edge protection fitted
- ✓ All restraints to be LC 2000 daN straps.
- ✓ Anti-slip matting on both sides of all timbers.
- ✓ 3 pairs of opposing loops and 3 over-the-top restraints.

### 7.3 Export loads - 6 bundles



- ✓ Edge protection fitted
- ✓ All restraints to be LC 2000 daN straps.
- ✓ Anti-slip matting on both sides of all timbers.
- ✓ 4 pairs of opposing loops and 3 over-the-top restraints.

- ✓ Blocked to headboard.
- ✓ or use false headboard as section 4.2

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