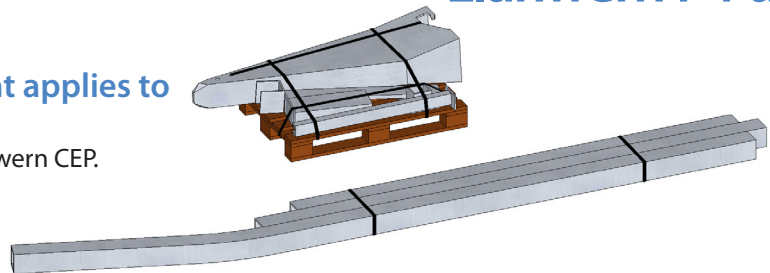


TECHNICAL ADVICE DOCUMENT

Llanwern P4 unit

1. This Technical Advice Document applies to

- The transportation of P4 units from Llanwern CEP.



The friction factor for galvanised products on timber dunnage, determined as per EN 12195-1:2010 Annex B.1.2 is $\mu=0.44$

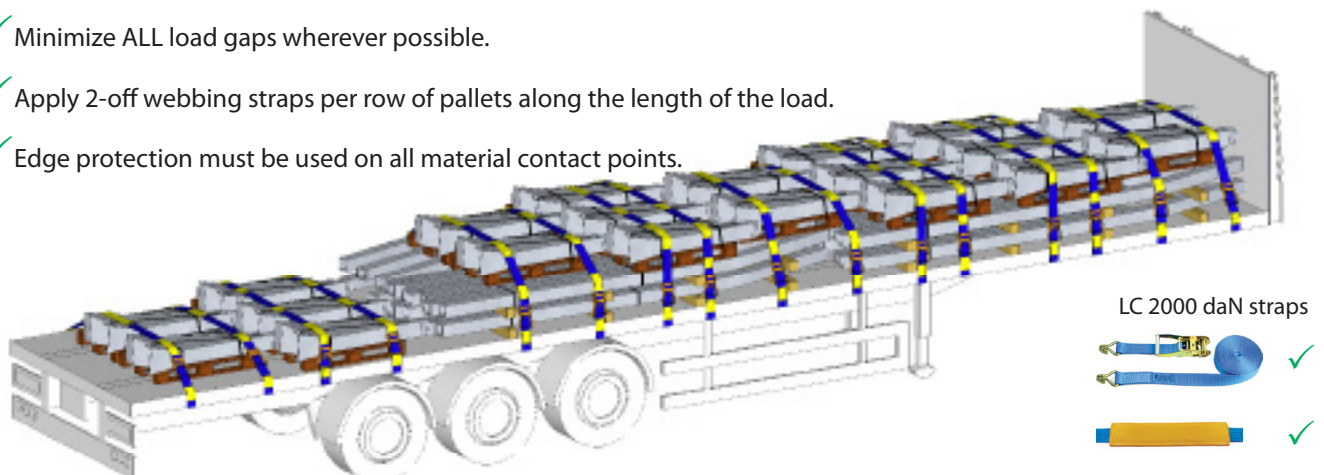
2. Essential requirements

- The headboard must be rated to 7.5 tonnes or above, or approved by Tata Steel Load Restraint Engineers.
- Loads must be placed on a single layer of timber dunnage with a minimum cross-section of 75 mm x 75 mm, or banded to wooden pallets and wrapped in film wrap.
- All webbing restraints must be compliant with EN 12195-2, with a minimum rating of LC 2000 daN.
- Webbing sleeve edge protection MUST be used on all material contact points.
- Minimum lashing point rating of 2 tonnes, or suitable side rails as per TIS-0009 Lashing Points.

3. Load configuration and restraint

3.1 Load build - flat bed trailer

- ✓ Load up to the headboard, and block all parts of the load in the forwards direction.
- ✓ Square base timbers evenly distributed.
- ✓ Load box section in a maximum of two level layers with intermediate timbers.
- ✓ Load P4 pallet units up to 3 wide along the length of the trailer.
- ✓ Minimize ALL load gaps wherever possible.
- ✓ Apply 2-off webbing straps per row of pallets along the length of the load.
- ✓ Edge protection must be used on all material contact points.



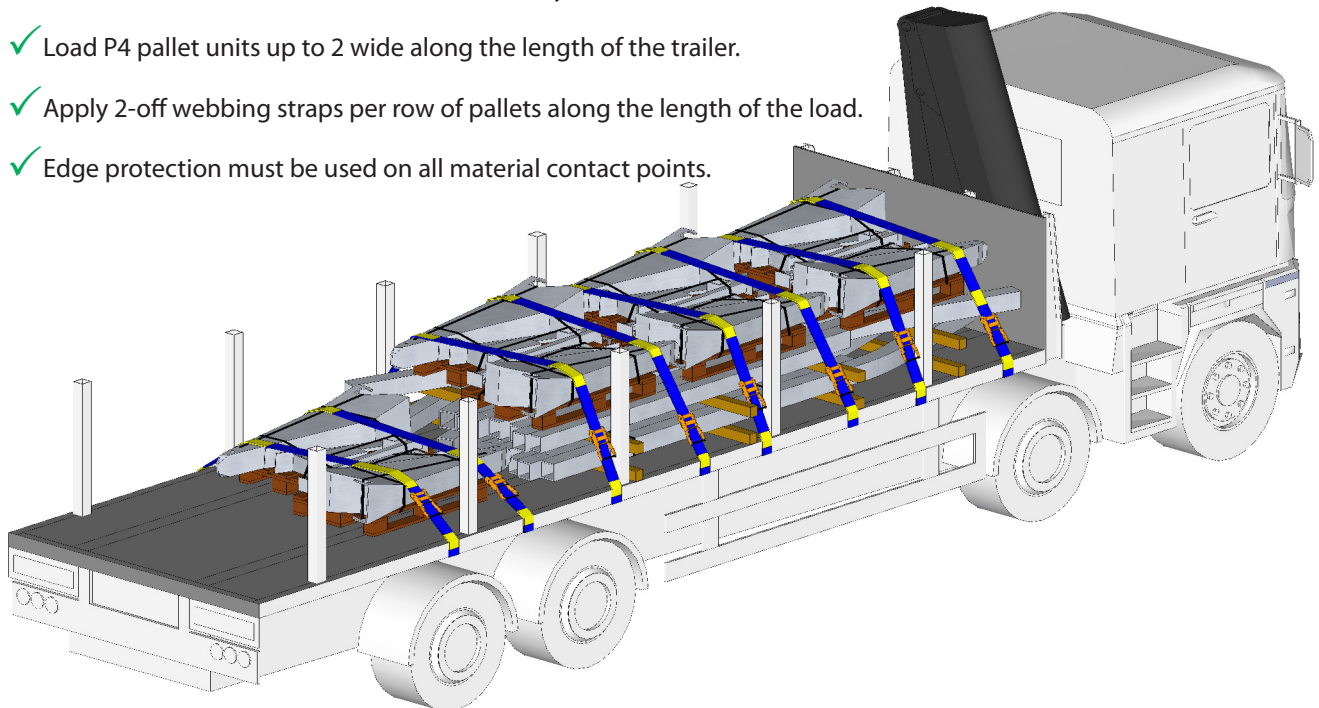
TECHNICAL ADVICE DOCUMENT

Llanwern P4 unit

3.2 Load build - rigid vehicles

- ✓ Load up to the headboard, and block all parts of the load in the forwards direction.
- ✓ Square base timbers evenly distributed.
- ✓ Minimize ALL load gaps wherever possible.
- ✓ Load box section in a maximum of two level layers with intermediate timbers.
- ✓ Load P4 pallet units up to 2 wide along the length of the trailer.
- ✓ Apply 2-off webbing straps per row of pallets along the length of the load.
- ✓ Edge protection must be used on all material contact points.

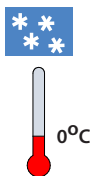
LC 2000 daN straps



Side pins must be fitted to all loads where possible.

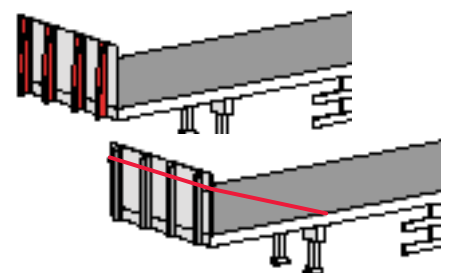
4. Severe winter weather advisory periods

- During severe winter weather periods, additional measures are required.
- ✓ Anti-slip matting must be placed beneath the base timber dunnage.
- ✓ One additional **over-the-top** restraint must be added to each row.



5. Headboard requirements

- Trailers with headboards rated to 7.5 tonnes or above, or approved by Tata Steel Load Restraint Engineers, or trailers with headboards manufactured to EN 12642 Code XL, can be loaded with product blocked to the trailer headboard to provide forward restraint.
- If the headboard strength cannot be verified, the headboard will require lashing back with a minimum 8 mm Grade 8 LC 40 kN chain (as shown)



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