

1. This Guideline applies for:

- Individual plates or multiple plates strapped together. Excludes palletised plate refer to “Sheet Pack LRG23”
- Hot rolled steel plate with mill finish, known as “black plate”, on hardwood dunnage.
- Oiled plate, Heat treated, quench and tempered steel plate, Primed High Hardness plate or other plate with bright or smooth finish e.g. galvanised or painted plate, Bisalloy Bisplate, Oiled Coil plate
- Mixed loads of the above i.e. black plate loaded with slippery plate, and/or with other products loaded on top.

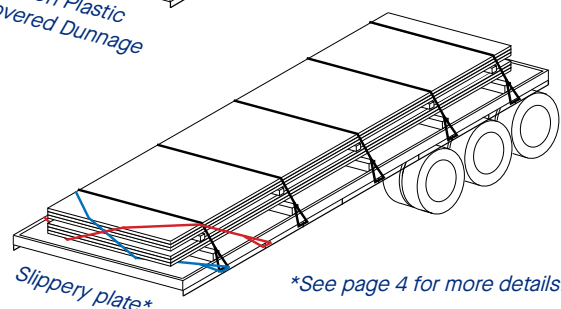
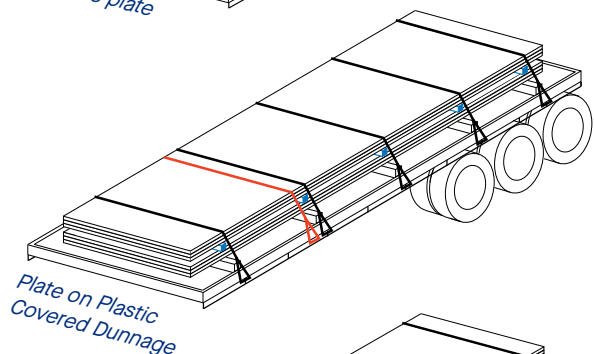
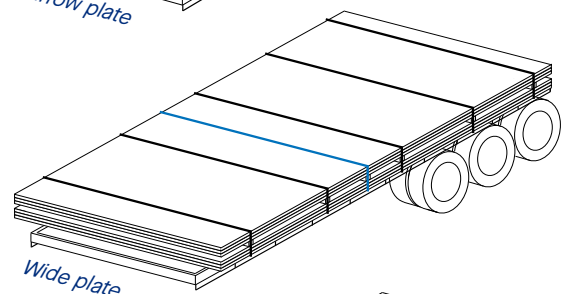
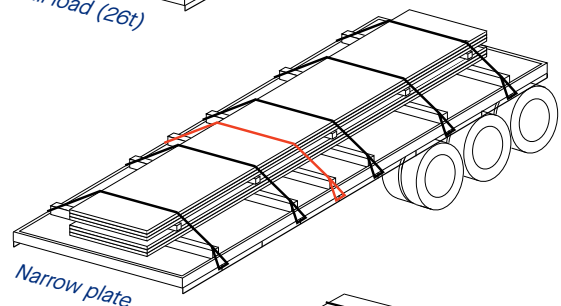
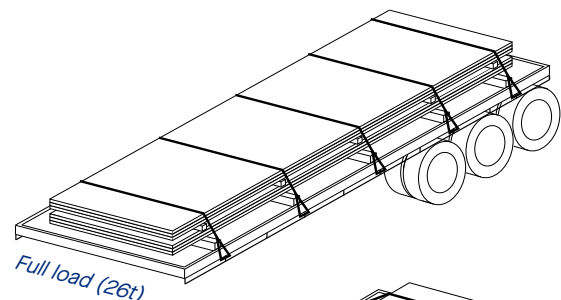
2. Essential Requirements

- ✓ All restraints must be 8 mm transport chain, assumed 3.0 tonnes Lashing Capacity (see note on page 2).
- ✓ Base dunnage should be 100 × 100 mm hardwood. If chamfered, then chamfer must face the front.
- ✓ **The number of restraints must comply with Table 1 below.**
- ✗ Webbing lashings must not be used on plate due to the sharp edges and their high stretch.

Table 1. Number of Chains Required†

Stack Weight (Tonnes)	No. of Chains
0 to 10.4	Minimum 2
10.4 to 15.6	3
15.6 to 20.8	4
20. 8 to 26	5
26 to 31.2	6
Narrow plate less than < 1800mm	Add + 1 chain
Wide plate greater than > 3000mm	Add + 1 chain
Plastic Covered Dunnage	Add + 1 chain
Low Friction plate (full or mixed load)	Add + 2 CrossOver chains per load

† See page 2 for notes on this table.



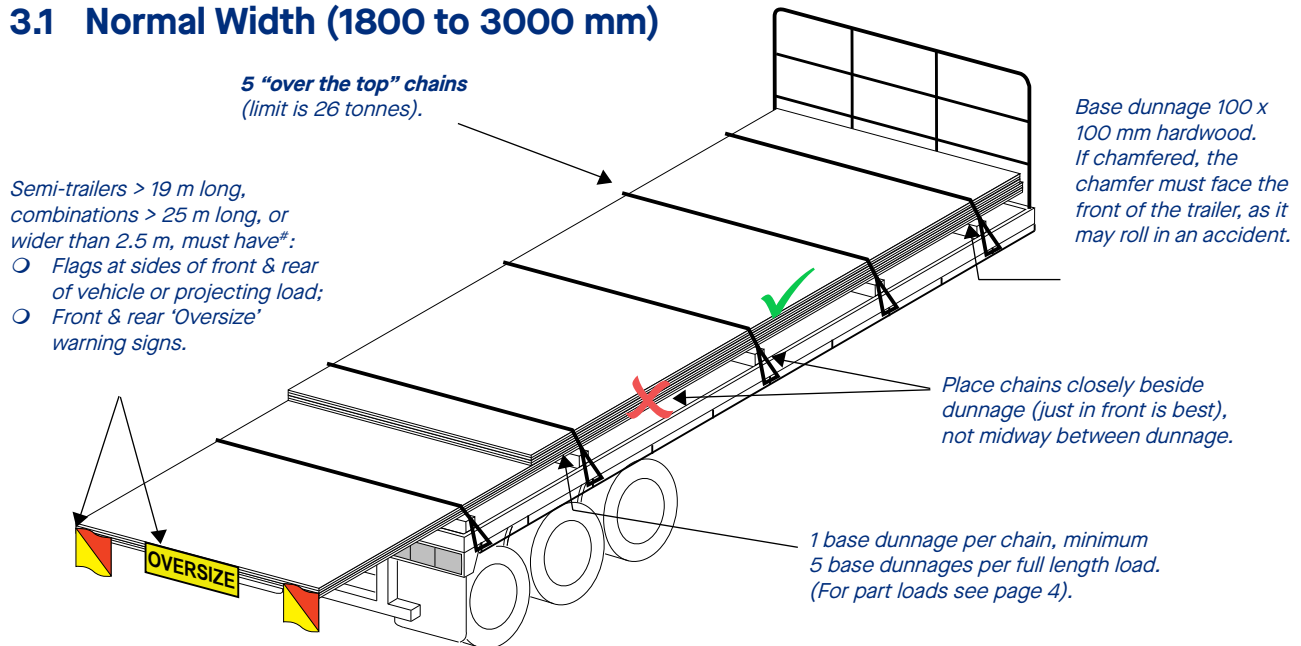
*See page 4 for more details.

Notes on Table 1. Number of Chains Required & Friction Assumptions

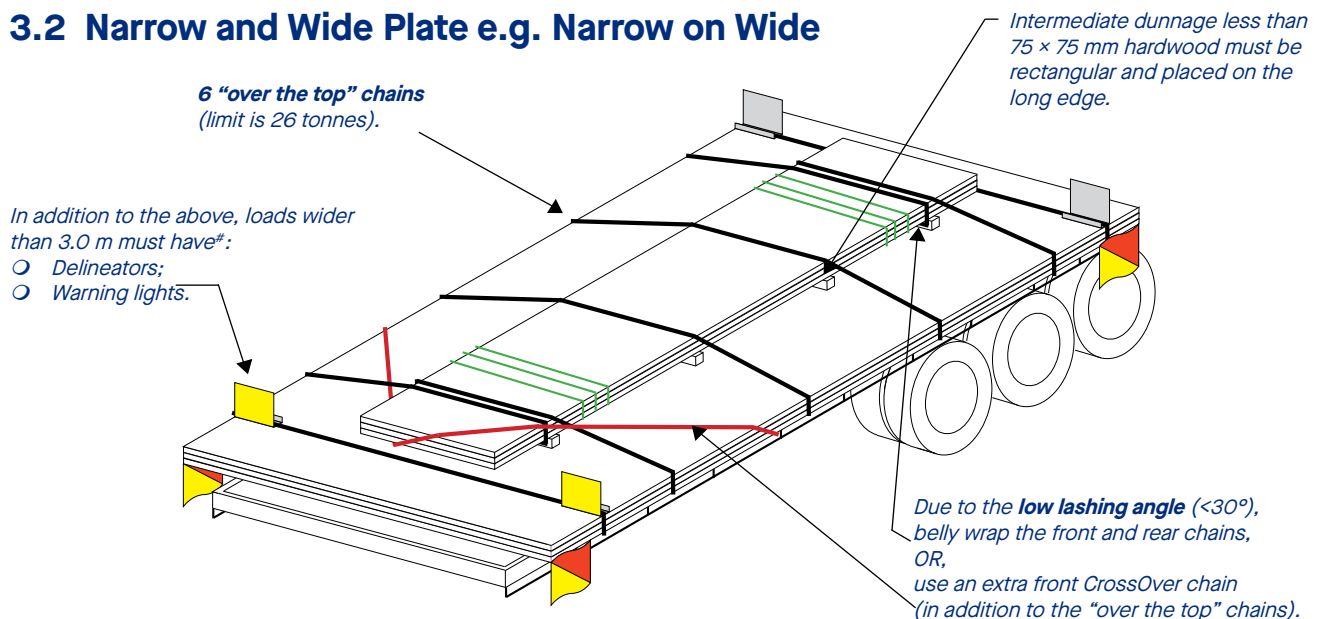
1. Minimum 2 chains for all loads.
2. Chain strengths have been down rated to allow for bending of chain links over edges of plate.
3. All chains dogged to minimum 750 kgf (firm tension).
4. The allowable limit is one chain per 5.2 tonnes of product for normal width plate.
5. Black plate on hardwood assumed friction coefficient $\mu = 0.4$
6. Low friction plate on hardwood assumed friction coefficient $\mu = 0.2$
7. Plastic wrapped dunnage assumed friction coefficient $\mu = 0.37$

3. Normal Plate - Summary for Full Load (26 Tonnes)

3.1 Normal Width (1800 to 3000 mm)



3.2 Narrow and Wide Plate e.g. Narrow on Wide



*For specifics refer to the "Operators Guide to Oversize Vehicle Movements for non-Agricultural Vehicles and Mobile Cranes" RTA NSW (or equivalent in other states).

Note: For mixed loads of normal plate and low friction plate see Section 5 on page 4.

4. Mixed Loads of Plate and Other Products



For the correct number of restraints and loading configuration refer to the respective load restraint guidelines.

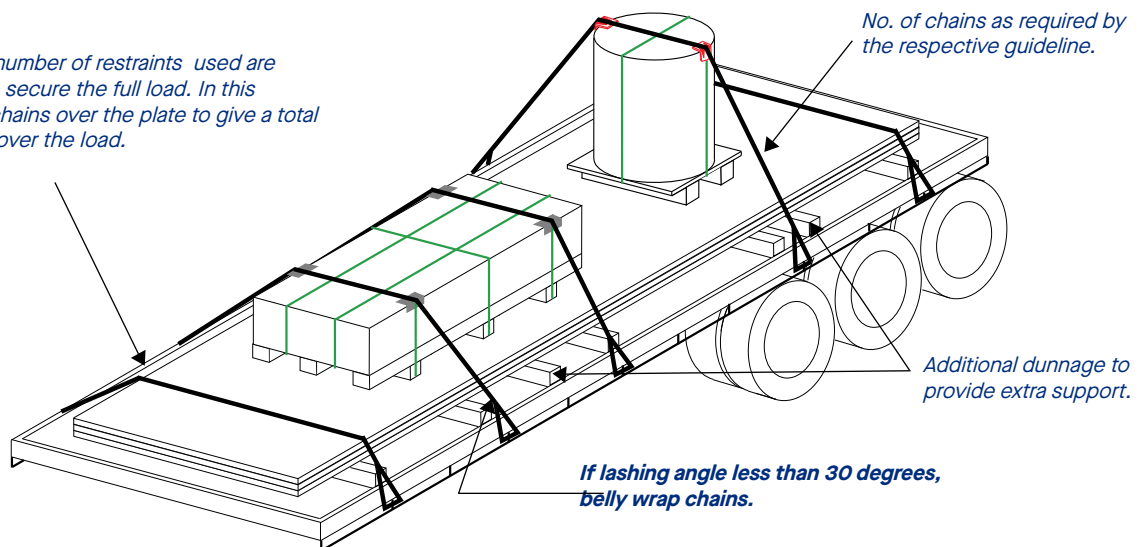
4.1 Plate with Concentrated Point Loads e.g. Coils, Sheet Packs or Palletised Goods



The plate must be rigid enough to provide an even surface on which to support the item loaded on top.

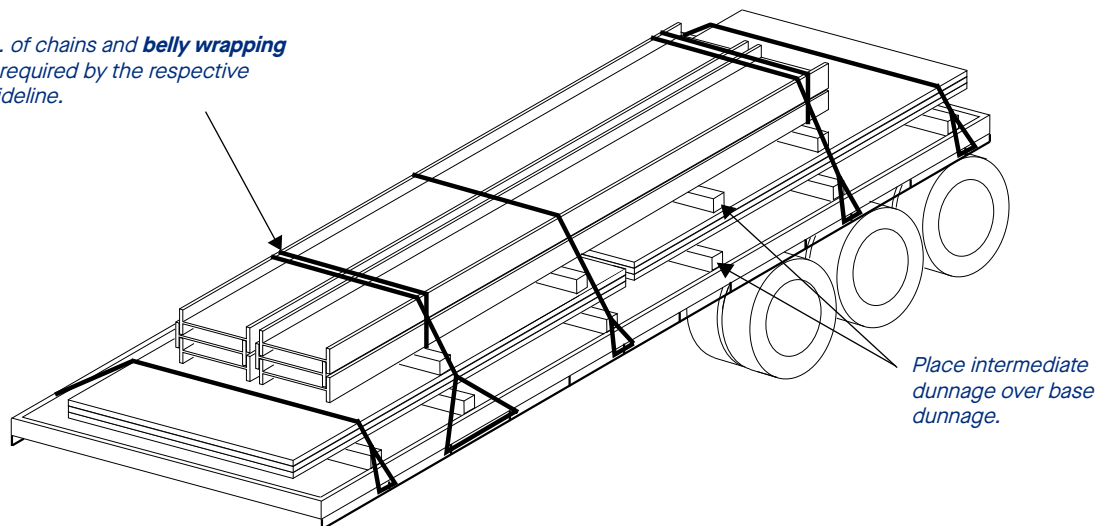
- Additional dunnage will be required to provide the extra support.

Ensure the number of restraints used are adequate to secure the full load. In this example 2 chains over the plate to give a total of 5 chains over the load.



4.2 Plate with Evenly Distributed Loads e.g. Structurals or Merchant Bar

No. of chains and belly wrapping as required by the respective guideline.



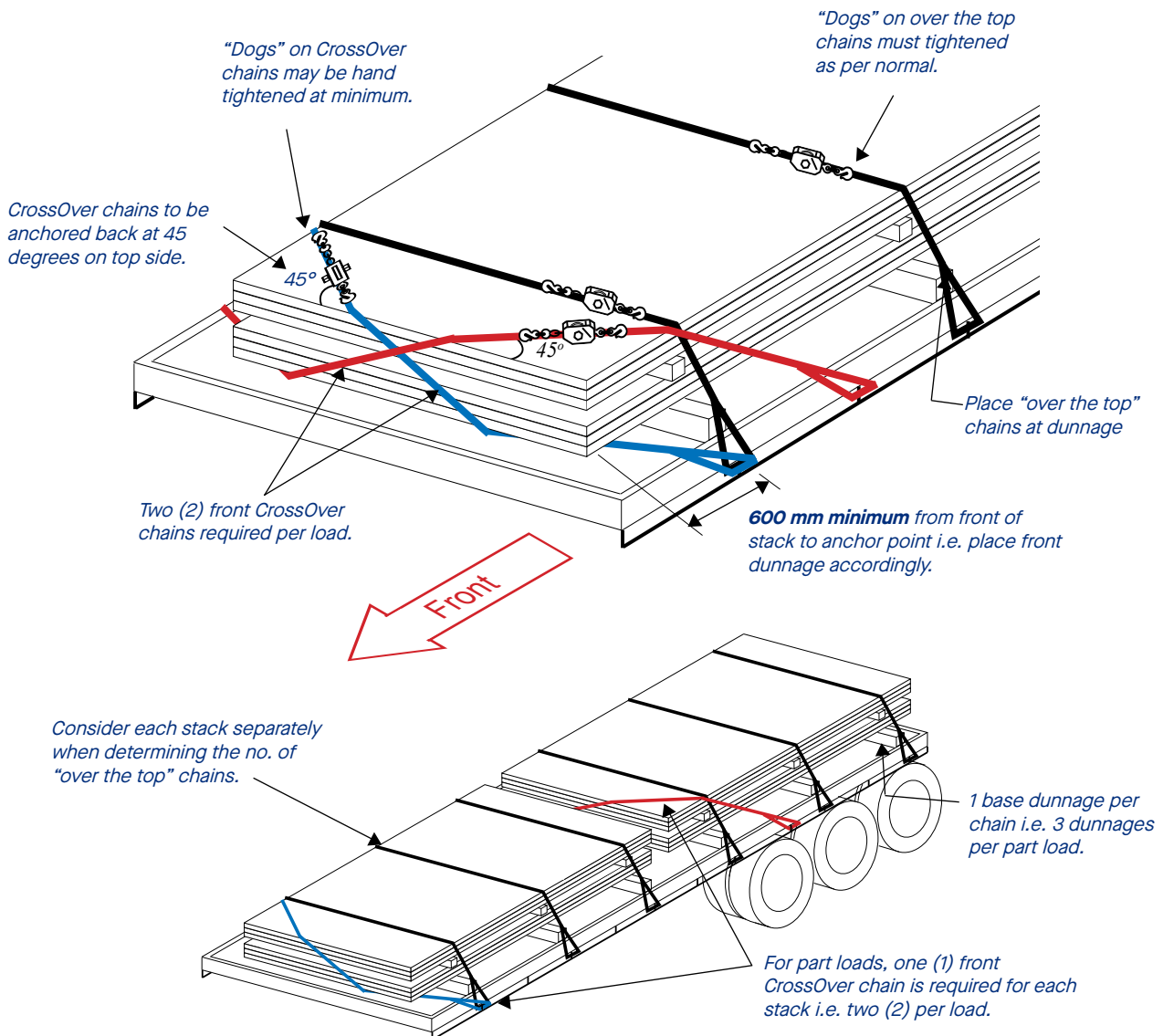
Note: For mixed loads of low friction plate with other products also see Section 5 on page 4.

Tips for Dogging Plates

1. Arrange, anchor and dog chains from the ground, where possible, using a safe-t-step or half height platform.
2. If access is required onto the load, fall prevention platforms or similar are to be in place, where available. Also access the centre of the trailer, to reduce the chance of falling.
3. Double check all chains before tensioning. Watch for links which catch on the edges of the plate.
4. Park next to and dog towards elevated loading platforms or docks if available.
5. **Never stand near the trailer's edge!**

5. Low Friction “Slippery” Plate e.g. Oiled Plate, Heat Treated Plate etc.

- ✓ Applies to full loads of low friction plate, or mixed loads of low friction plate and black plate.
- ✓ If in doubt... Ask! Or assume low friction case.
- ✓ The number of restraints must comply with Table 1 on page 1.
- ✓ Two front CrossOver chains required per load.



6. Trucks with a Designed Headboard (as certified by an Engineer)

- ✓ For loads blocked by an approved headboard, generally less chains will be required. For more details contact BlueScope Steel Logistics, Technical Services, Ph 02 8707 2312.

"These guidelines are provided to you by BlueScope Steel for guidance only, and compliance with applicable laws and standards remains your responsibility. Whilst BlueScope Steel, in cooperation with transport operators, has taken considerable care to develop load restraint guidelines that are effective and comply with all requirements, BlueScope Steel makes no warranty as to the applicability of these methods in all circumstances. It remains your responsibility at all times to ensure that the methods you use are adequate for the particular situation and where appropriate you should take further precautions. The contents of these guidelines are confidential to, and the property of, BlueScope Steel, and you may only use these guidelines with permission from BlueScope Steel."