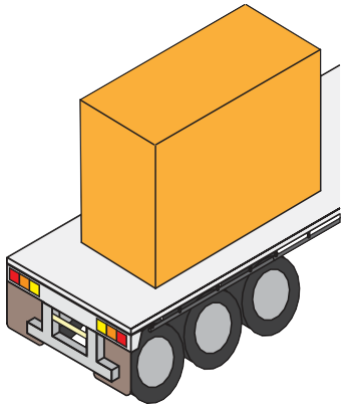
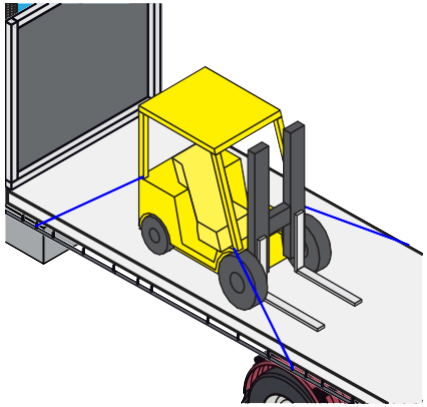
Load Restraint Guideline - Direct Restraint

This Guideline:

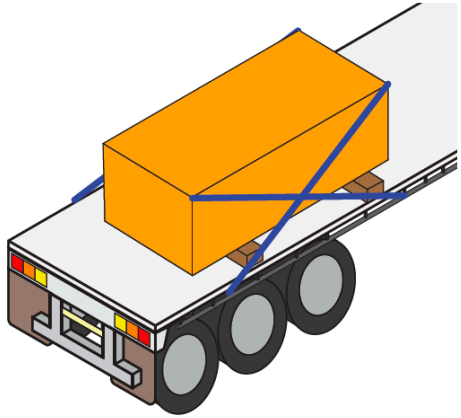
- ✓ Covers the transportation via road of items up to 7,000kg.
- ✓ Covers items with a maximum height of 2,600 mm, minimum length of 1,770 mm and a minimum width of 1,200 mm.
- ⚠ Items must be indivisible or unitised to meet the loading performance standards listed in Schedule 7 of the Heavy Vehicle (Mass, Dimension and Loading) National Regulation (22 February 2021).
- ✓ Refer to the Load Restraint Guideline - Packaging (reference: E01483-LRG3) for packaging guidance for divisible loads.



Key Requirements --> Page 2



Load Configurations for wheeled items --> Page 3-4

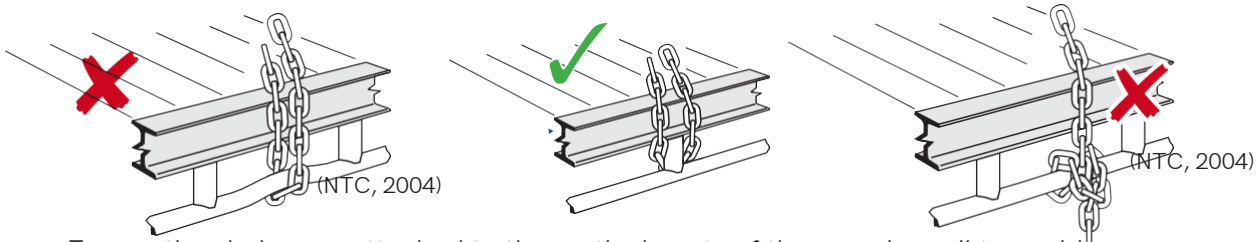


Load Configurations for Non-wheeled Items --> Page 5-6

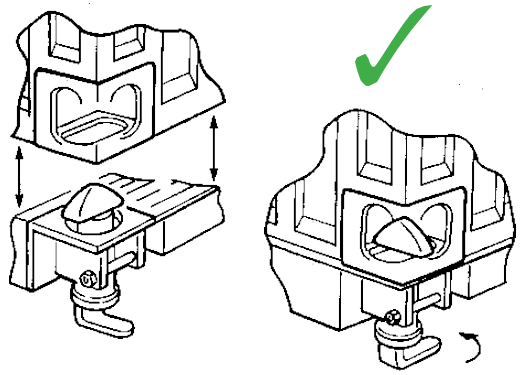
Load Restraint Guideline - Direct Restraint

Key Requirements

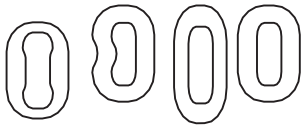
- ✓ Minimum 8mm Grade 70 transport chain conforming to AS/NZS 4344, fully tensioned.
- ✓ Use only square hardwood dunnage.
- ✓ Industrial rubber (NOT conveyor belt) is a suitable alternative to timber dunnage. Avoid
- ✓ steel on steel contact between items/truck deck.



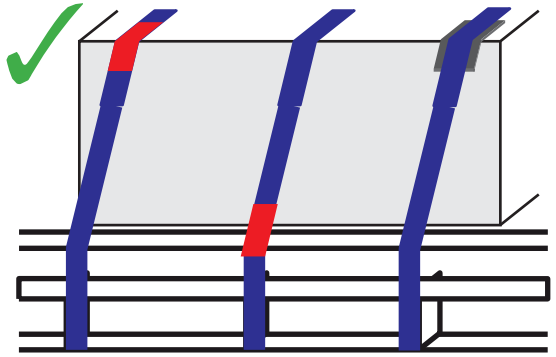
Ensure the chains are attached to the vertical posts of the coaming rail to avoid deforming the rail.



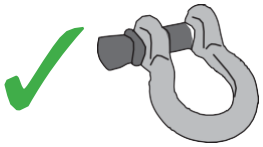
Containers must be restrained using twist locks.



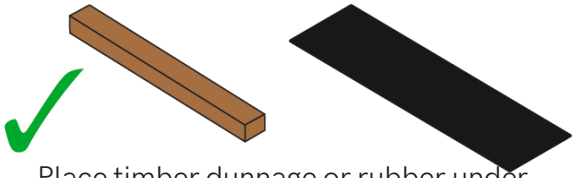
Chains with elongated, worn or bent links must not be used for restraint.



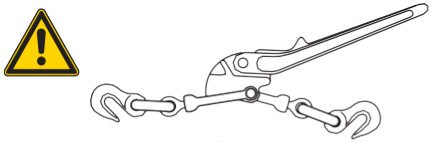
Sleeves or alternative can be used to protect the lashings and the freight



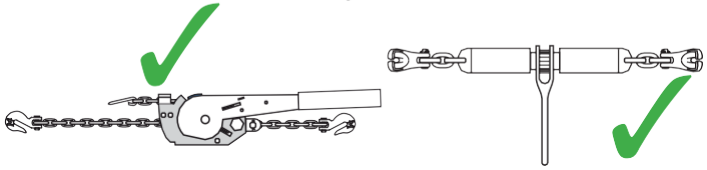
Minimum Grade S 16mm
3.2T WLL Bow or D-Shackles



Place timber dunnage or rubber under non-wheeled items



Over-centre load binders (dogs) are a high risk of manual injury

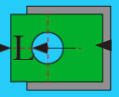
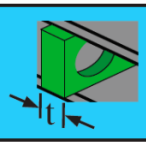


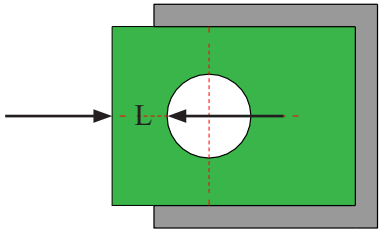
Use Ausbinders, Turnbuckle ratchets or similar.

Load Restraint Guideline - Direct Restraint

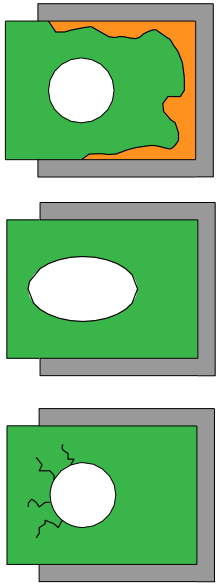
Anchor Point Requirements:

- ✓ Anchor points must be welded to the cross beam. A minimum of two welds, at least 50mm in length and 2mm throat thickness.
- ✓ The required thickness of the anchor points can be determined using the table on this page.

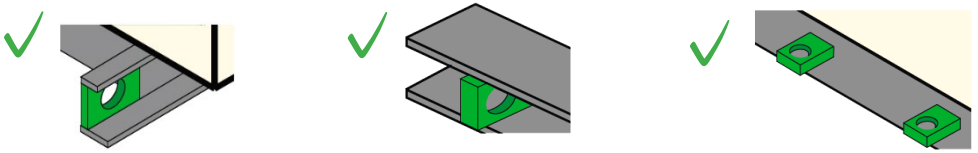
Minimum L (mm) 	Required thickness, t (mm) 
31	5
16	10
10	16



⚠ Chain anchor points must be designed to withstand the minimum breaking load of the lashing.



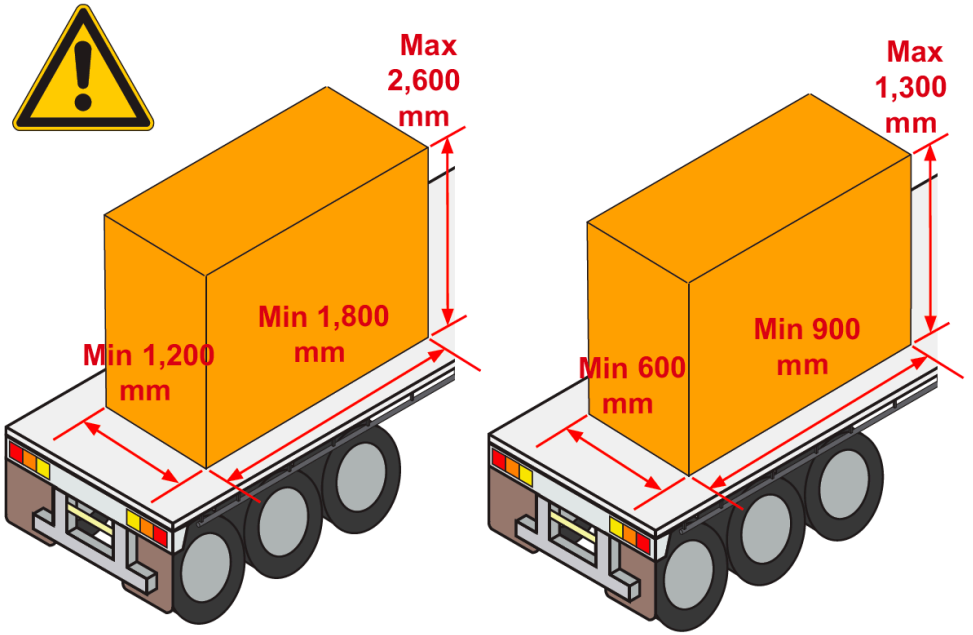
Chain Anchor points must be free of excessive corrosion, elongation and cracking of holes.



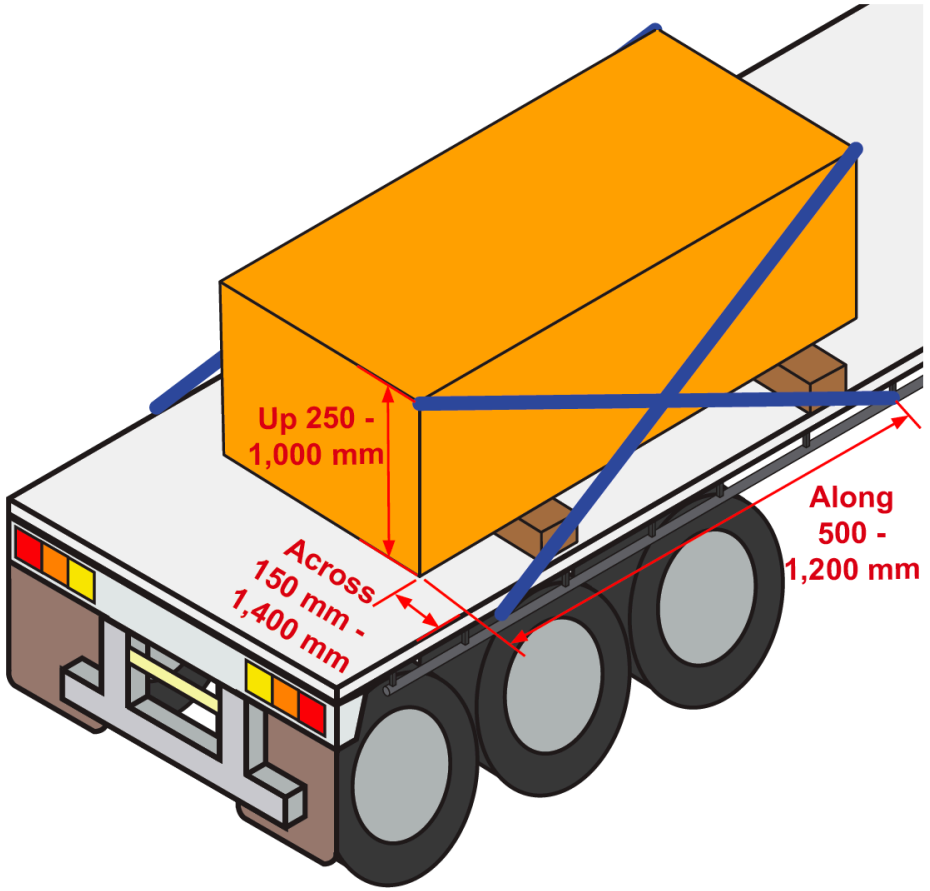
Chain anchor points must be welded on.

Load Restraint Guideline - Direct Restraint

Load Configuration



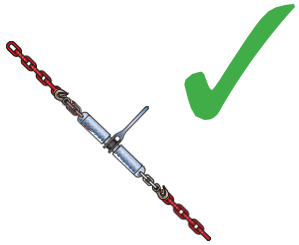
Items must not be tall and narrow to prevent toppling



Load Restraint Guideline - Direct Restraint

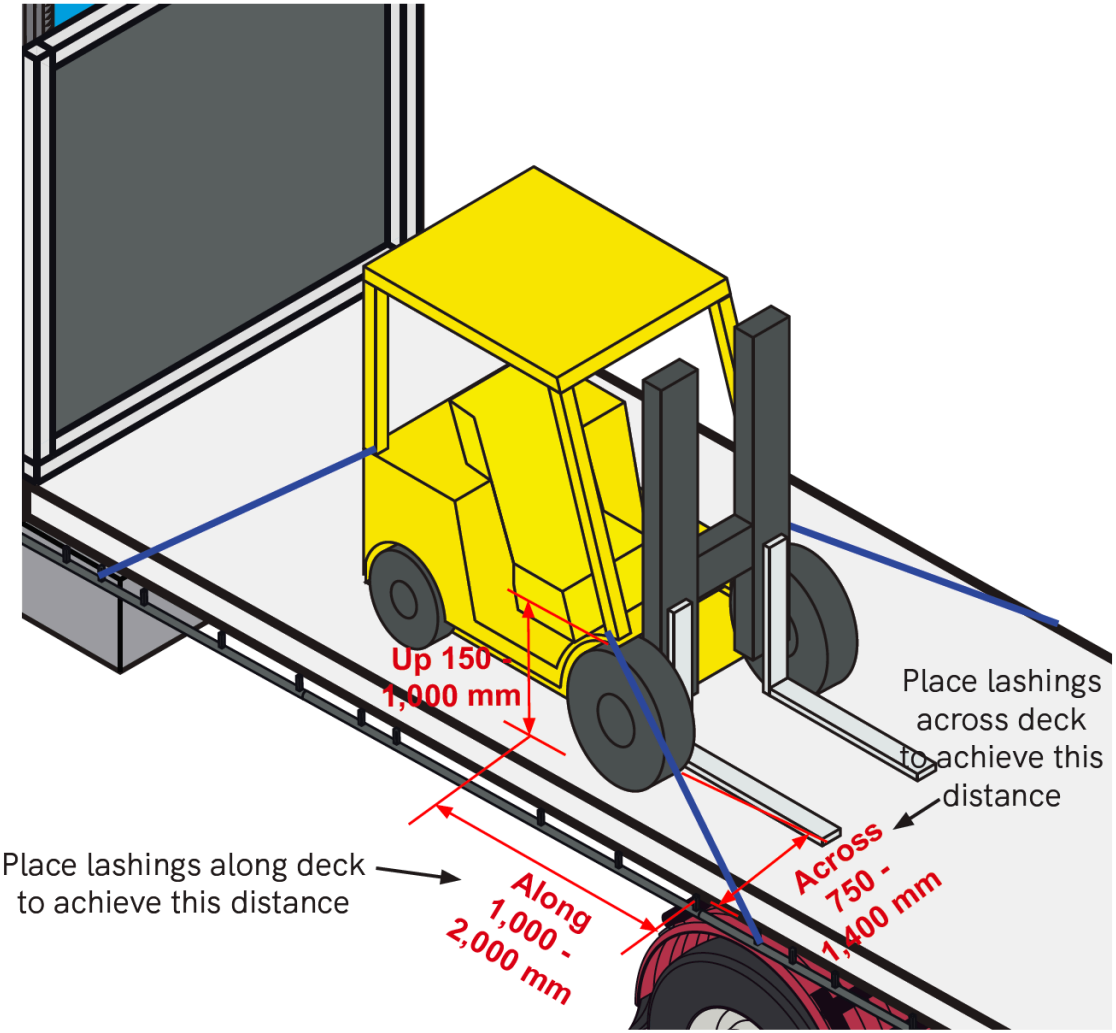
Load Restraint - Wheeled Items

- ✓ Actual anchor point locations may vary for different items. Anchor
- ✓ chains on locations identified by the manufacturer.
- ⚠ Anchor points on the trailer and the load must be strong enough to accept the forces from the chains.



Unlooped chain is acceptable for loads up to 3,500kg

Looped chain is acceptable for loads up to 7,000kg

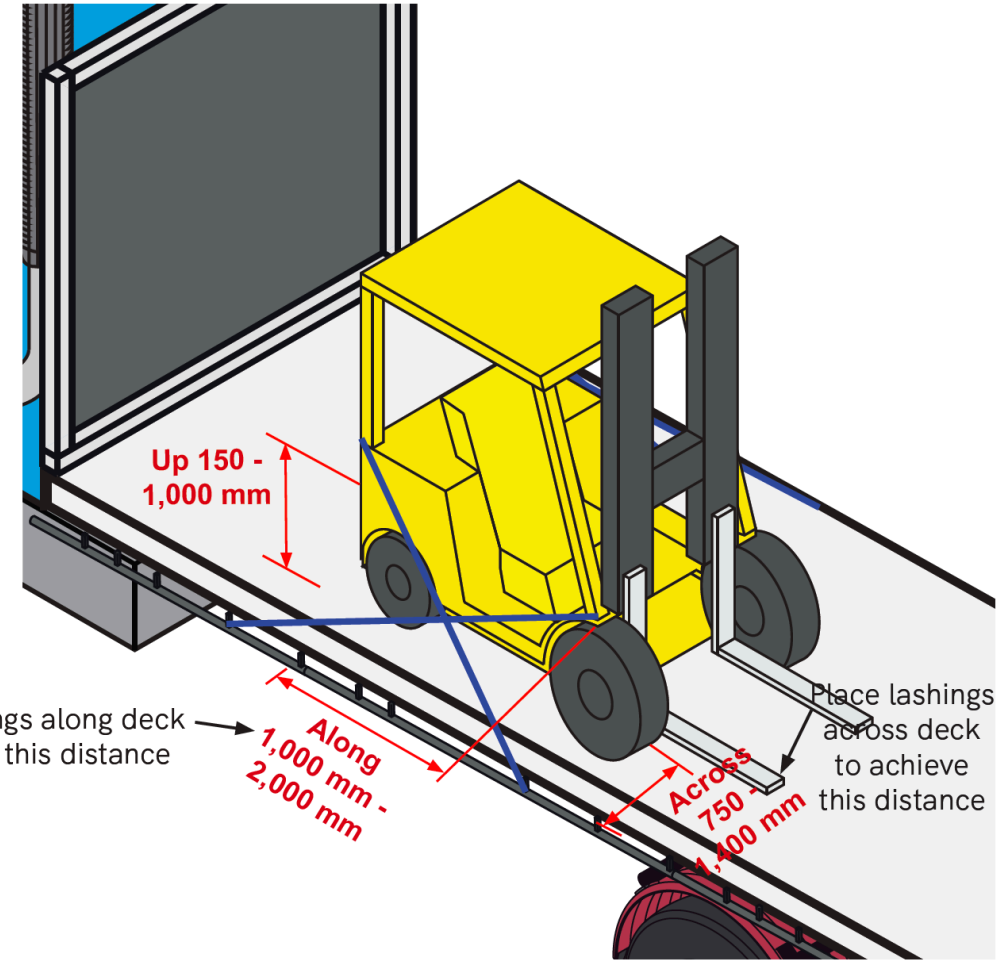


Load Restraint Guideline - Direct Restraint

Load Restraint - Wheeled Items (Alternate chain configuration)

Non-looped chain is acceptable for loads up to 3,500kg

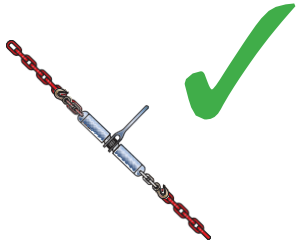
Looped chain is acceptable for loads up to 7,000kg



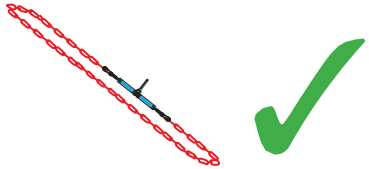
Load Restraint Guideline - Direct Restraint

Load Restraint - Non-wheeled Items

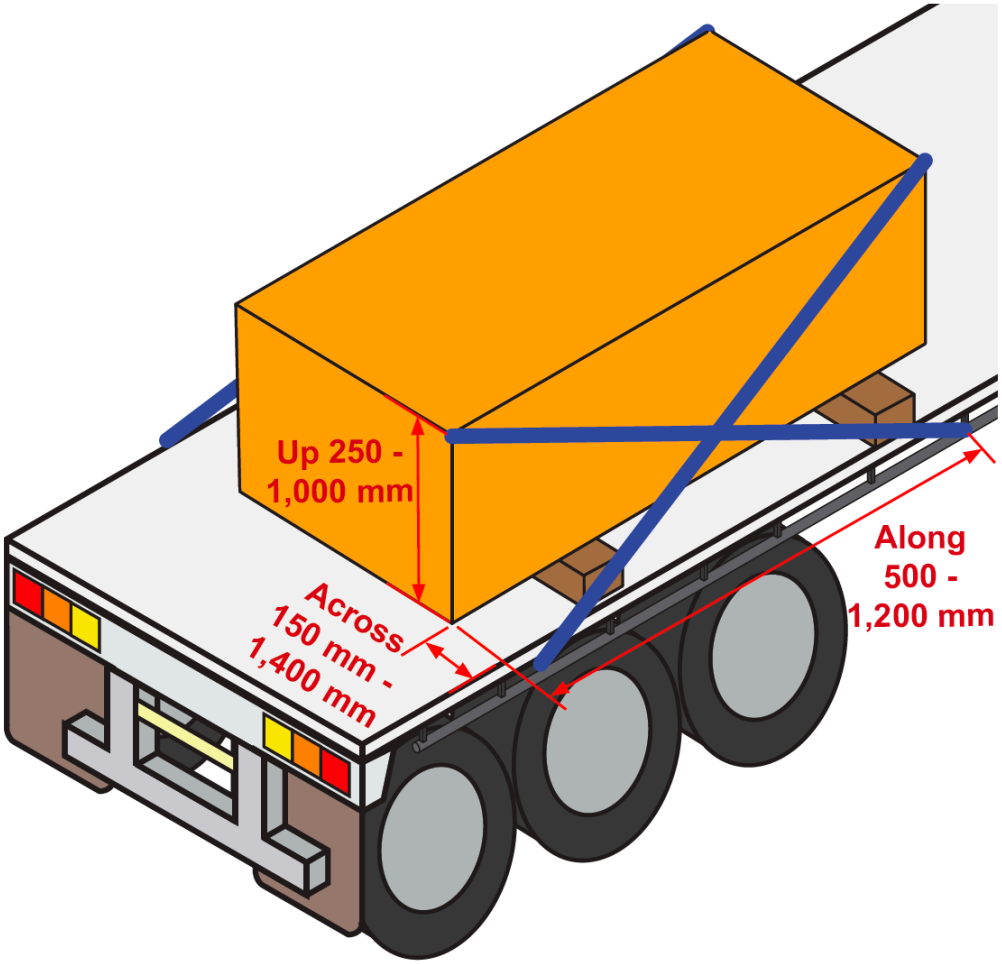
- ✓ Actual anchor point locations may vary for different items.
- ✓ Anchor lashings on locations identified by the manufacturer.
- ✓ Place either timber dunnage or industrial rubber under the load.
- ⚠ For non-wheeled items that cannot have dunnage or industrial rubber placed underneath follow load configuration for wheeled items.



Unlooped chain is acceptable for loads up to 4,100kg



Looped chain is acceptable for loads up to 7,000kg



Load Restraint Guideline - Direct Restraint

Load Restraint - Non-wheeled Items (Alternate chain configuration)