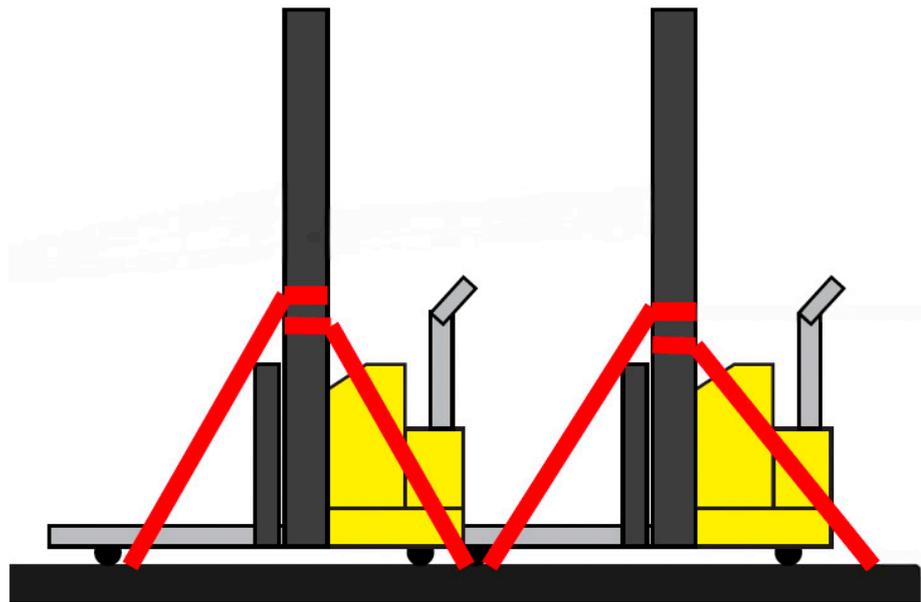


# Appendix 4

Load Restraint Guide  
New Zealand

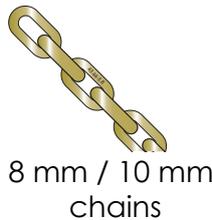


**This guideline:**

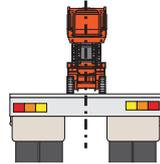
- Applies to the variety of forklifts outlined within this guideline.
- Is the loader and driver guide to the certification E01711-LRC7 to meet the requirements set out on page 8 of the "Official New Zealand Truck Loading Code by NZ Transport Agency".

**Key Elements**

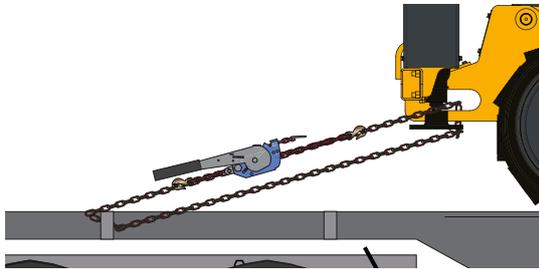
- ✓ 8 mm and 10 mm transport chains as specified, tensioned tight by standard load binder.



- ✓ Single file equipment must be loaded centrally across the trailer deck.

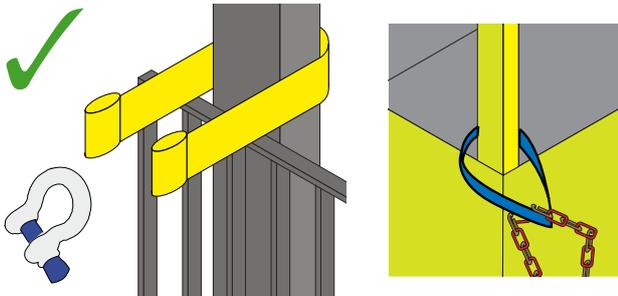


- ✓ Lashings are to be installed in either a single chain or looped chain arrangement depending on restraint system.



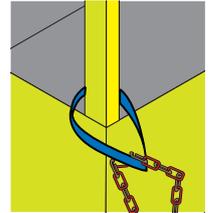
Looped Chain Arrangement

- ✓ Any looped chain greater than 8mm will require rated lashing points on the vehicle.

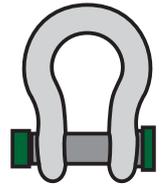


- ✓ Use a lifting sling and shackle if attaching a chain to a mast or ROPs.

- ✓ Apply suitable and correctly sized lifting slings around anchor points where chains might damage area. Lifting slings must have at least a 1.5 t rating for single chain arrangement and 3t for looped chain.

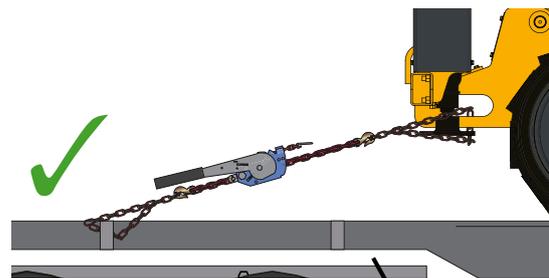


- ✓ Ensure shackles have the minimum rating required for each system as stated.



- ✓ Shackles with 5 t W.L.L

- ✓ Ensure locking pins are installed to prevent any movement during transport.

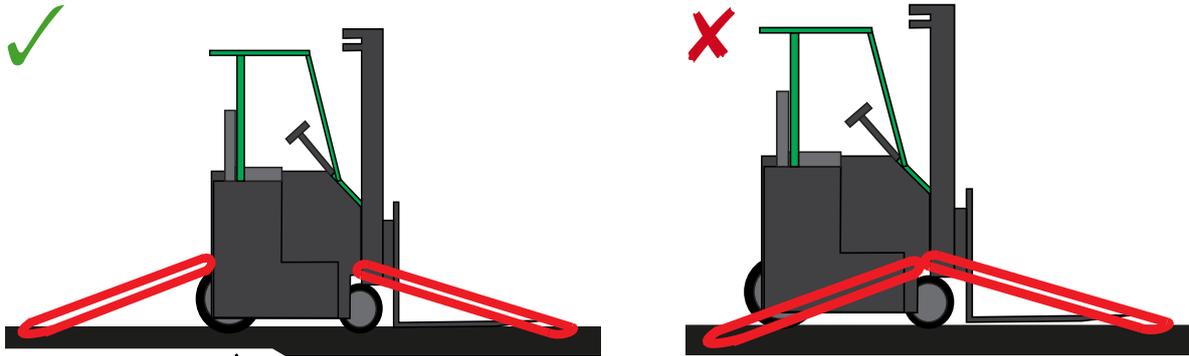


Single Chain Arrangement

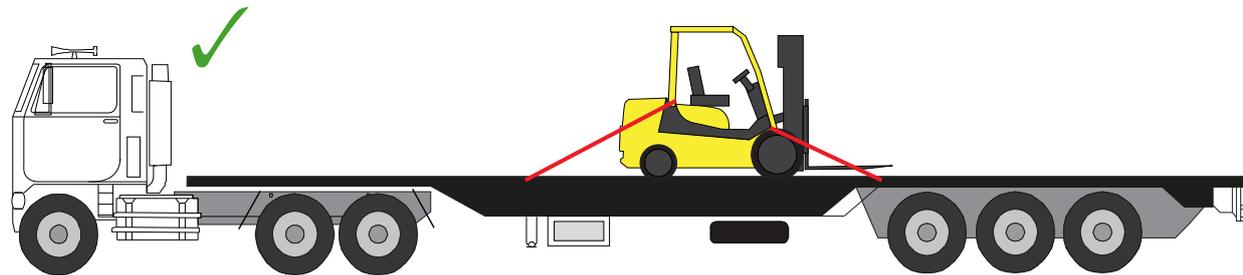
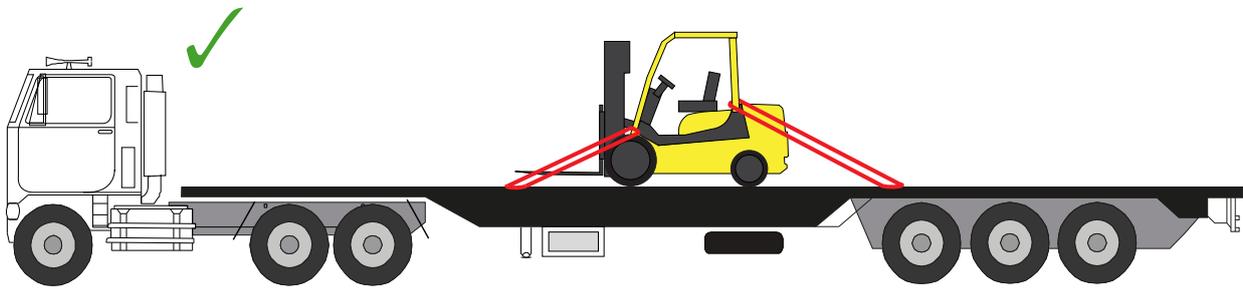
- ✓ Lashing protection may be required to prevent damage to the plant when using chain.

New Zealand

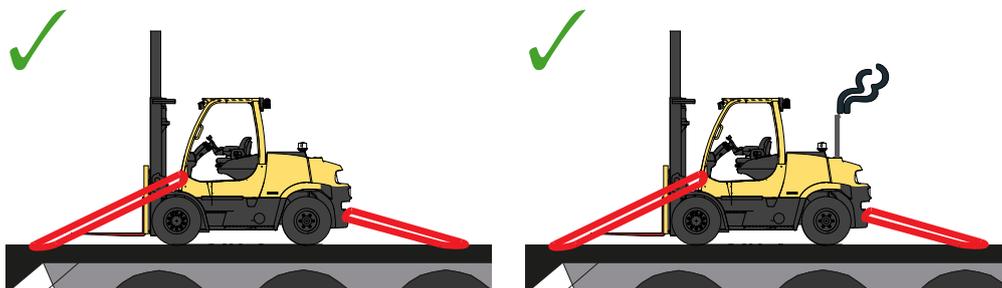
Key Elements (continued)



Attach two chains to the rear and two chains to the front of the forklift.



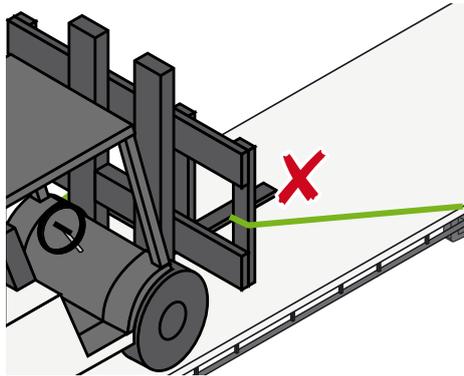
Plant can be loaded with the tynes facing towards or away from the prime mover.



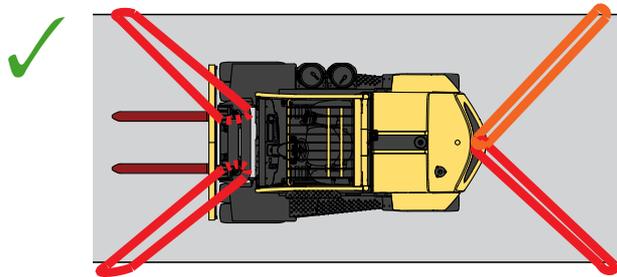
The restraint systems in this guideline applies to both diesel and electric forklifts provided the nominated mass limits can be met.

New Zealand

### Lashing Point Requirements



Do not use load guards as lashing points as this could damage sensitive hydraulic components which are not designed to be loaded perpendicular to the plant lifting direction.

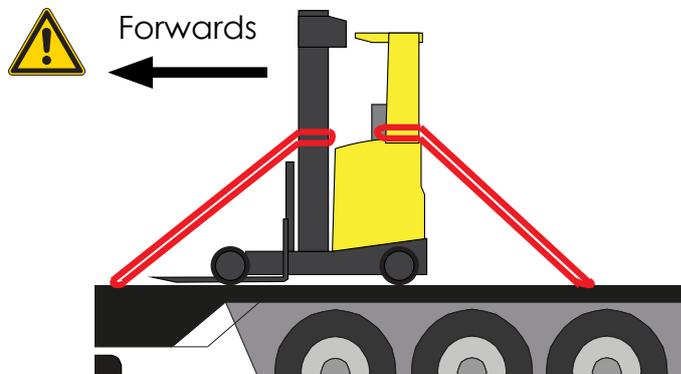


Up to 2 looped chains can be attached to forklift tow points.



Shackles with 5 t W.L.L

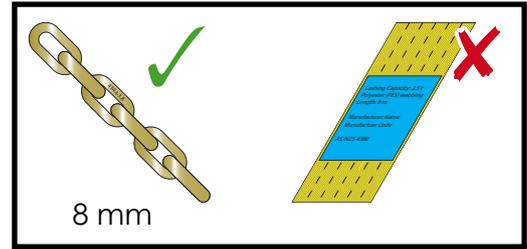
Dedicated lashing points, axles and forklift ROPs are suitable lashing points.



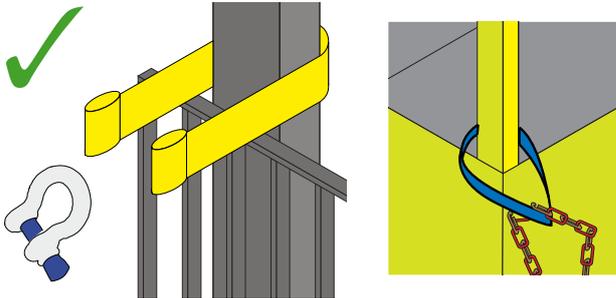
Masts can only be used for lashing points on forklifts under 5,000kg with their tyres facing towards the prime mover.

**Standard Forklift - Hyster H1.5XT to H3.5XT and H1.5FT to H3.5FT**

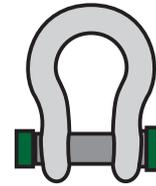
- ✓ Maximum mass of up to 4,800 kg.
- ✓ Minimum 8 mm transport chains tensioned tight by standard load binder.
- ✓ Ensure shackles have a minimum W.L.L of 5.0 t and are used through tie down points.



- ✓ Looped chain Arrangement.

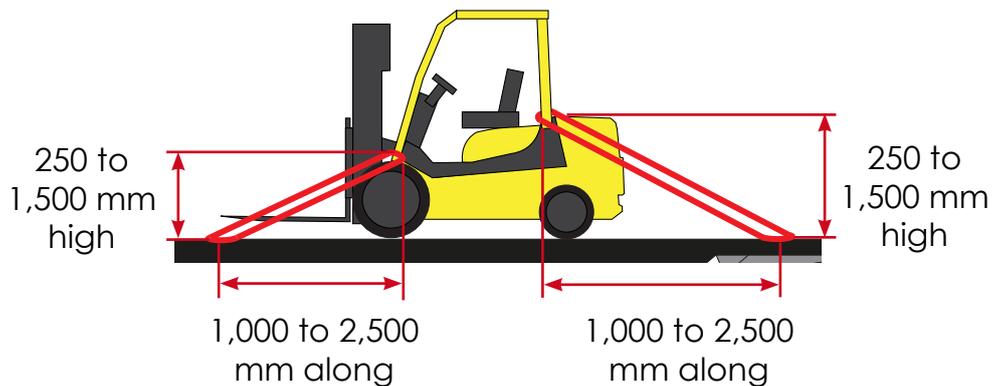
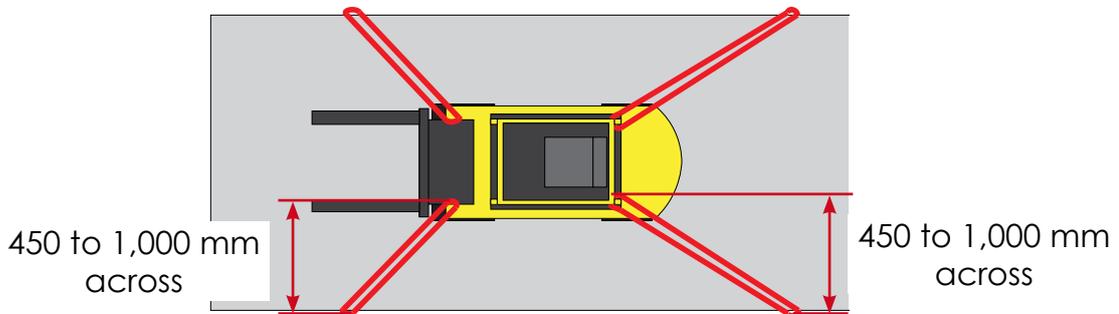


- ✓ Use a lifting sling and shackle if attaching a chain to a mast or ROPs.



- ✓ Shackles with 5 t W.L.L

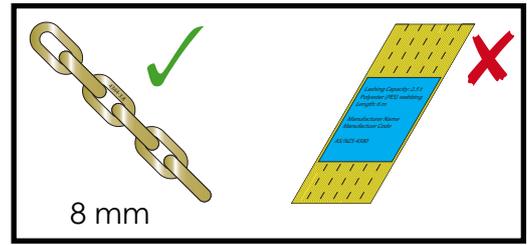
- ✓ Ensure chains are within the outlined ranges below:



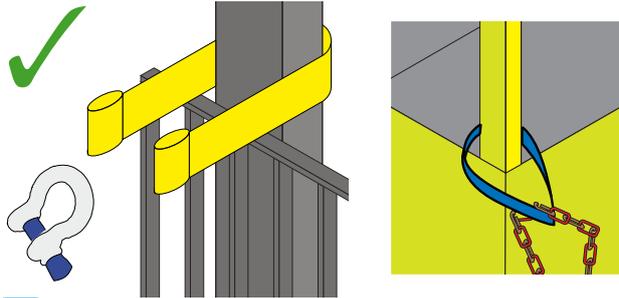
New Zealand

**Small Forklift - Hyster J1.5XNT (Chains Only)**

- ✓ Maximum mass of up to 3,100kg.
- ✓ Minimum 8 mm transport chains tensioned tight by standard load binder.

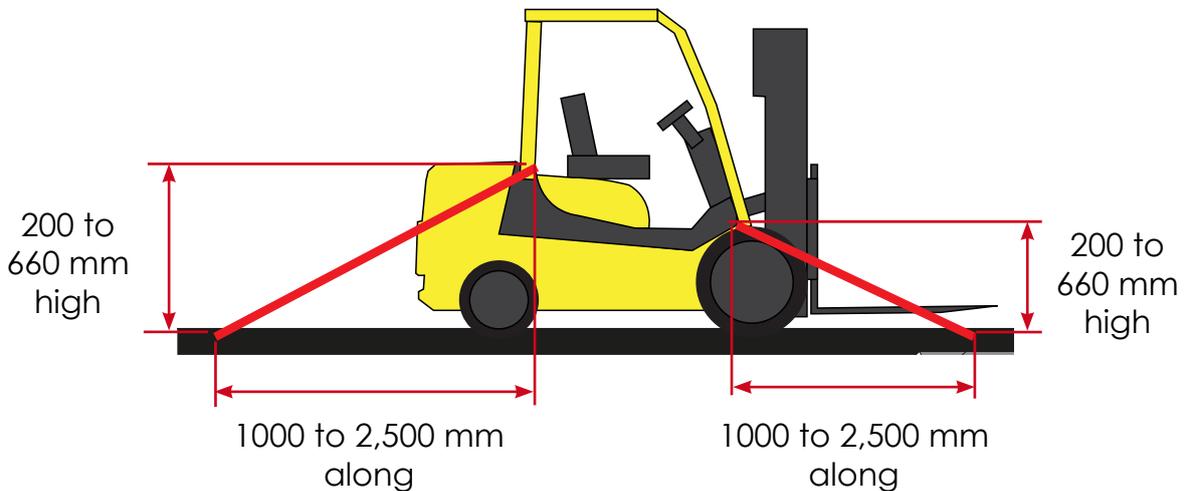
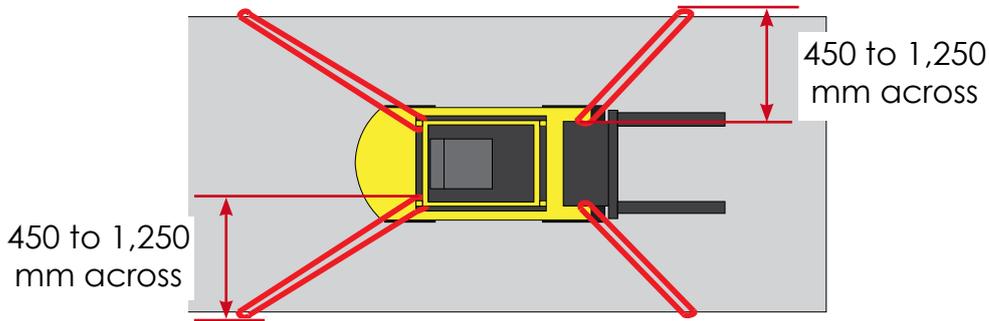


- ✓ Ensure shackles have a minimum W.L.L of 2.5 t and are used through tie down points.
- ✓ Front of forklift lashings are to be tied to the front tie down point or supports.



- ✓ Use a lifting sling and shackle if attaching a chain to a mast or ROPs.

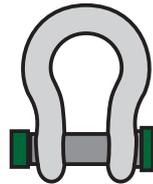
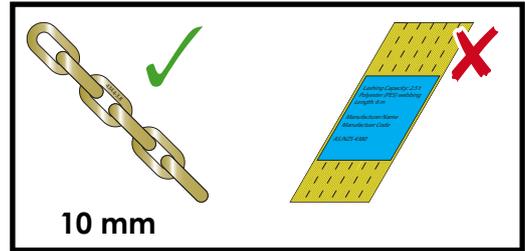
- ✓ Ensure chains are within the outlined ranges below:



New Zealand

**Standard Forklift - Hyster H135 to 155FT**

- ✓ Maximum mass of up to 9,500kg.
- ✓ Minimum **10 mm** transport chains tensioned tight by standard load binder.
- ✓ Ensure shackles have a minimum W.L.L of 9 t and are used through tie down points.

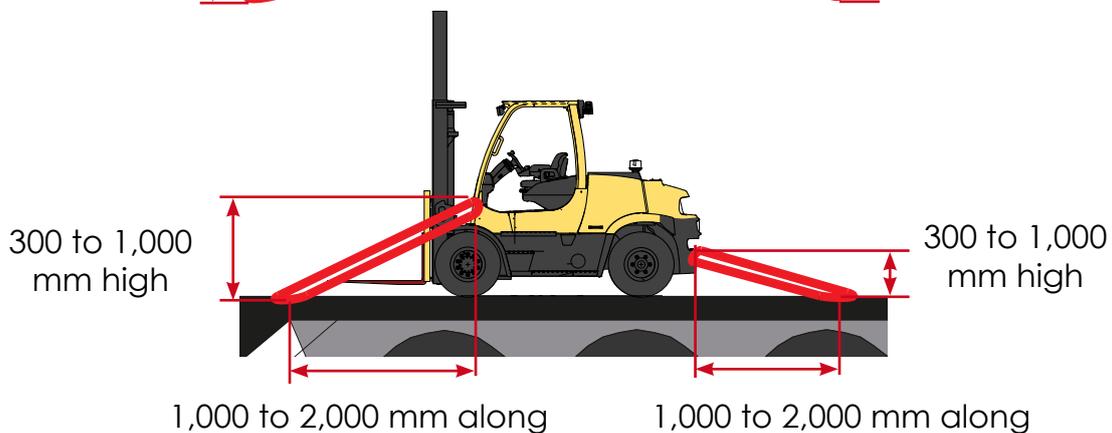
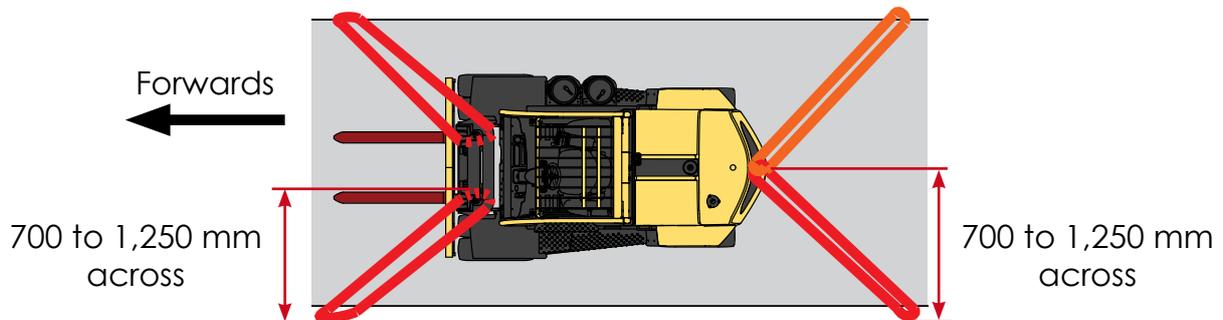
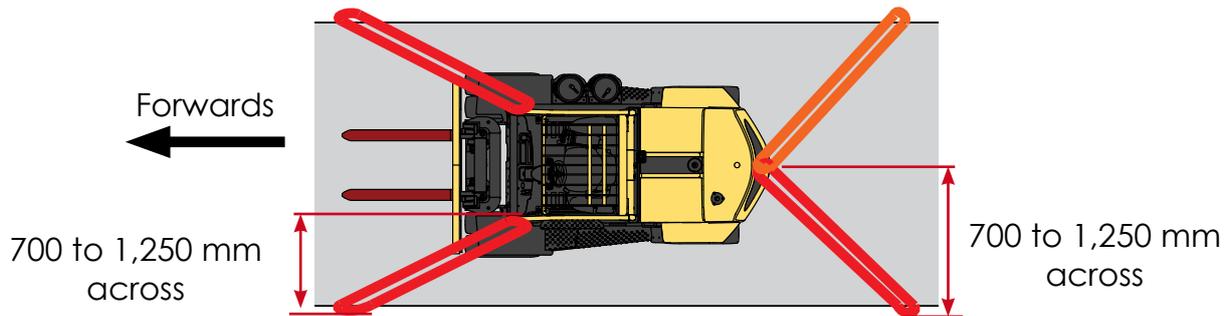


- ✓ Shackles with 9 t W.L.L



- ✓ Looped chain Arrangement.

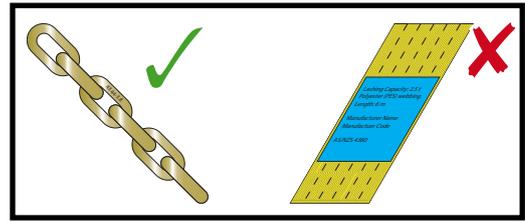
- ✓ Ensure chains are within the outlined ranges below:



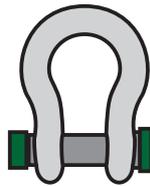
New Zealand

### Combilift Combi-CB Forklift

- ✓ Maximum mass of up to 8,000kg.
- ✓ Minimum 8 mm transport chains tensioned tight by standard load binder.
- ✓ Ensure shackles have a minimum W.L.L of 5.0 t and are used through tie down points.



- ✓ Ensure shackles have a minimum W.L.L of 5.0 t and are used through tie down points.

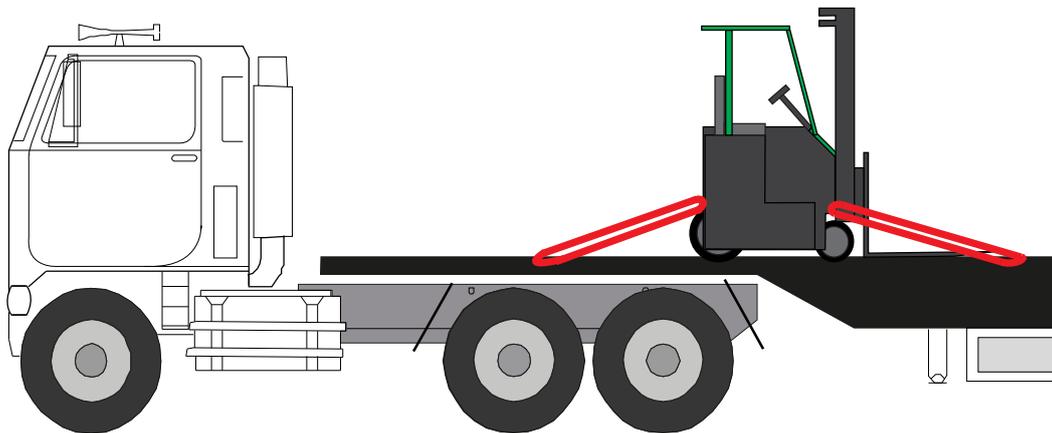


- ✓ Shackles with 5 t W.L.L



- ✓ Looped chain arrangement.

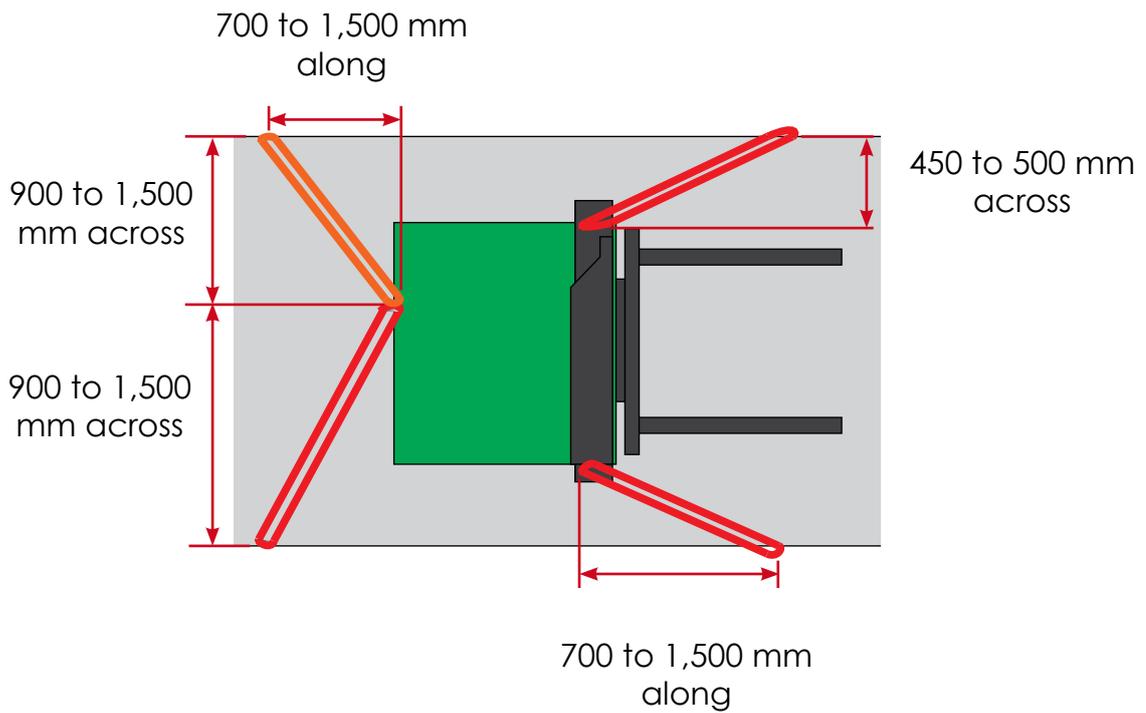
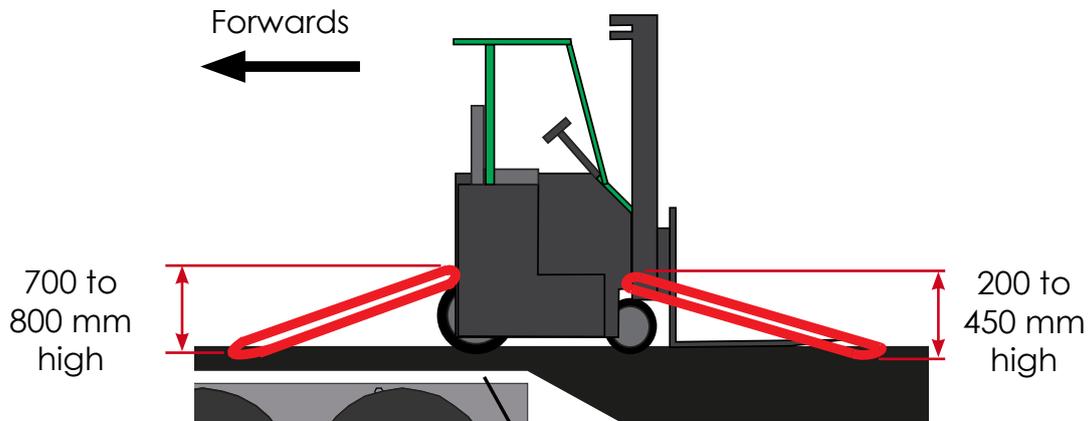
- ✓ Use a lifting sling and shackle if attaching a chain to a mast.



- ✓ Combilift Combi-CB must be reversed onto the trailer.

New Zealand

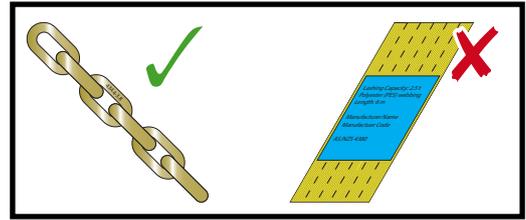
✓ Ensure chains are within the outlined ranges below:



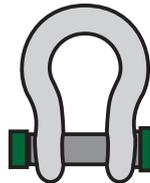
New Zealand

**Aislemaster Articulated Forklift**

- ✓ Maximum mass of up to 7,300kg.
- ✓ Minimum 8 mm transport chains tensioned tight by standard load binder.



- ✓ Ensure shackles have a minimum W.L.L of 5.0 t and are used through tie down points.

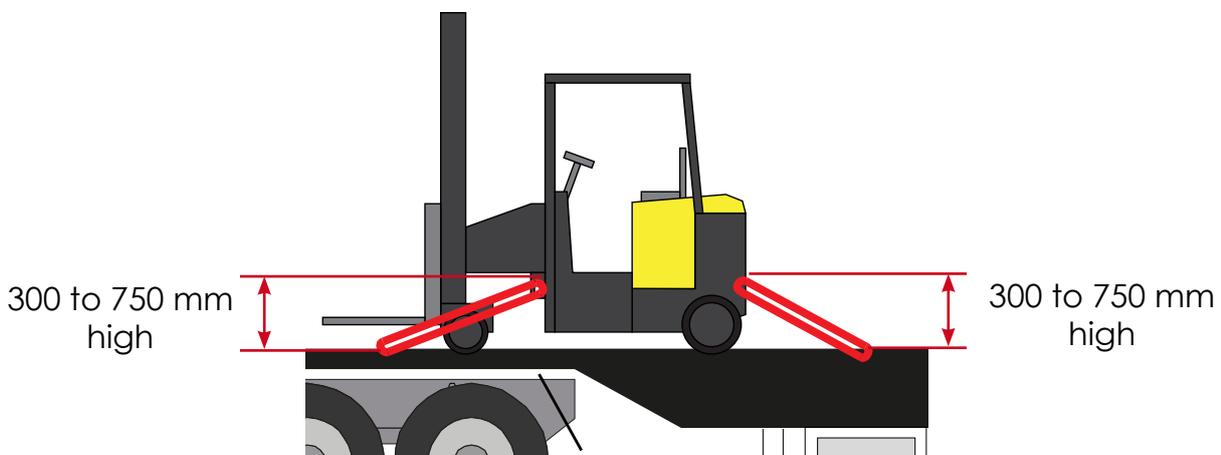
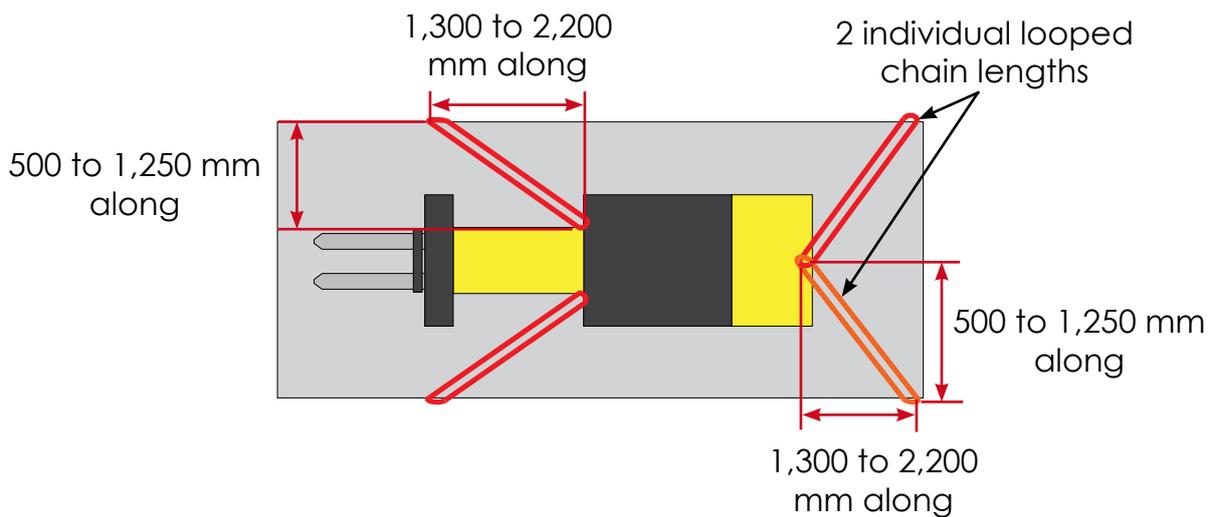


- ✓ Shackles with 5 t W.L.L



- ✓ Looped chain arrangement.

- ✓ Ensure chains are within the outlined ranges below:



New Zealand

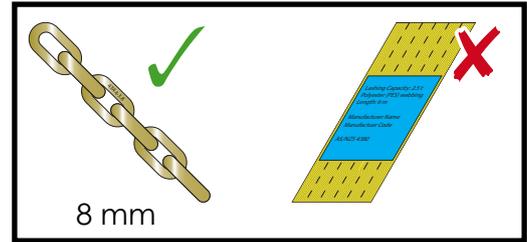
**Reach Forklift - Hyster R1.4 to R2.5**

✓ Maximum mass of up to 5,000kg.

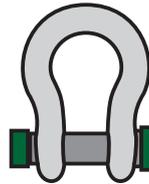
✓ Minimum 8 mm transport chains tensioned tight by standard load binder.

✓ Ensure shackles have a minimum W.L.L of 5.0 t and are used through tie down points.

✓ Shackles with 5 t W.L.L



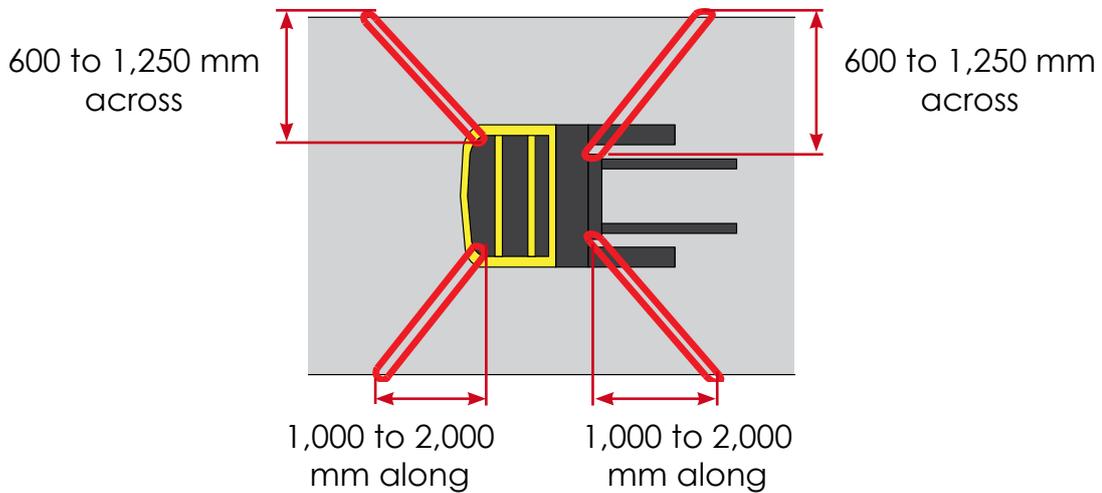
8 mm



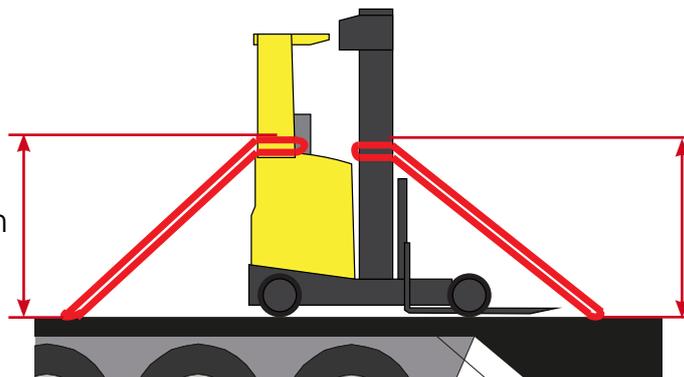
✓ Looped chain arrangement.

✓ Use a lifting sling and shackle if attaching a chain to a mast.

✓ Ensure chains are within the outlined ranges below:



1,000 to 1,350 mm high

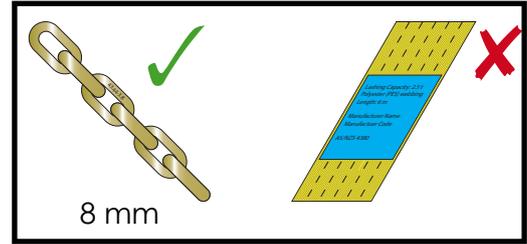


1,000 to 1,350 mm high

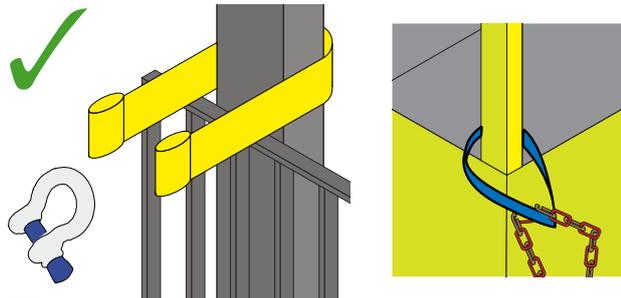
New Zealand

**Small Mobile Plant - Generic**

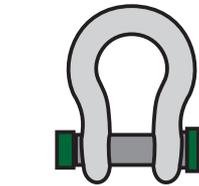
- ✓ Maximum mass of up to 3,000 kg.
- ✓ Minimum 8 mm transport chains tensioned tight by standard load binder.
- ✓ Ensure shackles have a minimum W.L.L of 2.5 t and are used through tie down points.



- ✓ Front of forklift lashings are to be tied to the front tie down point or supports.

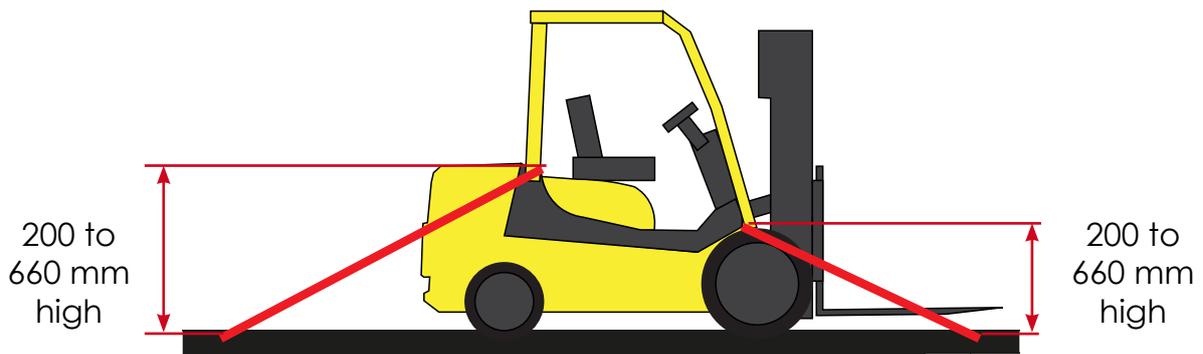
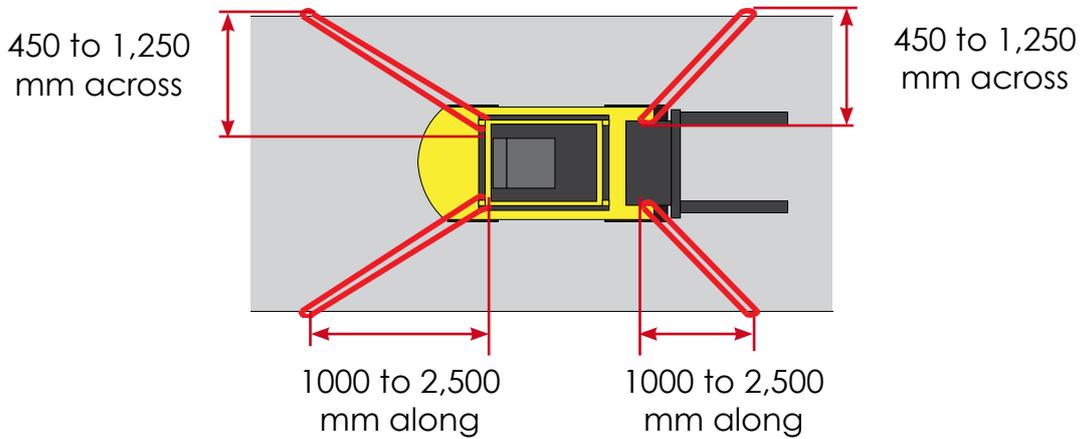


- ✓ Use a lifting sling and shackle if attaching a chain to a mast or ROPs.



- ✓ Shackles with 5 t W.L.L

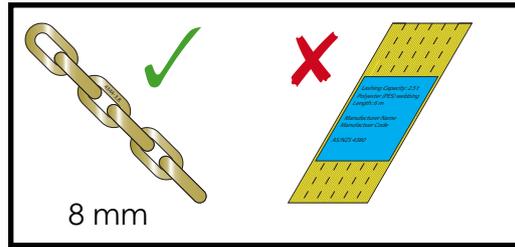
- ✓ Ensure chains are within the outlined ranges below:



New Zealand

**Order Pickers - Hyster LO2.0 or Similar**

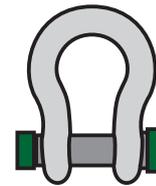
- ✓ Maximum mass of up to 1,600 kg.
- ✓ Minimum 8 mm transport chains tensioned tight by standard load binder.



- ✓ Ensure shackles have a minimum W.L.L of 2.5 t and are used through tie down points.

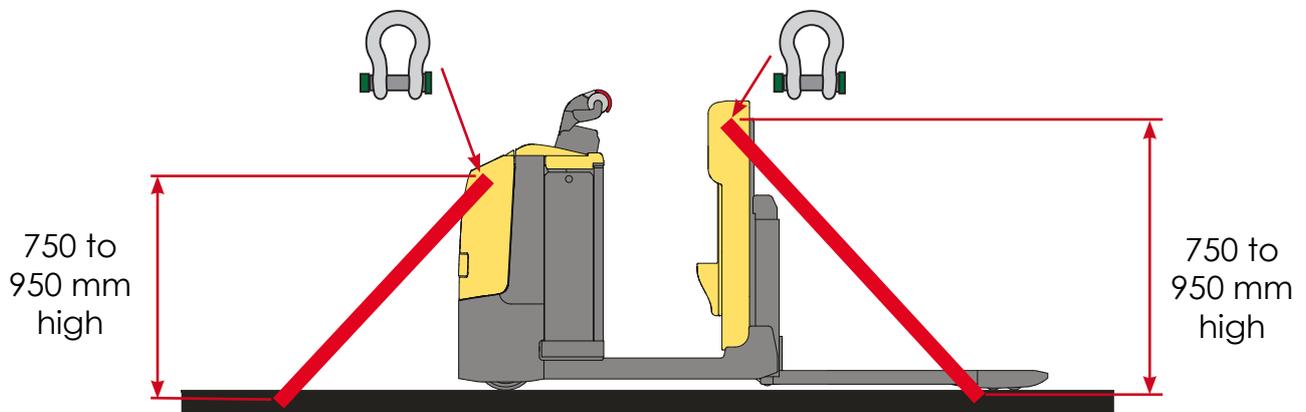
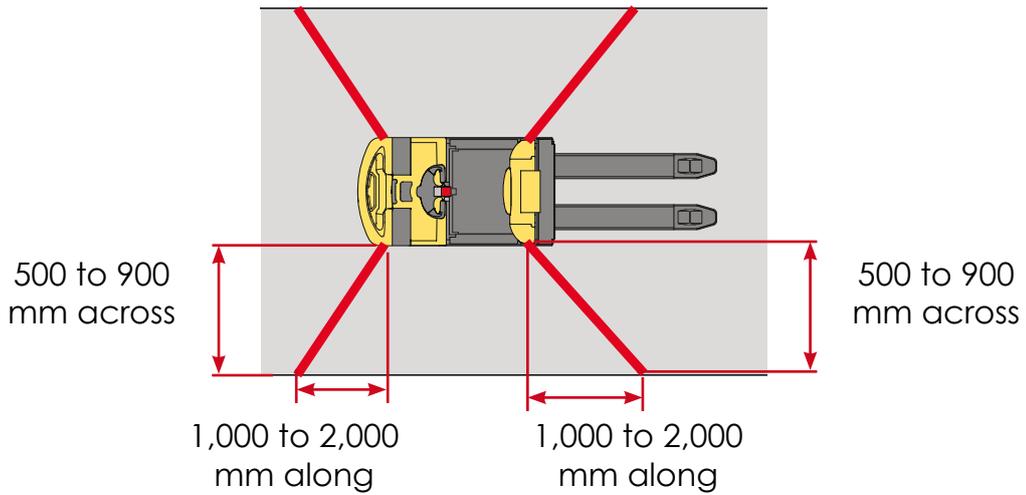


- ✓ Single length chain arrangement.



- ✓ Shackles with W.L.L - 2.5 t

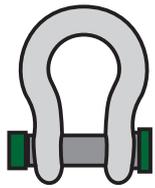
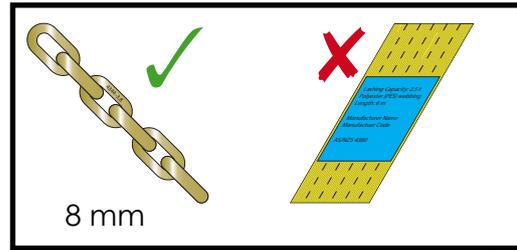
- ✓ Ensure chains are within the outlined ranges below:



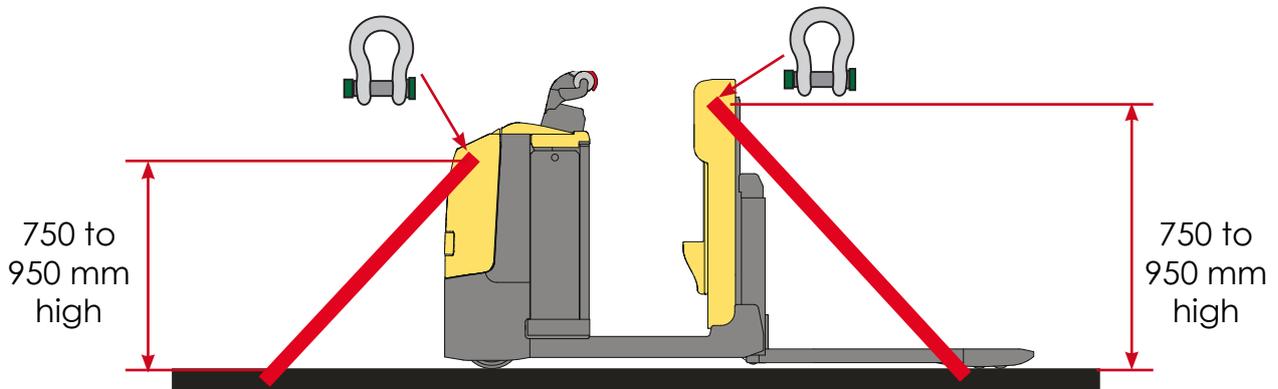
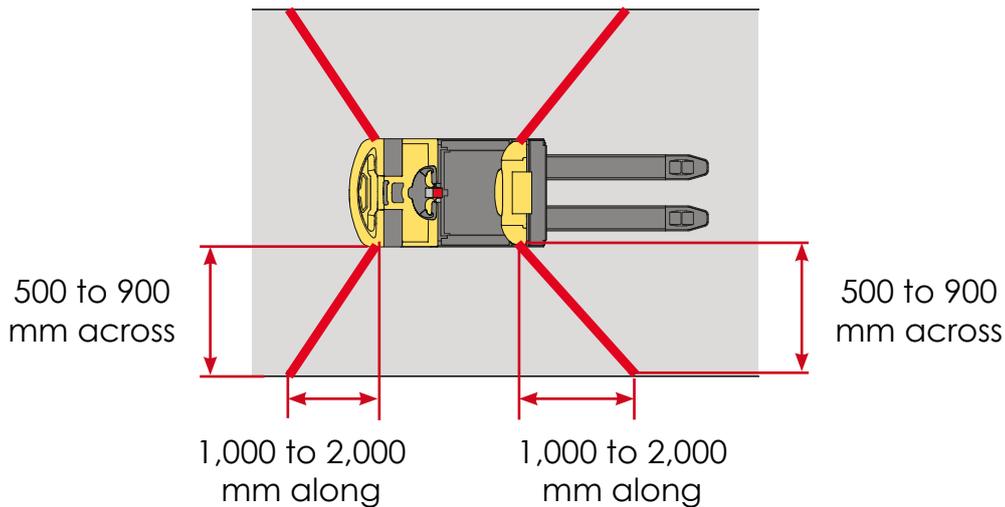
New Zealand

**Order Pickers - Hyster LO2.5 or Similar**

- ✓ Maximum mass of up to 3,400 kg.
- ✓ Minimum 8 mm transport chains tensioned tight by standard load binder.
- ✓ Ensure shackles have a minimum W.L.L of 2.5 t and are used through tie down points.



- ✓ Ensure chains are within the outlined ranges below:



This document is provided for guidance only. Engistics has developed this guideline to comply with the relevant standards and legislation, however it remains the responsibility of the user to ensure that the methods used are adequate for a particular situation. Additional requirements maybe necessary under some conditions. Engistics makes no warranty as to the use of this guideline in all circumstances. The information contained in this guideline is confidential to and remains the property of Adaptalift Group Pty Ltd and Engistics Pty Ltd. Any changes to this guideline must be approved by Engistics.

New Zealand