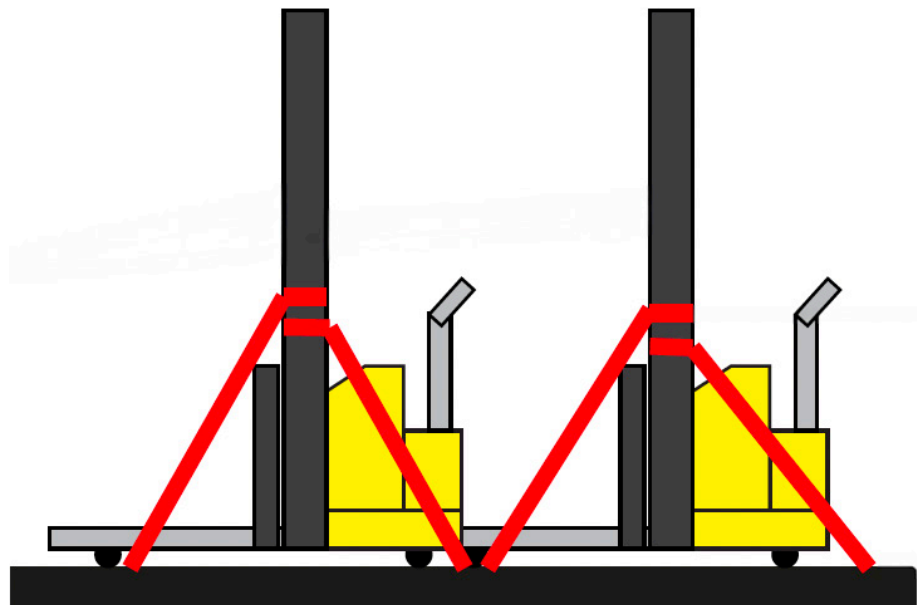


Appendix 4

Load Restraint Guide
New Zealand

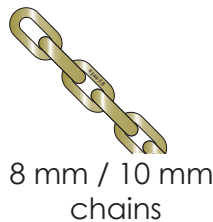


This guideline:

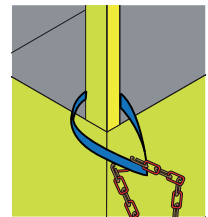
- Applies to the variety of forklifts outlined within this guideline.
- Is the loader and driver guide to the certification E01711-LRC7 to meet the requirements set out on page 8 of the "Official New Zealand Truck Loading Code by NZ Transport Agency".

Key Elements

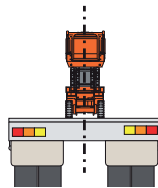
- ✓ 8 mm and 10 mm transport chains as specified, tensioned tight by standard load binder.



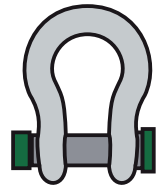
- ✓ Apply suitable and correctly sized lifting slings around anchor points where chains might damage area. Lifting slings must have at least a 1.5t rating for single chain arrangement and 3t for looped chain.



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

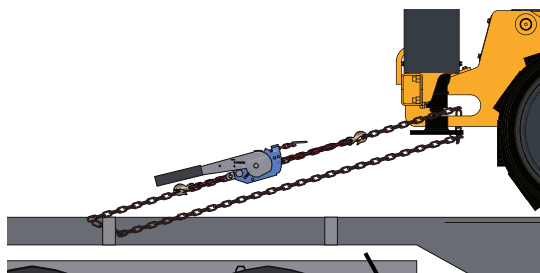


- ✓ Ensure shackles have the minimum rating required for each system as stated.

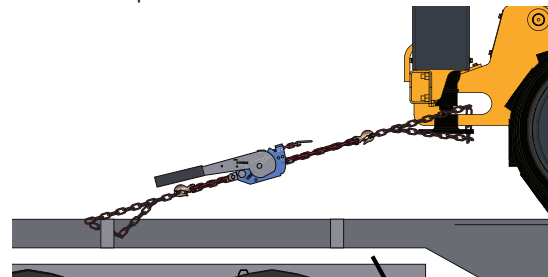


- ✓ Lashings are to be installed in either a single chain or looped chain arrangement depending on restraint system.

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



Looped Chain Arrangement



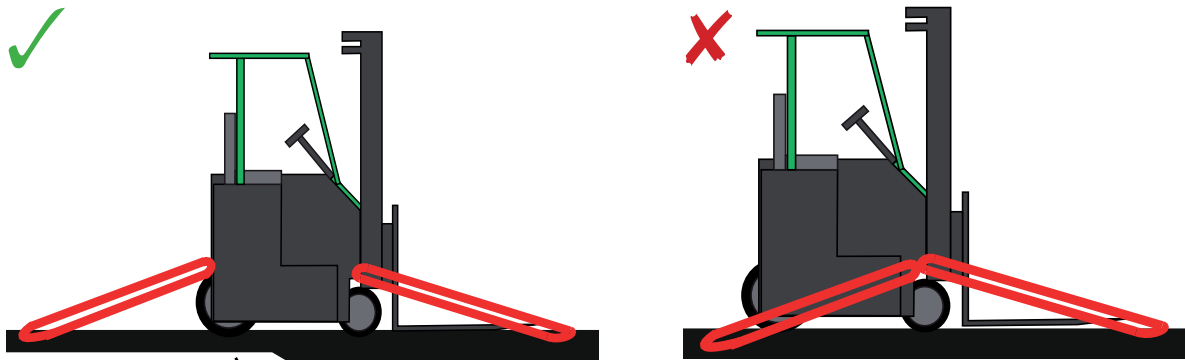
Single Chain Arrangement

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

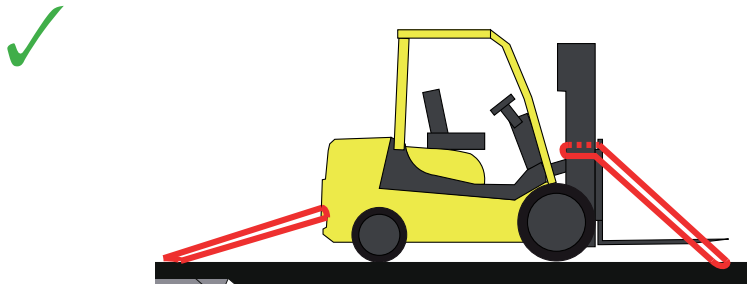
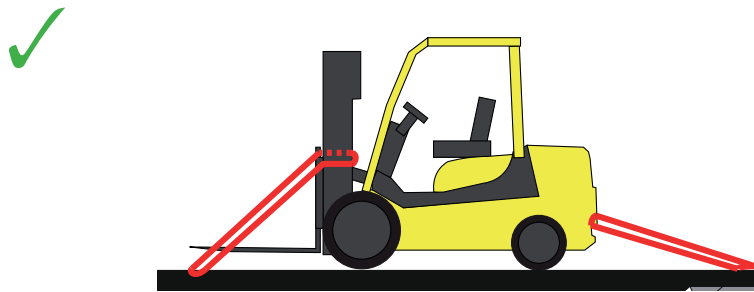
- ✓ Lashing protection may be required to prevent damage to the plant when using chain.

New Zealand

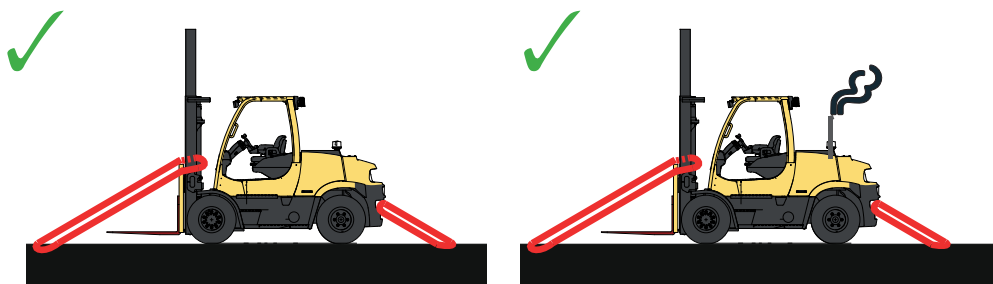
Key Elements (continued)



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



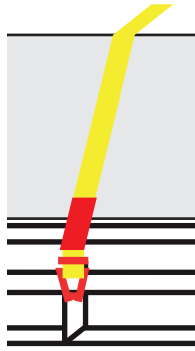
Plant can be loaded with the tynes facing towards or away from the prime mover.



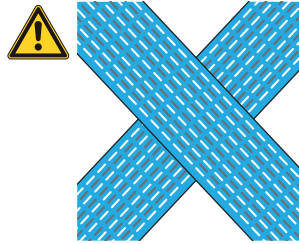
The restraint systems in this guideline applies to both diesel and electric forklifts provided the nominated mass limits can be met.

New Zealand

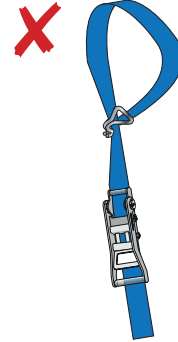
Key Elements (continued)



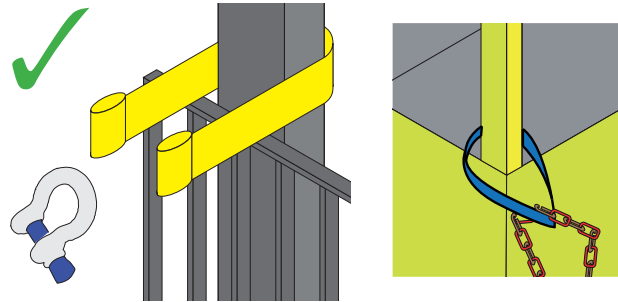
- ✓ When using webbing straps, ensure wear sleeves are placed over the coaming rail



To prevent abrasion ensure webbing straps do not rub together

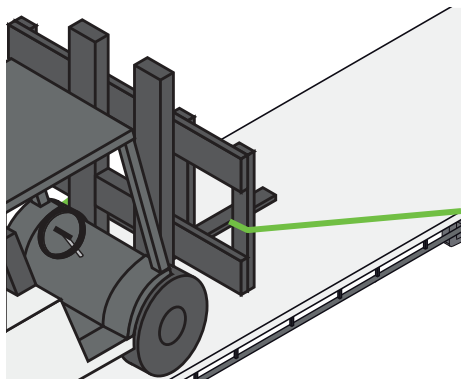


Do not loop attach the hook and keeper to the webbing strap



- ✓ Use a lifting sling and shackle if attaching a chain to a mast or other area that could be damaged.

Lashing Point Requirements

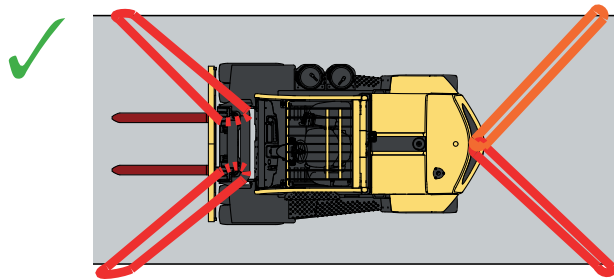


Do not use load guards as lashing points as this could damage sensitive hydraulic components which are not designed to be loaded perpendicular to the plant lifting direction.

Lashing Point Requirements (continued)



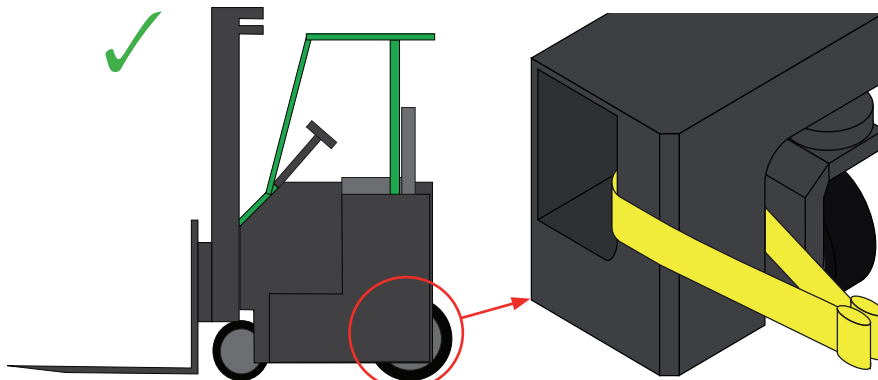
Overhead guards can only be used for restraint if they are structurally sound, e.g., they form part of the main forklift body as opposed to being connected by bolts.



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



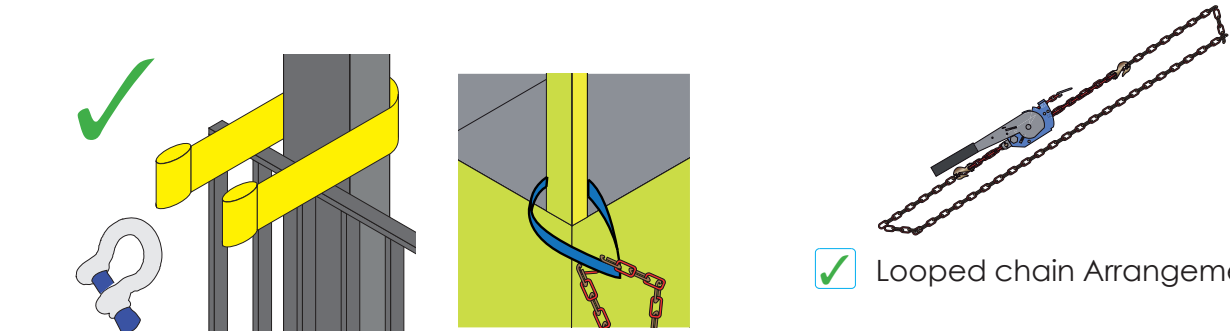
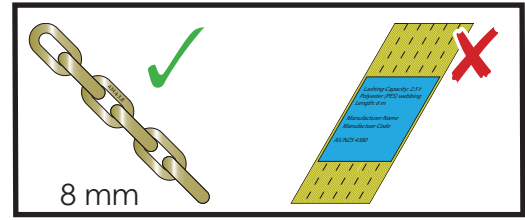
Dedicated lashing points, axles and structurally sound parts of the forklift body are suitable lashing points.



If no tow point or alternative lashing points are available, use lifting slings to allow lashing from the forklift body, if possible.

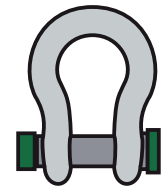
Standard Forklift - Hyster H1.5XT to H3.5XT and H1.5FT to H3.5FT

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



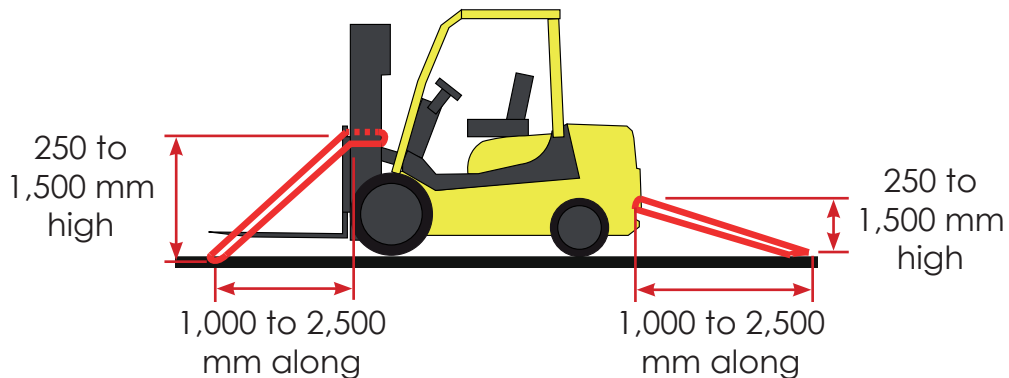
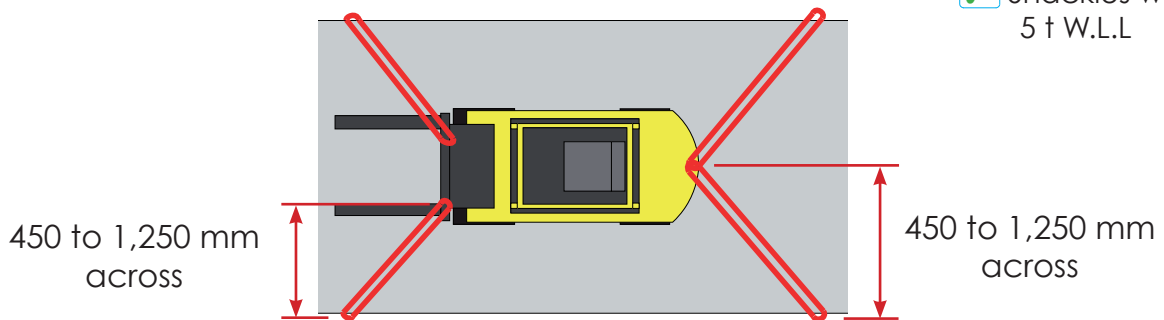
- ✓ Use a lifting sling and shackle if attaching a chain to an area which can be damaged.

- ✓ Looped chain Arrangement.



- ✓ Shackles with 5 t W.L.L

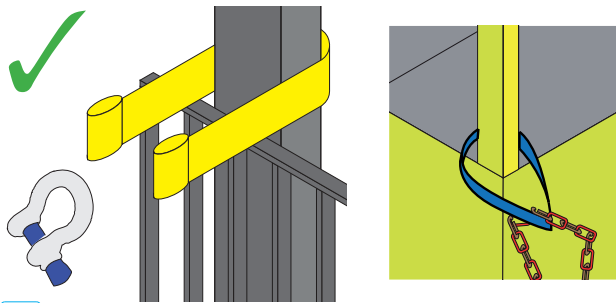
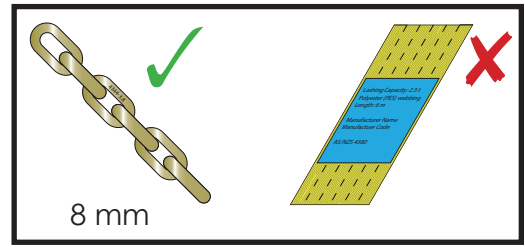
- ✓ Ensure chains are within the outlined ranges below:



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 and/or lifting slings have a minimum W.L.L of 5.0 t and are used through tie down points.

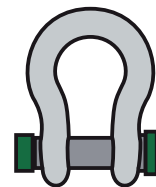
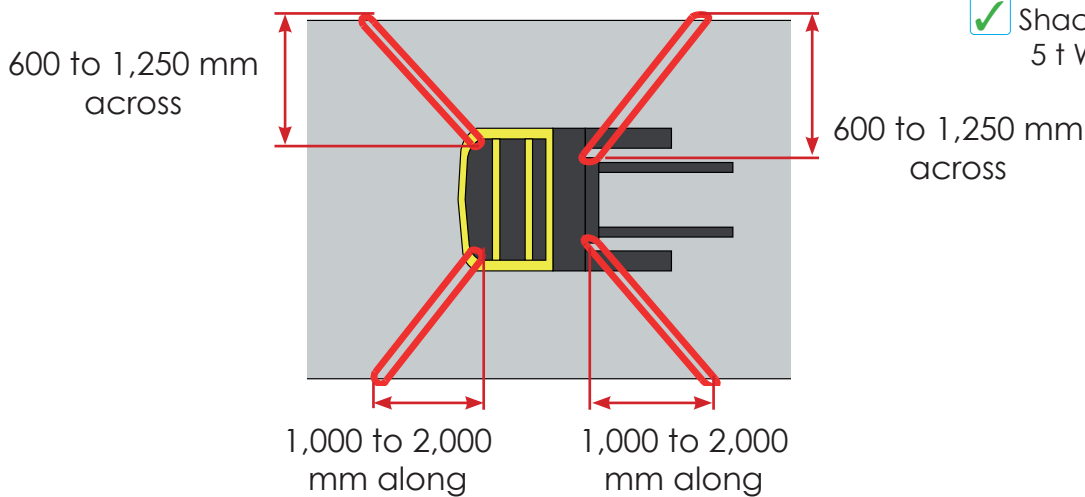


- ✓ Use a lifting sling and shackle if attaching a chain to an area which can be damaged.

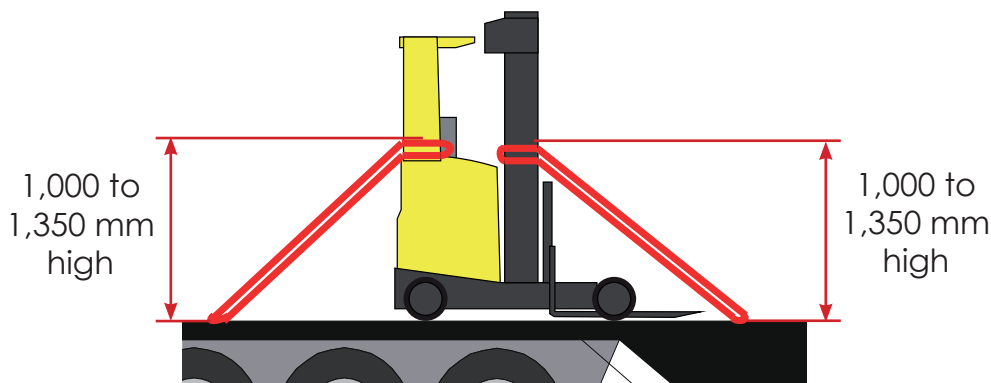


- ✓ Looped chain Arrangement.

- ✓ Ensure chains are within the outlined ranges below:



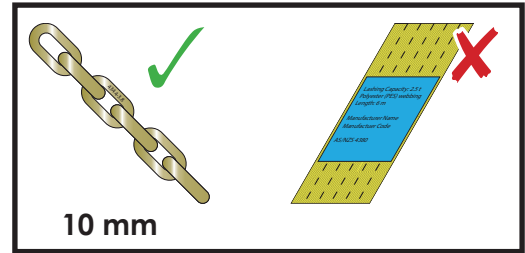
- ✓ Shackles with 5 t W.L.L



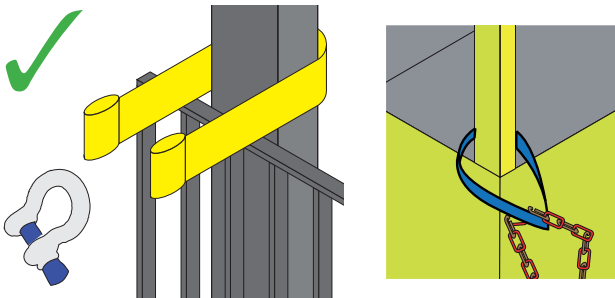
New Zealand

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 and/or lifting slings have a minimum W.L.L of 9 t and are used through tie down points.

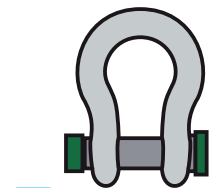
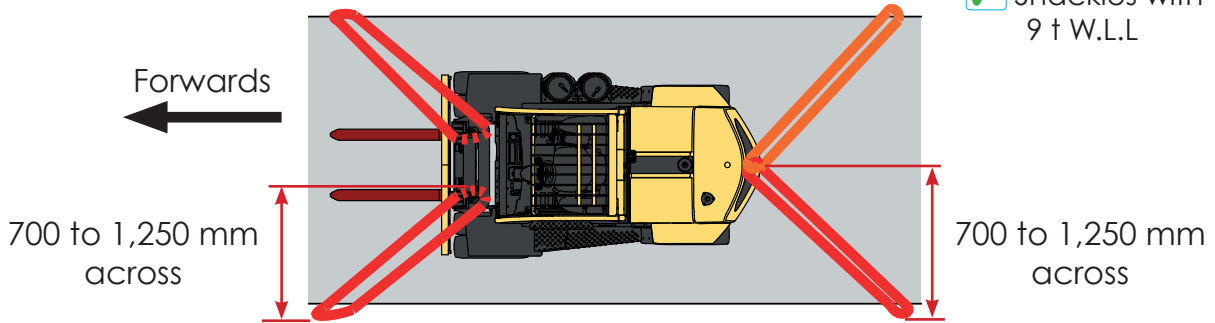


- ✓ Use a lifting sling and shackle if attaching a chain to an area which can be damaged.

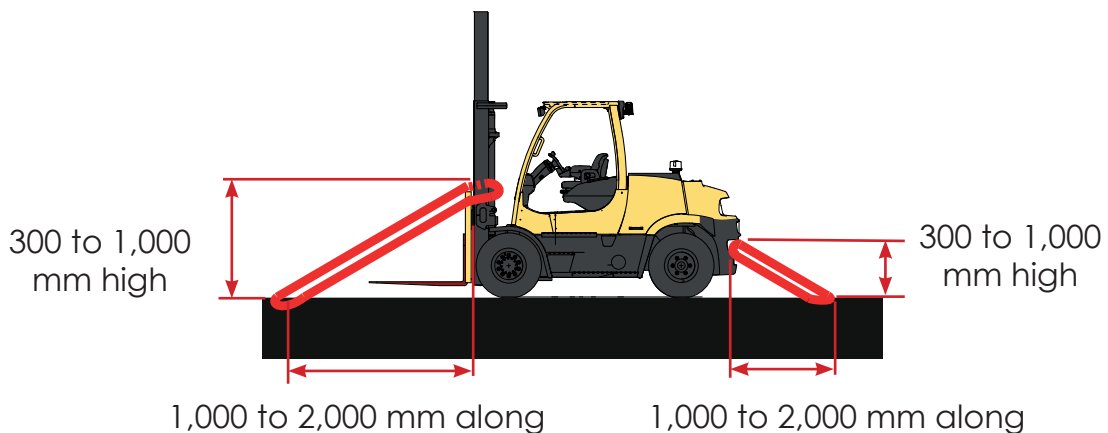


- ✓ Looped chain Arrangement.

- ✓ Ensure chains are within the outlined ranges below:

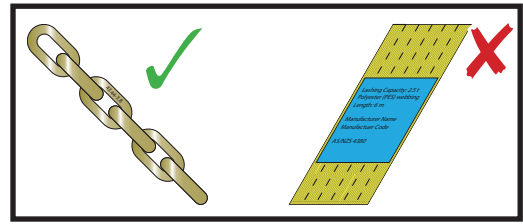


- ✓ Shackles with 9 t W.L.L

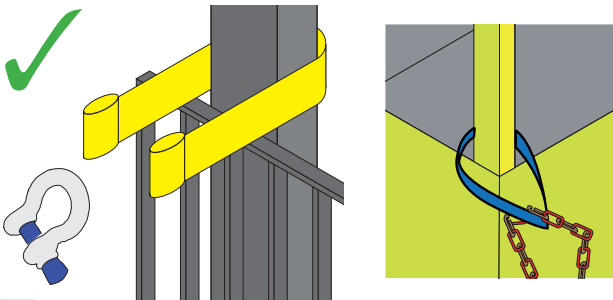


Combilift Combi-CB Forklift

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



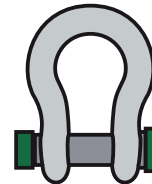
- ✓ Use a lifting sling and shackle if attaching a chain to an area which can be damaged.



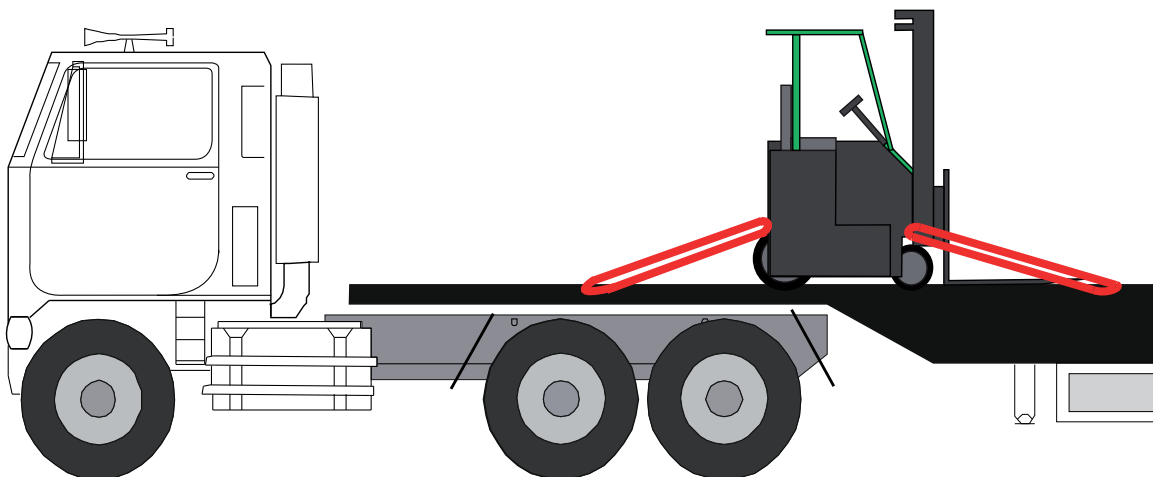
- ✓ Use a lifting sling and shackle if attaching a chain to an area which can be damaged.



- ✓ Looped chain Arrangement.



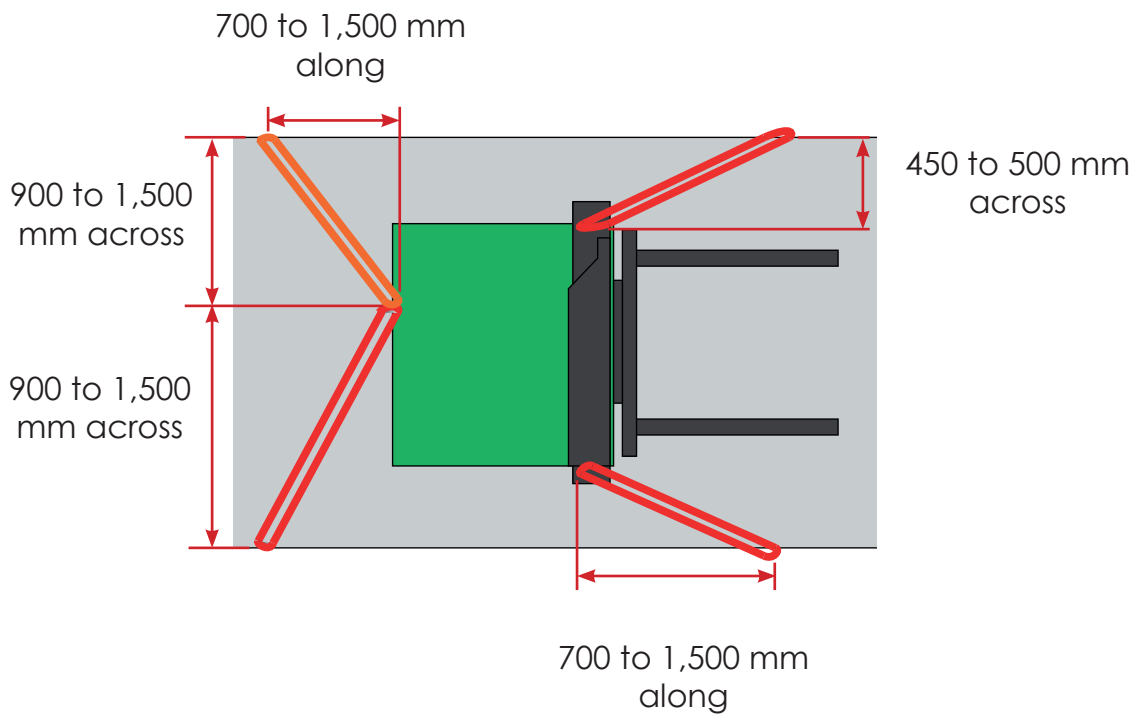
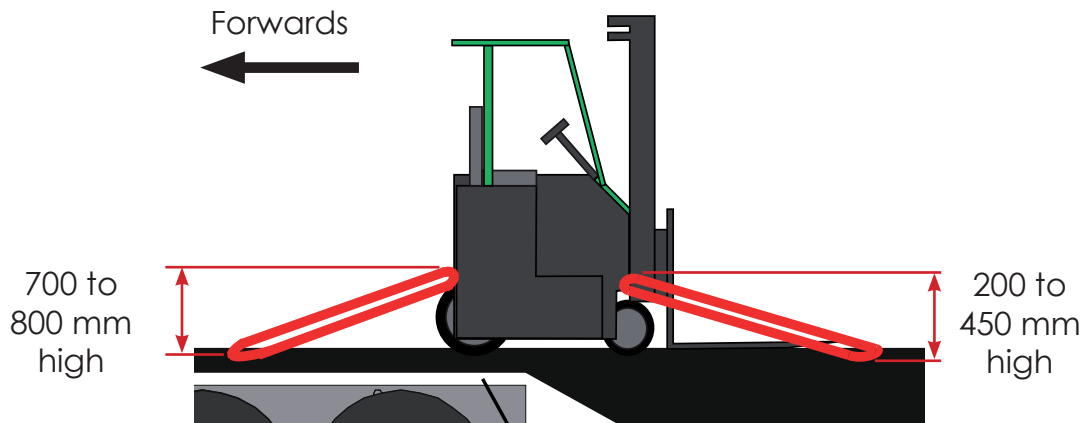
- ✓ Shackles with 5 t W.L.L



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

New Zealand

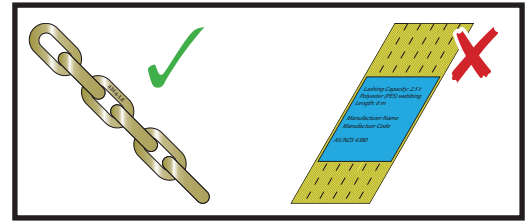
✓ Ensure chains are within the outlined ranges below:



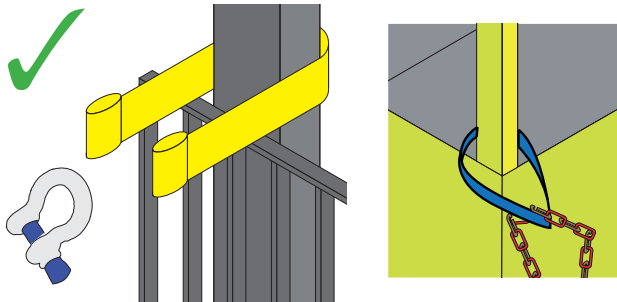
New Zealand

Aislemaster Articulated Forklift

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

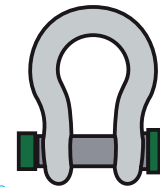


- ✓ Ensure shackles and/or lifting slings have a minimum W.L.L of 5.0 t and are used through tie down points.



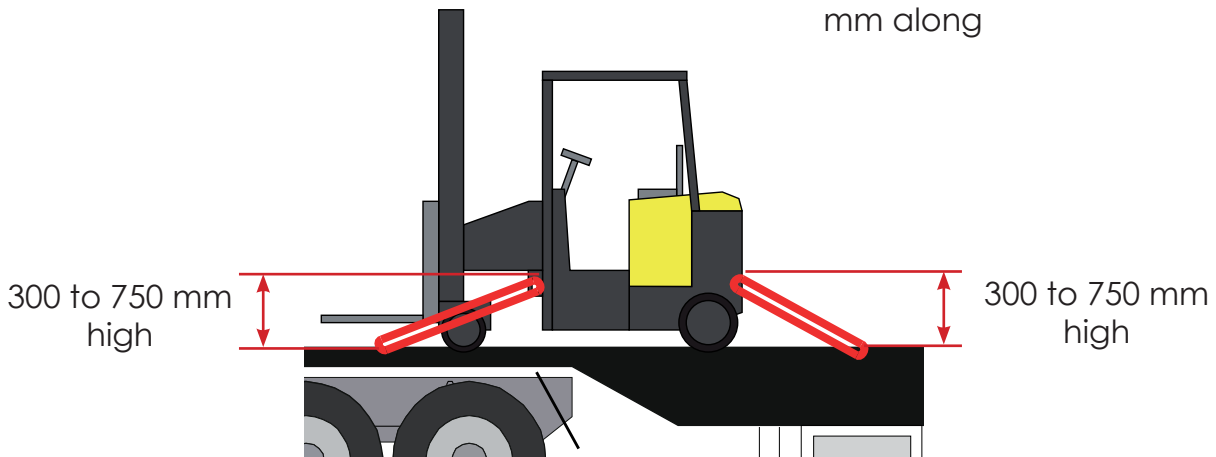
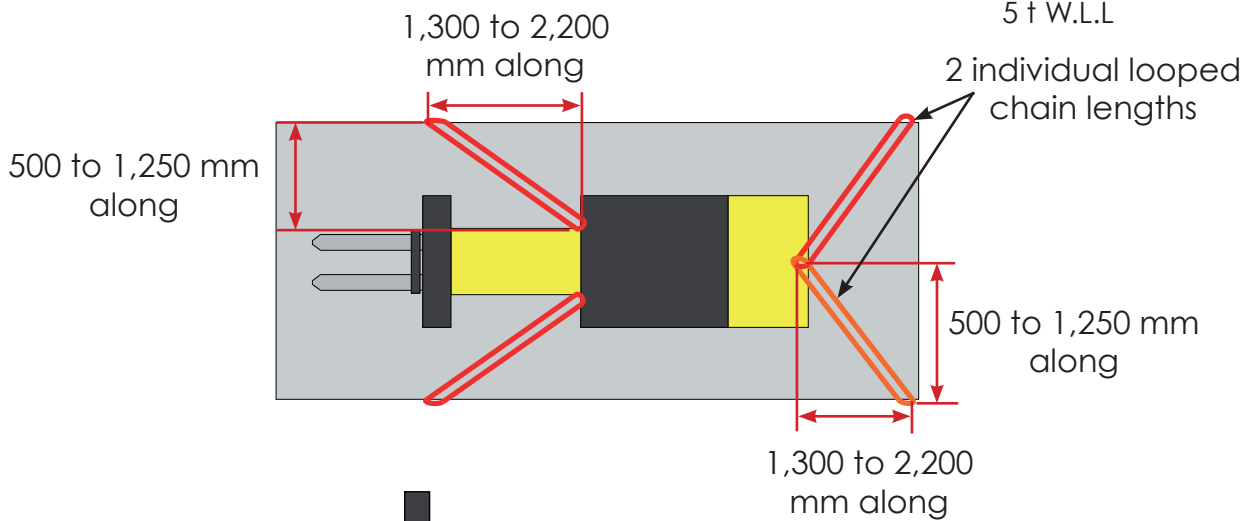
- ✓ Looped chain Arrangement.

- ✓ Use a lifting sling and shackle if attaching a chain to an area which can be damaged.



- ✓ Shackles with 5 t W.L.L

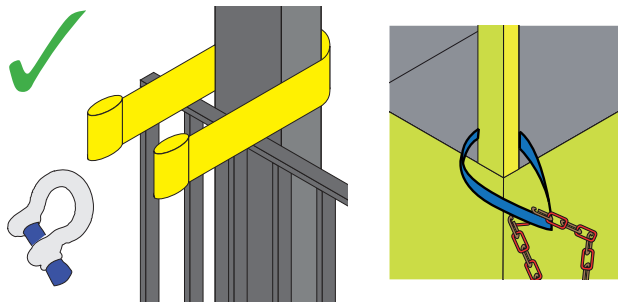
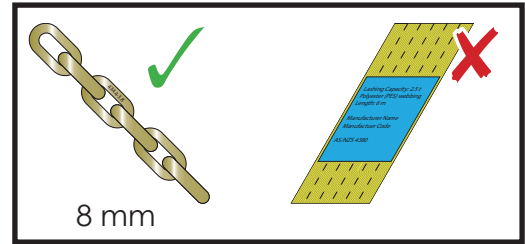
- ✓ Ensure chains are within the outlined ranges below:



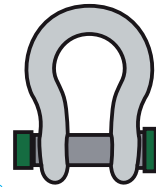
New Zealand

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 and/or lifting slings have a minimum W.L.L of 5.0 t and are used through tie down points.

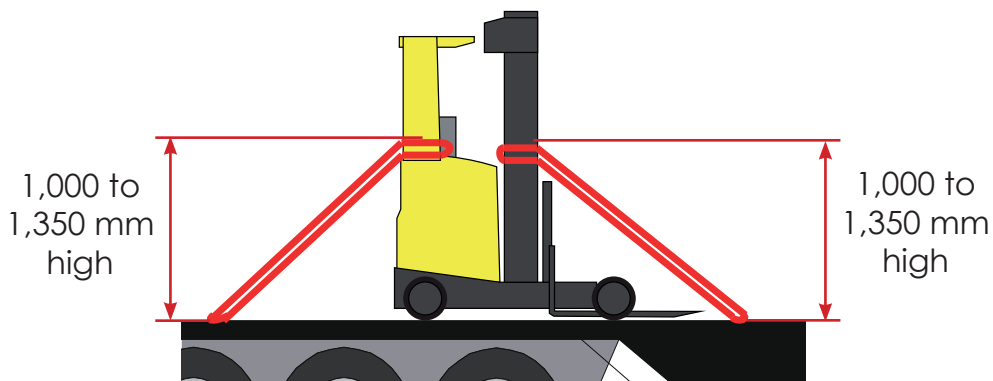
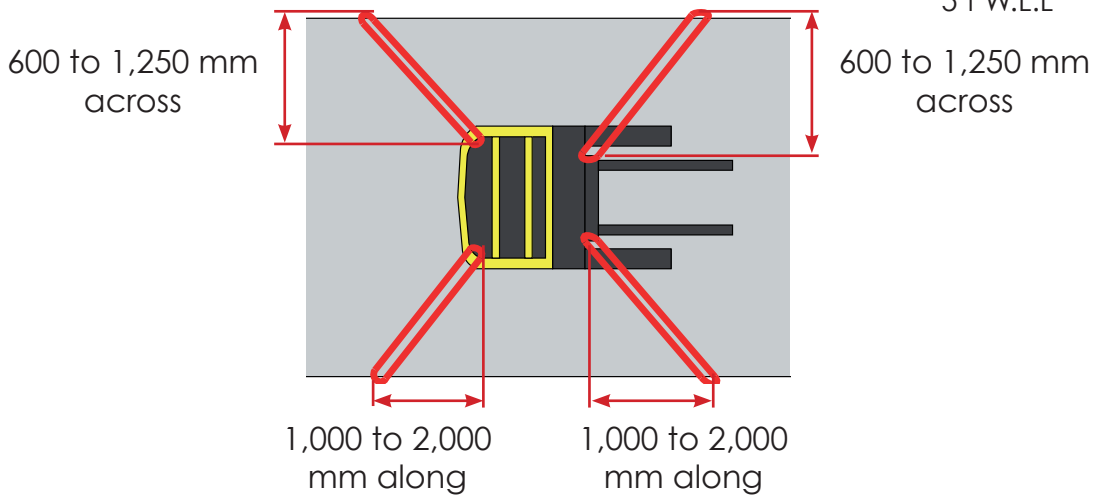


- ✓ Looped chain Arrangement.



- ✓ Use a lifting sling and shackle if attaching a chain to an area which can be damaged.
- ✓ Ensure chains are within the outlined ranges below:

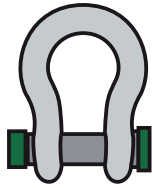
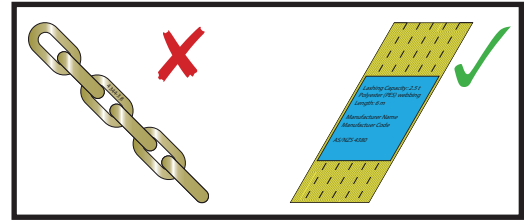
- ✓ Shackles with 5 t W.L.L



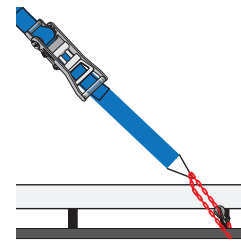
New Zealand

Small Mobile Plant - Generic

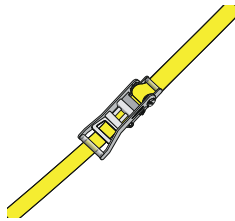
- ✓ Maximum mass of up to 3,000 kg.
- ✓ Minimum 50 mm Webbing lashing with 2.5 t lashing capacity tensioned tight by standard Tensioner.



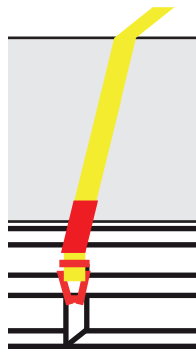
- ✓ If required to access tie-down points, ensure shackles have a minimum W.L.L of 2.5 t.



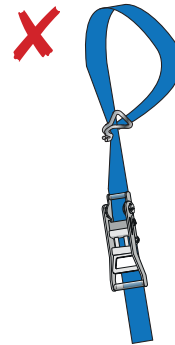
- ✓ Use a short length of chain to prevent bending of the webbing strap over the coaming rail.



- ✓ Single Length webbing arrangement.

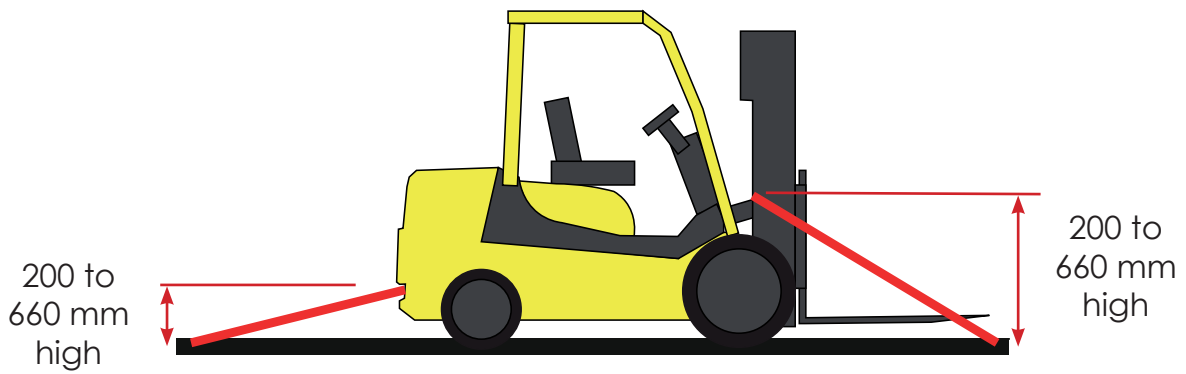
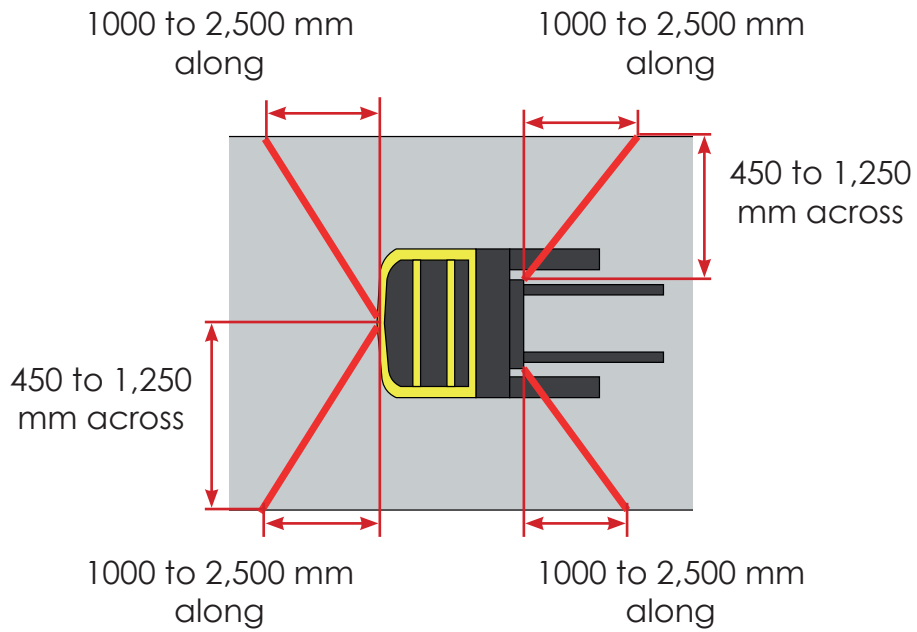


- ✓ When using webbing straps, ensure wear sleeves are placed over the coaming rail



Do not loop attach the hook and keeper to the webbing strap

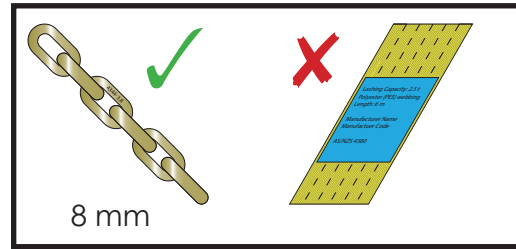
Small Mobile Plant - Generic



New Zealand

Order Pickers - Hyster LO2.0 or Similar

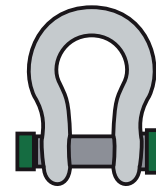
- ✓ Maximum mass of up to 1,600 kg.
- ✓ Minimum 8 mm transport chains tensioned tight by standard load binder.



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

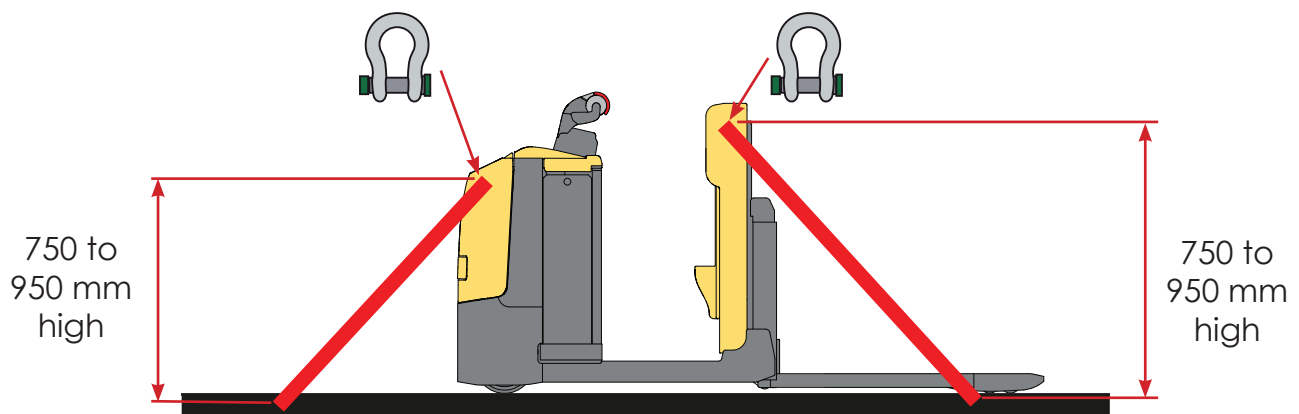
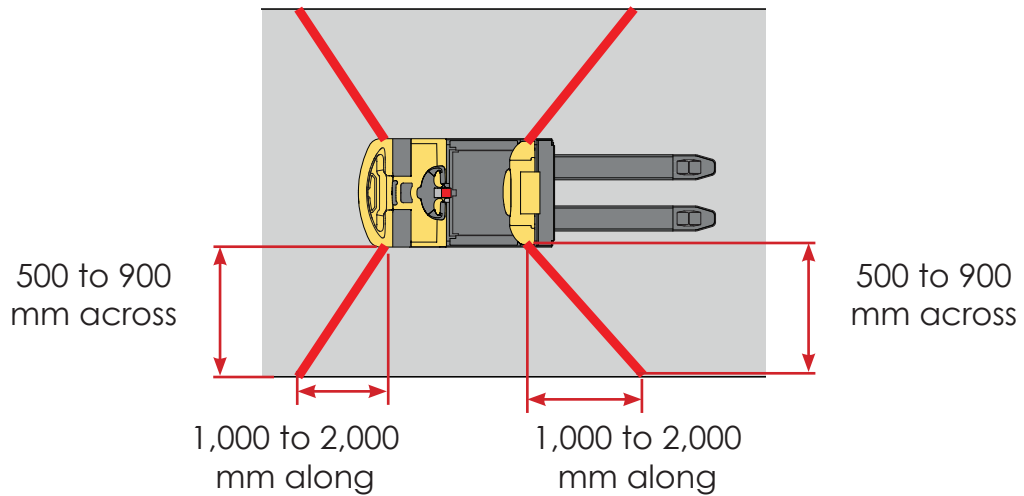


- ✓ Single length chain arrangement.



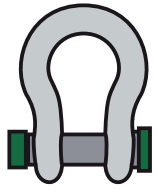
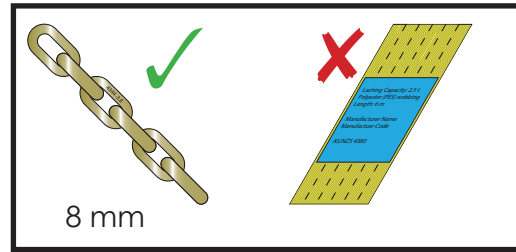
- ✓ Shackles with W.L.L - 2.5 t

- ✓ Ensure chains are within the outlined ranges below:



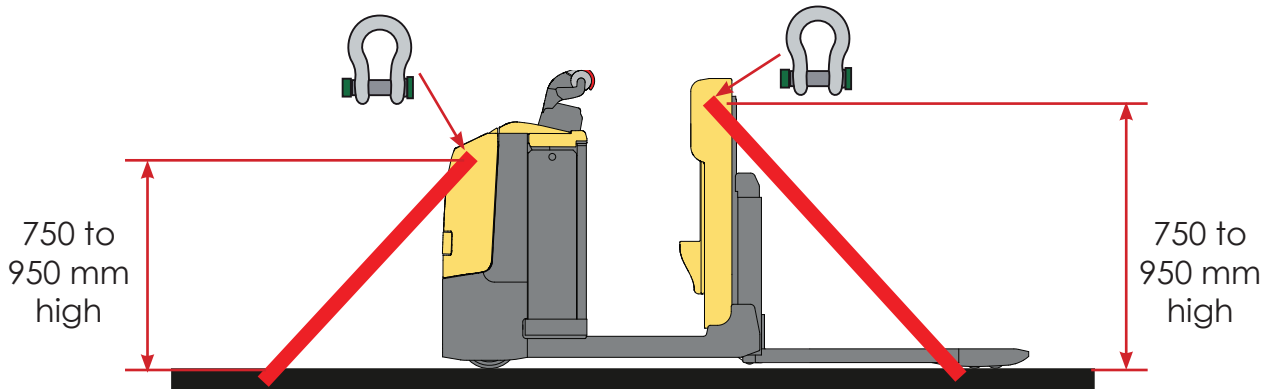
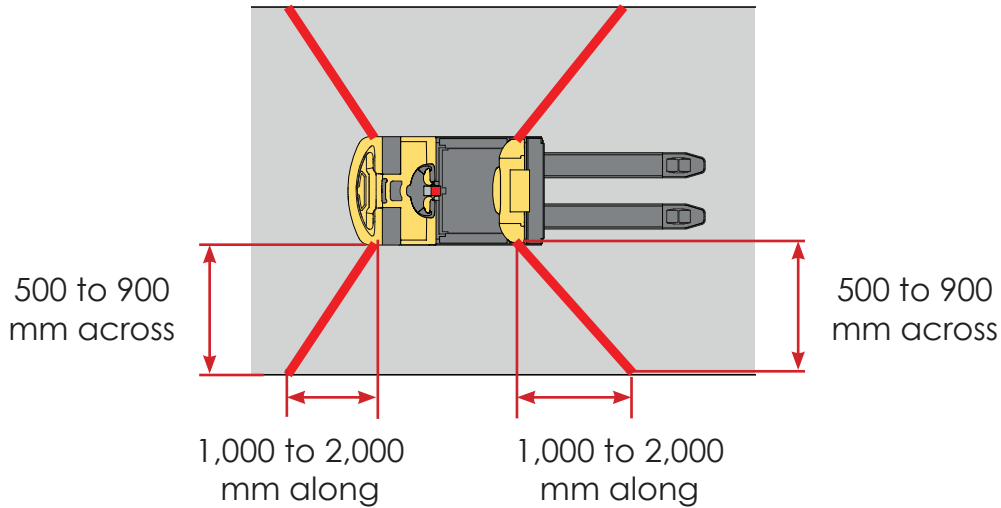
Order Pickers - Hyster LO2.5 or Similar

- ✓ 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.



- ✓ Single length chain arrangement.

- ✓ 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.

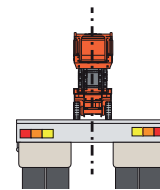
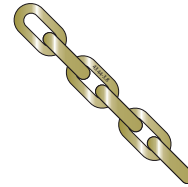
New Zealand

This guideline:

- Applies to the EPJ's and walkie stackers outlined within the guideline.
- Is the loader and driver guide to the certification E01711-LRC8 to meet the requirements set out on page 8 of the "Official New Zealand Truck Loading Code by NZ Transport Agency".

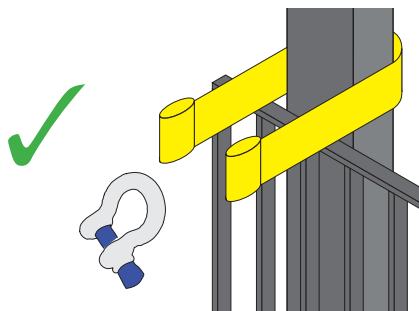
Key Elements

- ✓ Minimum 8 mm transport chains tensioned tight by standard load binder.
- ✓ Single file equipment must be loaded centrally across the trailer deck.
- ✓ Ensure shackles have the minimum rating required for each system as stated.

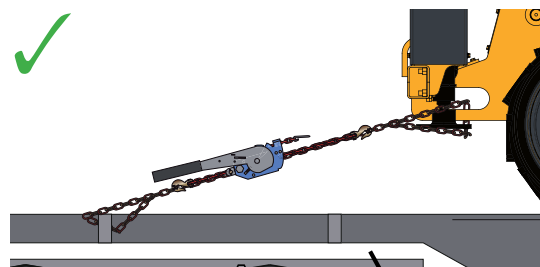


✓ Shackles with 5 t W.L.L

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



Use a lifting sling and shackle to attach chain to the mast

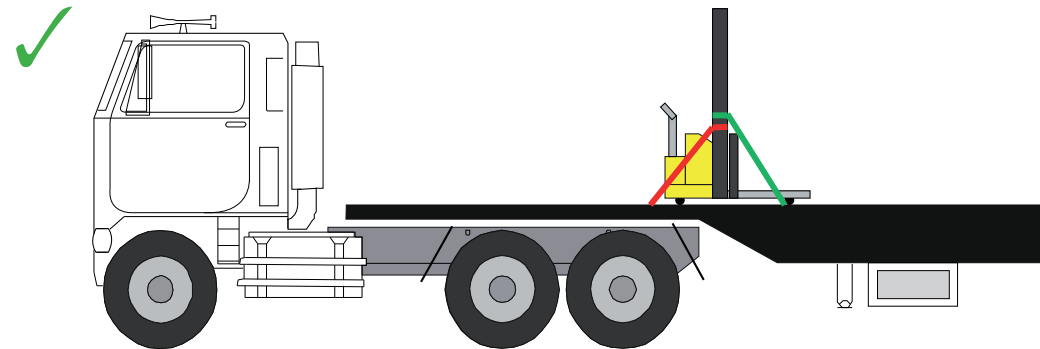
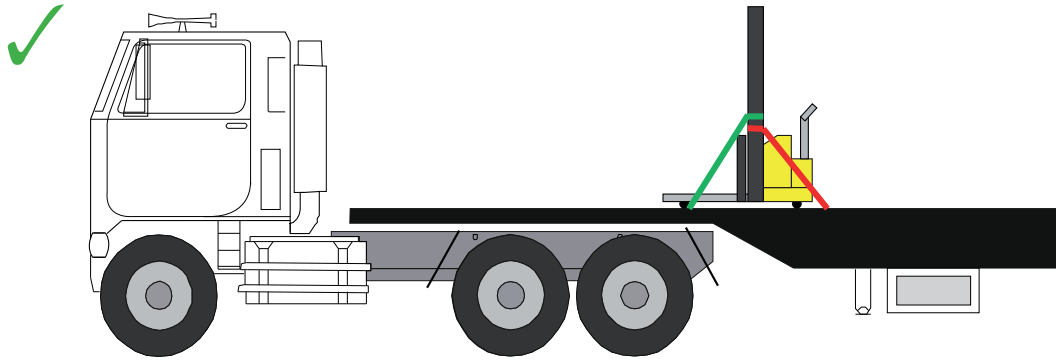


Single Chain Arrangement

New Zealand

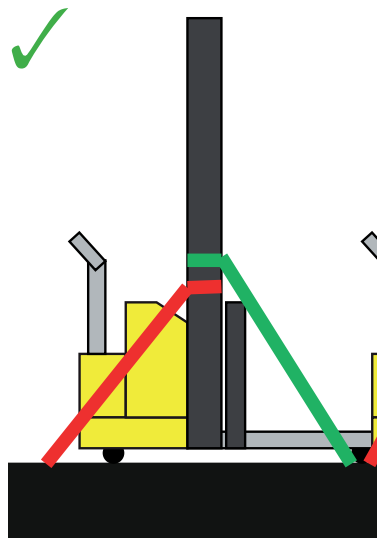
Key Elements (continued)

- ✓ Ensure locking pins are installed to prevent any movement during transport.
- ✓ Lashing protection may be required to prevent damage to the plant when using chain.

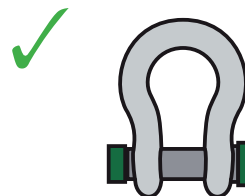


Plant can be loaded with the tyres facing towards or away from the prime mover.

Lashing Point Requirements



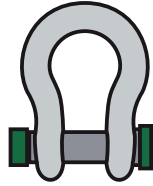
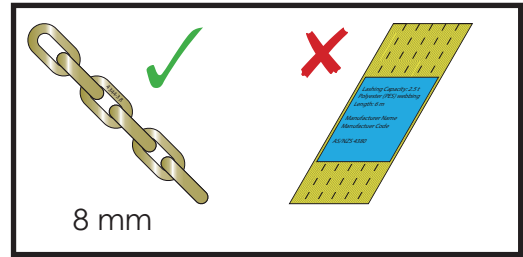
Masts can be used for lashing points on EPJ's and Walkie Stackers.



Dedicated lashing points must be suitable lashing points.

Walk Behind Electric Pallet Truck - Hyster P2.0

- ✓ Maximum mass of up to 1,500kg.
- ✓ 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.

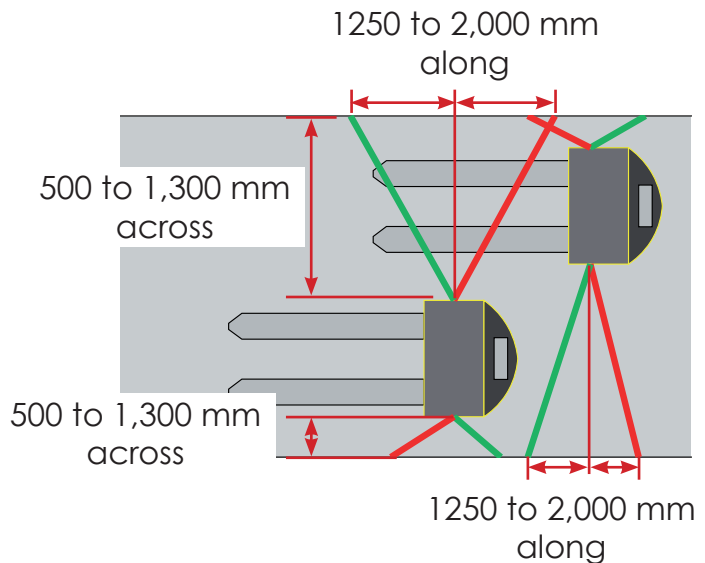
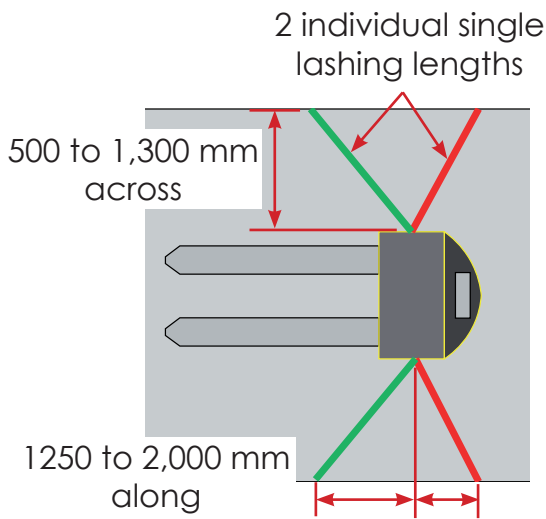


- ✓ Shackles rated to 2.5 t W.L.L

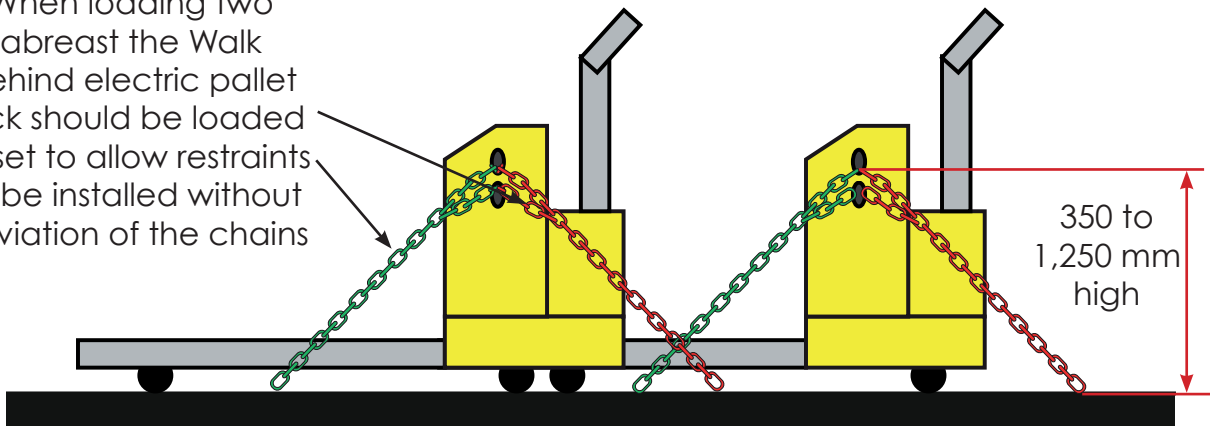


- ✓ Single length chain arrangement.

- ✓ Ensure chains are within the outlined ranges below:



When loading two abreast the Walk behind electric pallet jack should be loaded offset to allow restraints to be installed without deviation of the chains

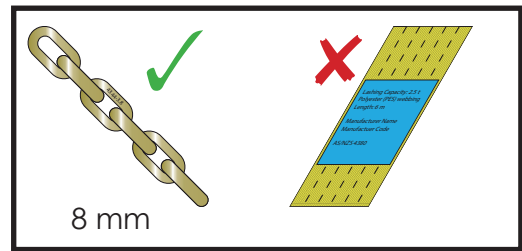


- ✓ Lashings are to be installed to the side tie down point.

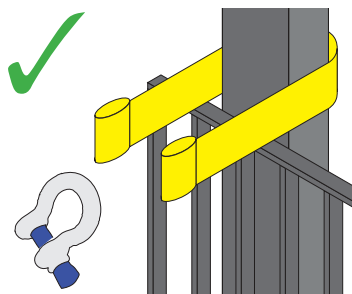
New Zealand

Walk Behind Reach Forklift - Liftsmart LS10 to LS12

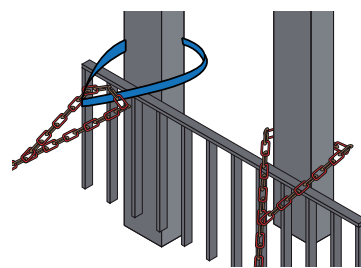
- ✓ Maximum mass of up to 1,500kg.
- ✓ Minimum 8 mm transport chains tensioned tight by standard load binder.
- ✓ Ensure lashings do not impact any cabling or hoses on the mast.
- ✓ Apply suitable lifting slings to protect cabling.



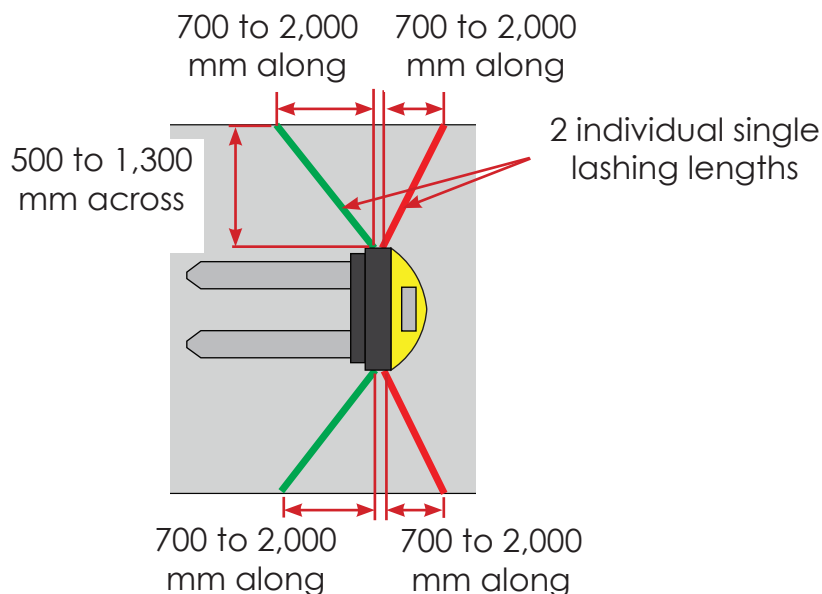
- ✓ Single length chain arrangement.



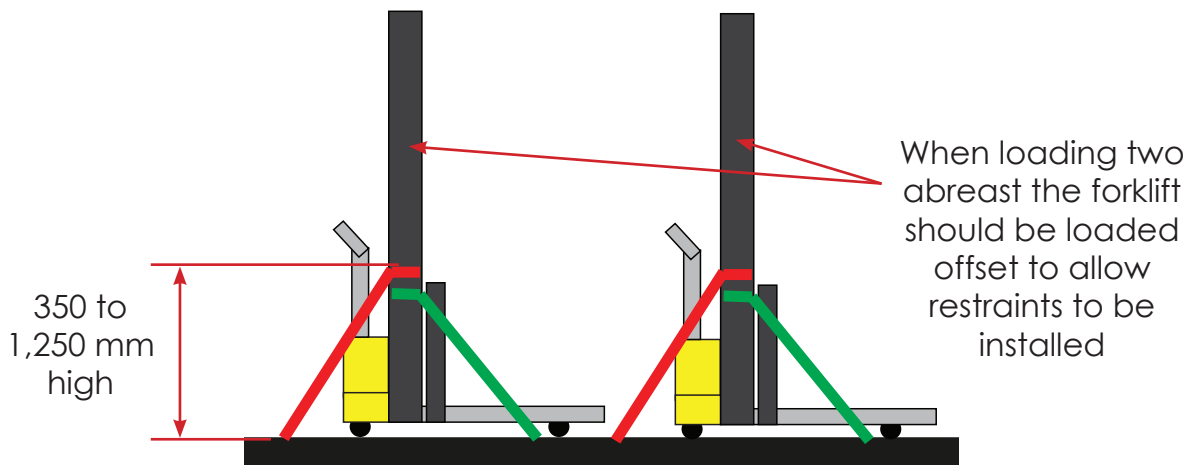
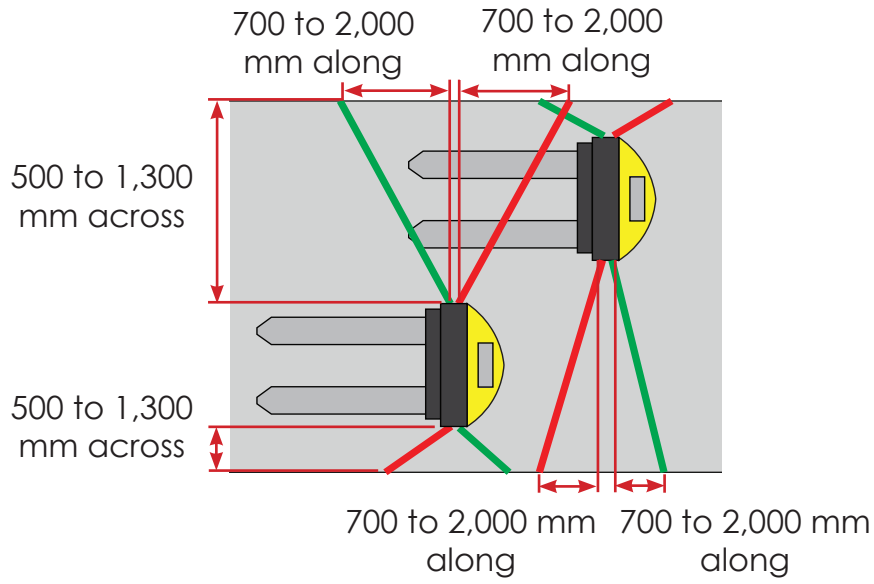
Use a lifting sling and shackle to attach the chains to the mast



- ✓ Ensure chains are within the outlined ranges below:



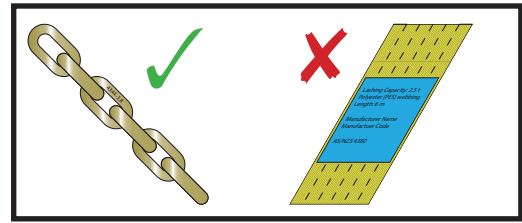
New Zealand



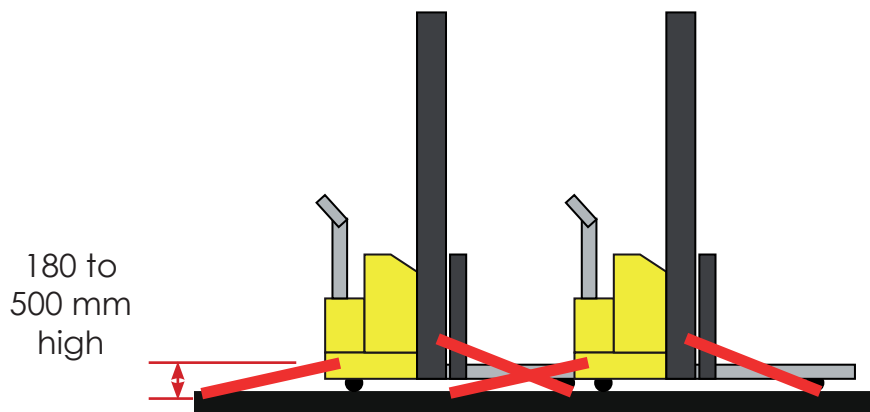
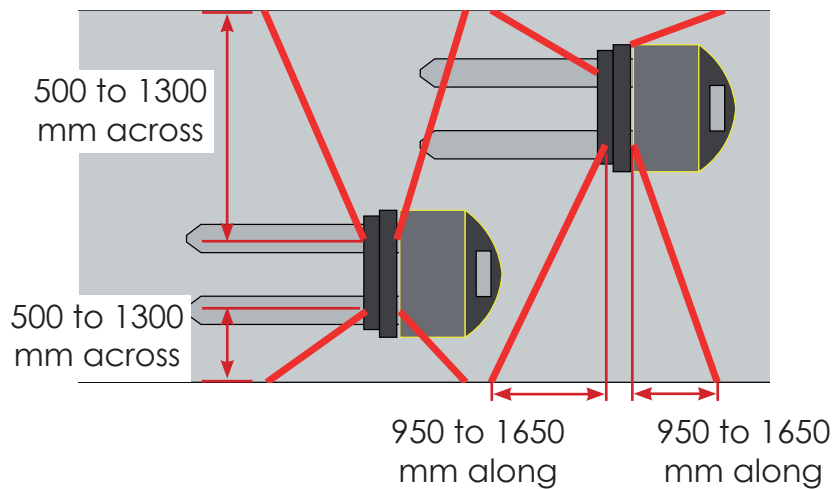
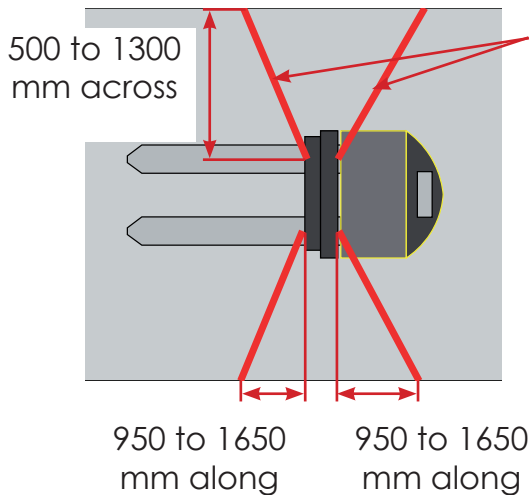
Walk Behind Reach Forklift with Lashing Points

- Liftsmart WRT15 or Similar

- ✓ Maximum mass of up to 2,200kg.
- ✓ Minimum 8 mm transport chains tensioned tight by standard load binder.



- ✓ Ensure webbing straps are within the outlined ranges below:

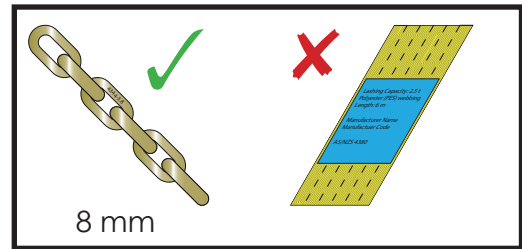


When loading two abreast the forklift should be loaded offset to allow restraints to be installed

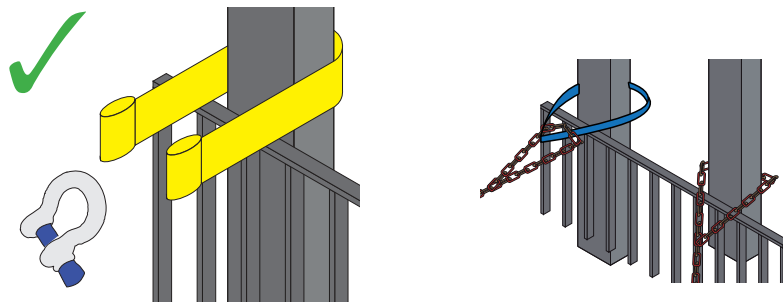
New Zealand

Walk Behind Reach Forklift - Liftsmart WRT15 or Similar

- ✓ Maximum mass of up to 2,600kg.
- ✓ Minimum 8 mm transport chains tensioned tight by standard load binder.
- ✓ Ensure lashings do not impact any cabling or hoses on the mast.
- ✓ Apply suitable lifting slings to protect cabling.

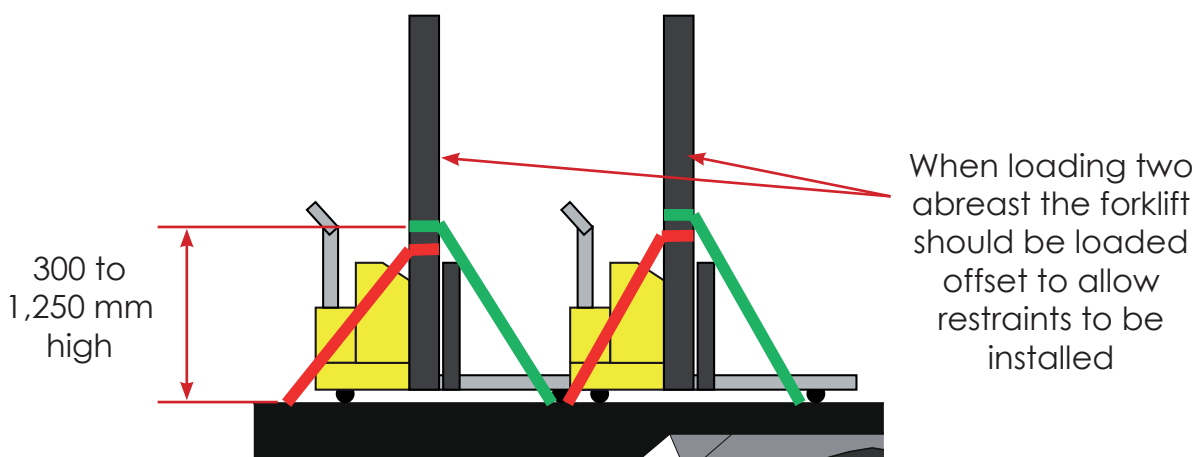
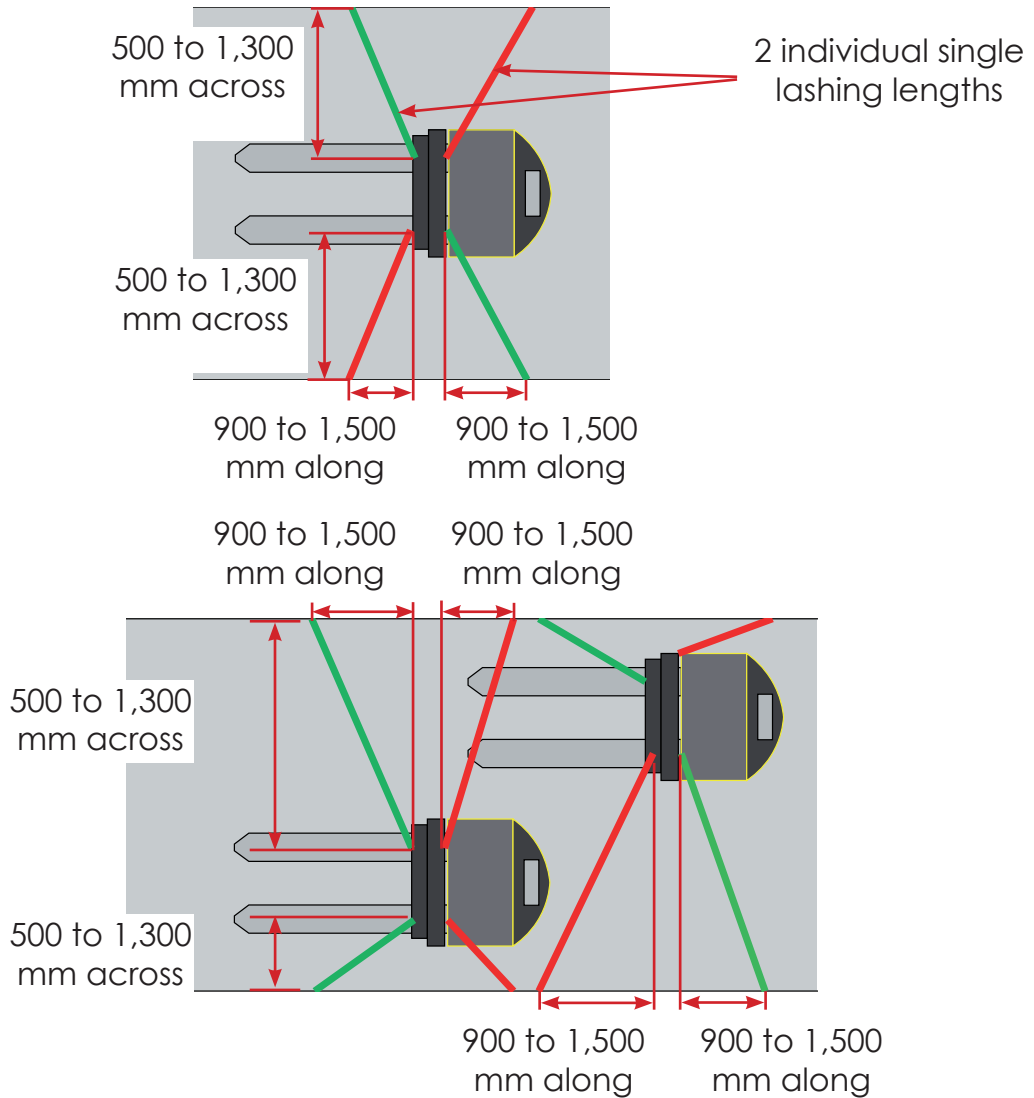


- ✓ Single length chain arrangement.



Use a lifting sling and shackle to attach chains to the mast

✓ 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 may be 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