

CASE 5: DIRECT RESTRAINT USING SIMPLE RULE

Load:

- 4-tonne metal track equipment.

Direct lashing angles

 To use this simple rule your direct lashing angle should be less than 25° from the horizontal – [Figure 496](#). All lashings should be the same type, of similar lengths, and 45° from the relevant restraint directions – [Figure 497](#).

Note:

This rule can only be used if the lashings are all 25° or less from the horizontal. If lashings are any steeper, you need to use an alternative method (see [Cases 6 and 7](#)).

Figure 496 25° from the horizontal

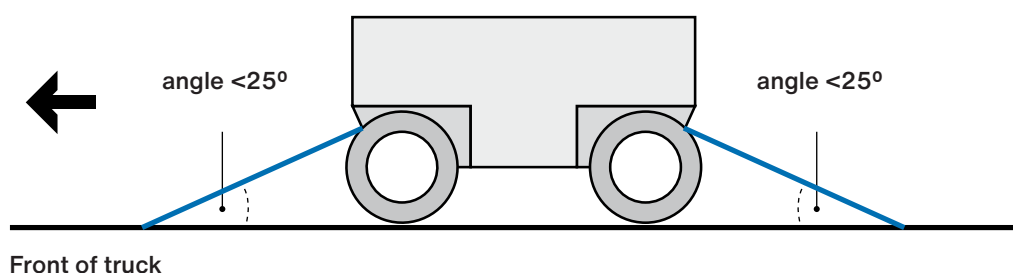
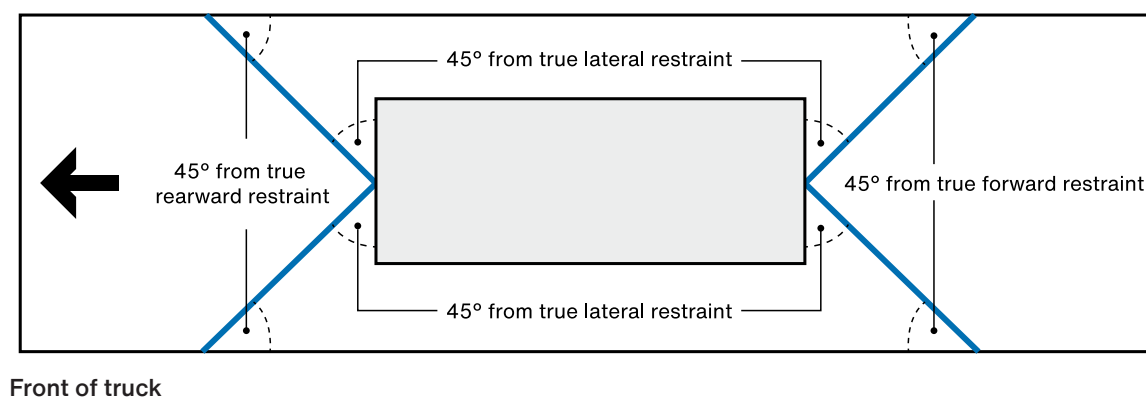


Figure 497 45° from the relevant restraint direction



 Check your direct lashing angles for all directions of movement (forwards, backwards and sideways).

The simple rule is to select lashings whose combined lashing capacity is:

- in the forward direction = **twice the weight of the load** (i.e. each lashing has a capacity that matches the weight of the load).
- in the sideways direction = **the weight of the load**.
- in the rearward direction = **the weight of the load** (i.e. each lashing has a capacity that matches half of the weight of the load).

Step 1:

What is the mass of the load?

The total mass of the load is **4,000 kg**.

Step 2:

What capacity lashing do you need for forward restraint?

Each lashing must have a capacity of **4,000 kg**, to match the weight of the load to be restrained. Combined, they have a capacity that matches twice **the weight of the load**.

Step 3:

What capacity lashing do you need for sideways restraint?

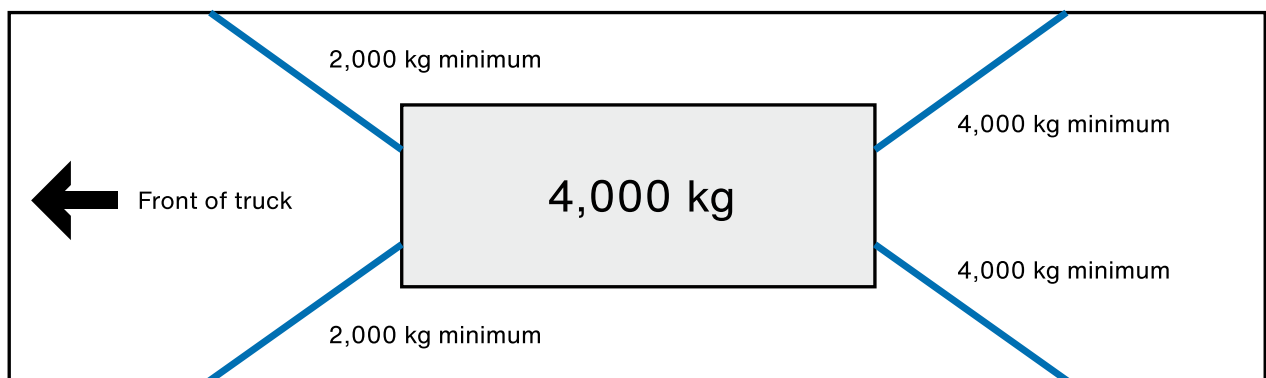
Each lashing must have a capacity of **2,000 kg** to match half the weight of the load to be restrained. Combined, they have a capacity that matches **the weight of the load**.

Step 4:

What capacity lashing do you need for rearward restraint?

Each lashing must have a capacity of **2,000 kg** to match half the weight of the load to be restrained. Combined, they have a capacity that matches **the weight of the load**.

Figure 498 Lashing capacity



The rear lashings provide both sideways and forward restraint.