## 2.3 Containing, Immobilizing, and Securing Cargo

If the article is:	use at least:
<ul> <li>5 feet (1.52 m) or shorter, AND</li> <li>over 1,100 pounds (500 kg)</li> </ul>	2 tiedowns

If the article is:	use at least:
longer than 10 feet (3.04 m)	2 tiedowns, plus 1 additional tiedown for every additional 10 feet (3.04 m) or part thereof



If the article is:	use at least:
longer than 5 feet (1.52 m) but is 10 feet (3.04 m) or less, no matter what the weight is	2 tiedowns



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## Aggregate working load limit

The sum of the working load limits of each device used to secure an article on a vehicle is called the aggregate working load limit. Knowing the aggregate WLL will allow you to determine the minimum number of tiedowns required for your cargo, based on the weight of the cargo.

## How do you calculate the aggregate WLL?

To calculate the aggregate WLL, add together:

- 50% of the WLL of each direct tiedown (tiedowns that go from an anchor point on the vehicle to an attachment point on an article of cargo, or which pass through, over, or around the cargo and are then attached to an anchor point on the same side of the vehicle); AND
- 100% of the WLL of each indirect tiedown (tiedowns that go from an anchor point on the vehicle, through, over, or around the cargo and then attach to another anchor point on the other side of the vehicle).

Examples:

- 50% of A
- + 50% of B
- + 50% of C
- + 50% of D
- = Aggregate WLL



100% of A

- + 100% of B
- = Aggregate WLL



- 100% of A
- + 100% of B = Aggregate WLL

