



## GENERAL ADVICE ON LOADING DRAGONS INTO CONTAINERS

This general guide is intended to give guidance on the international transport of Dragons. The Dragon is usually transported while loaded onto its standard road trailer<sup>1</sup>:



The international transport by sea will almost always take place by transporting the dragon on its trailer in a 40' High Cube container. A 40 High Cube container is a type of intermodal shipping container that is 1 foot (about 30 cm) taller than a standard 40-foot container. Although the inner dimensions of the 40' High Cube can differ slightly by shipping line and/or producer of the containers, the general dimensions are as follows:

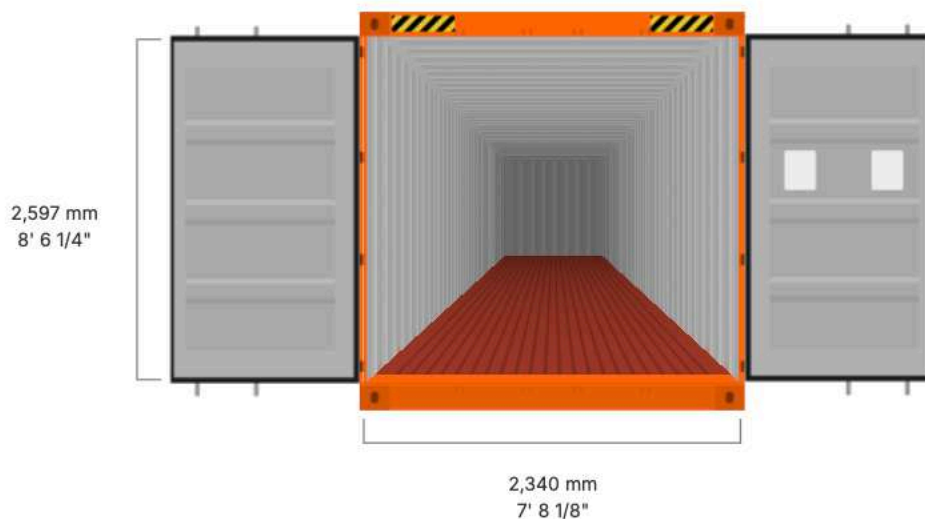
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<sup>1</sup> Please note that we have based ourselves on standard European road trailers, but we have noted that some road trailers made in Canada and the USA are configured and sized differently. Should you be using a non-standard trailer, please contact us for guidance.

Inner Dimensions of a 40' High Cube Container	
Dimension	Measurement (Approx.)
Length	12.03 meters (39 ft 5 in)
Width	2.35 meters (7 ft 8.5 in)
Height	2.69 meters (8 ft 10 in)

It is important to note that the door opening dimensions differ from the inner dimensions, and these must be taken into account when determining whether the Dragon on its trailer (some people prefer to load the mast on top) can be safely moved into the container.

Door Opening Size	
Part	Measurement (Approx.)
Width	2.34 meters (7 ft 8 in)
Height	2.58 meters (8 ft 6 in)

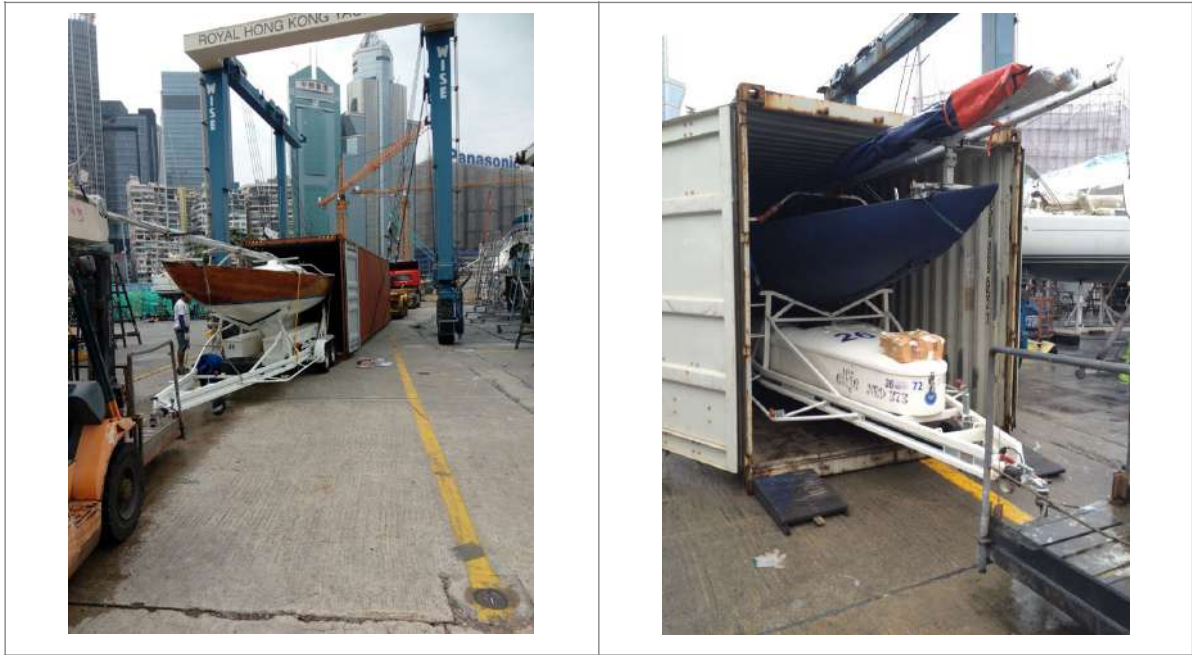


In some cases, we have seen people remove the tyre covers and let air out of the tyres to ensure the trailer can be safely moved through the door opening. We always recommend placing the mast on the flooring under the trailer. and tie the mast to the container (instead of being placed on top of the boat) or even on the trailer itself:



Sample of mast placed on the floor and Wheel protection caps taken off.

The preferred method of loading the Dragon on its trailer into the container is to place the container on the ground (this will require a crane to lift the empty container from the truck and lift the laden container back on to the truck). Once the container is on the ground, the Dragon on its trailer can simply be moved into the trailer by car or by forklift.



Some recommendations for these operations are the following:

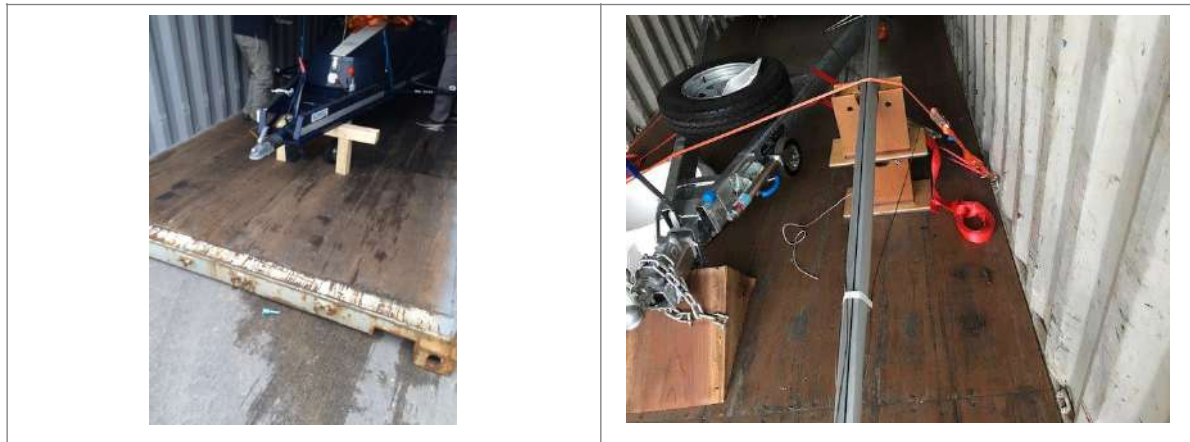
1. Check the widest width and highest height of the Dragon on the trailer, especially if the mast rests on the top of the Dragon.
2. Please check the container upon arrival, especially the wooden flooring.
3. Please keep in mind that the mast the cargo will be slightly slanted (especially the long mast), when the trailer moves over the entry of the container. It is recommended to place a small wooden ramp or metal entry plate to make the entry into the container easier (see below images).



Once the Dragon on its trailer is safely positioned in the container, it is time to ensure the cargo is securely fastened. The first step, for some types of trailers, will be to place a wooden block under the head of the trailer, ensuring the trailer head is



supported (of course, the usual practice of engaging the handbrake and lowering the support is required).



After the trailer is secured, the securing straps are to be placed. We usually use certified nylon straps of sufficient strength, with an added safety factor. It depends on the weight of the trailer, including its contents, and the Dragon. Generally, we work with nylon straps that have a 2500 kg payload capacity.

Lashing belt widths vary by manufacturer and intended use, but common widths include 13 mm, 16 mm, 19 mm, 25 mm, 32 mm, 40 mm, 50 mm, and up to 75 mm or 100 mm for heavy-duty applications. A wider strap generally provides greater strength, and the load's weight and size determine the appropriate width. Common lashing belt widths and their corresponding capacities:

Belt Width	Common Capacities (LC)	
13 mm	200 kg	
16 mm	425 / 550 kg	
19 mm	450 kg	
25 mm	790 / 950 kg	
32 mm	1600 kg	
40 mm	1 to 5 tons	
50 mm	1 to 5 tons	

Factors to consider when choosing a lashing belt width:

- Load size: Wider straps are necessary for larger loads to provide sufficient strength.
- Load weight: Straps with greater width are designed to handle higher loads.
- Strength requirements: Always choose a strap with a working load limit (working load limit of a lashing belt is the maximum load the belt is designed to safely handle. It is calculated by dividing the belt's breaking load limit by a safety factor, which is often printed on the lashing belt itself. Working load limit values can vary significantly depending on the belt's material, size, and design) that exceeds the weight of your cargo.

We generally lash and secure in the following locations<sup>2</sup>:

- Two straps connected on the trailer and then one looped over the front of the Dragon (please place some rubber or clothing under the strap where it goes over the combing of the Dragon to avoid scratching). This is to ensure the Dragon is securely lashed down on the trailer
- Two straps connected on the trailer and then one looped over the back of the Dragon (please place some rubber or clothing under the strap where it goes over the combing of the Dragon to avoid scratching).

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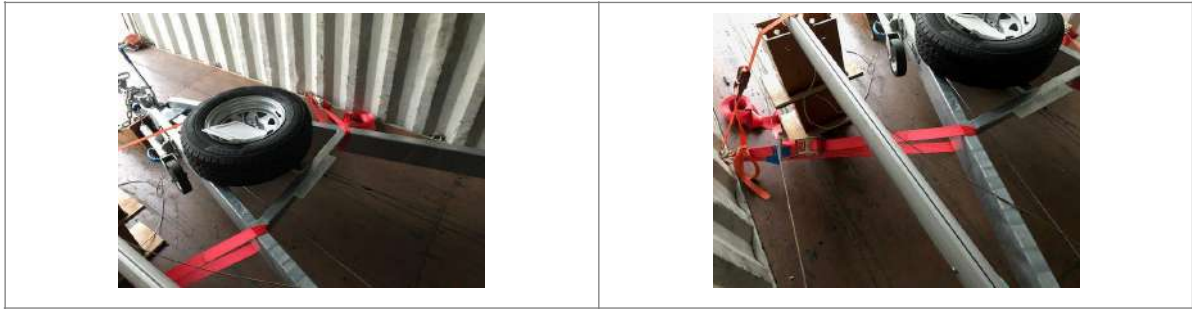
<sup>2</sup> Please always seek advice from someone with experience in securing cargo in containers or check with us at any time.



- Two straps secured in the front of the trailer (each side one) and connected to the container securing eyes at flooring level.
- Two straps secured in the centre of the trailer (each side one) and connected to the container securing eyes at flooring level.
- Two straps secured on the back of the trailer (each side one) and connected to the container securing eyes at flooring level.

These straps ensure that the trailer is securely fastened and can not move backward and forward.





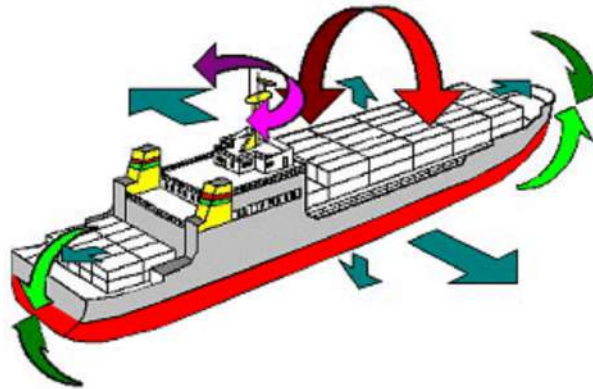
- One straps under the bow in front of the keel that is connected to both side of the container to the container securing eyes at ceiling level.
- One strap under the stern in front of the rudder that is connected to both sides of the container to the container securing eyes at ceiling level.

These straps ensure that the boat's weight "hang's" as well and further restricts movement during the voyage:





It is important that the Dragon and trailer are secured properly to avoid movement under all possible directions (as sailors you will know that vessels move in every direction possible) and that the straps are under appropriate tension.



**Ship movement  
at sea**

It is also important to note that the mast and maybe other loose items are secured properly. We always recommend the mast to be under the trailer on the container floor and secured with straps to container securing eyes.



	
Box not secured!	Mast secured,
	BUT wheelscapes not secured!

We highly recommend chocking up the trailer using suitably sized wooden blocks to take weight off wheels and stop any bouncing and loosening of trailer tie down lashings

Any wooden blocks, other than plywood, needs to be so called “treated wood” and each part needs treatment stamp:



### **VERY IMPORTANT:**




Please ensure that you check what else is being transported, for instance, but not limited to:

- Declare any Dangerous Goods (paint, gas or petrol), even in the lockers of your trailer!
- Make sure any personal safety devices like EPIRB's in life vests etc are disabled!

- If not using a surveyor, make sufficient photo's of all lashings and of the general securing of the Dragon and trailer, as these could be requested by your cargo insurance underwriter.

Last but not least, some of you have asked about weather and humidity conditions in Hong Kong, especially regarding the transport of wooden Dragons or Dragons with teak decks. We understand your concern, as temperatures and humidity levels in Hong Kong can be significantly higher than in Europe.

While we cannot predict the exact weather, the good news is that the end of November is typically much cooler and less humid than most of the year, with conditions comparable to a European summer.

November Weather Comparison: Rotterdam vs Cascais vs Hong Kong			
Feature	Rotterdam 	Cascais 	Hong Kong 
Average High	10°C (50°F)	18°C (64°F)	25°C (77°F)
Average Low	5°C (41°F)	12°C (54°F)	20°C (68°F)
Rainfall	90–110 mm	85–100 mm	30–50 mm
Rainy Days	~15 days	~9–10 days	~5 days
Average Humidity	87%	77%	75%
Sunshine Hours	~2–3 hours/day	~5–6 hours/day	~6–7 hours/day
Wind	Breezy, often strong off the sea	Gentle to moderate coastal breeze	Light to moderate breeze
Sea Temperature	~12°C (cold)	~17°C (cool but swimmable)	~25°C (warm and swimmable)
General Climate	Cold, damp, overcast	Mild autumn, partly sunny	Warm, pleasant, dry season begins
<b>Travel Notes</b>			
<u>Rotterdam:</u> Cold and stormy; expect strong winds, short daylight, and tricky navigation. Suited for experienced sailors only. Check marine forecasts frequently.			
<u>Cascais:</u> Pleasant and manageable; moderate winds and swell. Good for relaxed sailing with occasional weather systems. Watch for Atlantic lows.			
<u>Hong Kong:</u> Excellent conditions: dry, warm, and consistent weather. November is one of the best months for sailing in Hong Kong, offering great visibility and comfortable sea conditions.			



We have explored the possibility of transporting a Dragon in a climate-controlled container, but it appears unlikely due to unsuitable inner container dimensions. However, we have regularly shipped Wooden Dragons and Dragons with teak decks between Europe and Hong Kong without any issues. To minimize exposure to the elements, particularly sunlight, we ensure that the container is stored in the bottom hold of the container vessel rather than outside in direct sun.