



**TECHNICAL CIRCULAR No. 709 of 5<sup>th</sup> December 2021**

To	All Surveyors/Auditors. All flags
Title	<b>Ship's Anchoring Equipment</b>
Reference	CONARINA Class Instructions

**Risk and limitation of ship's anchoring equipment**

In most of the anchor incident cases, environmental risk factors, such as weather, strength of the currents, water depth and holding ground, played a significant role in the loss of anchors.

In general, anchoring equipment is designed for temporary mooring in ports or sheltered waters, but in today's real world many anchoring locations are outside sheltered waters.

The anchoring equipment is not designed to hold a vessel off fully exposed coasts in rough weather or during frequent anchoring operations in open sea.

In such conditions the loads on the anchoring equipment will increase to such a degree that the components may be damaged or lost owing to the high energy forces generated.

The Anchoring Equipment Number (EN) calculations are based on the following assumed environmental load conditions:

- Current velocity, max. 2.5m/s
- Wind velocity, max. 25m/s
- No waves (sheltered waters)
- Length of chain paid out scope 6-10
- Good holding ground

For ships with an equipment length greater than 135m, an alternative environmental condition may be considered:

- Current velocity, max. 1.5m/s
- Wind velocity, 11m/s
- Significant wave height 2m

The instruction was revised to include consideration for the front projection area and side projection area for large funnels in the equipment number calculations to account to their contribution to

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anchoring loads.

This change may be required following the addition of scrubbers on many ships which increase the profile of the funnel and thereby affect how the wind applies force to the vessel.

REFERENCES:

- CONARINA Class Instruction

ATTACHMENTS: No

Kindest Regards,  
CONARINA Technical Office

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