



TECHNICAL CIRCULAR No. 746 of 6th September 2022

To	All Surveyors/Auditors. All flags
Title	Anchor chain repairs
Reference	CONARINA Instructions

Anchor chain worn below minimum admissible diameter

A general cargo ship with a 30mm high strength steel anchor chain was attended on drydock for renewal survey no. 9.

Shackle length 1, 2 and 3 starboard side were found 12% below the allowable renewal limit of 26.4mm and should be renewed.

The owner was reluctant to replace the shackle lengths.

The failure of anchor chain could lead to a vessel grounding and maybe collision.

The attending surveyor explained the risks and the Rule requirements to the owner.

The three shackle lengths below the allowable minimum diameter were replaced with new ones and credited to the special survey.

The decision to keep the ship in the shipyard to replace the anchor chain would increase the owner's operating expenses and potential impact the vessel charter.

However, avoiding repairs could lead to collision or grounding that would result in expensive repairs to the hull, delays to the ship, and possible fines due to environmental damage.

Typically anchor chains will show wear on shackle length number 1,2 and 3 from the anchor and should be carefully examined.

In measuring chain that proves to be well above the minimum diameter, the gauging of the two links per shackle length should be sufficient.

The shackle lengths which are close to the anchor will require the gauging of at least three links per shackle length, one at each end and one in the middle.

The chain link diameter should be measured in two perpendicular directions. The two readings are then averaged. The result is compared with the Rule required diameter.

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The links should not be averaged with other links.

REFERENCES:

- CONARINA instructions.

ATTACHMENTS: No

Kindest Regards,
CONARINA Technical Office

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