

CRUDE OIL TANKER CARGO PLAN PROPERTIES¹⁰¹¹

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Abstract: *All cargo operations on board crude oil tankers have to be carefully planned and documented well in advance of their execution. The details of the cargo plan must be discussed with all the crew involved in the operations, both on the vessel and at the oil terminal. The operational plan sometimes requires modification after following consultation with the terminal's loading master and following changing circumstances on the ship and ashore. Any changes must be duly recorded and brought to the attention of all parties concerned.*

The loading plan of a crude oil tanker and especially of a double hull tanker must take into account the ship's stability instructions, available on board in the trim and stability booklet and need to avoid excessive free surface moments with the consequent loss of stability. Depending on the design, type and number of the ship's tanks, the free surface effect could result in the transverse metacentric height being significantly reduced. The situation will be most severe in case of wide cargo tanks with no centreline bulkhead and ballast tanks with the shape of letter "U".

The most critical stages of any cargo operation are during filling the double bottom ballast tanks when discharging of cargo, and emptying the tanks during loading of cargo. It is the responsibility of the cargo officer to prepare reliable cargo plan having in mind all the ship's operational and constructional properties. All of them must be considered and presented to the crew involved in the operation.

Keywords: *Crude Oil tanker, Cargo Plan, Loading, Discharging, Stability*

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