



THUNBOLAGET

— ERIK THUN AB (publ) —

New buildings the business case for LNG ready designs.

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Retro Fit vs LNG Ready Design

Retro fit

- Usually not commercially viable.
- Major rebuilding of ME is needed.
- Very hard in Dry Cargo because of tank placement.
- Still a big part of the total cost of retro fit is the tank.

LNG ready design

- Dual fuel engine have a higher price.
- More costly to install piping after build finished.
- Tank and other equipment is a big part.

EU TEN-T LNG Project

LSR LNG fuelled Dry Cargo vessel

The objective of the activity is to design and build a small Bulk/dry cargo vessel with LNG as fuel without losing cargo carrying capacity.

The main dimensions of the vessel are:

Length over all	abt 89.0 m
Breadth	abt 14.5 m
Depth	abt 8.75 m
Draught, design	abt 6.5 m
Speed at 90% MCR	abt 12.0 knot
Deadweight	abt 5875 tonnes



LNG fuel tank capacity 120m³, around two weeks of trading on LNG.
Dual Fuel, so can switch to MGO at anytime.

<http://www.zerovisiontool.com/lr>

LNG Fuel safety & in-service experiences

Building / Retro Fit Approach

- Develop design with yard and classification society.
- Consequences of IGF code not in force.
- First design approved in principal.
- Second a HAZOP - Hazard and operability study.

Training & Operation

- For Superintendents & Office
- For Officers & Crew



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Thank you!