"SHEAR-WATER" LNG FEEDER VESSEL

Keep the ocean in the ocean! LNG Shipping without the use of thousands of tons of ocean water.

GTT has developped a new ship concept to meet the highest demands of ship-owners & charterers: **a versatile LNG feeder & bunker vessel for world-wide operation without the use of ballast-water.**

Design characteristics

- Mark III Flex Membrane
- 18,700 m^3
- 2 tanks
- 14.0 knots
- Loa x B x Draft = 141 x 25 x 7.5 m
- DFDE Propulsion

Key advantages

- No Ballast-Water systems (no piping, pumps, over-flows, BW-treatment system)
- No problems with sediment, aquatic pollution and related rules
- Less corrosion and maintenance
- Less propulsive power compared with a conventional design
- High power reserve in harsh conditions when empty
- Excellent course-keeping and maneuvering capabilities
- Compact dimensions for reduced ship costs and efficient ship handling
- Fully EEDI compliant & lower CO_2 emissions
- Simple & economic operations

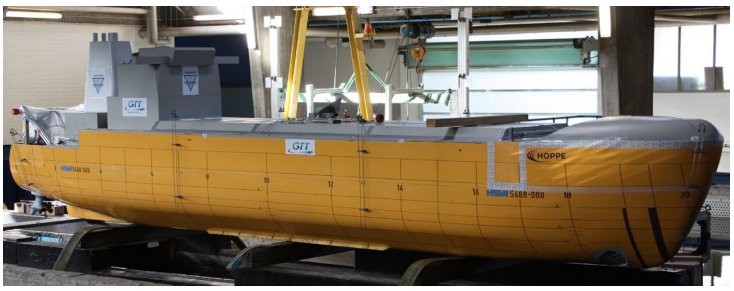
MARK III

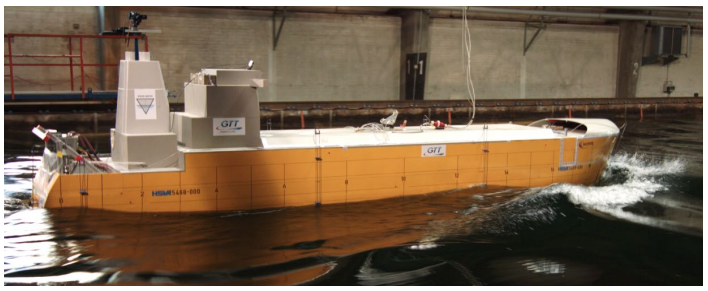
Extensive hydrodynamic development & testing has been made at HSVA, the Hamburg Ship Model Basin, investigating the specifically designed hull-form with regard to performance and safe navigation.

HSVA

The Hamburg Ship Model Basin

Driving excellence for the maritime future





Operational and economic advantages are combined in a seaworthy and reliable ship concept.

The concept development

- Specific hull lines, Midship section and Bilge keels
- CFD optimization to integrate commercial constraints
- Stability including docking conditions investigated
- Anti-Roll-Tank (ART) as designed by Hoppe-Marine for reduced movement & less cargo liquid motion

Special features

- Two Identical Mark III Flex Cargo tanks
- Propulsion by Schottel Azimuth Thrusters
- Three identical Dual-Fuel Gensets
- Trimming by genuine trim-system
- Full bridge visibility incl. Panama rules
- Crew quarters for about 20-25 persons

The model test campaign at HSVA

- Speed-Power measurements in design & empty condition up to 17.0 knots
- Manoeuvering characteristics according to IMO criteria
- Roll Decay tests for validating bilge keels
- Seakeeping performance in selected sea-sates up to NATO Sea-State 7 (Hs 7.5 m)
- Tests for pilot boarding conditions and ART operation
- Separate tests with one (single) LNG tank, for coupling effects between tank liquid motions and external wave excitation
- Total over 150 tests

CONTACT

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GTT
Technology for a sustainable world