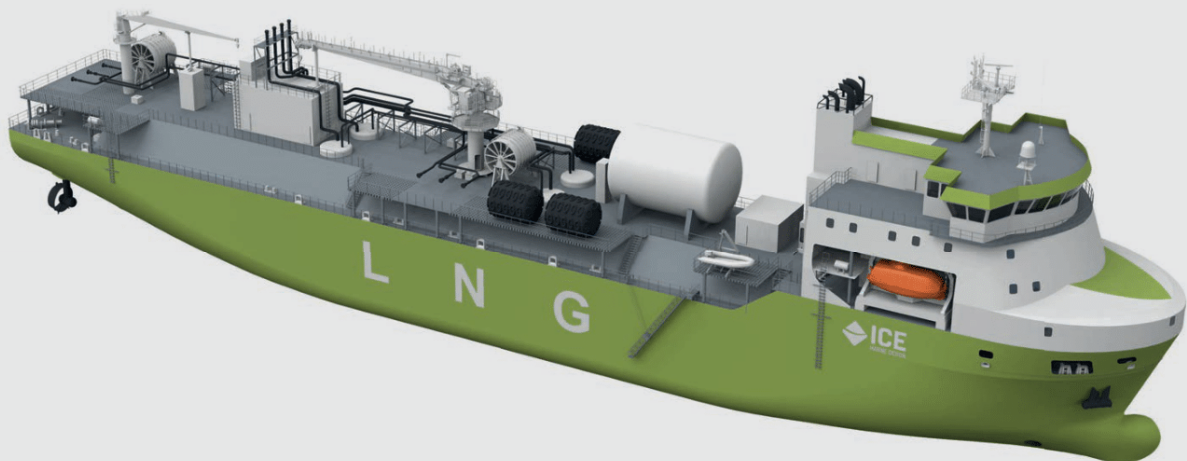


8,000 cbm LNG BUNKERING VESSEL

Based on extensive gas ship design experience, ICE has developed an LNG bunkering vessel suitable for supplying a wide range of LNG fuelled ships. Cargo capacity is of 8,000 cbm distributed over two IMO type C bi-lobe cargo tanks.

The vessel's electrical power is provided by pure-gas engine generators. The fuel supply is ensured by a dedicated fuel gas system, with its own LNG storage tank and also using boil-off gas from the cargo tanks.

The cargo system facilitates "milk-run" type delivery to a variety of vessels, allowing partial loading levels of cargo tanks and atmospheric pressure discharge.



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Design Highlights:

- World-wide operations
- Transfer rate up to 1,000 cbm/h
- Hull form optimized using Computational Fluid Dynamics (CFD) analysis
- Wide range of transfer rate achievable by a combination of four pumps
- Three manifold areas to enable loading and offloading at any of the current LNG terminals and ships of various sizes

The concept is open to design variations in terms of overall vessel size and propulsion system arrangement.



Principal Dimensions

Length o.a.	122.00 m
Length p.p.	116.00 m
Breadth mld.	20.00 m
Depth mld.	11.00 m
Draught, design	5.20 m

Capacities

Cargo Tanks Capacity	8,000 cbm
LNG Fuel Storage	abt. 390 cbm
Ballast Water	abt. 4,958 cbm
Fresh Water	abt. 91.40 cbm

Cargo System

Cargo containment
2 x 4,000 cbm IMO type C independent bi-lobe tanks
Discharging rates variable up to 1,000 cbm/h

Accommodation & Safety

Accommodation and life saving appliances for 14 persons

Speed

Speed, service 14 knots
Endurance 5 days

Power Generation

Main gas generators 3 x 1,866kWe / 6600V / 60Hz
Emergency Diesel Generator ... 1 x 480 kWe / 440V / 60Hz

Deck Machinery

Electric-hydraulic Manifold Crane mid ship:
Capacity: 3.5 - 4 tons SWL at 17 - 21 m
Handling of LNG and vapour hoses
Handling of fenders

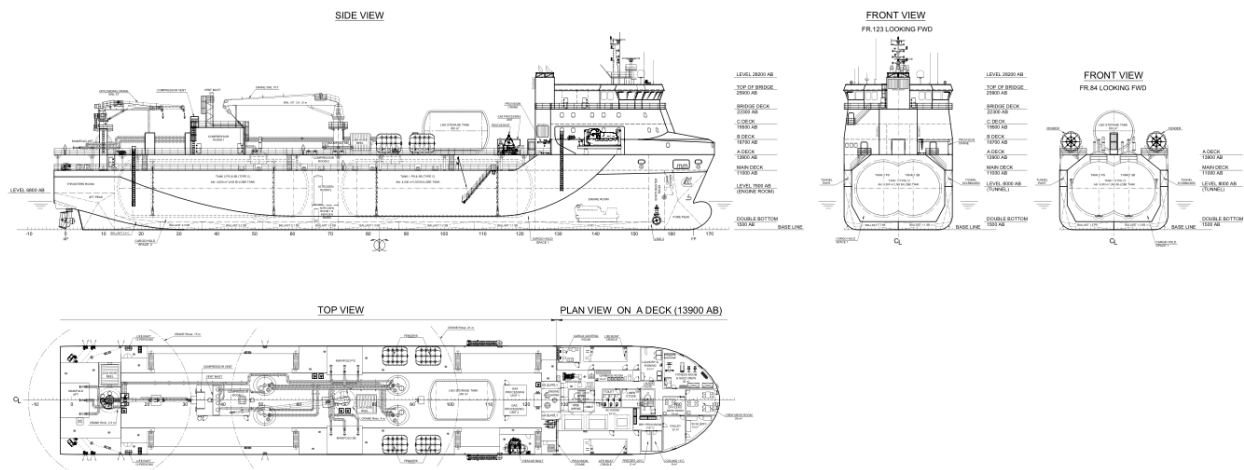
Electric-hydraulic Manifold Crane aft:
Capacity: 5 tons SWL at 15 m
Handling of LNG and vapour hoses

Propulsion System

Electrically driven Azimuth thrusters 2 x 2,600 kW
Electrically driven bow thruster 1 x 450 kW

Class - ABS

✘ A1, Liquefied Gas Carrier with Independent Tanks,
LNG Bunkering, VRS, RELIQ, GFS, Enviro +, ✘ AMS,
✘ ACCU, ✘ APS, BWT



ENGINEERING CERTAINTY

International Contract Engineering Limited, 19-21 Circular Road, Douglas, Isle of Man, IM1 1AF British Isles
Tel: +44 (0)1624 623 190 | Fax: +44 (0)1624 628 297 | www.icedesign.info

With a 50-year track record and an annual capacity of 700,000 professional engineering man-hours, the International Contract Engineering (ICE) Group is Europe's largest independent ship design consultancy. We provide high-calibre multi-discipline design services to yards and owners in the commercial shipping, defence and offshore energy industries, ranging from conceptual studies and Class drawings to detail design and production information. We cover a full range of naval architecture and marine engineering disciplines such as hydrodynamics, structural, mechanical, piping, electrical, instrumentation, outfit and HVAC. Our experience includes gas carriers, passenger vessels, navy and coast guard ships, chemical tankers, drill ships, FSO/FPSOs and a range of other vessels. We also have available proprietary designs that can be adapted to clients' requirements.

With our head office in the Isle of Man and our main engineering facilities in Romania and Croatia, we provide high quality design and engineering at very competitive prices.