

WSD50 5K

5,000m³ LNG Carrier

DATASHEET



Design highlights

- Latest Dual Fuel Engine technology:
 - reduces emissions in LNG operation: SO_x (100%), CO₂ (20%), NO_x (80%)
 - compliant with MARPOL Tier III in gas mode
- Vessel is fueled by natural BOG and forced vaporizing
- Long flat side to satisfy terminal request for dolphin mooring
- Elevated LNG manifold - optional
- High manoeuvrability
- Over 40 years experience in merchant market and leading experts in LNG
- Core competence of Gas Handling Systems within Wärtsilä Ship Design Team

SPECIFICATION IN BRIEF

Length over all	99.9 m
Draught, design	5.00 m
Draught, maximum	5.20 m
Gross tonnage	5,580
Net tonnage	1,680

Deadweight, max	3,350 t
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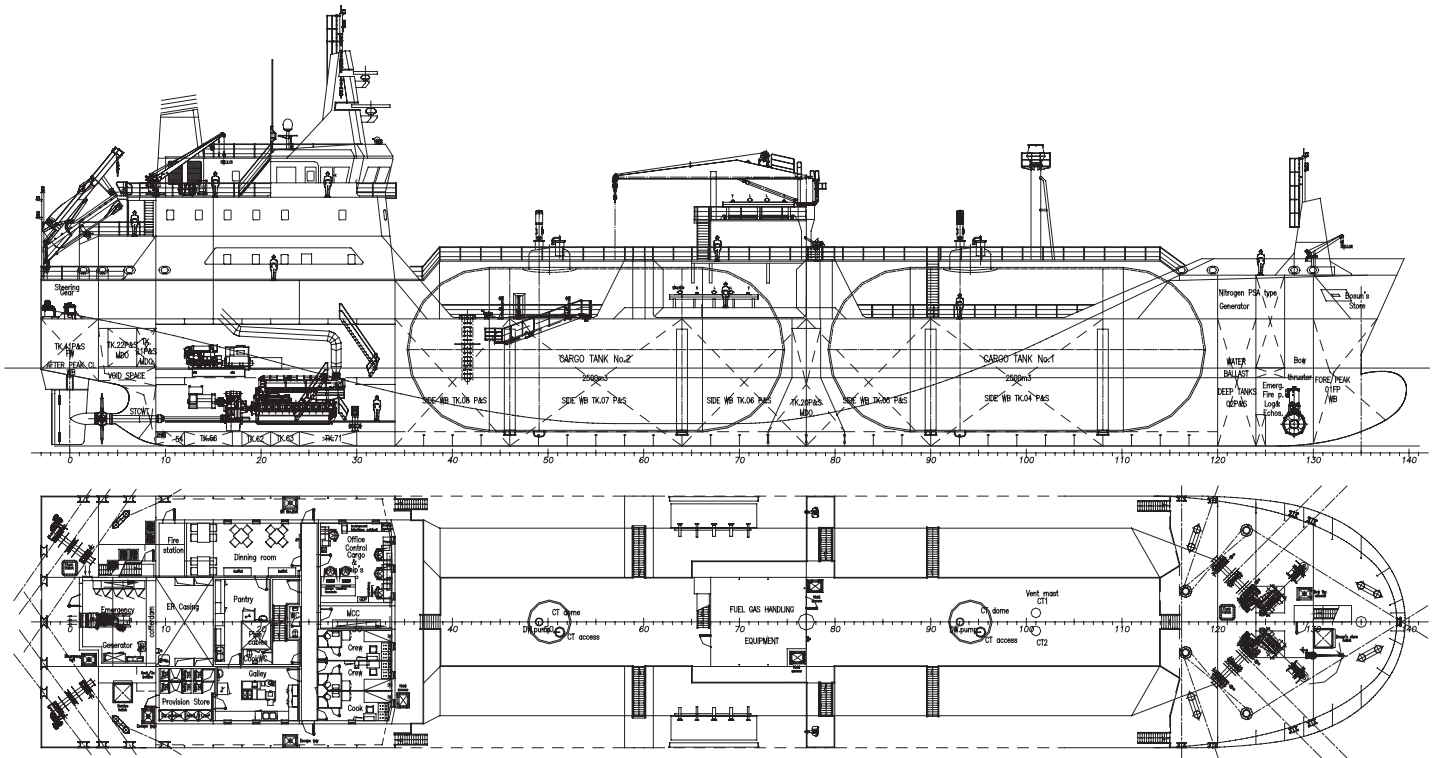
Service speed	14.0 knots
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Operation area	“Worldwide”
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M/E fuel consumption (@Td, Service speed, 75% MCR, 15% SM)	
Gas mode - LNG cons	13.7 t/day
Diesel mode - MDO cons	15.8 t/day



Fig.1 Detailed elavation drawings



TECHNICAL SPECIFICATION

MAIN DIMENSIONS

Length over all	99.99 m
Length PP	94.50 m
Breadth moulded	12.20 m
Depth moulded, to upper deck	9.30 m
Draught, design	5.00 m
Draught, max	5.20 m
Deadweight, des draught	3,050 t
Deadweight, des draught	3,350 t

SPEED & ENDURANCE

Design speed (Td)	14.0 kts
(Td, @90%MCR, 15%SM)	
Max. speed	14.5 kts
(Td, @100%MCR)	
Endurance, service speed (LNG)	5,100 nm
Endurance, service speed (MDO)	3,350 nm

CAPACITIES

LNG (incl. 475m ³ fuel)	5,100 m ³
(cylindrical type C, 2x2550m ³ , 4.5bar)	
MDO (incl. 550m ³ as cargo)	180 m ³
BW	1,700 m ³
FW	50 m ³

CARGO EQUIPMENT

- Deepwell pumps 2x400m³/h
- Cargo heating/vaporising equipment
- Nitrogen Generator Unit Unit 2000 Nm³/h
- Boil of Gas Management options:
 - Gas Combustion Unit or
 - DF boiler or
 - Reliquefaction unit
- Fuel gas handling system
- Set of STS transfer equipment incl. LNG flexible hoses, Yokohama fenders, emergency release coupling etc. for STS operations – optional;

FUEL CONSUMPTION

(service speed, design draft, 15% SM)	
Fuel consumption, (-S/G), LNG	13.7 t/d
Fuel consumption, (-S/G), MDO	15.8 t/d
Fuel consumption, (+S/G), LNG	13.9 t/d
Fuel consumption, (+S/G), MDO	16.0 t/d

ACCOMMODATION

- 18 persons in single cabin, fully air-conditioned

PROPULSION / MACHINERY

- 4-stroke Wärtsilä Dual Fuel Main Engine
 - 1 x 4,000 kW 8L34DF
- 4-stroke Wärtsilä Generating sets
 - 2 x 1,065 kW 6L20DF
- Shaft Generator (PTO) 400 kW
- 1 CP Propeller, dia. 4.00m
- 1 Reduction gear with output for PTO
- PTI 1 x 400kWe
- 1 x Emergency diesel generator, 150kW
- 1 x Bow thruster 550kW

CLASSIFICATION

DNVGL (or equivalent IACS) +1A Tanker for liquefied gas, Ship type 2G (-163°C, 0.50 t/m³, 4.5 barg), E0, Gas fueled.

Recommended additional notations: ICE class up to 1A*, Gas bunker, RP-1 (20%), NAUT-OC, BWM-T, CLEAN, TMON, BIS