

# WSD50 7.5K

## 7,500m<sup>3</sup> LNG Carrier

### DATASHEET



## Design highlights

- Latest Dual Fuel Engine technology:
  - reduces emissions in LNG operation: SO<sub>x</sub> (100%), CO<sub>2</sub> (20%), NO<sub>x</sub> (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	115.1 m
Draught, design	5.50 m
Draught, maximum	6.00 m
Gross tonnage	6,850
Net tonnage	2,283

Deadweight, max	4,100 t
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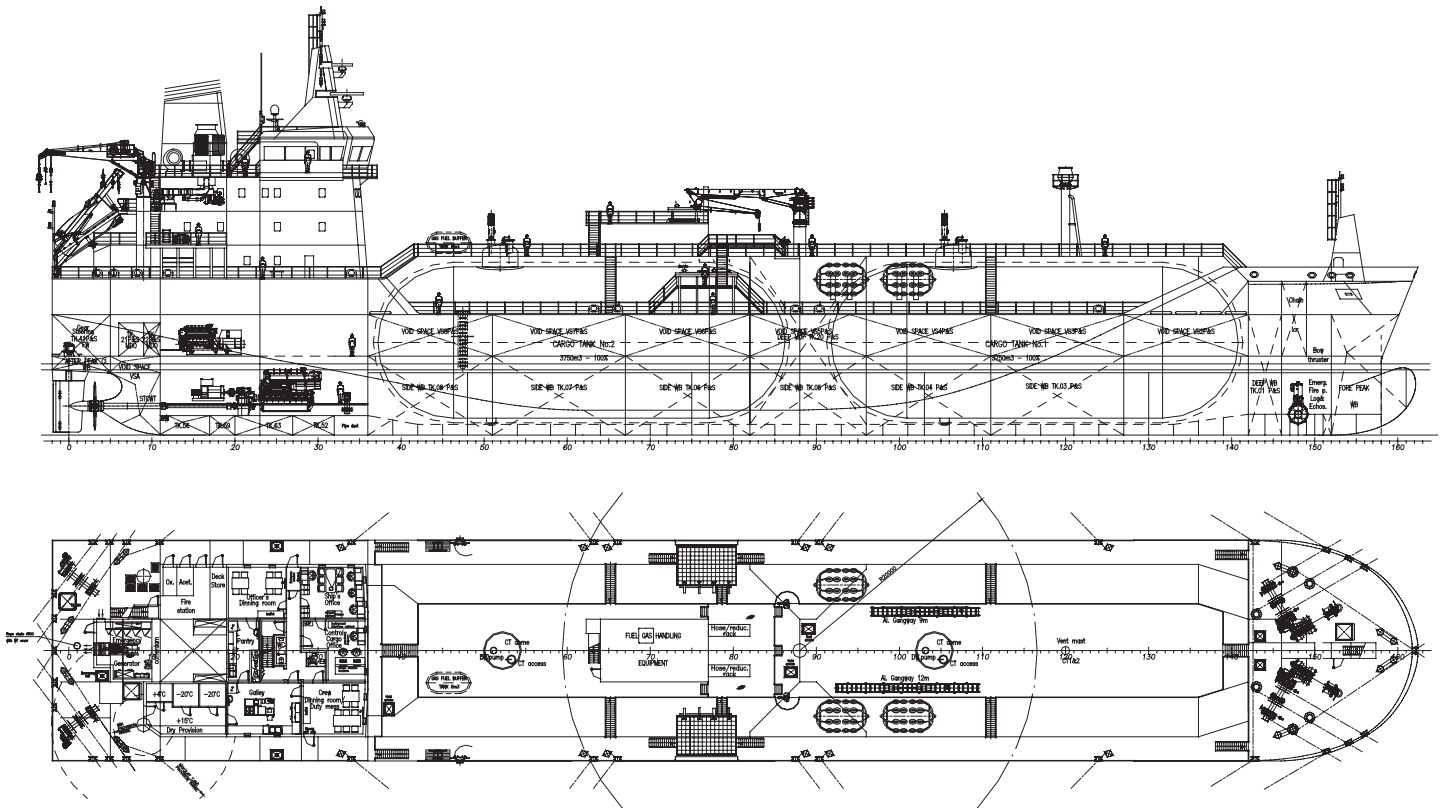
Service speed	13.5 knots
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Operation area	"Worldwide"
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<b>M/E fuel consumption</b> (@Td, Service speed, 75% MCR, 15% SM)	
Gas mode - LNG cons	8.4 t/day
Diesel mode - MDO cons	10.4 t/day



Fig.1 Detailed elevation drawings



## TECHNICAL SPECIFICATION

### MAIN DIMENSIONS

Length over all .....	115.10 m
Length PP .....	110.60 m
Breadth moulded .....	18.60 m
Depth moulded, to upper deck .....	10.15 m
Draught, design .....	5.50 m
Draught, max .....	6.00 m
Deadweight, des draught .....	3,800 t
Deadweight, des draught .....	4,100 t

### SPEED & ENDURANCE

Design speed (Td) .....	13.5 kts
(Td, @90%MCR, 15%SM)	
Max. speed (option) .....	15.7 kts
(Td, @100%MCR, PTI boost option)	
Endurance, service speed (LNG) .....	5,650 nm
Endurance, service speed (MDO) .....	8,000 nm

### CAPACITIES

LNG (incl. 475m <sup>3</sup> fuel) .....	7,500 m <sup>3</sup>
(cylindrical type C, 2x3750m <sup>3</sup> , 4.5bar)	
MDO (incl. 550m <sup>3</sup> as cargo) .....	400 m <sup>3</sup>
BW .....	2,900 m <sup>3</sup>
FW .....	150 m <sup>3</sup>

### CARGO EQUIPMENT

- Deepwell pumps 2x500m<sup>3</sup>/h
- Cargo heating/vaporising equipment
- Nitrogen Generator Unit Unit 220 Nm<sup>3</sup>/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 .....	8.4 t/d
Fuel consumption, (-S/G), MDO .....	10.4 t/d
Fuel consumption, (+S/G), LNG .....	8.5 t/d
Fuel consumption, (+S/G), MDO .....	10.6 t/d

### ACCOMMODATION

- 18 persons in single cabin, fully air-conditioned

### PROPULSION / MACHINERY

- 4-stroke Wärtsilä Dual Fuel Main Engine
  - 1 x 3,000 kW 6L34DF
- 4-stroke Wärtsilä Generating sets
  - 2 x 1,065 kW 6L20DF
- Shaft Generator (PTO) 1,000 kW
- 1 CP Propeller, dia. 4.00 m
- 1 Reduction gear with output for PTO
  - PTI 1 x 1,000kW (PTI suitable for boost power) - optional
- 1 x Emergency diesel generator 150kW
- 1 x Bow thruster 550 kW

### CLASSIFICATION

DNVGL (or equivalent IACS) +1A Tanker for liquefied gas, Ship type 2G(-163°C, 0.50 t/m<sup>3</sup>, 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