



LNG FUKUROKUJU: 165,134m³ Moss LNG carrier

Shipbuilder: **Kawasaki Heavy Industries**
Vessel's name: **LNG FUKUROKUJU**
Hull No: **1712**
Owner/Operator: **LNG FUKUROKUJU Shipping Corporation**
Country: **Bahamas**
Designer: **Kawasaki Heavy Industries**
Country: **Japan**
Flag: **Bahamas**
IMO number: **9666986**
Total number of sister ships already completed (excluding ship presented): -
Total number of sister ships still on order: -

Kawasaki Heavy Industries has delivered the 164,700m³ capacity **LNG FUKUROKUJU**. It is the first of Kawasaki's newly developed line of 164,700m³ capacity LNG carriers to be commissioned and is designed to transit the newly expanded Panama Canal.

The vessel features standard LNG carrier hull dimensions in order to enable docking at major LNG terminals around the world, but offers larger cargo tanks for increased transport capacity, thus cutting LNG transport costs and facilitating more flexible LNG trade operations by shipowners.

LNG Fukurokuju is equipped with four independent Moss LNG tanks for a final total cargo capacity of 165,134m³. The thermal insulation system of the LNG tanks adopts the proprietary Kawasaki Panel System developed in-house, which offers outstanding heat insulation performance for an LNG boil-off rate of approximately 0.08% per day. The cargo tank section is protected by a double-hull and double-bottom design, so even if the carrier's hull were to sustain damage the LNG tanks within would remain safe and undamaged.

In addition, Kawasaki made structural improvements to the hull to decrease overall ship weight, and achieved a more optimal below-waterline hull design to fully optimise propulsive performance.

The new carrier is also equipped with a Kawasaki Advanced Reheat Turbine Plant (Kawasaki URA Plant) as its main engine unit. This reheating-type steam-turbine propulsion plant developed by Kawasaki offers a significant improvement of more than 25% in transport efficiency compared with previous 147,000m³ capacity LNG carriers.

The bridge of the ship was designed with state-of-the-art electronic navigation equipment concentrated in one location for greater ease of operation and panoramic windows offering a 360-degree view of the outside.

TECHNICAL PARTICULARS

Length oa: 293m
Length bp: 280m
Breadth moulded: 48.90m
Depth moulded
To upper deck: 27m
Design Draught 11.9m

Gross: 127,242gt
Deadweight
Design: about 80,400tonnes
Scantling: about 87,200tonnes
Speed, service (90% MCR output with 21% sea margin): abt.19.5knots
Cargo capacity
Liquid volume: 165,134m³
(-163°C, at 100% capacity)
Bunkers
Heavy oil: 4,454.3m³
Gasoil: 609.6m³
Water ballast: 58,223.3m³
Daily fuel consumption
Main turbine: about 138tonnes/day
(under sea trial conditions)
or
about 143tonnes/day (fuel oil burning under normal sea going conditions)
or
about 119tonnes/day (fuel gas burning under normal sea going condition)
Classification society and notations: Class NK
% high-tensile steel used in construction: about 55%
Main engine(s): 1
Design: Kawasaki Heavy Industries
Model: Kawasaki URA-400 reheating-type steam-turbine propulsion plant
Manufacturer: Kawasaki Heavy Industries
Type of fuel: HFO/MDO
Output of each engine: 26,800kW
continuous maximum output at 70rpm
Gearbox(es): 1
Make: Kawasaki Heavy Industries Ltd.
Model: URA 470/76-S
Output speed: 70rpm at MCO
Propeller(s): 1
Material: KALBC3 (Ni – AL – BRONZE)
Designer/Manufacturer: Performance Development Section/ Nakashima Propeller
Fixed/Controllable pitch: Fixed
Diameter: 9,800mm
Speed: 70rpm
Steam turbine-driven alternators
Engine make/type: Shinko Ind. Ltd / RG 92-2T
Output/speed of each set: 3,450kW / 1,800rpm
Alternator make: Nishishiba Electric Co. Ltd
Output/speed of each set: 3,450kW / 1,800rpm
Diesel-driven alternators
Engine make/type: Yanmar Diesel Engine Co.Ltd / 8N330L-GW
Type of fuel: Gasoil
Output/speed of each set: 3,632kW / 720rpm

Alternator make/type: Nishishiba Electric Co. Ltd /
Output/speed of each set: ... 3,450kW/1,800rpm
Boilers
Type: Kawasaki Type UTR50/40 Marine Reheat Boiler
Make: Kawasaki Heavy Industries
Output, each boiler: Evaporation: Normal 40tonnes/h, Max. Continuous 50tonnes/h
Cargo cranes/cargo gear: 2
Make: Oriental Precision & Eng. Co. Ltd
Type: Electro – Hydraulic.
Driven, single jib type
Performance: ... Hoisting capacity: 49kN(5t) x 10m/min Working radius: Max 18.5m, Min 3.8m
Other cranes
Make: Oriental Precision & Eng. Co. Ltd.
Type: Electro – Hydraulic. Driven, single jib type
Tasks: Engine parts and provisions handling crane
Performance: Hoisting capacity: 68.6kN(7t) x 10m/min Working radius: Max 23m, Min 5m (P) Max 20m, Min 4.5m (S)
Other cranes
Make: Oriental Precision & Eng. Co. Ltd
Type: Air motor driven
Tasks: Provision crane
Performance: Hoisting capacity: 19.6kN(2t) x 12m/min Working radius : Max 7m, Min 2.5m (P) Max 6m, Min 2.5m (S)
Mooring equipment
Number: Windlass x2, Mooring winch x 8
Make: Kawasaki Heavy Industries Ltd
Type: Electro-hydraulic type
Special lifesaving equipment
Capacity: 49persons x 2
Make: Norsafe AS
Type: Totally enclosed fire type
Cargo tanks
Product range: LNG
Cargo pumps
Type: Electric motor driven centrifugal, submerged
Make: Shinko Ind. Ltd.
Stainless steel: Partially used (Bolt, Nut, Bearing, etc.)
Capacity (each): 1,500m³/h x 145mTH
Cargo control system
Make: JRCS MFG. CO., LTD.
Type: OASIS (SMS-57)
Ballast control system
Make: Ditto. (Integrated with cargo control system)
Water Ballast Treatment System
Make: NK CO., LTD.
Capacity: 2,800m³/h x 2
Complement
Officers: 10
Crew: 19
Supernumeraries/Spare: 20
Stern appendages/special rudders: Kawasaki Semi – Duct System with contra fins
Kawasaki Rudder Bulb System with fins
Bow thruster(s): 1
Make: Kawasaki Heavy Industries Ltd.
Output (each): 2,000kW
Fire detection system
Make: Autronica Fire and Security
Type: AutoSAFE
Fire extinguishing systems
Cargo holds: Dry powder, fire and wash deck system
Engine room: High expansion foam system, Fire and wash deck system, fixed water-based local application system
Public spaces: Fire and wash deck system
Radars: 3 (S-band 1, X-band 2)
Make: Furuno Electric Co. Ltd
Model(s): S-band FAR-2837S, X-band FAR-2827
Integrated bridge system? Yes
Make: Furuno Electric Co. Ltd.
Waste disposal plant Sewage plant
Make: Sasakura Engineering Co. Ltd.
Model: SD-6R
Delivery date: 17 June 2016

