

## FORM B

(a)	Ships Name	<b>TBD</b>
(b)	Builder and Yard	<b>Daewoo Shipbuilding &amp; Marine Engineering Co., Ltd</b>
(c)	Hull No.	<b>TBD</b>
(d)	Year Built	<b>2003</b>
(e)	Port of Registry and Flag	<b>TBD</b>
(f)	IMO Number	<b>TBD</b>
(g)	Call Sign	<b>TBD</b>
(h)	Classification Society	<b>DNV GL</b>
(i)	Protection and Indemnity Club	<b>Gard</b>

### 1. Principal Particulars

(a)	Length overall	<b>277 m</b>
(b)	Length Between Perpendiculars	<b>266 m</b>
(c)	Breadth moulded	<b>43.4 m</b>
(d)	Depth moulded	<b>26.0 m</b>
(e)	Draught at summer freeboard (Extreme)	<b>12.12 m</b>
(f)	Height overall — keel to highest fixed point	<b>52.95 m (49,50 mast down)</b>
(g)	Maximum air draught (with full ballast and half bunkers)(corresponding draughts)	<b>43.35 m at F 9.60m, A 9.60 (39,90 mast down)</b>
(h)	Gross Tonnage (International)	<b>93844 tons</b>
(i)	Net Tonnage (International)	<b>28154 tons</b>
(j)	Gross Tonnage (Suez)	<b>96870.92 tons</b>
(k)	Net Tonnage (Suez)	<b>83241.03 tons</b>
(l)	Light Ship Displacement	<b>29472 tons</b>
(m)	Displacement (maximum)	<b>77409.5 tones</b>
(n)	Windage: Lateral (above deck)	<b>608 m2</b>
	Longitudinal (above deck)	<b>2147 m2</b>
	Longitudinal	<b>6755 m2 at 9.42 m draft</b>
	Longitudinal	<b>5954 m2 at 12.37 m draft</b>
(o)	Classification designation	<b>+ 1A1 Tanker for Liquefied Gas, E0, NAUT-OC, LCS-SID, PLUS-1, NAUTICUS (Newbuilding)</b>
(p)	Conditions of Carriage (as defined on Certificate of Fitness):	<b>Liquefied Gases in Bulk</b>

## 2. Operating Draught and Deadweight

(a)	Draught filling to 98.5% (@ cargo density 0.46 kg/m <sup>3</sup> )	<b>11.45 m</b>
(b)	Deadweight filling to 98.5%(@ cargo density 0.46 kg/m <sup>3</sup> )	<b>70725 tons</b>

## 3. Ballast System

(a)	Total capacity of ballast water tanks	<b>52432.6 m3</b>
(b)	Number, capacity and head of pumps for handling ballast	<b>2 x 3 000m3/h x 30mTH</b>
(c)	Is Vessel able to ballast / de-ballast within the cargo loading/discharging period?	<b>Yes</b>
(d)	Can the Vessel undertake ballast exchange at sea within 24 hours	<b>Yes</b>

## 4. Details of Principal Certification

(List conventions complied with / Certificates obtained, including protocols, amendments and date of issue)

(a)	Loadline	<b>International Convention on Load Lines, 1966 including protocol 1988 and amendments</b>
(b)	SOLAS	<b>International Convention for the Safety of Life at Sea, 1974 and Protocol 1988, and amendments</b>
(c)	IGC Code	<b>1993</b>
(d)	Tonnage	<b>International Convention on Tonnage Measurement of Ships, 1969</b>
(e)	Marine Pollution (MARPOL)	<b>1973, as modified by the Protocol of 1978 and amendments up to 1997</b>
(f)	I. M. O. Certificate of Fitness	<b>Yes</b>
(g)	USCG Certificate of Compliance	<b>USCG Certificate of Compliance issued 06.12.2017</b>
(h)	Independent Sworn Measurer Certificate	<b>Certificate of Cargo Tank Calibration Tables (issued by NKKK)</b>
(i)	SIRE Inspection	<b>Yes</b>
(j)	Port state control	<b>Yes</b>

Is certification held indicating compliance with the following?

(k)	ISPS Code	Yes
(l)	Rules and Regulations of Suez Canal Authorities	Suez Canal Tonnage Certificate
(m)	ISM	Yes

## 5. Propulsion

(a)	Type and make of propulsion plant	Steam Turbine with double reduction gear Kawasaki UA 400 27360 KW
(b)	Maximum rated power and RPM	27360kW @ MCR 24620 @ NCR
(c)	Proposed service power and RPM	24620 kW @ 85 rpm (at propeller shaft, corresponding to NCR)
(d)	Grade of Fuel	HFO, MDO, MGO, LSDO
(e)	Dual Fuel Burning	Fuel Oil and/or Boil Off Gas

## 6. Speed / Consumption

(a)		Maximum fuel consumption (Tonnes of Fuel Oil Equivalent / day)	
	Speed (Knots)	Laden	Ballast
	19.5	178	178

(b)	Trial Speed at Maximum Power	N/A
(c)	Service Speed	19.5 kts
(d)	In Port (cargo operations)	About 45 tonnes/day (discharging)
(e)	In Port (idle)	About 25 tons/day
(f)	For inert gas generation	About 1,262 kg/h LSDO

## 7. Boilers and Steam Capacity

(a)	Number and type of boilers	2 x Diesel Generator STX MAN B&W Turbo Generator - Mitsubishi Heavy Ind Ltd
(b)	Maximum steam output available	Diesel Generator KW/ RPM 1725 720 Turbo Generator ( kw/ RPM) 3450 / 1800
(c)	Normal service output corresponding to 5(b)	N.A.

## 8. Cargo Tanks

(a)	Number of tanks	<b>4</b>
(b)	Capacity of LNG tanks at normal filling level(98.5%)	
	No 1 Tank	<b>21 612.2 m3</b>
	No 2 Tank	<b>39 816.5 m3</b>
	No 3 Tank	<b>39 817.3 m3</b>
	No 4 Tank	<b>34 712.1 m3</b>
	<del>No 5 Tank</del>	
	<del>No 6 Tank</del>	
	Total	<b>135 958.1 m3</b>
(c)	Gross Capacity of LNG tanks at 100%	
	No 1 Tank	<b>21 941.4 m3</b>
	No 2 Tank	<b>40 422.9 m3</b>
	No 3 Tank	<b>40 423.7 m3</b>
	No 4 Tank	<b>35 240.8 m3</b>
	<del>No 5 Tank</del>	
	<del>No 6 Tank</del>	
	Total	<b>138 028.8 m3</b>

(d)	Partial loading / filling restrictions	<b>Upper: min 70% of tank height abt 18.72 m Lower: max 10% of tank height abt 2.67 m</b>
(e)	The Vessel's cargo tanks can be cooled down from ambient in:	<b>About 10 hours (-130° C mean temp. of tanks)</b>
(f)	Maximum filling rate	<b>12000 m3/hr</b>
(g)	Relief valve settings (MARVS)	<b>0.25 bar g</b>
(h)	Loaded Boil-Off rate	<b>0.15% of 98.5% of total cargo volume per day</b>
(i)	Ballast Boil-Off rate	<b>0.1% of 98.5% of total cargo volume per day</b>

## 9. Cargo Discharge

(a)	Number of cargo pumps per tank	<b>2</b>
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(b)	Make and type of cargo pumps	<b>EBARA vertical centrifugal submerged</b>
(c)	Design rated capacity of each cargo pump and corresponding discharge head	<b>1700m<sup>3</sup>/h at 155 mlc</b>
(d)	Number of spray (stripping) pumps per tank	<b>1</b>
(e)	Make and type of spray (stripping) pumps	<b>EBARA</b>
(f)	Design rated capacity of each spray pump and corresponding discharge head	<b>50m<sup>3</sup>/h at 135 mlc</b>
(g)	Number, Make and Capacity of Auxiliary Pumps	<b>1 EBARA 550 m<sup>3</sup>/ hr 155 mlc ( Emcy pump)</b>
(h)	Bulk discharge time (not including start up and stripping periods) — assume head at ship's rail = 80 mlc and no restrictions on vapour return from shore.	<b>12 hours with 3 loading arms and 46 mlc back pressure at ship's rail</b>

## 10. Cryogenic Systems

(a)	Type of LNG containment system	<b>Membrane GT No. 96</b>
(b)	Design temperature	<b>- 163 °C</b>
(c)	Make and type of vapour return compressors	<b>2 x Cryostar CM400/55 Centrifugal High Duty Compressors</b>
(d)	Number and rated capacity of vapour return compressors and corresponding discharge head	<b>2 x 35000 m<sup>3</sup>/h with approx. discharge head of 1.96 bar absolute</b>
(e)	Is a steam dump system provided? If so, is the capacity sufficient to deal with all excess steam generated by the boilers at max designed Boil-Off rate with engines stopped according to Class & USCG Rules?	<b>Yes</b>
(f)	Total capacity of liquid nitrogen storage tanks (if nitrogen generator not fitted)	<b>Air products 2 x 120 Nm<sup>3</sup>/h nitrogen generators fitted (i.e. no storage tanks)</b>

## 11. LNG Measurement and Tank Calibration

(a)	Are all tanks calibrated and certified by a qualified agency? (Specify agency)	<b>Yes, Intertek with NKKK revalidation</b>
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(b)	<p>Make and type of primary system for measuring cargo level, temperature and pressure</p> <p>Level measuring system accuracy and range</p> <p>Temperature measuring system accuracy and range</p> <p>Pressure measuring system accuracy and range</p>	<p><b>Kongsberg K-Gauge CTS</b></p> <p><b>4 x Radar Beam type tank level gauging with accuracy</b>  <b>CTK 1 – 4.3mm</b>  <b>CTK2 – 4.2mm</b>  <b>CTK3 – 4.0mm</b>  <b>CTK4 – 1.9mm</b>  <b>26mm above tank bottom</b></p> <p><b>8 x Set of temperature sensors each consisting of 6 sensors with an accuracy of at least +/- 0.2 °C over the range -145 °C to -165 °C.</b></p> <p><b>4 x Absolute Vapour Pressure Transmitter fitted at tank dome for each tank. The accuracy is +/-0.50 mbar over the range 800-1400 mbar.</b></p>
(c)	<p>Is secondary system for measuring LNG liquid level fitted and, if so, state type and measuring accuracy</p>	<p><b>Float Level Gauge;</b>  <b>Make: Henri Enraf 806</b>  <b>4 x Float type full range level gauge as backup with accuracy +/- 4.0mm</b></p>

## 12. Cargo Manifolds

(a)	<p>Do manifolds follow requirements of Vol Category “B” of OCIMF “<i>Recommendations for Manifolds for Refrigerated Liquefied Natural Gas Carriers (LNG)</i>” 2nd Edition — 1994? (If “No”, state variations)</p>	<p><b>Yes</b></p>
(b)	<p>State layout of liquid and vapour connections</p>	<p><b>L-L-V-L-L ; all 16”</b></p>
(c)	<p>Distance of the centre of manifolds from amidships</p>	<p><b>2.3 m fwd</b></p>
(d)	<p>Distance of presentation flange from ship's side</p>	<p><b>3.5 m</b></p>
(e)	<p>Distance of presentation flange from ship's rail</p>	<p><b>3.5 m</b></p>

(f)	Height of manifold centre above keel	<b>30.80 m</b>
(g)	Size and location of liquid nitrogen loading connection	<b>N/A</b>

### 13. Emergency Shutdown System and Ship/Shore Compatibility

(a)	At what cargo level (%) is overflow protection activated?	<b>99%</b>
(b)	Does overflow protection activate the following: Trip ESD system? Close manifold valves? Trip cargo pumps? Trip ship/shore link system?	<b>Yes</b>
(c)	What ship/shore link systems are installed: Optical Fibre Link Electric Links — Pyle-National / Miyake connector Pneumatic ESD Link	<b>Yes</b> <b>Yes</b> <b>Yes</b>

### 14. Bunkers

(a)	Capacity of fuel oil bunker tanks @ 98% (SG 0.99)	<b>5004.3 m3</b>
(b)	Capacity of diesel oil bunker tanks @ 98% (SG 0.86)	<b>501.7 m3</b>
(c)	Maximum bunker loading rate	<b>500 m3/hr at 5 bar</b>
(d)	Segregated low sulphur fuel oil storage capacity	<b>255 m3 at 90%</b>

### 15. Fresh Water Capacity

(a)	Capacity of fresh water generators	<b>2 x 45 tons/day</b>
(b)	Distilled capacity	<b>507 at 100%</b>
(c)	Domestic capacity	<b>432 at 100%</b>
(d)	Distilled consumption	<b>20 tpd</b>
(e)	Domestic consumption	<b>10 tpd</b>

### 16. Inert Gas Generation

(a)	Type and make of equipment	<b>Hamworthy KSE</b>
(b)	Capacity	<b>14 000 m3/h</b>
(c)	Quality of gas O2 Max	<b>&lt;0.5% O2 by volume</b>
(d)	Quality of gas CO Max	<b>100 ppm</b>

(e)	Quality of gas SO <sub>2</sub> Max	<b>2 ppm</b>
(f)	Quality of gas NO <sub>x</sub> Max	<b>Not specified</b>
(g)	Dew point	<b>Max. -45 °C</b>

## 17. Nitrogen

(a)	Type and capacity of nitrogen generation system	<b>Air Products</b>
(b)	Consumption	<b>Max (theoretical) 228 m<sup>3</sup>/hr</b>
(c)	Liquid nitrogen storage	<b>N/A</b>
(d)	Nitrogen generator capacity	<b>2 x 120 m<sup>3</sup>/hr</b>

## 18. Gas Compressors

(a)	Low duty (fuel gas compressor): No. and capacity	<b>2 x 8500 m<sup>3</sup>/h 1.96 bar A</b>
(b)	Low duty (fuel gas compressor): make	<b>Cryostar</b>

## 19. Electrical Generating

(a)	Number of electric generators	<b>3</b>
(b)	Type of electric generators	<b>2 x Turbo generator, 1 x Diesel generator</b>
(c)	Output of electric generators	<b>2 x Turbo generator, 3 450 kW each 1 x Diesel generator, 3 450 kW each</b>
(d)	Fuel type and quantity at full load of electric generators	<b>Steam and diesel x/ x/ 16,8 MT a day at MCR</b>
(e)	Power required for discharge / de-ballasting at full rate	<b>Discharge 3300 kW De-ballasting 2100 kW (both including hotel load)</b>

## 20. Deck Machinery



(a)	Winches	<b>Type : Hydraulic Combined Mooring Winch / Windlass 2 sets x 49.4 tons at 9 m/min 7 sets x 30 tons at 15 m/min.</b>
(b)	Mooring Ropes	<b>High Modulus Synthetic Fibre Rope, MBL 127 tons</b>
(c)	No. Mooring Ropes Forward	<b>9 lines fwd</b>
(d)	No. Mooring Ropes Aft	<b>7 lines aft (sunken deck) (+ 4 lines between casing and accommodation block)</b>
(e)	Mooring Ropes fitted with Synthetic Tails	<b>Nylon tail 11 m or 22 m fitted to all mooring lines.</b>
(f)	Derricks, Cranes – Type and SWL	<b>2 x provision cranes /12 T 2 x cargo hose cranes/ 12T</b>

## 21. Navigation and Communications

(a)	Type and number of radar sets fitted	<b>1 x 3 cm (X-band) 1 x 10 cm (S-band)</b>
(b)	Is an approved GMDSS installed? (Type?)	<b>Yes</b>
(c)	Is an additional SatCom system installed? (Type?)	<b>Yes</b>
(d)	Is Suez Canal Projector fitted?	<b>Yes</b>

## 22. Crew

(a)	The Officers may be of the following Nationalities	<b>European, American, Filipino. Other nationalities may also be applicable upon charterers request. All officers need to comply with BWs competence matrix.</b>
(b)	Number of Officers (Minimum)	<b>7 – as per safety manning certificate</b>
(c)	Number of Crew (Minimum)	<b>8 – as per safety manning certificate</b>

**23. List Of Compatible LNG Terminals:**

Further terminals not stated in the list are likely to be compatible.

Load Ports	Discharge Ports
Bonny Island (Jetty 1)	Tong-yeong
Bonny Island (Jetty 2)	Pyong-taek no.1
Lake Charles (West Berth)	Pyong-taek no.2
Lake Charles (East Berth)	Incheon no. 1
Point Fortin	Incheon no. 2
Sabine Pass (East)	YungAn (East Berth)
Sabine Pass (West)	YungAn (West Berth)
Cove Point (North)	Guangdong Dapeng
Cove Point (South)	Dalian
Freeport	Jiangsu
Joetsu	Zhejiang
	Futtsu (Jetty #1)
	Futtsu (Jetty #2)
	Himeji
	Higashi Ohgishima
	Ohgishima
	Senboku II-1
	Senboku II-2
	Chita (Jetty L1)
	Chita (Jetty L2)
	Kawagoe
	Sakai
	Niigata
	Tobata
	Yanai
	Montoir
	Melkoya
	Dahej
	Hazira
	Fos Cavaou
	Sines
	Barcelona
	Bilbao
	Cartagena
	Huelva
	Sagunto
	Ferrol (Mugardos)

	Altamira
	Manzanillo
	Bahia Bianca (STS)
	Guanabara Bay
	Pecem
	Al Aqabah
	Mina Al Ahmadi
	Marmara
	Isle of Grain
	Dragon
	Boston