

VESSEL PARTICULARS (FORM C)
LPG/C GAS MYTH
(last updated 25/09/2019)

Specifications of the vessel and the gas installation which are representations by the Owners.

(A) VESSEL'S CHARACTERISTICS

PREAMBLE

Name : **GAS MYTH**
Owner : **PELORUS INC.**
Flag : **LIBERIA**
Build : **Kanrei Shipbuilding Co. Ltd., Japan**
Date on Service :
Class : **ABS**

GRT International : **4,312 ton** Suez : **4,986.6 ton**
Panama : **3,628.4 ton**

NRT International : **1,381.0 ton** Suez : **4,016.5 ton**

Is vessel build according to USCG regulations? : **Yes**
RINA regulations? : **N/A**
Japanese regulation? : **JIS**

Has vessel received USCG approval? : **YES (for foreign vessel
in US water)**
RINA approval? : **N/A**

HULL

LOA : **99.90 M**
LBP : **93.50 M**
Breadth : **17.63 M**
Depth : **8.00 M**
Summer Draft : **6.17 M corresponding to Summer DWT = 5,004.0 tons**

Estimated draft with full cargo and full bunkers are as follows.

Product	Draft Fore' (m)	Draft Aft' (m)	Draft Mean (m)	Corresponding Deadweight (t)
Propane	4.14	6.03	5.08	3,450.0
Butadiene	4.81	6.23	5.52	4,080.46
VCM	5.59	6.70	6.15	5,004.0

Propeller immersion :

At draft At **5.97 m correspond.** : **109.0 %**
At draft At **6.18 m correspond.** : **116.0 %**
At draft At **6.70 m correspond.** : **130.0 %**

COMMUNICATION EQUIPMENT

Call letter : **A8YP9**
Radio Station normally watched : **GMDSS**
Radio MF/HF NBDP : FURUNO FS-5070
MF/HFTEL/DSC : FURUNO FS-5070
Satellite Communication **Inmarsat 'C'** :
Inmarsat 'F' : **+870 765089686 (Voice)**
: **+870 765089688 (Fax)**
: **gasmyth@stealth.gr (E-mail)**

VSAT Phone : **+30 2119902446**
: **+30 2119902447**

MACHINERY

Main Engine x 1 . Type and make : **MAKITA CORPORATION 5L35MC**
. Service power : **2,925 Kw (3,960 ps) x 203 rpm (90%MCR)**
No of Cylinders **5**
Cyl Bore x Stroke **350 mm x 1050 mm**
. Grade of fuel used : **HFO having a viscosity of not more than 380cst @ 50°C**

Auxiliaries Type and make (Electrical) **Yanmar (6NY16L-SN) - A.C. drip proof, self-ventilated 360 Kw x 445V x 3 phase x 60 Hz**
(Mechanical) **4 stroke x 400 Kw x 1,200 rpm**
Grade of fuel used **Diesel Oil - 6 Cst at 40°C / marine Gas Oil – 1.8 cst**
No off **2**

Emergency Gen Type **Deutz (F5L912) - 50Kw, AC 450V, 3 phase, 60 Hz**
No off **1**

Boiler Type **Miura Z Boiler (VWH-600E) Fully automatic water-tube boiler of forced recalcuating type**
Evaporation **600 Kg/Hr**
Max Design Pressure **0.7 Mpa Saturated**
Feed Water Temp **60°C**
No off **1**

Exhaust Economiser Type **Miura (KF-91F)**
Evaporation **400Kg/Hr actual @ continuous service output of main engine**
No off **1**

Air Compressors (Main) Type / Capacity **Matsubara (MH-108) - Vertical, EMD driven, 2-stage, F.W cooled type / 45.0 m³ / Hr**
No off **2**

Air Compressors (Emergency)	Type No off	Sanwa Co Ltd (GS2AR) - Horizontal, ENG driven, 2- stage, air cooled type 6.0 m³ / Hr 1
Fuel Oil Purifier	Type No off Capacity	Mitsubishi SJ20G - Centrifugal 2 800 Ltrs / Hr at 98°C
Lub Oil Purifier	Type No off Capacity	Mitsubishi SJ10G - Centrifugal 1 800 Ltrs / Hr at 95°C
Evaporator	Type Capacity	Miura Protec Co., Ltd (WM-10SS) – Waste heat recovery 1 x 10 t/day
Fresh Water Sterilizer	Type Capacity	Uzushio Electric Co., Ltd (USS-2K) – Electric Ultra Violet lamp with filter 2 x1,000 litre/h
Fresh Water Mineraliser	Type / Capacity	1 x 1000 litre/h / Nippon Controls Co Ltd (RF-1000S) – Vertical. Welded stainless steel
Waste Oil Incinerator (IMO MEPC 76 (40))	Type Capacity	Miura Protec Co Ltd (BGW-20N - Horizontal air atomizing type with aux burner Oil @ 24.3 lit/h & Solids @ 20 Kg/h
Oily Water Separator	Type Capacity	Taiko Kikai Industries Co, Ltd (USH-10) – automatic oil discharge type 1 x 1.0 m3/h
Sewage Treatment plant	Type Capacity	Taiko Kikai Industries Co, Ltd (SBH-25) Activated sludge aeration (Biological) – USCG certified 1 x 25 persons per day
Hot Water Set (Calorifier unit)	No off	Harison Co Ltd (CFT-400-E) 400L tank with 2 x 10Kw heaters (1 Stby) / 1 set
Steering Gear	Type Duty Capacity Hydraulic pump unit	Electro-Hydraulic system with 2-pump units (dual system) – (one pump to be able to supply full power) 18.5 t-m Electric motor driven, 2 x 5.5 Kw
Bow Thruster	: Yes 440 HP / 325 KW	

SPEED

Abt 13.0 knots up to Beaufort scale 4 and max significant wave height of 1.25m (all details "about" defined as 0.5knot less and +/-5% consumption respectively)

CONSUMPTION/ DAY

Main Engine HFO : abt 12.150 MT/ day laden

Auxiliary Engine

In Port Discharging MGO : abt 2 MT/ day
In Port Idle / Loading MGO : abt 1 MT/ day
Loading via heater MGO : abt 1.6 MT/ day
Use IGG MGO : abt 2 MT/ day
Boiler IFO : abt 0.5 MT/day

Notes:

1. Speed and consumption figures at sea, are best estimated basis daily weather conditions are up to Beaufort scale 4 - sea state Douglas 3, without effect of sea currents or swell, and vessel en route under a steady course, with a net sea passage duration of at least 24 hrs.
2. Consumption figures at port, are subject to port movements, port and/or harbour, terminal requirements, for the safe manoeuvring, approach, inland navigation, and port stay of the vessel throughout her call.

Permanent bunker

capacity (100%)

HFO	114.90 m³
Diesel	468.84 m³
Fresh Water	212.40 m³

Note: Only 1 designated for FO is FOT 2S

3.5	Maximum temperature acceptable	:	45 °C
3.6	Minimum temperature acceptable	:	0 °C
3.7	Hydrostatic Test Pressure	:	26.48 bar g (27.0 kg/cm²)

4. LOADING RATE (TONS/HOUR) – For Full Cargo Parcels

Ex-atmospheric storage with VRL	:	1 tank	:	about 410 m³ per hour for LPG about 250 m³ per hour for VCM
		2 tanks	:	about 730 m³ per hour for LPG about 450 m³ per hour for VCM

Remarks:

* Based on maximum velocity of 6.5 metres/sec except VCM, and 4.0 meters/sec for VCM in the liquid piping.

* If cargo temperature is less than 0 °C, shore heater to be used. If ship heater used, max rate is **250 m³** per hour.

* Loading by shore pump only, proper size gas return line to be connected

* Subject to both ship and shore tanks being under favourable conditions

5. CARGO PUMPS

5.1	Type	:	Deepwell type of vertical centrifugal multistage design with inducer
	Make	:	Hamworthy Svaneho A/S.
	How many	:	1 set per tank (2 sets)
	Maximum specific gravity	:	0.601(LPG) / 0.948 (VCM)
5.2	Capacity (CMB/Hour)	:	300 m³/hr at 110 m (SG 0.601) 250 m³/hr at 120 m (SG 0.948)
	Two speed or variable speed	:	Single Speed
	Rated kW (each)	:	130 kW
	Working pressure maximum	:	20 bar g
5.3	Location	:	At each cargo tank
	Removable	:	Yes
5.4	Booster pumps	:	N/A
	Type	:	N/A
	Maker	:	N/A
5.5	Capacity (CMB/Hour)	:	N/A
	Working pressure	:	N/A
5.6	Location	:	N/A
5.7	Time to discharge a full liquid cargo using all pumps against back pressure at pump	:	
	1 bar	:	about 19 hours for LPG
	5 bars	:	about 53 hours for LPG
	10 bars	:	-----
5.8	Nominal back pressure when working	:	about 1 bar
	In series corresponding head	:	N/A
	Maximum back pressure	:	about 5 bar
	Nominal pressure at rail (propane)	:	about 13 bar at 20 degree C of cargo temperature

- for what purpose : **N/A**
- what quantities : **N/A**

9. GAS FREEING

- 9.1 State method used giving all details : **Nitrogen Plant / Fans**
- 9.2 State time required including stripping : **TBA**

10. CHANGING GRADE

- 10.1 From completion discharge of cargo Propane, time required in hours and inert gas in CBM required to reach a tank and gas installation atmosphere of less than 100 ppm of Propane in Vapour phase.

Time required: TBA

- 10.2 Can this operation be carried out at sea? : **Yes**
- 10.3 Can the ship measure the number of ppm in vapour phase? : **Yes**
- 10.4 Has vessel deck tank for changing grade/cooling operations? : **No**
- 10.5 Deck tanks : **NIL**
 - Capacity :
 - Purpose :

11. COOLING BEFORE LOADING :

12. CARGO HEATER

- 12.1 Type : **Shell and Tube (MT4S-G-S-FD2)**
- 12.2 Inside Diameter **700 mm**
- 12.3 Overall length **7500 mm**
- 12.4 Cargo flow rate **250 m3/h (Propane)**
- 12.5 Min Inlet Temp **-48 °C**
- 12.6 Min Outlet Temp **0 °C**
- 12.7 Required Sea water Capacity **450 m3/h (Min 16°C)**
- 12.8 Design Pressure **25 bar g**
- 12.9 Hydrostatic Test Pressure **37.5 bar g**
- 12.10 Tightness Test Pressure **20 bar g**
- 12.0 State discharging rate for propane to be brought from atmospheric pressure **NA**
Loading rate for Propane – **minus 42 ° C / 0° C: about 145 Mt/hr**

13. CARGO VAPORIZER

In case vapour gas is needed to feed compressors, can vessel produce its own if no shore available:

No

14. REFRIGERATING APPARATUS **NA**

- 14.1 Is it independent of cargo? : **NA**
 - Is so, state cooling agents : **NA**
- 14.2 What minimum temperature can be maintained : **NA**
- 14.3 What time required at sea to lower by 1°C the full cargo of : **NA**

15. MEASURING APPARATUS

What gauges on board?

Type : **Float type level gauge**
Location : **At each cargo tank dome**

16. SAMPLES

16.1 State how tank atmosphere samples can be taken and where from?
Sample points at tank bottom, mid and top

Standard of fitting? : **JIS PT1/2 thread**

16.2 Same question for cargo : **as above**

16.3 Are sample bottles available on board? : **No**

17. CARGO LINES

17.1 Is ship fitted with a port and starboard cargo manifold? : **Yes**

17.2 Position of cargo manifold

- distance from stern (AP) : **51.50 m**
- distance from stem (FP) : **48.40 m**
- height above deck : **1.07 m for Liquid manifold**
- distance from ship's rail : **2.50 m**
- underside keel to manifold : **9.07 m**

17.3 Liquid line

- flange-size : **8 in.**
- type : **ANSI300LB RF**

Gas line

- flange-size : **5 in.**
- type : **ANSI300LB RF**

17.4 What reducers on board? : **20 carbon steel pieces supplied**

For Liquid line (low temperature)
8" ANSI 300LB to

10" ANSI 300LB, 6" ANSI 300LB, 5" ANSI 300LB
4" ANSI 300LB, 3" ANSI 300LB
8" ANSI 150LB, 6" ANSI 150LB, 4" ANSI 150LB
8" JIS20K, 6" JIS20K, 4" JIS20K

For Vapor line (normal temp.)
5" ANSI 300LB to

4" ANSI 300LB, 3" ANSI 300LB, 2" ANSI 300LB
6" ANSI 150LB, 5" ANSI 150LB, 3" ANSI 150LB
2" ANSI 150LB
5" JIS20K, 4" JIS20K

17.5 Is ship fitted with stern discharge? **No**
- Liquid line - diameter : **N/A**
- flange – size : **N/A**
- type : **N/A**

18. HOSES

- Are serviceable hoses available on board? : **None**
- 18.1 Two pieces, each :
Length :
Diameter :
Flange-size :
Type :
Bending radius :
- 18.2 Minimum temperature acceptable :
Maximum pressure acceptable :
- 18.3 For what products are hoses suitable? : **N/A**

19. DERRICKS

- Hose cranes : **1 set**
- Where situated : **Mid-ship (center)**
- Lifting capacity : **4.0 tons @ 10m/min**
- Working radius : **15m**

20. SPECIAL FACILITIES

- 20.1 How many grades can be segregated? : **Single Grade**
- 20.2 How many cooled? : **N/A**
- 20.3 Can vessel sail with slack cargo tanks? : **Yes**

MAJOR UPGRADES

Compliance with EXXON/MOBIL 2006 Criteria
Mooring Winches Fwd and Aft to have 2 mooring drums each
Level Alarm to be provided for Fuel Oil Tanks
5years Anti Fouling protection
Cylinder Oil tank for Low Sulphur Fuel to be added (with capacity for about 15 days)
2 Bilge Alarm Sensors to be fitted in Engine Room
Maker of Cargo Tank Safety valves to be Anderson Greenwood
Maker of cargo pumps to be SVANEHOJ with anti-rotating mechanism