

**GAS FORM C****Main particulars****2.1 PREAMBLE**

Ship's name	BW CONFIDENCE
Owners	BW Gas LPG Limited
Flag – Registry	Isle Of Man
Builder	Mitsubishi Heavy Industries, Japan
Delivery	31 st March 2006
Class	31 st March 2006
Class notation	LR, +100A1, Liquefied Gas Carrier, Ship Type 2G, Butane, Propane and Butane- Propane Mixtures in Independent Tanks Type A, max SG 0.61, max VP 0.28Bar, min T -50deg C, Ship Right (SDA), +LMC, UMS, LI, BWMP (S+F)*IWS, with descriptive notes
IMO No.	9307736

GRT / NRT	
International	48,772 / 14,631
Suez	51,213.48 / 45,143.12
Panama	N/A

2.2 HULL

	Metres
LOA	230 mtrs
LBP	219.0 mtrs
Breadth	36.6 mtrs
Depth	21.66 mtrs
Keel to highest point	51.08 mtrs / 47.10 mtrs (in collapsed mast condition)

Max summer draft	11.628m	Corresponding deadweight	54,490 mt
-------------------------	---------	---------------------------------	-----------

TPC fully loaded	71.3mt
-------------------------	--------

Mean draft with 95% full bunkers and full cargo		
Specific Gravity	Mean draft	Corresponding DW
0.580	11.15	51,239 mt
0.610	11.49	53,687 mt



Communication equipment	
International call sign	MLJA8
Radio station	GMDSS
V-Sat Telephone (Bridge & Capt. Office)	+65 31586075, +47 81503248
Satcom C	423500938 / 423500939
FBB	+ 870 773150338
Mobile	+47 95918984
MMSI	232745000
E-mail	confidence@bwfleet.com

2.3 MACHINERY

Main Engine	
Kawasaki MAN B&W 7S60MC	
Max Cont.	13700kW – 18372BHP
Grade fuel used	HFO 380 centistroke

Auxiliaries	
Diesel	3 x 970kW
Make	STX MAN B&W L23/30H – 720rpm
kW/RPM	970kW at 720rpm
Grade fuel used	HFO 380 centistroke

Speed/Consumption*	
Guaranteed average loaded/ballast speed over 12 months	
Average consumption on Main Engine guaranteed speed	
Average consumption on auxiliaries	

*) Above based on 50/50 propane/butane and max force 5 Beaufort

Slow speed/consumption figures as guidance only	
Average loaded/ballast	Consumption

Average consumption in port	
Inert gas plant when operating	
Boiler consumption	

Permanent bunkers capacity (95% full) (Excl. daily service and settling tanks)		
HFO	2,935 m3	2,850 mt
LSMGO	256 m3	217 mt



2.4 CARGO INSTALLATION

Transportable products and respective quantities								
Tank No.	100 % m ³	98 % m ³	Butane 0.610 -5°C mt	Propane 0.580 -46°C mt	NH ₃ 0.680 -32°C MT	Butadiene 0.651 -5°C MT	Naphtha 0.703 30°C MT	Naphtha 0.676 30°C MT
1	19,049.34	18,668.35	11,388	10,828	N/A	N/A	N/A	N/A
2	21629.90	21,197.30	12,930	12,294	N/A	N/A	N/A	N/A
3	21,632.87	21,200.21	12,932	12,296	N/A	N/A	N/A	N/A
4	20,957.89	20,538.73	12,528	11,912	N/A	N/A	N/A	N/A
Total	83,269.99	81,604.59	49,778	47,330	N/A	N/A	N/A	N/A
Deck tank capacity				361.6 m ³ / 18 barg / -50°C / 590 kg/m ³				
Transportable products and respective quantities								
<i>Other transportable products: Pure Propane, Commercial Propane, Commercial Butane, Mixture of Propane and Butane in any proportion</i>								

Scantlings of the cargo tanks are based on a maximum density of cargo of 610kg/m³. Cargo with density up to 1,000 kg/m³ may be carried in the cargo tanks on the following conditions:

For density of 1,000 kg/m ³	N/A
For densities between 610 and 1,000 kg/m ³	98.5% by volume for cargo density of 610 kg/m ³

Tank working pressure	
Maximum pressure	28 kpa
Minimum pressure	-2 kpa
Minimum temperature acceptable in tanks	-50 °C

Loading rate - tons/hour	4,400 m ³ /hr (approximately 2500 mt/hr)
--------------------------	--

2.5 CARGO PUMPS

Number and type	8 x 550 m ³ /hr Ebara submerged type
Location	2 on each cargo tank
Max permissible specific gravity	610 kg/m ³
Time for discharging full cargo using all pumps against no backpressure	20 hrs
Cargo remaining onboard in cargo tanks after completion pumping	About 40 m ³ unpumpable liquid (in each cargo tanks)
Total head when working in series with booster pump	247 mLC
Booster pumps	2 x 300 m ³ /h Hamworthy NMB 150c, 147.7 mLC, 580 kg/m ³



2.6 CARGO COMPRESSORS

Number and type	5 x Opposed, single row, 2 cylinder, 2 satge	
	Propane	Ammonia
Refrigeration Capacity	5 x 189,000 kcal/h (3.1 % Ethane)	N/A
Suction pressure	20KPaG at -18°C	N/A

2.7 INERT GAS SYSTEM

Does the vessel use inert gas?	Yes
Utilization	Inerting of Void spaces and Cargo tanks

Does the vessel produce inert gas?	Yes
Type	Gin 3000 – 0.3 BUFD
Daily production	3000 Nm3/hr

Composition of inert gas	
Carbon dioxide	13.0 %
Oxygen max.	1.0 %
Carbon monoxide max.	1000 ppm by volume
Hydrogen max.	Nil
Nitrogen	Balance
Soot	0 (on Bacharach scale)
Sulphur oxides max.	10 ppm by volume
Dew point	-25°C after expansion to atmos.press.

State if any shore supply of liquid nitrogen may be required	No
What quantity?	N/A

2.8 GAS FREEING

Can this operation be carried out at sea?	Yes
--	-----

State method incl. all details		
For LPG	Boil Off	48/54 hrs C3/C4
	Inerting	48 hrs
	Ventilating for Entry	48 hrs
For NH₃		N/A

Advise time required and consumption of inert gas if any	
From LPG approximately	30 hrs / 144,000 m3
From NH₃ approximately	N/A

Is the vessel equipped with inert gas blower?	Yes
Capacity	4043 m3/hr at 620mbar

Ventilation fan	No
------------------------	----

**2.9 CHANGING GRADE**

Can this operation be carried out at sea?	NH3 - N/A
---	-----------

State method used and time required for changing from NH₃ to LPG and vice versa, to reach 50 ppm of previous cargo in tanks atmosphere, the tanks being dry and free of moisture (dewpoint plus 10 degrees C)

From NH ₃ to LPG	N/A
Time required	N/A

From LPG to NH ₃	N/A
Time required	N/A

Can vessel reduce in tank atmosphere and gas installation concentration of previous cargo below 50 ppm?	N/A
Method used, time required and extra shore supply if any	N/A
How can it be checked that no liquid gas remain onboard	N/A

2.10 CARGO HEATER

State discharging rate for propane with 2.5 mol % ethane to be brought from -42 °C to 0 °C at sea temperature of 15 °C	600 m3/hr
--	-----------

2.11 CARGO VAPORIZER

In case of need of vapour gas during discharge, can vessel produce its own if no shore gas available?	Yes
---	-----

2.12 REFRIGERATING APPARATUS

Is it independent of cargo?	N/A
-----------------------------	-----

2.13 MEASURING APPARATUS

What gauges onboard	Radar gauges
Location and type	2 for each cargo tank AutroCARGO 2000 LPG
Number of temperature sensors/gauges pr tank	8 (2 top, 2 middle, 2 lower, 2 sump)
Number of pressure sensors/gauges pr tank	1 in each tank



2.14 *SAMPLES*

Where can samples be taken?	Vapour three levels/ Liquid from pump discharge
Are sample bottles available onboard?	Yes

2.15 *CARGO LINES*

(See also last page of this gas form C)

Is vessel fitted with midship manifolds	Yes
Distance from cargo manifold to bow	114.425 mtrs
Distance from manifold to stern	115.525 mtrs
Height cargo manifold above main deck	1.620 mtrs
Height cargo manifold above waterline when in ballast	15.970 mtrs
Height cargo manifold above waterline when loaded	11.692 mtrs
Distance from shipside to manifold flange	4.000 mtrs
Distance between loading and vapour return connections	2.500 mtrs
Windage area in normal ballast condition	3,960.0 m2
Is vessel fitted with SPM chainstopper suitable for 76 mm chain.	Yes
Is vessel fitted with cruziform bollards/fairleads/eye-pads in manifold area	Yes

Dimension of lines		
	Diameter	Flange size
Liquid	400 mm / 16 inch	ASA 150
Gas Line	250 mm / 10 inch	ASA 150
Booster Line	250 mm / 10 inch	ASA 300

What reducers onboard			
Number	Diameter	Length	Pressure rating
4 Pcs	16”- 16”	50 cm	150 ASA -150 ASA
2 Pcs	16”- 12”	50 cm	150 ASA -150 ASA
2 Pcs	16”- 12”	50 cm	150 ASA - 300 ASA
2 Pcs	16- 10”	50 cm	150 ASA -150 ASA
2 Pcs	16”- 8”	50 cm	150 ASA -150 ASA
2 Pcs	12”- 10”	50 cm	150 ASA -150 ASA
1 Pc	12”- 8”	50 cm	150 ASA -150 ASA
2 Pcs	12”- 12”	50 cm	300 ASA -150 ASA
1 Pc	12”- 10”	50 cm	300 ASA -300 ASA
4 Pcs	10”- 10”	50 cm	150 ASA -150 ASA
3 Pcs	10”- 8”	50 cm	150 ASA -150 ASA
2 Pcs	10”- 6”	50 cm	150 ASA -150 ASA
2 Pcs	10”- 10”	50 cm	300 ASA -150 ASA
2 Pcs	10- 10”	50 cm	300 ASA -300 ASA
1 Pc	10”- 8”	50 cm	300 ASA -300 ASA
2 Pcs	10- 6”	50 cm	300 ASA -300 ASA
1 Pc	8”- 6”	50 cm	150 ASA -150 ASA
2 Pcs	8- 8”	50 cm	300 ASA -150 ASA
2 Pcs	16”- 10”	50 cm	150 ASA -300 ASA

2.16 *LIFTING DEVICE*

Where situated	Aft	Amidship
Number and type	2	1
Lifting capacity	1 x 5 tons and 1 x 2 tons	5 tons
Max. distance from ship's side of lifting hook	Port 3.1 mtrs Stb. 3.5 mtrs	3.0 mtrs



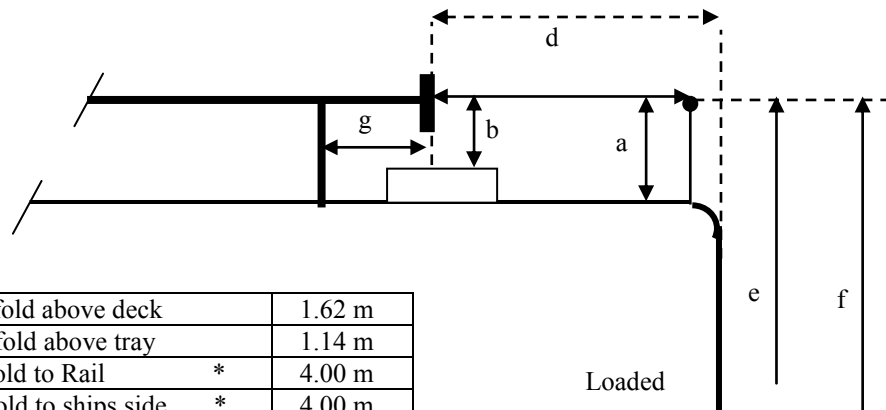
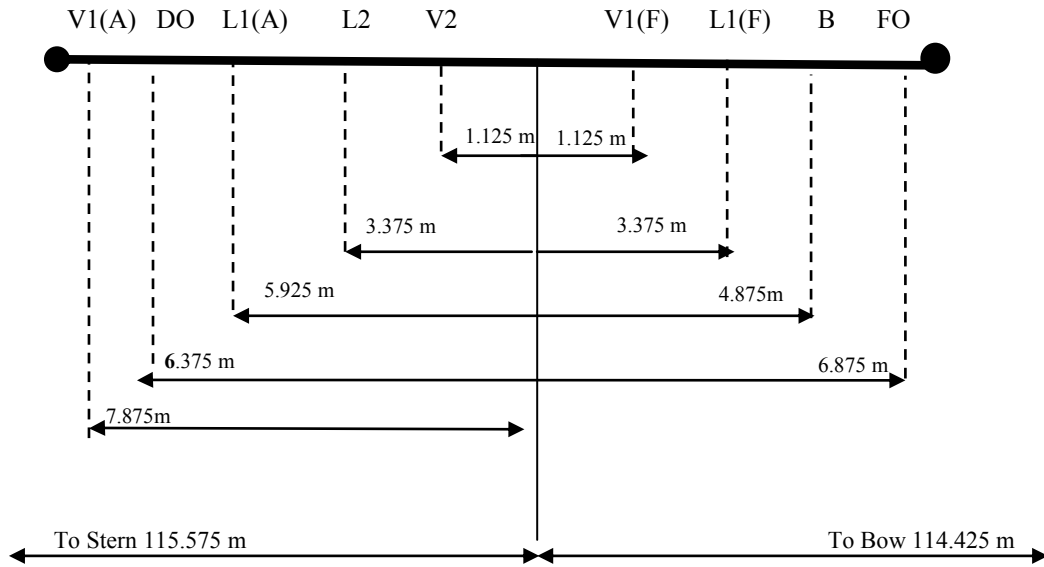
2.17 SPECIAL FACILITIES

How many grades can vessel segregate?	2
--	---

Indicate systems	Separate lines
Is vessel able to load/discharge two or more grades simultaneously?	Two
Can vessel sail with slack tanks?	Yes
Is vessel fitted with purge tank?	No



ARRANGEMENT OF CARGO MANIFOLD



a) Height of manifold above deck	1.62 m
b) Height of manifold above tray	1.14 m
c) Distance manifold to Rail *	4.00 m
d) Distance manifold to ships side *	4.00 m
e) Dist. waterline loaded to manifold	11.69 m
f) Dist. waterline ballast to manifold	15.97 m
g) Dist. 1 st stander to manifold	0.50 m

* without reducer

PARALLEL BODY LENGTH

LOADED CONDITION

