

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

Ship's name	BW Trader
Owners	BW LPG PARTNERS PTE LTD
Flag – Registry	Singapore
Builder	Daewoo Shipbuilding & Marine Engineering Co. Ltd.
Delivery	29.03.2006
Class	Lloyd's Register
Class notation	+100 A1 Liquefied Gas Tanker Type2G, Butane, Propane, Butane Propane Mixture, in Independent Tanks Type A, Maximum Specific Gravity 0.65, Maximum Vapour Pressure 0.25 Bar (0.40 bar in Harbour), Minimum Temperature minus 48C, IWS, LI, LMC, IGS, UMS, Descriptive note: Lloyd's RMC(LG)
IMO No.	9306548

GRT/NRT	
International	46632 / 15461
Suez	48763.42 / 41655.16
Panama	N/A

2.2 HULL

	Metres	Feet
LOA	224,50	
LBP	213,00	
Breadth	36,00	
Depth	22,334	
Keel to highest point	49,57 *	

* 48,38 m with mast down

Max summer draft	11,721 m	Corresponding deadweight	53.151
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TPC fully loaded	67,2 mt/cm at 11,721 m draft
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Mean draft with full bunkers and full cargo		
Specific Gravity	Mean draft	Corresponding DW
Propane 0.58	11,165 m	49431,9
Butane 0.60	11,396 m	50973,1
NH ₃ 0.680	N/A	
Naptha 0.703	N/A	



Communication equipment	
International call sign	9VEY7
Radio station	GMDSS
Satcom B	
- Telephone	+870 356 559 310
Satcom FBB	
- Telephone	+870 773 204 247
V Sat	
- Telephone	+47 81 50 30 68 / +47 85 23 03 85
Satcom C	+870 456 559 310
Cell phone	+47 90 53 32 63
MMSI	565 593 000
E-mail	trader@bwfleet.com

2.3 MACHINERY

Main Engine	
1 x Sulzer 7RTA62U-B	
Max Cont.	115 RPM
Grade fuel used	HFO up to 600 cSt at 50 deg C.

Auxiliaries	
Diesel	3 Sets
Make	STX-MAN B&W 6L28/32H
kW/RPM	1180 kW, 1685 KVA, 720RPM
Grade fuel used	HFO up to 600 cSt at 50 deg C.

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
13,5 Knots	
14 Knots	
15 Knots	

Average consumption in port	
Inert gas plant when operating	
Boiler consumption	

Permanent bunkers capacity (Excl. daily service tanks)		
HFO	3670 m ³ (100 %)	3312 mt with sp.gr. 0.95 (95 %)
GAS OIL	49 m ³ (100 %)	38 mt with sp.gr. 0.81 (95 %)
MDO	230 m ³ (100%)	188 mt with sp.gr. 0,86 (95%)



2.4 CARGO INSTALLATION

Transportable products and respective quantities								
Tank No.	100 % m ³	98 % m ³	Butane 0.60 -2°C mt	Propane 0.58 -41.5°C mt				
1	16777,6	16442,0	9865,2	9553,3				
2	20945,3	20526,4	12315,8	11926,3				
3	21018,8	20598,4	12359,0	11968,1				
4	19889,3	19491,5	11694,9	11325,1				
Total	78631,0	77058,3	46234,9	44693,8				
Decktank capacity					N/A			
Transportable products and respective quantities								
<i>Other transportable products:</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/m³	Not Allowed
For densities between 610 and 1,000 kg/m³	Not Allowed

Tank working pressure	
Maximum pressure	0,250 (Sea) / 0,400 (Port) barg
Minimum pressure	- 0,050 barg (vacuum)
Minimum temperature acceptable in tanks	- 48°C

Loading rate - tons/hour	2200 mt/hr
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2.5 CARGO PUMPS

Number and type	8 x 550 m ³ Deepwell Pump at 120 mlc
Location	2 per Tank
Max permissible specific gravity	0,61
Time for discharging full cargo using all pumps against no backpressure	20 hrs
Cargo remaining onboard in cargo tanks after completion pumping	100 m ³ liquid
Total head when working in series with booster pump	240 mlc
Booster pumps	2 x 550 m ³ Horizontal Centrifugal at 120 mlc



2.6 CARGO COMPRESSORS

Number and type	4 x Sulzer 3K 140-3A-1	
Refrigeration Capacity	Propane (max 4,0 % Ethane) 222kW / 197200 kcal/h	
Suction pressure	0 bar.g	

2.7 INERT GAS SYSTEM

Does the vessel use inert gas?	Yes
Utilization	Hold Spaces + Cargo Tank Inerting & Gasfreeing

Does the vessel produce inert gas?	Yes
Type	Inert Gas Generator + N2 Generator
Daily production	120.000 m ³ /d + 1.200m ³ /d

Composition of inert gas	
Carbon dioxide	14%
Oxygen max.	1,0%
Carbon monoxide max.	100 ppm
Hydrogen max.	
Nitrogen	85%
Soot	
Sulphur oxides max.	10 ppm
Dewpoint	- 40°C

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
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State method incl. all details		
For LPG	Boil Off	20 hours
	Inerting	34 hours
	Ventilating for Entry	34 hours
For NH ₃		N/A

Advise time required and consumption of inert gas if any	
From LPG approximately	34 hours – 170000 m ³
From NH ₃ approximately	N/A

Is the vessel equipped with inert gas blower?	Yes
Capacity	5000 m ³ / h

Ventilation fan	No
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**2.9 CHANGING GRADE**

Can this operation be carried out at sea?	N/A
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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	
Time required	

From LPG to NH ₃	
Time required	

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

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	550 m ³ /h
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2.11 CARGO VAPORIZER

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

Is it independent of cargo?	No
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2.13 MEASURING APPARATUS

What gauges onboard	Radar gauges
Location and type	Kongsberg Autronica GL-100 (2 per tank)
Number of temperature sensors/gauges pr tank	4 each side (Top, middle, bottom, sump) and 1 in dome
Number of pressure sensors/gauges pr tank	1 each tank



2.14 SAMPLES

Where can samples be taken?	Cargo Pumps & Manifolds
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	110,1 m
Distance from manifold to stern	114,4 m
Height cargo manifold above main deck	1,81 m
Height cargo manifold above waterline when in ballast	16,644 m
Height cargo manifold above waterline when loaded	12,423 m
Distance from shipside to manifold flange	4,06 m
Distance between loading and vapour return connections	2,50 m
Windage area in normal ballast condition	4334 m ²
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	14"	150 ASA
Gas Line	10"	150 ASA
Booster Line	10"	300 ASA

What reducers onboard			
Number	Diameter	Length	Pressure rating
2	16" - 14"	500 mm	150 x 150
2	14" - 14"	500 mm	150 x 150
3	14" - 12"	500 mm	150 x 150
2	14" - 10"	500 mm	150 x 150
2	14" - 8"	500 mm	150 x 150
2	12" - 10"	500 mm	150 x 150
2	10" - 10"	500 mm	150 x 150
2	10" - 8"	500 mm	150 x 150
2	10" - 6"	500 mm	150 x 150
1	14" - 16"	500 mm	150 x 300
2	14" - 12"	500 mm	150 x 300
2	14" - 10"	500 mm	150 x 300
2	14" - 8"	500 mm	150 x 300
1	14" - 6"	500 mm	150 x 300
1	12" - 12"	500 mm	150 x 300
1	12" - 10"	500 mm	150 x 300
1	10" - 10"	500 mm	150 x 300
1	10" - 8"	500 mm	150 x 300
1	10" - 6"	500 mm	150 x 300
1	8" - 10"	500 mm	150 x 300
1	8" - 8"	500 mm	150 x 300
1	6" - 10"	500 mm	150 x 300
1	6" - 8"	500 mm	150 x 300
1	12" - 10"	500 mm	300 x 300
1	10" - 10"	500 mm	300 x 300
1	10" - 8"	500 mm	300 x 300
1	10" - 6"	500 mm	300 x 300

**2.16 LIFTING DEVICE**

Where situated	Aft	Amidship
Number and type	2 Cranes	1 Crane
Lifting capacity	5T	5T
Max. distance from ship's side of lifting hook	9,6 m	6 m

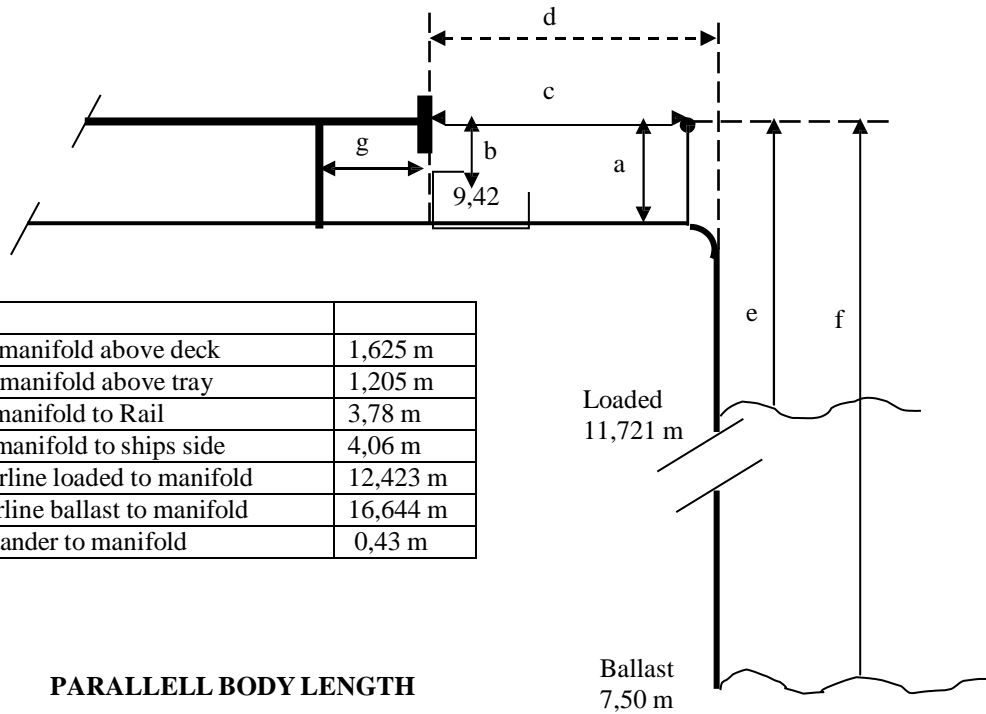
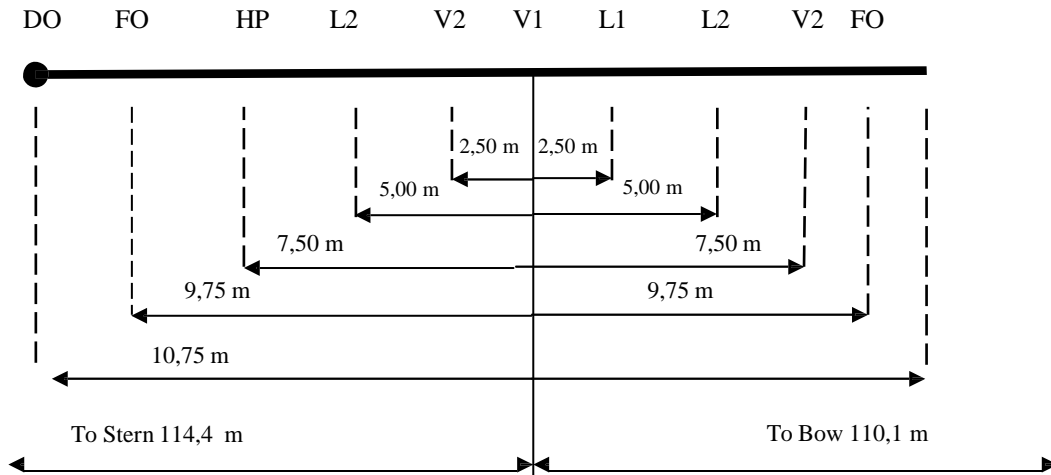
2.17 SPECIAL FACILITIES

How many grades can vessel segregate?	2
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Indicate systems	All 4 tanks can be connected to either of 2 Systems
Is vessel able to load/discharge two or more grades simultaneously?	2 grades only
Can vessel sail with slack tanks?	Yes
Is vessel fitted with purge tank?	No



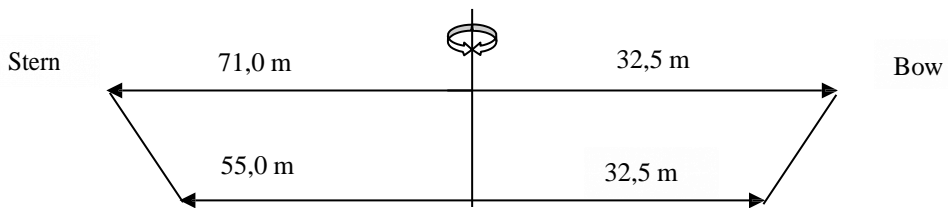
ARRANGEMENT OF CARGO MANIFOLD



a) Height of manifold above deck	1,625 m
b) Height of manifold above tray	1,205 m
c) Distance manifold to Rail	3,78 m
d) Distance manifold to ships side	4,06 m
e) Dist. waterline loaded to manifold	12,423 m
f) Dist. waterline ballast to manifold	16,644 m
g) Dist. 1 st stander to manifold	0,43 m

PARALLELL BODY LENGTH

LOADED CONDITION



BALLASTED CONDITION