PARADISE
GAS CARRIERS

FORM C GAS

PGC ARATOS

PARADISE
GAS CARRIERS

MODEL

Form C gas

PARADISE
GAS CARRIERS

Index

PARADISE
GAS CARRIERS

SECTION
A

GENERAL INFORMATION

A1 PRINCIPAL SHIP PARTICULARS

1.1	Name of Ship	PGC ARATOS
1.2	Previous Name(s)	SYN ALCOR
1.3	Builder	Cantiere Navale Pesaro
1.4	Date of delivery	06/03/2003
1.5	Classification Society	NKK
1.6	Gross Registered Tonnage	7.605
1.7	Net registered Tonnage	2.527
1.8	Suez Tonnage Gross/Net	8.822,17/7.488,42
1.9	Panama tonn. Total Volume m3/Net	26.370/ 6568
1.10	Registered Owner	ARATOS MARITIME LTD
	Address	80 Broad Str. Monrovia-Liberia
	Telephone	
	Telex/fax	
1.11	Manager or Operator	Paradise Navigation SA
	Address	4-6 Solomou Str. N. Psychiko Greece
	Telephone	+30 210 6912010
	Telex/fax	+30 2106912272
1.12	Flag	Malta
1.13	Port of registry	Nassau
1.14	Official No.	7000594
1.15	Call Sign	C6AW4
1.16	Immarsat No.	247082900
1.17	LR/IMO No.	9251779
1.18	Was the ship built in accordance with the following regulations	
	IMO	YES
	USCG	YES
1.19	IMO Certification	
	Certificate of Fitness IGC	YES
	A328	
	A329	
	Letter of Compliance	YES
1.20	Date questionnaire compiled	

A2 HULL DIMENSIONS

2.1	Length overall	122,84 mt
2.2	Length between perpendiculars	115,50 mt
2.3	Extreme breadth	19,02 mt
2.4	Extreme depth	9,51 mt
2.5	Summer draught	8,00 mt
2.6	Corresponding deadweight	9352,1 Tonnes
2.7	Load displacement	3869,2 Tonnes
2.8	Load displacement (summer)	13221,3 Tonnes
2.9	Cargo tank cubic capacity (100%)	9033,23 cbm
2.10	Distance from keel to top antenna	34,50
2.11	Air draught (with normal ballast)	28, 50 m

A3 BALLAST PARTICULARS

3.1	Permanent Ballast		Tonnes
3.2	Ballast quantity		3568,93 Tonnes
3.3	Bunkers, stores, etc.		950,00 Tonnes
3.4	Draught	- Forward	4,60 mt
		- Aft	6,00 mt
		- Mean	5,30 mt

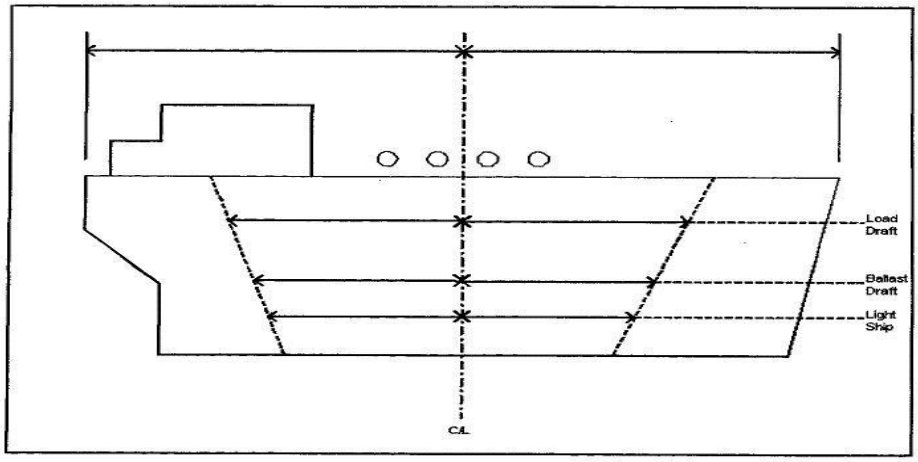
A4 IMMERSION

4.1	TPC at normal draught	18,05 Tonnes	at 5,30 mt mean draught
4.2	TPC at loaded draught	19,85 Tonnes	at 7,00 mt mean draught

A5 LOADED PARTICULARS

5.1	Cargo			**Ethylene**	**VCM**	**Ammonia**	**Propane**
5.2	Density			0,569	0,8262	0,682	0,583
5.3	Cargo		tons	5,025	7,445	6,022	5,148
5.4	Bunkers		IFO	525	525	525	559
5.5	GASOIL			157	157	157	158
5.6	Fresh water			192	192	192	192
5.7	Stores/spares			15	15	15	165
5.8	Lub oil			40	40	40	40
5.9	Ballast			730	434	444	1,359
5.10	Deadweight			6,684 m	8,808	7,395	7,436
5.11	Draught	- Forward		6,374 m	7,687 m	6,632 m	6,553 m
		- Aft		7,030 m	7, 850 m	7,474 m	7,585 m
		- Mean		6,702 m	7,768 m	7,053	7,069

A6 PARALLEL MID-BODY DIMENSIONS



PARALLEL MID-BODY DIAGRAM

Distance bow to mid-point manifold	64,39 mt
Distance stern to mid-point manifold	58,47 mt
Light ship parallel body length	45,00 mt
Light ship parallel body – bow to mid-point manifold	22,00 mt
Light ship parallel body – stern to mid-point manifold	23,00 mt
Normal ballast parallel body length	54,00 mt
Normal ballast parallel body length – bow to mid-point manifold	26,00 mt
Normal ballast parallel body length – stern to mid-point manifold	28,00 mt
Parallel body length at Summer Deadweight (SDWT)	71,00 mt
Parallel body length at SDWT – bow to manifold	35,00 mt
Parallel body length at SDWT – stern to mid-point manifold	36,00 mt
Does the ship have bulbous bow	YES

A7 BUNKER CAPACITIES

7.1	M.E. Fuel Oil	Grade	IFO 380	(δ : 0,980)
		Capacity 98%	560 Tonnes	
7.2	Diesel Oil Grade		(δ : 0,840)	
		Capacity 98%	**140 Tonnes**	

A8 FUEL CONSUMPTION DETAILS

8.1	At sea (laden normal service speed)	FO	ton/day	15,5 mt
		GO -	ton/day	1,5 mt for Beaufort >4
8.2	At sea (normal service speed) while conditioning cargo	FO	ton/day	16,5 mt
8.3	In port, loading	FO	ton/day	0
		GO	ton/day	6,5 (with 3 ddgg & 2 plants running)
8.4	In port, discharging	FO	ton/day	0
		GO	ton/day	5,0 (with 2 ddgg & 4 deepwell pumps)
8.5	In port, idle	FO	ton/day	0
		GO	ton/day	2,1

A9 MAIN ENGINE PARTICULARS

9.1	Main engine make and type	MAK 9 M 32 C four strokes, single acting, non reversible, 9 cylinders
9.2	No. of units	1
9.3	Maximum continuous rating (MCR) per engine	600 rpm
9.4	Total available power	4,320 KW
9.5	Normal service power (ECR)	85%= 3,672 KW / 5083 HP

A10 AUXILIARY PLANT

10.1	Make and type of auxiliary generators	CATERPILLAR Tipe CAT 3508 BTDA
10.2	No. of units	3
10.3	Maximum generator output per unit	Kilowatts 900
10.4	Shaft generator	Kilowatts 1100
10.5	Emergency generator	Kilowatts 130
10.6	Total available power	Kilowatts 3,800

A11 POWER/SPEED INFORMATION

11.1	Trial data	BHP	5837 HP – 3758 kw (rpm 129)
		MCR	SHP 100%
		Speed	Knots 16,9
		Draught	mt 5,30 (mean draught)

11.2	Normal service speed	BHP	5083 HP – 3332 kw (rpm 129)
		MCR	SHP 85% (with shaft generator)
		Speed	Knots 13,5
		Draught	mt 7,00 (mean draught)

A12 THRUSTERS

12.1	Make and type		Rolls Royce IT 1100 CPKI Type SCANA VOLDA
12.2	No. Installed		1
12.3	Location and rated bollard	pull	Bow 540 HP – 400KW

A13 FRESH WATER

13.1	Capacity of distilled tanks	Cbm 1
13.2	Capacity of domestic tanks	Cbm 195,3
13.3	Daily consumption distilled	tons 0,5
	domestic	Tons 5/6
13.4	Daily evaporator production	Tons 6/7

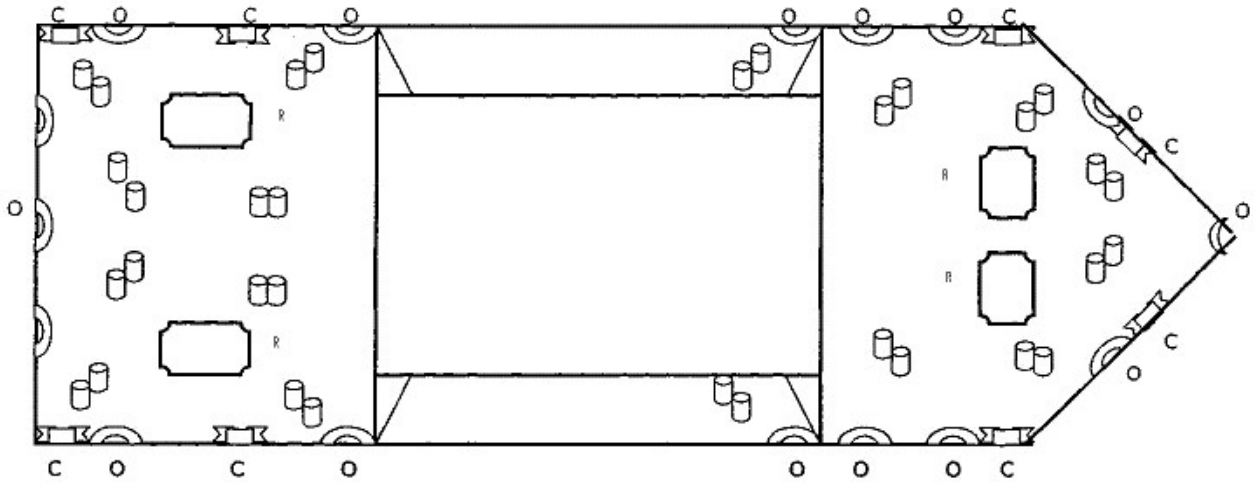
A14 BALLAST CAPACITIES AND PUMPS

Fill the following table

		Tank	Capacity	CBM	CBM
14.1		Fore peak	226		
14.2		Wing or side tanks	589		
14.3		Double bottoms	92		
14.4		Aft peak	228		
14.5		Other (3- 4- 5- 6- 7 port & stb)	2440		
14.6		Total	3,575		
14.7	Ballast pump make and type	**GARBARINO – MU 150/315 LE**			
14.8	No. of Pumps	1 on service - two on reserve)			
14.9	Total capacity	400 cbm/hr			
14.10	Location	ENGINE ROOM			
14.11	Control Location	CCR & LOCAL			

A15 MOORING EQUIPMENT

15.1 Ropes and Wires.
On the diagram below indicate the position of winch mounted wires(W) and ropes (R) together with open (O) and closed (C) fairleads.



Mooring Winches

	No	Motive power (steam,hydraul)	Heaving power	Brake Capacity	Hauling speed
Forecastle	2	hydraulic	70 Kn	215 Kn	30 m/min
Poop	2	hydraulic	12 Kn	215 Kn	30 m/min

15.3 Anchors and Windlasses

Windlass motive Power (steam, hydraulic)	hydraulic	
Hauling power	Tonnes	120 Kn
Brake holding capacity	Tonnes	814 Kn
Date of last test	28 june 2007	
Anchor type		
Weight	tonnes	
Is spare carried		NO
Cable diameter	Mm	
No of shackles port	9	
No of shackles starboard	10	

15.4 Windage

Windage on ballast draught	M2
Windage full loaded	M2

A16 NAVIGATIONAL EQUIPMENT

Is the following equipment fitted :		YES	NO
16.1	Magnetic compass	x	
16.2	Gyro compass and repeaters	x	
16.3	Radars	x	
16.4	Radar plotting equipment	x	
16.5	Arpa	x	
16.6	Echo sounder	x	
16.7	Speed/Distance indicator	x	
16.8	Doppler log	x	
16.9	Rudder angle, RPM, controllable pitch and Thrusters indicators	x	
16.10	Rate of turn indicator	x	
16.11	Radio D.F.	x	
16.12	Navtex receivers	x	
16.13	Satellite navigator	x	
16.14	Decca navigator		x
16.15	Loran C		x
16.16	Sextants	x	
16.17	Signal lamp (aldis)	x	
16.18	Course recorder	x	
16.19	Engine order printer		x
16.20	What chart outfit coverage is provided if limited, indicate areas covered	No limitation	
16.21	Formal chart correction system in use	Aut. Outf. Manag. System	

A17 COMMUNICATION EQUIPMENT

Is the following equipment fitted :

		YES	NO
17.1	Is ship with GMDSS	x	
17.2	Radio telegraph main transmitter including facility to transmit on radio telephone distress frequency	x	
17.3	Radio telegraph main receiver including facility to receive on radio telephone distress frequency	x	
17.4	Radio telephone distress frequency watch receiver	x	
17.5	Main radio antenna	x	
17.6	Radio telegraph reserve transmitter		X
17.7	Radio telegraph reserve receiver		X
17.8	Reserve radio antenna	x	
17.9	Are the main and reserve installation electrically separate and electrically independent of each other	x	
17.10	Radio telegraph auto alarm		x
17.11	2182 KHZ bridge watch receiver	X	
17.12	Alarm signal generating device	x	
17.13	VHF radio	X	
17.14	Inmarsat satellite communications system if yes, state identification number	X	
17.15	Telephone if yes, state identification number	+870773169085	
17.16	Telephone if yes, state identification number	+870773169086	
17.17	Weather fax	x	
17.18	Epirbs	x	
17.19	At least three survival craft two-way radio telephone apparatus	x	
17.20	Emergency lifeboat transmitter	x	
17.21	Full set of publications	x	
17.22	Satellite Epirb	x	
17.23	VHF Epirb		
17.24	Radio transponder for survival craft	x	

PARADISE
GAS CARRIERS

SECTION
B

CARGO SYSTEMS

B1 CARGO - GENERAL INFORMATION

1.1	List products which the ship is certified to carry	Ammonia anhydrous, Butadiene, Butane, Butylenes, Ethane, Ethylene Isoprene, Butadiene and (C4) Hydrocarbon mixtures, Butane-Propane mixtures, Propane, Prolylene
1.2	Minimum allowable tank temp.	°C -104
1.3	Maximum permissible tank pressure	Bar 5,7
1.4	List grades which can be transported simultaneously	2
1.5	List grades which can be loaded or discharged simultaneously	2
1.6	State natural tank segregation. (N.B. separation obtained by the removal of spools or by insertion of blind flange)	TK 1 in system I TK 2 in system II
1.7	Number of products, (gas) that can be conditioned by reliquefaction simultaneously.	2

B2 CARGO TANKS

2.1	No. and type of cargo tanks	2 Type C 5% Nichel steel
2.2	Maximum allowable relief valve setting	Bar 5,7
2.3	Safety valve set pressure - if variable give range for pilot valve	0,57 - 5,7
2.4	Maximum vacuum	0,75 kg/cm^2
2.5	Maximum cargo density	kg/cm2
2.6	Maximum rate of cool-down	°C/hr
2.7	State any limitations regarding partially filled tanks	no
2.8	State allowable combinations of filled and empty tanks	No restriction

B3 CARGO TANK CAPACITIES

Complete the following table

TANK	Capacity CBM 100%	Capacity CBM 98%	PROPANE Tonnes -42.8°C	AMMONIA Tonnes -33°C	BUTANE Tonnes -0,5°C	VCM Tonnes -13,4°C
1	4, 387.261	4, 299.516	2, 500	2, 924	2, 655	4, 393
2	4, 619.499	4, 527.109	2, 632	3, 080	2, 630	4, 172
3						
4						
5						
6						
TOTALS	**9, 006.760**	**8, 826.625**	**5, 464**	**6, 004**	**5, 285**	**8, 565**

B4 LOADING RATES

		PRODUCT	RATE (Tonnes/hr) With vapour return	Without return
4.1	From refrigerated storage			
4.2		BUTANE	800 mt/h	
4.3		PROPANE	800 mt/h	
4.4		AMMONIA	400 mt/h	
4.5		ETHYLENE	600 mt/h	
4.6				
4.7				

		PRODUCT	RATE (Tonnes/hr) With vapour return	Without return
4.8	From pressure storage			
4.9		BUTANE 0-30°C	435	435
4.10		PROPANE 0°C	500	500
4.11		10° C	500	500
4.12		20° C	500	150
4.13		30° C	400	100

B5 DISCHARGING - GENERAL

Cargo pumps

5.1	Type of pumps	DEEPWELL of Svanehoj DW 150/150-3-K-1
5.2	Number per tank	2
5.3	Rate (per pump)	250 cbm/h
5.4	Delivery head	120 mt
5.5	Maximum density	0,97 Kg/cbm
	Booster pumps	
5.6	Type of pump	BOOSTER of Svanehoj NMB150c
5.7	Number	1
5.8	Rate (per pump)	250 cbm/h
5.9	Delivery head	120 mt
5.10	Maximum density	Max 0,68 - 0,97 reduced

B6 DISCHARGE PERFORMANCES

Full cargo discharge times (using all main pumps)

		MANIFOLD BACK PRESSURE	Hours With vapour return	Hours Without return
6.1	From refrigerated			
6.2		1 bar (with 4 deepwell)	10	10
6.3		5 bar (with 4 deepwell)	10	10
6.4		10 bar (with 4 deepwell	15	15

		MANIFOLD BACK PRESSURE	Hours With vapour return	Hours Without return
6.5	Pressurized			
6.6		1 bar (with 4 deepwell)		
6.7		5 bar (with 4 deepwell)	10	10
6.8		10 bar (with 4 deepwell	15	15

B7 UMPUMPABLES

	TANK NO.	1	2	3	4	5	6	TOTAL TONNES
7.1	Vapour	9	9					**18**
7.2	Liquid	nil	nil					
7.3						**Total quantity**		

B8 VAPORISING UNPUMPABLES

8.1	Process used	
	Time to vaporise liquid unpumpables remaining after full cargo discharge :	
8.2	- Propane	**-Hrs 2**
8.3	- Butane	**- Hrs 8**
8.4	- Ammonia	**- Hrs 6**
8.5	- Propylene	**- Hrs 2**
8.6	-	**- hrs**
8.7	-	**- hrs**

B9 RELIQUEFACTION PLANT

9.1	Plant design conditions	Air temperature 45 °C Sea temperature 32 ° C	
	Plant type :		
9.2	Single stage/direct	☐	☐ **NO**
9.3	Two stage/direct	☐ **YES**	☐
9.4	Simple cascade	☐ **YES**	☐
9.5	Coolant type	**Sea water / Propylene**	
	Compressors	SULZER 2K 160 2 Q	
9.6	Type	2	
9.7	Number	1200 cbm/h with Butadiene - 900 cbm/h Ammonia / Ethylene	
9.8	Capacity (per unit)	SULZER 2K 160 2 Q	
9.9	Are they oil-free		x

B10 COOLING CAPACITY

State cooling capacity (in Kcal/hr) for :

10.1	Propane	@ -42°C	Kcal/hr	170.000 (sea water 15°C)	120.000 (sea water 32°C)
10.2		@ -20°C	Kcal/hr		
10.3		@ - 5°C	Kcal/hr		
10.4	Butane	@ - 5°C	Kcal/hr	290.000 (sea water 15°C)	240.000 (sea water 32°C)
10.5		@ 0°C	Kcal/hr		
10.6		@ 0°C	Kcal/hr		

B11 CARGO TEMPERATURE LOWERING CAPABILITY (AT SEA)

Time taken to lower the temperature of:

11.1	Propane from	+10°C to -42°C	Hrs	165	(sea water 15°C)	Hrs 225	(sea water 32°C)
11.2		-5°C to -42°C	Hrs	145	(sea water 15°C)	Hrs 200	(sea water 32°C)
11.3		-38°C to -42°C	Hrs	30	(sea water 15°C)	Hrs 85	(sea water 32°C)
11.4		+20°C to -0.5°C	Hrs				
11.5		+10°C to -0.5°C	Hrs	10	(sea water 15°C)	Hrs 15	(sea water 32°C)
11.6	Butane from	+20°C to -0.5°C	Hrs	70	(sea water 15°C)	Hrs 80	(sea water 32°C)
11.7		+ 10°C to -0.5°C	Hrs	43	(sea water 15°C)	Hrs 53	(sea water 32°C)
11.8		+10°C to -5°C	Hrs				
11.9	Ethylene from -95°C	to -	Hrs	85	(sea water 15°C)	Hrs 95	(sea water 32°C)
11.10	Ethylene from -98°C	to -	Hrs	56	(sea water 15°C)	Hrs 60	(sea water 32°C)

B12 INERT GAS

Main inert gas and nitrogen plant

12.1	Type of system	
12.2	Capacity	
12.3	Composition of inert gas	
12.4	Dew point	
12.5	Used for	
	Nitrogen	
12.6	No of bottles	
12.7	Capacity (each one)	
12.8	Used for	

Main inert gas and nitrogen plant

B13 CARGO TANK INERTING/DE-INERTING

13.1	Time taken from fresh air to under 5% 02 at -25°C dewpoint		12 hrs
	Time taken from cargo vapour to fully inert at -25°C dewpoint		15 hrs
13.2	When :	Inert gas density less than product	hrs
		Inert gas density greater than product	hrs

B14 GAS FREEING TO FRESH AIR

14.1	Plant used	2 Cargo Compressors Plus dry Air plant
14.2	Time taken from fully inerted condition to fully breathable fresh air	15 hrs

B15 CHANGING CARGO GRADES

In this table write down time to change products (in hrs). Write also consumption of nitrogen.

From / To	PROPANE TIME/CONS.	BUTANE TIME/CONS.	PROPYLENE TIME/CONS.	AMMONIA TIME/CONS.	VCM TIME/CONS.
PROPANE	XXXXXXXXXXXX	92 - 30000 cbm		92 – 30000cbm	92 – 30000 cbm
BUTANE	70 – 30000 cbm	XXXXXXXXXXXX		70 – 30000 cbm	70 – 30000 cbm
PROPYLENE			XXXXXXXXXXXX		
AMMONIA	85 – 30000 cbm	85 – 30000 cbm		XXXXXXXXXXXX	85 – 30000 cbm
VCM	75 – 30000 cbm	75 – 30000 cbm		75 – 30000 cbm	XXXXXXXXXXXX

B16 DECK TANK CAPACITY

16.1	Propane capacity	Cbm	NA
16.2	Butane capacity	Cbm	NA
16.3	Ammonia capacity	Cbm	NA
16.4	Nitrogen capacity	Ncm	NA

B17 PRE-LOADING COOLDOWN

In the table below, show time and quantity of coolant required to cooldown cargo tanks from ambient temperature and fully gassed up state sufficient to allow loading to commence.

	PRODUCT	QUANTITY REQUIRED	TIME With return line
17.1	ETHYLENE	100 cbm	8
17.2	PROPANE	50 cbm	6
17.3	BUTANE	30 cbm	3
17.4	AMMONIA	40 cbm	5
17.5	VINYL	35 cbm	3

B18 VAPORISER

18.1	Type of vaporiser	N.A.
18.2	Number fitted	
18.3	Capacity (per unit)	cbm/hr vapour
18.4	Liquid supply rate	cbm/hr liquid
18.5	Delivery temperature	°C

B19 BLOWER

19.1	Type of blower
19.2	Rated capacity
19.3	Delivery pressure

B20 CARGO RE-HEATER

20.1	Type of re-heater	Co-Current Shell & Horizontal Tubes
20.2	Number fitted	1
20.3	Heating medium	SEA WATER
	Discharge rates with sea water at 15°C to raise product temperature:	
20.4	for propane from -42°C to -5°C	110 cbm/hr
20.5	for ammonia from -33°C to 0°C	155 cbm/hr

B21 HYDRATE CONTROL

21.1	Freezing point temperature of Depressant	-97°C
21.2	Quantity of Depressant carried	litres
21.3	Means of injection	Hand pump

B22 CARGO MEASUREMENT

	LEVEL GAUGES	
21.1	Are level gauges local or remote	
21.2	Manufacturer	
21.3	Type	
21.4	Rated accuracy	
21.5	Certifying authority	
	TEMPERATURE GAUGES	
22.6	Manufacturer	
22.7	Type	
22.8	Rated accuracy	
22.9	Certifying authority	
	PRESSURE GAUGES	
22.10	Manufacturer	
22.11	Type	
22.12	Rated accuracy	
22.13	Certifying authority	
	OXYGEN ANALYSER	
22.14	Manufacturer	
22.15	Type	
	FIXED GAS DETECTOR	
22.16	Manufacturer	
22.17	Type	
22.18	No of points detected	
	PORTABLE GAS DETECTOR	
22.19	Number	3
22.20	Manufacturer	DRAGER
22.21	Type	PAC EX-2
	TOXIC GAS INDICATOR	
22.22	Number	22.22 Number
22.23	Type	22.23 Type
	TOXIC GAS INDICATOR TUBES	
22.24	Number	22.24 Number
22.25	Products	22.25 Products
22.26	Exp.dates	22.26 Exp.dates
	TANKSCOPE	
22.27	Type	22.27 Type

B23 CARGO SAMPLING

23.1 Fill the following table

CARGO TANKS	CARGO TANKS	CARGO TANKS	CARGO TANKS
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6

23.2 Can sample be drawn from:

- Tank vapour outlet
- Manifold liquid line
- Manifold vapour line
- Pump discharge line

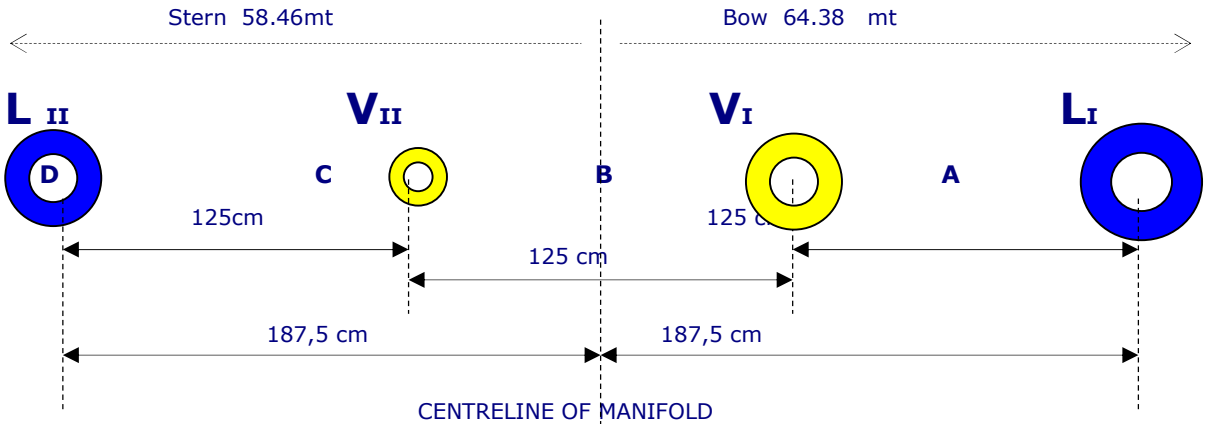
- Tank vapour outlet
- Manifold liquid line
- Manifold vapour line
- Pump discharge line

- Tank vapour outlet
- Manifold liquid line
- Manifold vapour line
- Pump discharge line

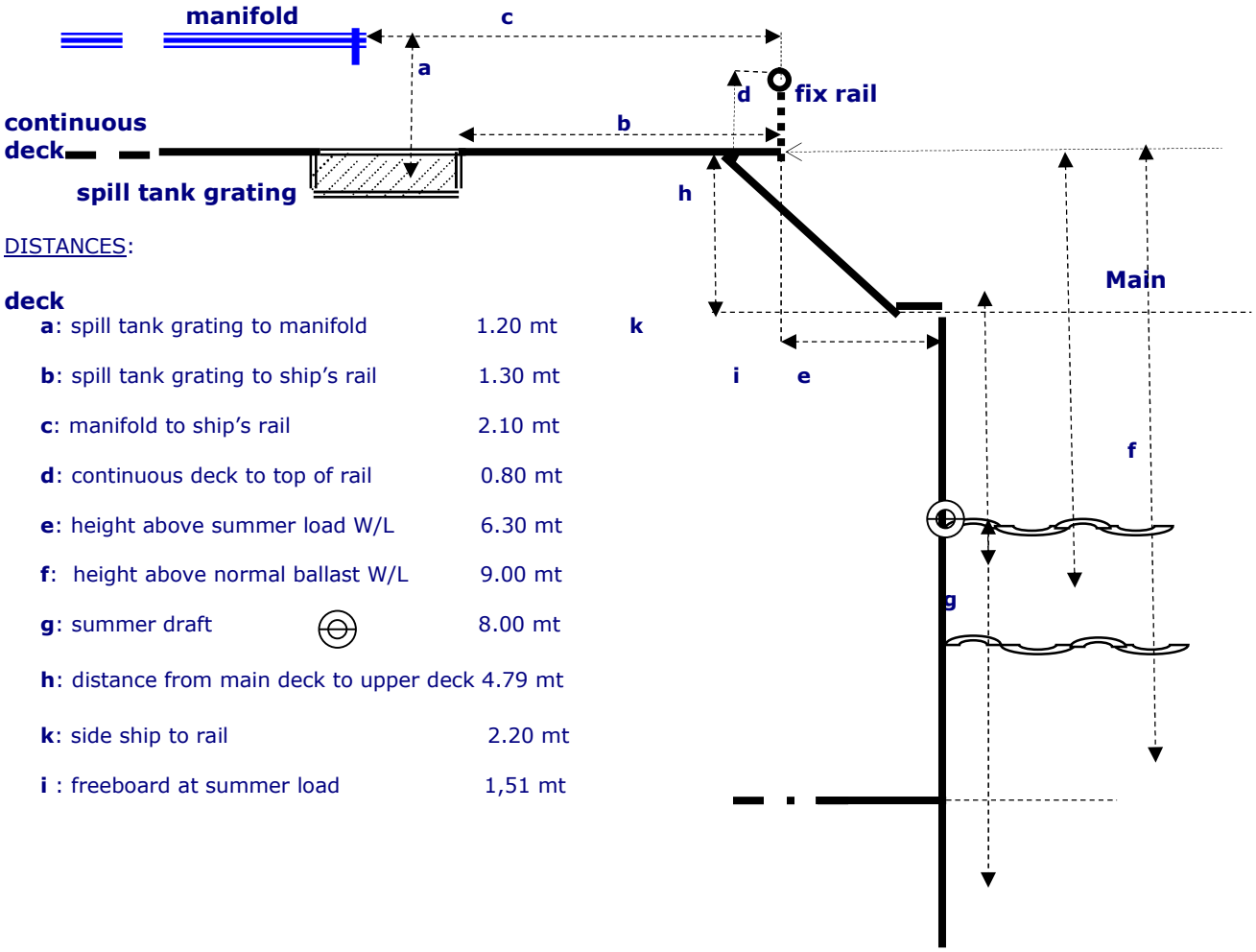
23.3 State connection type and size **SCREW – 8 millimetres** 23.3 State connection type and size

B24 CARGO MANIFOLD ARRANGEMENTS

CARGO MANIFOLD



Pipe Flange	Duty	Rating	Size	Raised (R) or Flat (F) face
A	Liquid system I	Ansi **300**	**8”**	R
B	Vapour “ I	Ansi **150**	**6”**	R
C	Vapour “ II	Ansi **150**	**4”**	R
D	Liquid system II	Ansi 300	**6”**	R



DISTANCES:

deck

a: spill tank grating to manifold 1.20 mt

b: spill tank grating to ship’s rail 1.30 mt

c: manifold to ship’s rail 2.10 mt

d: continuous deck to top of rail 0.80 mt

e: height above summer load W/L 6.30 mt

f: height above normal ballast W/L 9.00 mt

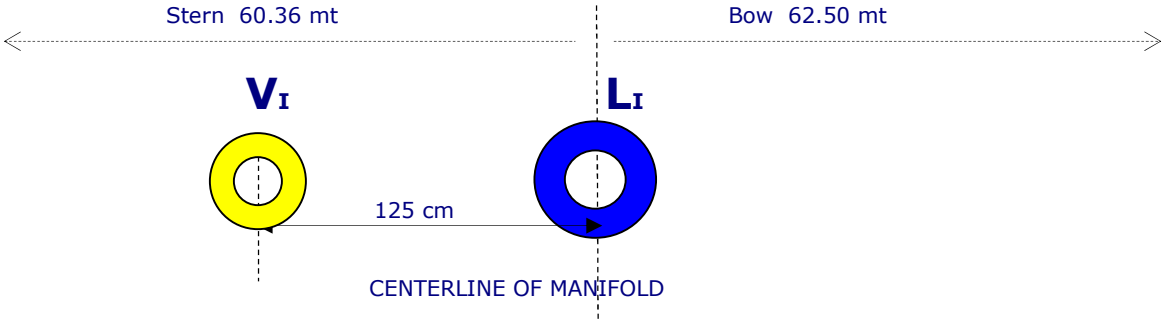
g: summer draft 8.00 mt

h: distance from main deck to upper deck 4.79 mt

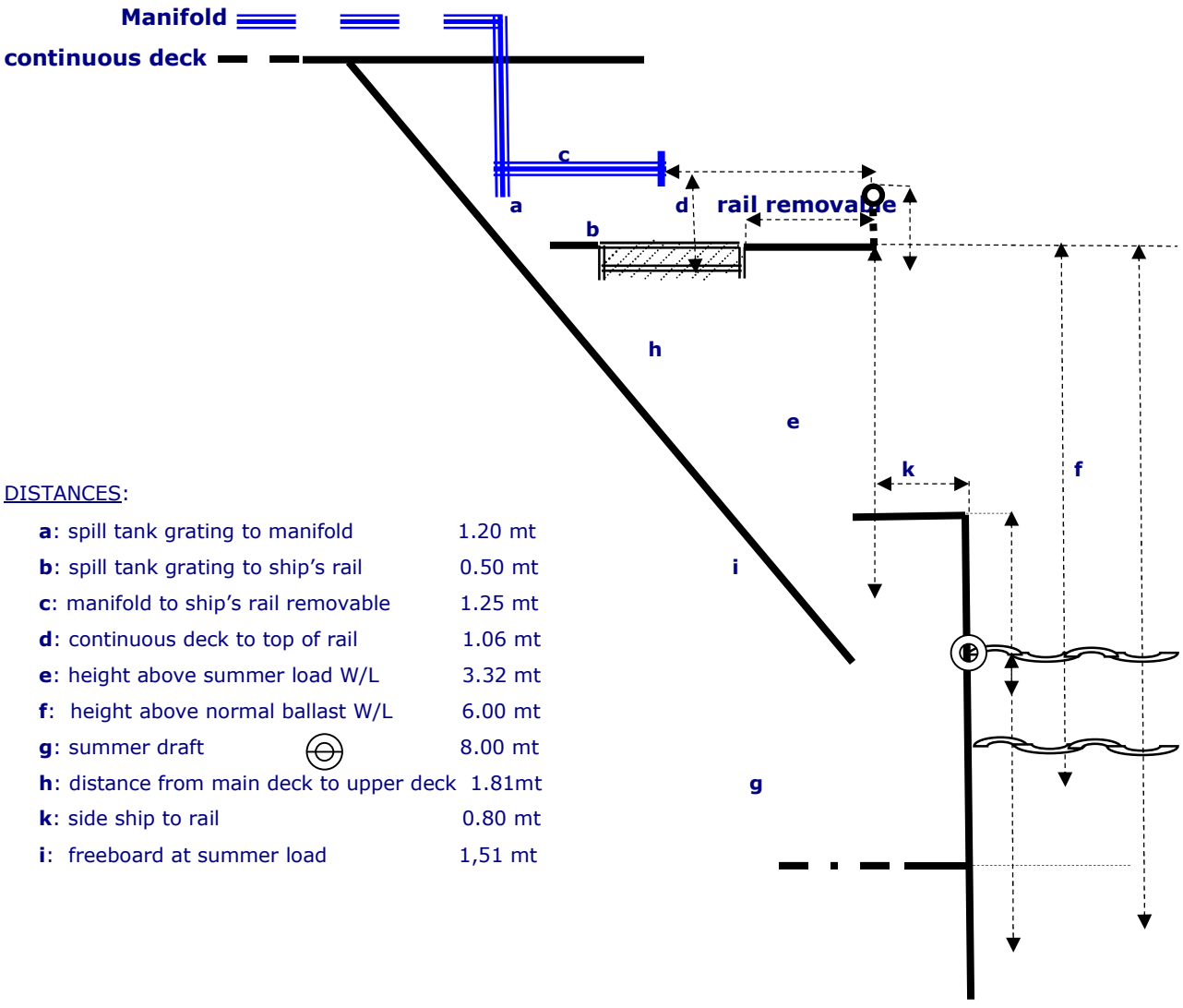
k: side ship to rail 2.20 mt

i : freeboard at summer load 1,51 mt

B 24bis CARGO MANIFOLD only port side main Deck



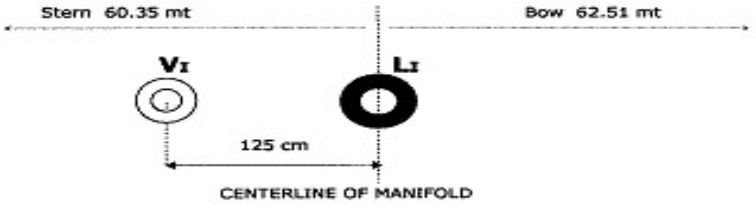
Pipe Flange	Duty	Rating	Size	Raised (R) or Flat (F) face
L_1	Liquid system I	Ansi **300**	**8”**	R
V_1	Vapour “ I	Ansi **150**	**6”**	R



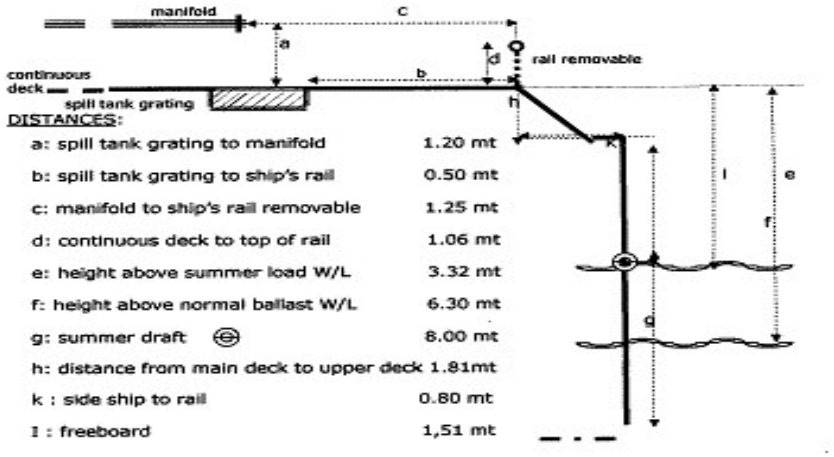
DISTANCES:

- **a**: spill tank grating to manifold 1.20 mt
- **b**: spill tank grating to ship’s rail 0.50 mt
- **c**: manifold to ship’s rail removable 1.25 mt
- **d**: continuous deck to top of rail 1.06 mt
- **e**: height above summer load W/L 3.32 mt
- **f**: height above normal ballast W/L 6.00 mt
- **g**: summer draft 8.00 mt
- **h**: distance from main deck to upper deck 1.81mt
- **k**: side ship to rail 0.80 mt
- **i**: freeboard at summer load 1,51 mt

B 24bis CARGO MANIFOLD only port side Main Deck



Pipe Flange	Duty	Rating	Size	Raised (R) or Flat (F) face
L_1	Liquid system I	Ansi 300	8"	R
V_1	Vapour " I	Ansi 150	6"	R



DISTANCES:

a: spill tank grating to manifold	1.20 mt
b: spill tank grating to ship's rail	0.50 mt
c: manifold to ship's rail removable	1.25 mt
d: continuous deck to top of rail	1.06 mt
e: height above summer load W/L	3.32 mt
f: height above normal ballast W/L	6.30 mt
g: summer draft ⊜	8.00 mt
h: distance from main deck to upper deck	1.81mt
k : side ship to rail	0.80 mt
I : freeboard	1,51 mt

B25 CARGO MANIFOLD REDUCERS

State number of reducers carried on board and their flange rating and size

25.1 AISI class 300	*AMSI class 300 size 8" to size 10" AMSI class 300*
25.2	
25.3	
25.4 AISI class 300 to class 150	*AMSI class 300 size 8" to size 6" AMSI class 150*
25.5	
25.6	
25.7 AISI class 150	*AMSI class 150 size 6" to size 4" AMSI class 150*
25.8	*AMSI class 150 size 6" to size 6" AMSI class 150*
	AMSI class 150 size 6" to size 8" AMSI class 150
	AMSI class 150 size 4" to size 4" AMSI class 300

B26 MANIFOLD DERRICK/CRANE

26.1	Is Manifold Derrick provided	NO
26.2	Is Manifold Crane provided	YES
26.3	Is lifting equipment same port and starboard	YES
	If not give details	
26.4	State SWL at maximum outreach	**4 Tonnes at maximum outreach 13mt (3,5mt from side)**