Dated: 14 July, 2017

LPG LAURA

Ship Information Questionnaire
for
Gas Carriers

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A.1 PRINCIPAL SHIP PARTICULARS

1.1	Date of Questionnaire Completed	11-Jul-17
1.2	Name of Vessel	LPG LAURA
1.3	LR/IMO Number	9238959
1.4	Last Previous Name	LPG/T HAYDOCK
1.4.1	Date of Name Change	14 FEB 2012
1.5	Second Last name Change	-
1.5.1	Date of Name Change	-
1.6	Third Last Name Change	-
1.6.1	Date of Name Change	-
1.7	Fouth Last Name Change	-
1.7.1	Date of Name Change	-
1.8	Flag	PHILIPPINES
1.9	Port of Registry	BATANGAS
1.1	Offical Number	04-0002083
1.11	Call Sign	4DEQ-6
1.12	Inmarsat B or F (FB) Number	354800032
1.13	Vessel's Telephone Number	354800029, (63) 9209491685
1.14	Vessel's Fax Number	354800030
1.15	Vessel's Telex Number	354800031
1.16	Vessel's E mail Address	bg.laura@tsm icom .ph
1.17	Inmarsat C Number	4548000142
1.18	Vessel's MMSI Number	548463100

1.19 Type of Vessel -
(1) Pressurised,
(2) Semi-Pressurized,
(3) Refrigerated.

Max Tank Pressure	Min Tank Temperature
18 kgs/cm2	0 C

OWNERS AND OPERATION

1.2	Registered Owner	SEATRANS CORPORATION
	Full Address	6F Mafre Insular Corporate Center,1220 Acacia Avenue
		Ayala alabang,1780 Muntinlupa City,
	Communication	All contact to Operator
1.21	Name of Operator	Translift ShipManagement Inc.
	Full Address	6F Mafre Insular Corporate Center,1220 Acacia Avenue
		Ayala alabang,1780 Muntinlupa City,
	Office Telephone Number	(63) 7728001
	Office Fax Number	(63) 7728004
	Office E mail Address	cnleonio@petrolift.com.ph
	Contact Person	Mr.Carlo N. Leonio
	Contact Person and	Mr.Carlo N. Leonio
	Telephone Number After Hours	(63) 9189403778
1.22	Number of Years As Vessel Operator	23 yrs
1.23	Total Number of Vessels Operated by this Operator	10

BUILDER

1.24	Builder	KITANIHON SHIPBUILDING CO.,LTD.
1.25	Name of Yard Vessel Built at	AOMORI JAPAN
1.26	Hull Number	327
1.27	Date of Keel Laid	16 December, 2000
1.28	Date Launched	25 January, 2001
1.29	Date Delivered	15-May-01
1.30	Date of Completion of Major Hull Changes (if any)	-
1.31	If Changes were made, what changes were made and at which Yard were they carried out	-

CLASSIFICATION

1.32	Classification Society	DNV				
1.33	Class Notation	1A1 Tanker for Liquified Gas (18.0kg/cm2) and Minmum Tempreture 0 ℃ Type 2PG MNS*				
1.34	If Classification Society Changed, Name of Previous Society	- NK (Nippon Kaiji Kyokai)				
1.35	If Classification Society Changed, Date of Change	Feb. 14, 2012				
1.36	Was Ship Built in Accordance With the Following Regulations :-			Approval Received		
	IMO	Yes		Yes		
	USCG	Yes			No	
	RINA	Yes			No	
	Other ( )	Yes	No	Yes	No	
1.37	IMO Certification					
	Certificate of Fitness	- IGC	Yes			
		- A328		No		
		- A329		No		
	Latter of Compliance			No		
	Issued By	DNV				
1.38	Unattended Machinery Space Certificate	NIL				

TONNAGES

1.39	Nett Registered Tonnage	1214	
1.40	Gross Tonnage	4045	
1.41	Suez Canal Tonnage	4533.61	3479.39
1.42	Panama Canal Tonnage		3458.40

A.2 HULL DIMENSIONS

2.1	Length Overrall	99.90	m
2.2	Length Between Perpendiculars	93.50	m
2.3	Distance Bow to Bridge	77.30	m
2.4	Distance Bridge Front to Mid-Point Manifold	30.10	m
2.5	Distance Bow to Mid-Point Manifold	47.20	m
2.6	Exterme Breadth	17.00	m
2.7	Exterme Depth	8.20	m
2.8	Summer Draught	5.814	m
2.9	Corresponding Deadweight	4313.12	T
2.10	Light Displacement	2539.09	T
2.11	Loaded Displacement (Summer)	6852.21	T
2.12	Cargo Tank Cubic Capacity (100% full)	4127.70	m3
2.13	Distance from Keel to Highest Point	29.10	m
2.14	Air Draught (with normal ballast)	25.45	m

A.3 IMMERSION

3.1	TPC	-	at Normal Ballast Draught	12.77	tonnes	@	4.40	m.draught
		-	at Loaded Draught	13.44	tonnes	@	5.81	m.draught

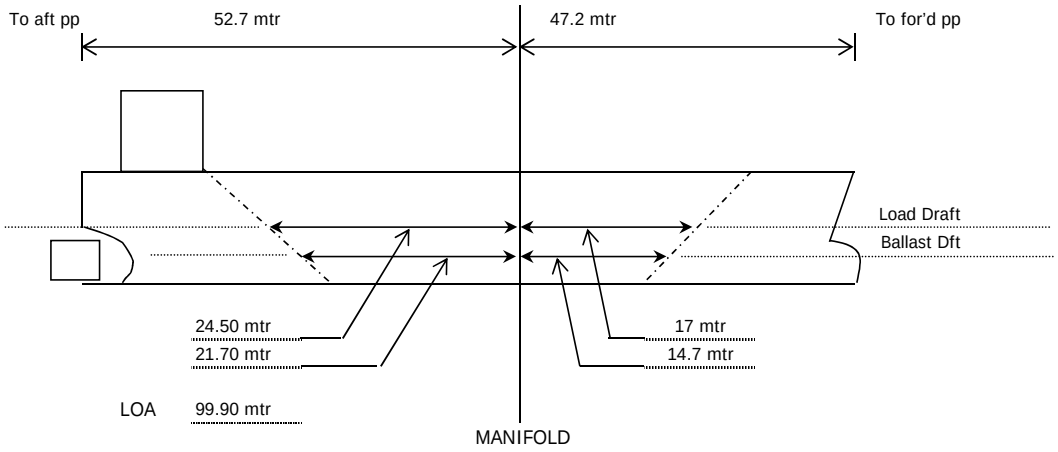
A.4 LOADED PARTICULARS

Complete the following table :

	CARGO >>>>		Propylene	Propane	B/P Mixture	N-Butane	Butadiene
4.1							
4.2	Denisity :-		0.470	0.459	0.451	0.548	0.588
4.3	Cargo	tonnes	1901.22	1856.72	1969.98	2216.74	2378.55
4.4	Bunker - FO	tonnes	546.10	546.10	546.10	546.10	546.10
4.5	- DO	tonnes	152.20	152.20	152.20	152.20	152.20
4.6	Freash Water	tonnes	155.81	155.81	155.81	155.81	155.81
4.7	Stores/Spares	tonnes	62.13	62.13	62.13	62.13	62.13
4.8	Lub Oil	tonnes	39.39	39.39	39.39	39.39	39.39
4.9	Ballast	tonnes	495.06	495.06	495.06	592.98	737.05
4.10	Deadweight	tonnes	3351.91	2551.39	3420.67	3765.35	4071.23
4.11	Draught	- Forward	4.28	4.23	4.36	4.610	4.990
		- Aft	5.89	5.87	5.92	6.170	6.240
		- Mean	5.09	5.05	5.14	5.390	5.620

	CARGO >>>>		Butylene	V.C.M.	Isoprene	Pentene	Pentane
4.1	Denisity :-		0.565	0.87	0.656	0.6	0.76
4.2	Cargo	tonnes	2285.51	3098.97	2653.61	2427.09	3074.32
4.3	Bunker - FO	tonnes	546.10	435.64	546.10	546.10	435.64
4.4	- DO	tonnes	152.20	152.20	152.20	152.20	152.20
4.5	Freash Water	tonnes	155.81	155.81	155.81	155.81	155.81
4.6	Stores/Spares	tonnes	62.13	62.13	62.13	62.13	62.13
4.7	Lub Oil	tonnes	39.39	39.39	39.39	39.39	39.39
4.8	Ballast	tonnes	538.70	368.98	692.93	692.93	368.98
4.9	Deadweight	tonnes	3779.84	4313.12	4302.17	4075.65	4288.47
4.10	Draught	- Forward	4.720	5.260	5.260	5.000	5.240
4.11		- Aft	6.090	6.340	6.340	6.250	6.330
		- Mean	5.410	5.800	5.800	5.630	5.790

A.5 PARALLEL MID-BODY DIMENSIONS



A.6 BUNKER CAPACITIES

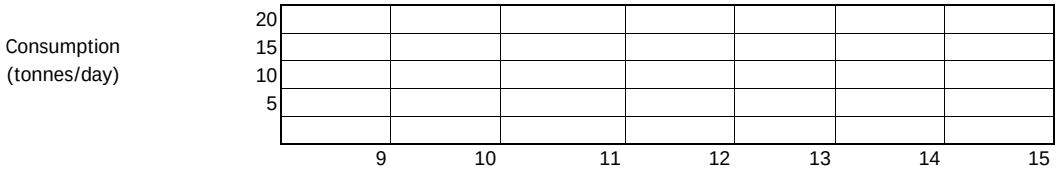
6.1	M.E. Fuel Oil	- Grade	IFO 380 CST	
		- Capacity @ 98%	574.6	m3
6.2	Diesel Oil	- Grade	MGO	
		- Capacity @ 98%	176.18	m3

A.7 FUEL CONSUMPTION DETAILS

7.1	At Sea (Normal Service Speed)	- FO	12	T/day @
		- DO	1.1	T/day
7.2	At Sea (Normal Service Speed)	- FO	---	
	while conditioning cargo	- DO	---	
7.3	In Port, Loading	- FO	---	
		- DO	1.0	T/day
7.4	In Port, Discharging	- FO	---	
		- DO	1.7	T/day
7.5	In Port, Idle	- FO	---	
		- DO	1.0	T/day

Note: GRAPH NOT APPLICABLE

A.7 SPEED/CONSUMPTION GRAPH



In the graph above, enter curves for both Loaded and Ballast conditions.
(if necessary, amend consumption and speed scales to suit)

A.8 MAIN ENGINE PARTICULARS

8.1	Main Engine Make and Type	Akasaka Diesel Limited	
		6UEC33LS2	
8.2	No. of Units	1	
8.3	Maximum Continuous Rating(MCR) per Engine	3400 KW	215 RPM
8.4	Total Available Power		
8.5	Normal Service Power	3060 KW	208 RPM

A.9 AUXILIARY PLANT

9.1	Make and Type of Auxiliary Generators	Yanmar Diesel Limited	
		S165L-SN	
9.2	No. of Units	2	
9.3	Maximum Generator Output per unit	397	KW
9.4	Shaft Generator	-	
9.5	Total Available Power	-	
9.6	Emergency Generator	-	
9.7	Emergency Fire Pump	Daiichi MFG Co.,Ltd.	
	Type	TY-30	
	Delivery Pressure	40m3/hr x 70m	
	Motive Power	Yanmar 3JHLP 30PS x 3200 RPM	
	If Electrical, Indicate Power Required in Kw		
9.8	Steering Gear	Tokimec Inc.	
	Type	SP-W15-130S	
	Indicate Power Required in Kw to Steer the	SQP-01-3-1C2=16-S47	
	vessel with One Pump Unit	3.7 KW x 1730 RPM x 2 SETS	

A.10 POWER/SPEED INFORMATION

10.1	Trial Data	BHP	3475	PS
		MCR	230.7	rpm
		Speed	15.986	kt
		Draught	3.34	m
10.2	Normal Service Speed	BHP	3060	PS
		MCR	208	rpm
		Speed	13	kts
		Draught	4.40	m

A.11 THRUSTERS

11.1	Make and Type	Kawasaki - CPP
11.2	No. Installed	1
11.3	Location and Rated Bollard Pull or Kw Output	BOW - 305 KW

A.12 FRESH WATER

12.1	Capacity of Distilled Tanks		0	
12.2	Capacity of Domestic Tanks		155.81	m3
12.3	Daily Consumption	- Distilled		
		- Domestic	6	T
12.4	Daily Evaporator Output		9	T

A.13 BALLAST CAPACITIES AND PUMPS

Complete the following table :

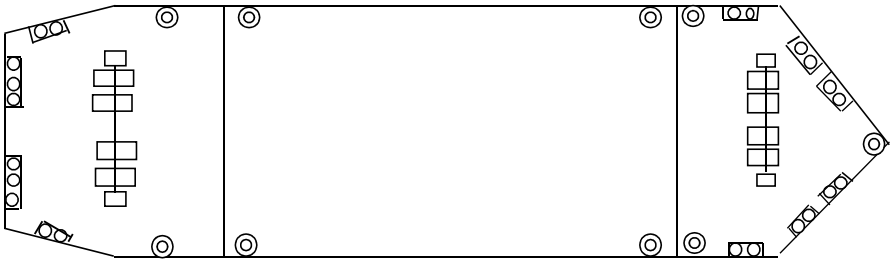
	Tank	Capacity (m3)	Number
13.1	Fore Peak	129.15	1
13.2	Wing or Side Tanks		
13.3	Double Bottoms	1597.91	7
13.4	After Peak		
13.5	Othetr		
13.6	Total	1727.06	8

13.7	Ballast Pump Make and Type	Taiko Kikai Industries Ltd.
		VSN-150
13.8	No. of Pump	2
13.9	Total Capacity	160 m3/h
13.10	Location	E/room
13.20	Control Location	E/room

A.14 MOORING EQUIPMENT

14.1 ROPE AND WIRE

On the diagram below indicate the position of Which Mounted Wires (W) and Ropes ® together with Open (O) and Closed © fairleads. Indicate also the Position of mooring Bitts (B).



NOTE : MOORING WIRES NOT ONBOARD

Mooring Ropes (On Drums)

	No.	Type	Dia	Length	MBL
Forecastle	4		55	200	62
For'd Main Deck					
Aft Main Deck					
Poop	4		55	200	62

Other Mooring Lines

	No.	Type	Dia	Length	MBL
Mooring Wires not on Drums					
Mooring Ropes not on Drums	4		55	200	62
Emergency Towing Wires (Fire Wires)	2		24	50	36

14.20 MOORING WINCHES

	No.	Serving Single or Double Drums	Split Drums (Yes/No)	Motive Power (eg Steam, Hydraulic)	Heaving Power, (tonnes)	Brake Capacity (tonnes)	Hauling Speed (m/sec)
Forecastle	1	D(4)	N	HYD	5	f=2695.8kg	15
For'd Main Deck							
Aft Main Deck							
Poop	1	D(4)	N	HYD	5	f=2695.8kg	15

14.30 ANCHORS AND WINDLASSES

Windlass Motive Power (e.g. Steam, Hydraulic)	Hydraulic	
Hauling Power	10 T	
Brake Holding Power	F = 3477.5 kg	
Anchor Type	Stockless	
Weight	2.85 T	
Is Spare Carried		No
Cable Diameter	48 mm	
No. of Shackles Port	9	
No. of Shackles Starboard	9	

14.4 TOWING EQUIPMENT

Is ship fitted with a Towing Bracket Aft		No
If Yes, state SWL		
Is Towing Chain provided		No
Dimensions of Towing Wire - Diameter	34 mm	
- Length	190 m	

14.5 WINDAGE

Windage on Ballast Draught - End-on	241 m2
- Lateral	841 m2
	ARR. Condition Draft 4.61 M

A.15 NAVIGATIONAL EQUIPMENT

Is the following equipment fitted :

15.1	Magnetic Compass	Yes	
15.2	Off Course Alarm - Magnetic	Yes	
15.3	Gyro Compass	Yes	
	Specify Number	1	
15.4	Off Course Alarm - Gyro	Yes	
15.5	Bridge Repeaters	Yes	
	Specify Number	3	
15.6	Radar 3cm	Yes	
15.7	Radar 10cm	Yes	
15.8	Are Radars Gyro Stabilised	Yes	
15.9	Radar Plotting Equipment	Yes	
15.10	ARPA (No.1 only)	Yes	
15.11	ECDIS (Electronic Display and Information System)		No
15.12	Depth Echo Sounder with Recorder	Yes	
15.13	Depth Echo Sounder without Recoder		No
15.14	Speed/Distance Indicator	Yes	
15.15	Doppler Log	Yes	
15.16	Speed of Approach Doppler		No
15.17	Rudder Angle Indicator	Yes	
15.18	Rudder Angle Indicator on Each Bridge Wing	Yes	
15.19	R.P.M. Indicator	Yes	
15.20	R.P.M. Indicator on Each Bridge Wing	Yes	
15.21	Controllable Propeller Pitch Indicator		No
15.22	Thruster(s) Indicator	Yes	
15.23	Rate of Turn Indicator		No
15.24	Radio Direction Finder		No

15.25	Navtex Receiver	Yes	

15.26	G.P.S.	Yes	
15.27	Transit SATNAV		No
15.28	DECCA Navigator		No
15.29	Omega		No
15.3	Loran C		No
15.31	Weather Fax	Yes	
15.32	Sextant(s)	Yes	
15.33	Signal Lamp ALDIS	Yes	
15.34	Anemometer	Yes	
15.35	Engine Order Recorder		No
15.36	Course Recorder		No
15.37	Are steering motor controls and engine controls fitted on bridge wing		No
15.38	Is Bridge Equipped with "Dead Man" alarm equipment		No
15.39	What chart outfit coverage is provided		
	Worldwide		No
	Limited	Yes	
	If Limited Please Indicate Area Covered	Fareast Area	
15.4	Formal Chart Correction System in use	Yes	
15.41	Electronic Chart System in use		No

A.16 COMMUNICATIONS EQUIPMENT

Is the following equipment fitted :-

16.1	Main Transmitter Including Radio Telephone Distress Frequency	Yes	
16.2	Main Receiver Including Radio Telephone Distress Frequency	Yes	
16.3	Radio Telephone Distress Frequency Watch Receiver	Yes	
16.4	Main Radio Antenna	Yes	
16.5	Reserve Radio Antenna	Yes	
16.6	Are the Main and Reserve Installations Electrically Separate and Electrically Independent of each other	Yes	
16.7	2182kHZ Bridge Auto Alarm	Yes	
16.8	Alarm Signal Generating Device	Yes	
16.9	VHF Radi(s)	Yes	
	- Specify Number	2	
16.10	Portable VHF/UHF Radios	Yes	
	- Specify Type and Number	3	
	- Are Sets Intrinisically Safe	Yes	
16.11	Inmarsat Satellite System	Yes	
	- Specify System Type A, B or C	B & C	
16.12	Is the Ship Equipped as per GMDSS Requirments	Yes	
	- If yes, which area of oprration is vessel certified to operate in	A1 + A2 + A3	
16.13	EPIRB	Yes	
16.14	SARTS	Yes	
16.15	Emergency Lifeboat Transceiver	Yes	
16.16	At least Three Survival Craft Two-Way Radio Telephone Apparatus	Yes	
16.17	Full Set of Publications.	Yes	

B.1 CARGO - GENERAL INFORMATION

1.1	List Products Which the Ship is Cartified to Carry	Propylene, Propane, B/P Mixture, n-Butan, I-Butan, Butylen, Butadiene, VCM, Isopren, Pentane, Pentene

Transport and Carriage Conditions

1.2	Minimum Allowable Tank Temperature	0 ℃
1.3	Maximum Permissible Tank Pressure	18 kg/cm2
1.4	List Grades which can be Loaded or Discharged Simultaneously	Two Grades
1.5	List Grades which can be Transported Simultaneously	Two Grades
1.6	Number of Products that can be Conditioned by Reliquefaction Simultaneously	
1.7	State Natural tank Segregations (NB. Separation must be by the removal of spools or the insertion of blanks)	

B.2 CARGO TANKS

2.1	Type and Materials of Cargo Tanks	Cylinderical Independent Type C
2.2	Maximum Allowable Relief Valve Setting	18.0 kg/cm2
2.3	Safety Valve Set Pressure - if Variable Give Range of Pilot Valves	18.0 / 13.0 / 6.3 kg/cm2
2.4	Maximum Vacum	0.5 kg/cm2
2.5	Maximum Cargo Density	0.944
2.6	Maximum Rate of Cool-Down	-
2.7	State any Limitations Regarding Partially Filled Tanks	Should not be loaded more than 98% liquied full at reference temperature
2.80	State Allowable Combinations of Filled and Empty Tanks	-

B.3 CARGO TANK CAPACITIES

Complete the Following Table :

Tank	Capacity m3 100%	Butane 45 C Tonnes	Propane 45 C Tonnes	Propylen 45 C Tonnes	Butadiene 45 C Tonnes	Isoplene 45 C Tonnes	VCM 45 C Tonnes
MARVS 18.0kg/cm2							
1	2050		922	944			
2	2050		922	944			
	RVS 6.3kg/cm2						
1	2050	1100			1181	1317	1751
2	2050	1100			1181	1317	1751
		2201	1844	1888	2362	2635	3502
Restricted quantity by A-4							*3098
Calculated SG :		0.548	0.459	0.468	0.585	0.656	0.872

B.4 LOADING RATES

4.1 From Refrigerated Storage :

	Product	Rate (tonnes/hr)	
		With Vapour Return	Without Vapour Return
4.2	Butane		
4.3	Propane		
4.4			
4.5			
4.6			
4.7			

4.8 From Pressure Storage :

	Product		Rate (tonnes/hr)	
			With Vapour Return	Without Vapour Return
4.9	Butane	0-30℃		
4.10	Propane	0℃		Depending on Shore
4.11		10℃	500 M3/H	Condition
4.12		20℃		
4.13		30℃		

4.14 Special Remarks :

B.5 DISCHARGING - GENERAL

Cargo Pumps

5.1	Type of Pumps	Deep Well Type Vertical Turbine
5.2	Number Per Tank	1 set
5.3	Rate (per pump)	350 / 150 (VCM) m3/hr
5.4	Delivery Head	120 / 170 m
5.5	Maximum Denisity	0.948

Booster Pump

5.6 Not Fitted

Cargo Compressor

5.7	Type of Compressor	Water-cooled 1 stage double acting oilless comp'
5.8	Number of set	2 set
5.9	Rate	460 m3/h
5.10	Discharge Pressure	Max. 20.0 barg (20.4 kg/cm2.g)
5.11	Pressure Differential	4.0 bar'g (4.1 kg/cm2'g)
		Maximum 7.0 bar (7.1 kgs/cm2) at single action

B.6 DISCHARGING - PERFORMANCE

Full Cargo Discharging Times (using all main pumps) :

6.1 Fully Refrigerated :

	Manifold Back Pressure	Hours With Vapour Return	Hours Without Vapour Return
6.2	1 kg/cm2		
6.3	5 kg/cm2		
6.4	10 kg/cm2		

* Indicate difference when manifold strainers are installed

6.5 Pressurized :

Manifold Back Pressure	Hours With Vapour Return	Without Vapour Return
6.6 1 kg/cm2		
6.7 5 kg/cm2	9 / Tank	subj to back pressure
6.8 10 kg/cm2		

B.7 UNPUMPABLES

	Tank No.	1	2	Totals m3
7.1	Liquid	0	0	0 m3

VAPOUR : Depending on Back Pressure

B.8 VAPORISING UNPUMPABLES

B.9 RELIQUEFACTION PLANT

B.10 COOLING CAPACITY

B.11 CARGO TEMPERATURE LOWERING CAPABILITY

B.12 INERT GAS

Nitrogen Plant

12.1	Type of System	2KT-260 (PSA System)
12.2	Capacity	260 Nm3/hr - 99% (150 Nm3/HR - 99.9%)
12.3	Type of Fuel Used	-
12.4	Composition of I.G. (O2-CO2-CO-Nox-N2)	N2 min. 97.6 VOL% (98.6 VOL%)
		Ar max. 1.4 VOL% (1.3 VOL%)
		O2 max. 1.0 VOL% (0.1 VOL%)
		CO2 max. 1.2 PPM
12.5	Lowest Dewpoint Achievable	- 50 ℃
12.6	Used For	Purging

B.13 CARGO TANK INERTING/DE-INERTING

13.1	Time Taken From Fresh Air to Under 5% o2 at -25℃ Dewpoint	60 hrs
13.2	Time Taken From Cargo Vapour to Fully Inert at -25℃ Dewpoint when :	
	- I.G. Density Less than Product	
	- I.G. Denisity greather than Product	

B.14 GAS FREEING TO FRESH AIR

14.1	Plant Used	Cargo Compressor
14.2	Time Taken from Fully Inert Condition to Fully Breathable Fresh Air	36 hrs

B.15 CHANGING CARGO GRADES

In the table below, show the number of hours needed to change grades from the removal of unpumpables to tanks fit to load. Also indicate quantity of inert gas consumed during the operation :

To → / From ↓	Propane		Butane		VCM	
	Time (hours)	I.G.Used (m3)	Time (hours)	I.G.Used (m3)	Time (hours)	I.G.Used (m3)
Propane			75	29000	190	45000
Butane	75	29000			190	45000
VCM	75	29000	75	29000		

Note : any operation that cannot be carried out at sea

* Restrictions may apply.

B.16 DECK TANK CAPACITIES

B.17 PRE-LOADING COOLDOWN

B.18 VAPORISER

B.19 BLOWER

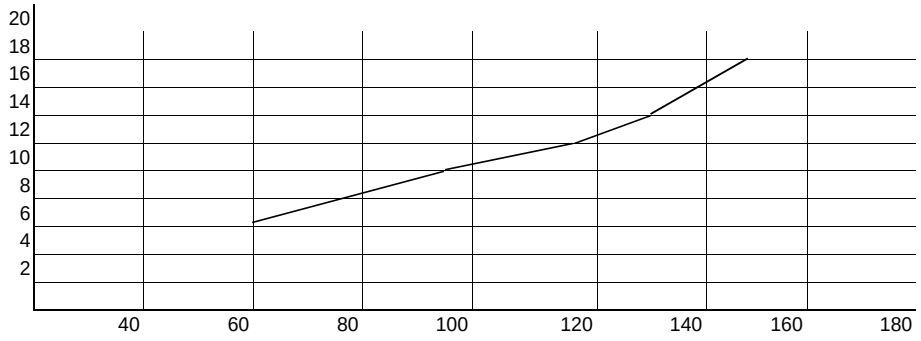
B.20 CARGO RE-HEATER

20.1	Type of Re-Heater	SHELL and TUBE
20.2	Number of Fitted	1
20.3	Heating Medium	SEA WATER

Loading rates with sea water at 15℃ to raise product temperature :

20.4	-	for propane from -42℃ to 0℃	150 m3/H
20.5	-	for Ammonia from -33℃ to 0℃	-

20.6 Cargo Heater Curve :



B.21 HYDRATE CONTROL

B.22 CARGO MEASUREMENT

	Level Gauge	
22.1	Are level gauge Local or Remote	Local and Remote (Bridge)
22.2	manufacture	Tokyo Keiso
22.3	Type	SP-3511S
22.4	Rated Accuracy	± 10 mm
22.5	Certifying Authority	NKKK
	Temperature Gauge	
22.6	Manufacture	Hyoda Gauge
22.7	Type	MS6L-3-GT-M, S5.5-S-GT-M
22.8	Rated Accuacy	± 2℃
22.9	Certifying Authority	NKKK
	Pressure Gauges	
22.1	Manufacture	Asahi Gauge
22.2	Type	BU G3/8 x 150
22.3	Rated Accuracy	± 1.0 %
22.4	Certifying Authority	NKKK

Oxygen Analyser

22.14	Manufacture		Riken Keiki	
22.15	Type		Portable : OX-1	
	Lowest Level Measurable		0 - 25% O2	

Fixed Gas Analyser

22.16	Manufacture		Riken Keiki	
22.17	Type		RM-570AM	
22.18	Are Cargo Tank calibration Tables Available		Yes	
22.19	Measuring Company		NKKK	
22.2	Certiying Authority		NKKK	
22.21	Calbiration Calculated to cm	1/2 cm		
22.22	Tables Established to cm	cm	mm	
22.23	Trim and List Corrections Available		Yes	
22.24	Temperature Corrections Availavle		Yes	
22.25	Float Gauge Tape Corrections Available		Yes	

B.23 CARGO SAMPLING

23.1 In the table below, indicate whether samples may be obtained from the levels specified :

Cargo Tank / Sample Level	1	2
Top	0	0
Middle	0	0
Bottom	0	0

23.2	Can samples be drawn from	- Tank Vapour Outlet	Yes	
		- Manifold Liquid Line	Yes	
		- Manifold Vapour Line	Yes	
		- Pump Discharge Line	Yes	

23.3 State Connection Type and Size :

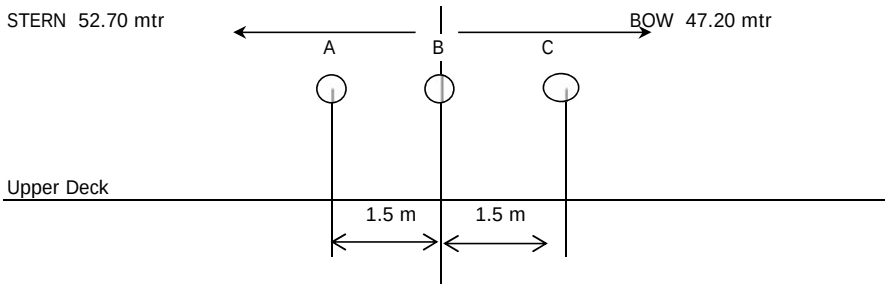
Slip tube : Sampling nozzle

Sampling tube : Sampling nozzle

End of drain pipe and dome top : Sampling nozzle

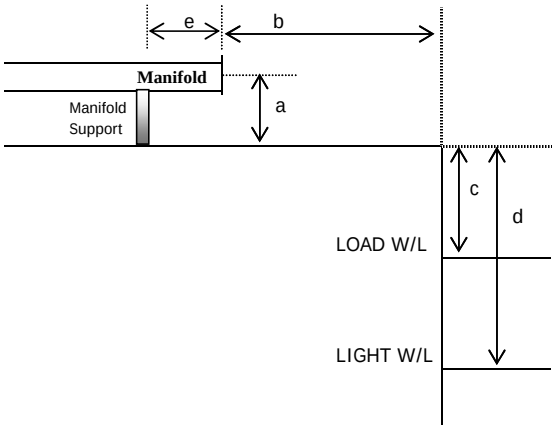
B.24 CARGO MANIFOLD

Complete the following table :



Notes :
1. Indicate liquid, vapour and Nitrogren Lines
2. Indicate pipe groupings for separate systems
3. Indicate fuel oil connections
4. Indicate flange rating
5. Show any cross manifolding arrangements
6. Indicate distances from centreline of manifold
7. Indicate if manifold strainers can be installed
   If yes specify type and mesh

PIPE Flange	Duty	Rating	Size	aised (R) or Flat (F) Face
A	Vapour	ANSI #300	5B	R
B	Liquied	ANSI #300	8B	R
C	Vapour	ANSI #300	5B	R



a. Height above uppermost continuous deck	1.05 m
b. Distance from ship's side	2.3 m
c. Height above load W/L	2.386 m
d. Height above light W/L	5.798 m
e. Cartilever (including spool piece/adaptor)	0.28 m

B.25 CARGO MANIFOLD REDUCERS

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

25.1	ANSI Class 300	8B x 10B, 6B	
		6B x 5B, 4B, 3B	
		5B x 4B	4B x 3B, 2B
25.2	ANSI Class 300 to Class 150	8B x 8B	6B x 6B, 4B
		5B x 6B, 5B	
		4B x 3B, 2B	
25.3	ANSI Class 300 to JIS 20kg/cm2	8B x 8B	6B x 6B, 4B
		5B x 5B	
		4B x 4B, 3B, 2B	

B.26 CONNECTIONS TO SHORE FOR ESD AND COMMUNICATIONS SYSTEM

26.1	Is ESD connection to Shore available		No
	If yes which of the following systems are fitted :-		
	Pneumatic		No
	Electrical	Yes	
	Fibre Optic		No
26.2	Type of Plug Used :-		
	Pneumatic		
	Electrical		
	Fibre Optic		
26.3	Is Hose of cables Available on Board	Yes	
	Specify Length		
	Pneumatic		
	Electrical	30 m	
	Fibre Optic		
26.4	Is Connection Available for Telephone Line		No
26.5	Are Connections Available on Both Sides of Vessel		No

B.27 MANIFOLD DERRICK/CRANE

27.1	Is Manifold Derrick Provided	Yes
27.2	Is Manifold Crane Provided	
27.3	Is Lifiting Equipment Same Port and Starboard	Yes
	If No, give detailes	
27.4	State SWL at Maximum Outreach	3 T

B.28 STORES HANDLING

28.1	Stores Crane/Derrick Location and SWL	Boat Deck (S)
		0.9 T