



# **Oil Companies International Marine Forum**

## **Revised Ship Inspection Report (SIRE) Programme**

**Cover Sheet for Printed Vessel Particulars Questionnaire for: HELLESPONT  
TROOPER  
IMO\LR Number: 9107710**

**1. GENERAL INFORMATION**

**General Information**

1.1	Date this VPQ document completed	20/09/2007
1.2	Name of ship	HELLESPONT TROOPER
1.3	LR/IMO Number	9107710
1.4	Last previous name	SPETSES
1.4.1	Date of name change	28 Jul 2005
1.5	Second last previous name	
1.5.1	Date of name change	
1.6	Third last previous name	
1.6.1	Date of name change	
1.7	Fourth last previous name	
1.7.1	Date of name change	
1.8	Flag	Marshall Island
1.9	Port of Registry	MAJURO
1.10	If the flag has been changed, what was previous flag?	Greece
1.11	Call sign	V7IH3
1.12	INMARSAT number	353899020
1.13	Ship's fax number	353899021
1.14	Ship's telex number	353899023-tro
1.15	Mobile Phone Number	NA
1.16	Ship's Email address	ftroo@hellesponthammonia.de
1.17	Type of ship	Oil Tanker
1.18	Vessel's MMSI No. (Maritime Mobile Selective Call Identity Code)	538090183
1.19	Type of Hull	Double Hull

**Ownership And Operation**

1.20	Registered Owner (Name)	MS "Hellespont Trooper" GmbH & GMBH & CO .KG Bleichenbrocke 10, 20354 Hamburg, GERMANY	Office telephone number	Via Operators
	Full address		Office telex number	Via Operators
			Office fax number	Via Operators
			Office Email address	Via Operators
			Contact person	
			Contact person after hours tel. no.	
	Number of years ship owned	2 Years		
1.22	Technical Operator (Name)	Hellespont Hammonia GmbH & Co. KG	Office telephone number	+49 40 27862131
	Full Address	370 Elbchaussee, 22609 Hamburg GERMANY	Office telex number	
			Office fax number	+49 40 27862130
			Office Email address	managers@hellesponthammonia.de
			Contact (Designated Person Ashore)	Capt. Danezis Pavlos
			Contact person after hours tel. no.	+30 6944 849559
	Emergency callout number	+49 40 22625 266	Contact details for person responsible for oil spill response	Capt. Danezis Pavlos
	Emergency callout pager number			
	No. years controlled by technical operator	2 Years		
	No. of ships operated by this Operator	9		
1.25	Commercial Operator (Name)	Hellespont Hammonia GmbH & Co. KG	Office telephone number	+49 40 27 86 21 31
	Full Address	370 Elbchaussee 22609 Hamburg GERMANY	Office telex number	

			Office fax number	+49 40 27 86 21 30
			Office Email address	managers@hellesp onthammonia.de
			Contact person	Spyros N. Vlassopoulos
			Contact person after hours tel. no.	+49 172 436 0792

**Builder**

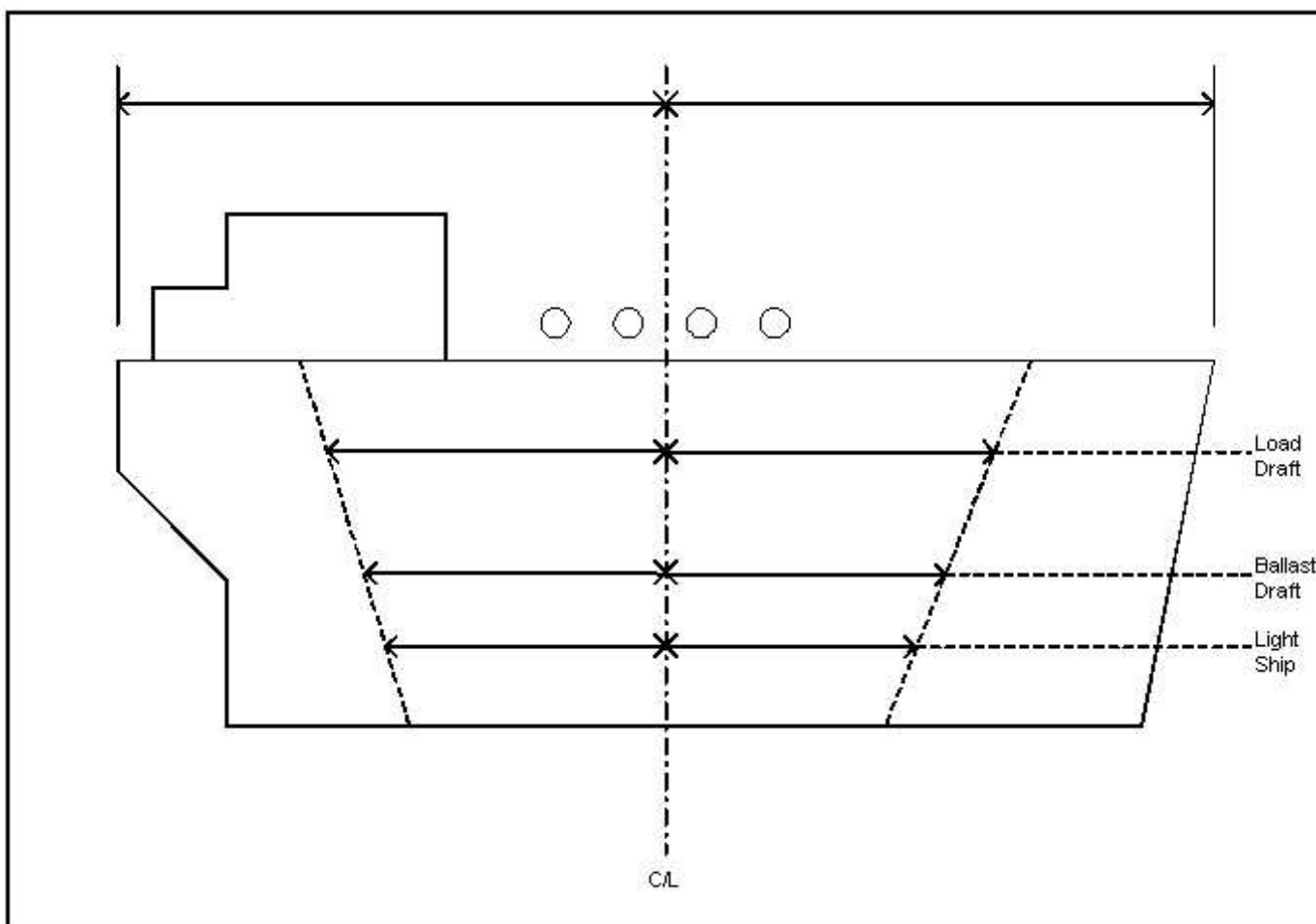
1.26	Builder	SAMSUNG HEAVY INC. CO. LTD
1.27	Date of building contract	18 Jan 1994
1.28	Hull number	1139
1.29	Date keel laid	16 Oct 1995
1.30	Date launched	07 Mar 1996
1.31	Date delivered	09 May 1996
1.32	If applicable, date of completion of major hull changes	Not Applicable
1.33	List what changes were made.	Not Applicable

**Classification**

1.34	Classification society	American Bureau of Shipping
1.35	Class Notation	+A1(E) "OIL CARRIER +AMS, +ACCU, + SH, VEC
1.36	If Classification society changed, name of previous society	None
1.37	If Classification society changed, date of change	
1.38	Date of last dry-dock	31/05/2006
1.39	Date of second last dry-dock	07/05/2001
1.40	Date next dry-dock due	31/05/2011
1.41	Date of last special survey	31/05/2006
1.42	Was last special survey an enhanced special survey?	Yes
1.43	Date next special survey due	31/05/2011
1.44	If ship has Condition Assessment Programme (CAP) rating, what is the latest rating?	-
1.45	Date of last annual survey	10/07/2007
1.46	Date of last boiler survey - Port boiler	10/07/2007
1.47	Date of last boiler survey - Starboard boiler	10/07/2007
1.48	Is the ship subject to Continuous Machinery Survey?	Yes

**Dimensions**

1.49	Length overall (LOA)	274 metres
1.50	Length between perpendiculars (LBP)	264 metres
1.51	Extreme breadth	47.8 metres
1.52	Moulded breadth	47.8 Metres
1.53	Moulded depth	22.8 metres
1.54	Keel to masthead	50.7 metres
1.55	Distance bow to bridge	234.4 Metres
1.56	Distance bridge front - mid point manifold	92.13 metres
1.57	PARALLEL MID-BODY DIAGRAM	
1.57.1	Distance bow to mid-point manifold	136.07 metres
1.57.2	Distance stern to mid-point manifold	137.93 Metres
1.57.3	Light ship parallel body length	106.88 Metres
1.57.4	Light ship parallel body - bow to mid-point manifold	66.48 Metres
1.57.5	Light ship parallel body - stern to mid-point manifold	40.4 Metres
1.57.6	Normal ballast parallel body length	136 metres
1.57.7	Normal ballast parallel body length - bow to mid point manifold	75.5 metres
1.57.8	Normal ballast parallel body length - stern to mid point manifold	58.5 metres
1.57.9	Parallel body length at Summer Deadweight (SDWT)	155 metres
1.57.10	Parallel body length at SDWT - bow to manifold	76 metres
1.57.11	Parallel body length at SDWT - stern to mid point manifold	79 metres
1.58	Does ship have a bulbous bow?	Yes



**Tonnages**

1.59	Net Registered Tonnage	45963 tonnes
1.60	Gross Tonnage	80637 tonnes
1.61	Suez Tonnage	79682.69 Tonnes
1.62	Panama Tonnage	Not Applicable

**Loadline Information**

		Freeboard	Draft	Deadweight	Displacement
1.63	Summer	6819 millimetres	16022 metres	147916.2 tonnes	170360.1 tonnes
1.64	Winter	7152 millimetres	15689 metres	144025.9 tonnes	166469.8 tonnes
1.65	Tropical	6486 millimetres	16355 metres	151806.6 tonnes	174250.5 tonnes
1.66	Lightship	20256 millimetres	2585 metres	tonnes	22443.9 tonnes
1.67	Normal Ballast Condition	14813 Metres	8.028 Metres	56943.2 Tonnes	79387.1 Tonnes
1.68	Segregated Ballast Condition	15261 Metres	7.58 Metres	52356.1 Tonnes	74800 Tonnes

**Loadline Information and Recent Operational History**

1.69	FWA at Summer Draft	364 Millimetres
1.70	TPC Immersion at Summer Draft	116.7 tonnes
1.71.1	Draught Fore at normal ballast conditions	6.499 metres
1.71.2	Draught Aft at normal ballast conditions	9.556 metres
1.72	Does ship have Multiple SDWT ?	No
1.73	If yes, what is maximum assigned Deadweight?	tonnes
1.74	Max. height of mast above waterline (air draft) in normal SBT condition?	41.144 Metres
1.75	Has the ship traded continuously without requirement for repairs since the last dry-dock, except for normal maintenance?	Yes

1.76	The nature of the repair was:	
1.77	Has ship been involved in a pollution incident during the past 12 months?	No
1.78	Has ship been involved in a grounding incident during the past 12 months?	No
1.79	Has ship been involved in a collision during the past 12 months?	No

**2. CERTIFICATION AND DOCUMENTATION**

**Certificates**

		Issued	Expires	Last Annual	
2.1	Register Number	90183			
2.2	Safety Equipment Certificate	07/06/2006	31/05/2011	10/07/2007	
2.3	Safety Radio Certificate	03/06/2006	31/05/2011	10/07/2007	
2.4	Safety Construction Certificate	03/06/2006	31/05/2011	10/07/2007	
2.5	Loadline Certificate	03/06/2006	31/05/2911	10/07/2007	
2.6	International Oil Pollution Prevention Certificate (IOPPC)	03/06/2006	31/05/2011	10/07/2007	
2.7	Type of Oil Tanker as specified by IOPPC Crude/Product (If not an oil tanker, specify)	Crude			
2.8	Safety Management Certificate (SMC)	26/01/2006	25/01/2011		(Last intermediate)
2.9	Document of Compliance (DOC)	18 Nov 2005	17 Nov 2010	23/11/2006	(Endorsed)
2.10	USCG Letter of Compliance (if applicable)				
2.11	Date of last USCG Tank Vessel Examination Letter (TVEL)	12/05/2007	11/05/2009		
2.12	Minimum Safe Manning Certificate	25 Jul 2005			
2.13	Civil Liability Convention Certificate (1969)				
2.14	Civil Liability Convention Certificate (1992)	20/02/2008			
2.15	U.S. Certificate of Financial Responsibility	17/08/2008			
2.16	Certificate of Fitness (Chemicals)				
2.17	Certificate of Fitness (Gas)				
2.18	Noxious Liquids Certificate				
2.19	Unattended Machinery Space Certificate				
2.20	International Tonnage Certificate	24 Aug 2005			

**Documents**

2.21	IMO Safety of Life at Sea Convention (SOLAS 74)	Yes
2.22	IMO International Code of Signals (SOLAS V-Reg 21)	Yes
2.23	IMO International Convention for the Prevention of Pollution from Ships (MARPOL 73/78)	Yes
2.24	IMO Ships Routeing	Yes
2.25	IMO International Regulations For Preventing Collisions at Sea (COLREGS)	Yes
2.26	IMO Standards of Training, Certification and Watchkeeping (STCW Convention)	Yes
2.27	ICS Guide to Helicopter/Ship Operations	Yes
2.28	OCIMF/ICS/IAPH International Safety Guide for Oil Tankers and Terminals (ISGOTT)	Yes
2.29	OCIMF/ICS Clean Seas Guide for Oil Tankers	Yes
2.30	OCIMF/ICS Prevention of Oil Spillages Through Cargo Pumproom Sea Valves	Yes
2.31	OCIMF/ICS Ship to Ship Transfer Guide (Petroleum)	Yes
2.32	OCIMF Recommendations for Oil Tanker Manifolds and Associated Equipment	Yes
2.33	OCIMF Mooring Equipment Guidelines	Yes
2.34	OCIMF Effective Mooring	Yes
2.35	USCG Regulations for Tankers (USCG 33 CFR/46 CFR)	Yes
2.36	Oil Transfer Procedures (USCG 33 CFR 155-156)	Yes
2.37	Operator's ISM Manuals	Yes
2.38	Is the publication IMO-Inert Gas Systems, or Ship Technical Operator's equivalent manual on board?	Yes
2.39	Is the publication IMO-Cow Systems, or Ship Technical Operator's equivalent manual on board?	Yes
2.40	ICS Bridge Procedures Guide	Yes
2.41	IAMSAR Vol.3	Yes
2.42	Nautical Institute Bridge Team Management	Yes
2.43	International Medical Guide for Ships(or equivalent)	Yes

**For Chemical Tankers Only**

2.44	IMO Code for Construction & Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)	N/A
2.45	IMO Index of Dangerous Chemicals Carried in Bulk	N/A
2.46	ICS Tanker Safety Guide (Chemicals)	N/A
2.47	IMO Code for Construction & Equipment of Ships Carrying Dangerous Chemicals in Bulk (BCH Code)	N/A

2.48	Chemical Data Guide (USCG 1990 CIM 16616.6A)	N/A
2.49	Medical First Aid Guide for Use in Accidents involving Dangerous goods (MFAG)	N/A
2.50	Procedures and Arrangements (P&A) Manual	N/A

**For Gas Carriers Only**

2.51	IMO Code for Construction & Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code)	N/A
2.52	ICS Tanker Safety Guide (Liquefied Gas)	N/A
2.53	SIGTTO Liquefied Gas Handling Principles on Ships and in Terminals	N/A
2.54	SIGTTO Guide to Pressure Relief Valve Maintenance and Testing	N/A
2.55	ICS Ship to Ship Transfer Guide (Liquefied Gases)	N/A
2.56	IMO Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code)	N/A
2.57	IMO Code for Existing Ships Carrying Liquefied Gases in Bulk (EGC Code)	N/A
2.58	Life saving Appliances Code	N/A
2.59	Fire Safety Systems Code	N/A

**3. CREW MANAGEMENT**

**Crew Management**

3.1	Minimum manning required (officers)	8	3.2	Minimum manning required (ratings)	8
	Actual manning (officers)	9		Actual manning (ratings)	16
	List Nationality of Officers	Filipino		List Nationality of Ratings	Filipino
	Master employed by (Vessel Operator)	Yes		Master employed by (Manning Agent)	Yes
	Officers employed by (Vessel Operator)	Yes		Officers employed by (Manning Agent)	Yes
	Ratings employed by (Vessel Operator)	Yes		Ratings employed by (Manning Agent)	Yes
	Common language used (Vessel Operator)	ENGLISH		Common language used	ENGLISH
	Full name of Manning agent 1 (Officers)	Manila Shipmanagement & Manning		Full name of Manning agent 1 (Ratings)	Manila Shipmanagement & Manning
	Full address	Ground Floor, Princess Bldg, 104 Esteban Str. Legaspi Village Makati City 1229 Manila		Full address	Ground Floor, Princess Bldg, 104 Esteban Str. Legaspi Village Makati City 1229 Manila
	Office telephone number	+632 892 4071		Office telephone number	+632 892 4071
	Office telex number			Office telex number	
	Office fax number	+632 816 6993		Office fax number	+632 816 6993
	Office Email address	email@manship.com		Office Email address	
	Are manning agent(s) wholly or partially owned by Operator?	Yes		Does vessel's Operator maintain personnel files on ratings assigned to his vessels?	Yes
	If No, does Operator have selection rights?	N/A		Do ratings regularly return to Operator's vessels?	Yes
	Does vessel's Operator maintain personnel files on officers assigned to his vessels?	Yes			
	Do officers regularly return to Operator's vessels?	Yes			

**Continuity**

3.3	Do senior officers return to the same ship on a rotational basis?	Yes
3.4	Are senior officers rotated on ships of similar class within company fleet?	Yes
3.5	Are junior officers and ratings rotated on ships of similar class within company fleet?	Yes
3.6	If senior officers do not return to same ship on a rotational basis, are changes of Master, Chief Officer and Second Engineer organised to avoid a full change of officers at same time?	Yes

**Training**

3.7	List Operator-sponsored training courses available to officers (Bridge Management etc.)	BRIDGE TEAM MANAGEMENT ADVANCED TANKER SAFETY ADVANCED FIRE FIGHTING  BRIDGE SIMULATION  ENGINE SIMULATION
3.8	List Operator-sponsored training courses available to ratings (Fire Fighting etc.)	FIRE FIGHTING TANKER SAFETY WATCH KEEPING TANKER FAMILIARIZATION SURVIVAL AT SEA PERSONAL SAFE PRACTICES POLLUTION PREVENTION
3.9	Are Masters and Chief Engineers required to attend company office before and after each tour of duty?	Yes
3.10	Does operator hold regular training seminars ashore for officers?	Yes
3.11	Are training seminars provided on board for officers and ratings?	Yes
3.12	What courses, exceeding statutory requirements, are provided for senior officers?	SAFETY MANAGEMENT OPERATIONS MARPOL
3.13	What courses, exceeding statutory requirements, are provided for junior officers?	ADVANCED FIRE FIGHTING SAFE WORKING PRACTICES POLLUTION PREVENTION

3.14	What courses, exceeding statutory requirements, are provided for ratings?	ANTIPOLLUTION, SAFE WORKING PRACTICES, TANKER SAFETY
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## 4. NAVIGATION

## Navigation

		Installed	Type	Number of units
4.1	Magnetic compass	Yes	TOKIMEK SH-165A	1
4.2	Gyro compass	Yes	TOKIMEK TG-6000	1
4.3	Gyro Autopilot	Yes	TOKIMEC CR-4	1
4.4.1	Radar 1	Yes	JRC JMA 8263-9	1
4.4.2	Radar 2	Yes	JRC JMA 8313-CA	1
4.4.3	Are radars gyro stabilised?	Yes		
4.5	Is there at least one radar operating in the 9 Ghz frequency band (3cm/x band)?			
4.6	Are the 3 GHz (10cm/S band) and 9Ghz (3cm / X band) radars fitted with an electronic switching unit?			
4.7	Radar plotting equipment	Yes	JRC JMA 8313-CA	1
4.8	ARPA (Installed)	Yes	FURUNO FE-680 F1	1
4.9	Depth sounder with recorder	Yes	Furuno FE 680 F1	1
4.10	Speed/distance indicator	Yes	Yokohama Emlog LT 201	1
4.11	Doppler log	Yes		
4.12	Docking approach doppler	No		0
4.13	Rudder angle indicator	Yes	Daeyank Dig 300r	3
4.14	RPM indicator	Yes	NOR	3
4.15	Controllable pitch propeller indicator	No		
4.16	Bow thruster indicator	No		
4.17	Stern Thrust indicator	No		
4.18	Rate of turn indicator	Yes	Tokimec	
4.19	Radio direction finder	No		0

## Navigation (continued)

		Installed?	Type	No. of units
4.20	Navtex receiver	Yes	JRC NCR-300 A	1
4.21	Satellite navigation receiver	No		0
4.22	GPS (Installed)	Yes	Furuno GP 500 - Removed	1
4.23	Differential GPS (Installed)	Yes	JRC JLR-7700MKII	
4.24	Is there an Electronic Chart Display?	No		
4.25	Is the Electronic Chart Display incorporated into an approved ECDIS ?	No		
4.26	Integrated Navigation System (INS)	No		
4.27	Decca navigator	No		
4.28	Omega receiver	No		
4.29	Loran C receiver	No		0
4.30	Course recorder	Yes	TOMIKEK CR-4	1
4.31.1	Off - course alarm - gyro	Yes	TOKIMEK TG-6000	1
4.31.2	Off - course alarm - magnetic	Yes	KELVIN HUDGES	1
4.32	Engine order printer	Yes	NOR OPU-8810	1
4.33	Anemometer	Yes	DIC	1
4.34	Weather fax	Yes	FURUNO FAX-214	1
4.35	Does ship carry sextant(s)?	Yes		
4.36	Does ship carry a signal lamp?	Yes		
4.37	Is each bridge wing fitted with a rudder angle indicator?	Yes		
4.38.1	Is each bridge wing fitted with a RPM indicator?	Yes		
4.38.2	Is each bridge wing fitted with a gyro repeater?	Yes		
4.39	Are there Controllable pitch propeller indicators on the bridge wings?	No		
4.40	Are steering motor controls and engine controls fitted on bridge wings?	No		
4.41	Is bridge equipped with a 'Dead-Man' alarm or equipment?	Yes		

**5. SAFETY MANAGEMENT**

**Safety Management**

5.1	Is the vessel operated under a Quality Management System?	Yes
5.1.1	If Yes, what type of system? (ISO9002 or IMO Resolution A.741(18))?	IMO RESOLUTION A.741(18)
5.1.2	If Yes, who is the certifying body?	A.B.S
5.1.3	Date of vessel certification	26/01/2006

**Helicopters**

5.2	Can the ship comply with the ICS Helicopter Guidelines?	Yes
5.2.1	If Yes, state whether winching or landing area provided	Landing
5.2.2	What is diameter of circle provided?	13.5 metres

**Fire Fighting Equipment & Life Saving Equipment**

5.3	Is a fixed foam firefighting system installed for the cargo area?	Yes
5.4	Type of foam on board	Protein
5.5	Date of foam supply or last analysis certificate	06/10/2006
5.6	What fixed fire fighting system is provided for the paint locker?	WATER
5.7	What type of fire fighting system is fitted in pumproom(s)?	CO2
5.8	What type of fire fighting system is fitted in engine room(s)?	CO2
5.9	What type of fire fighting system is fitted in void spaces(s)?	Not Applicable
5.10	Is a fixed dry powder firefighting system installed for the cargo area?	No
5.11	Is a fixed water spray firefighting system installed for the cargo area?	No
5.12	Is vessel equipped with recharging compressor for breathing apparatus?	Yes
5.13	What type of lifeboat(s) is/are fitted	Conventional
5.14	Is a dedicated rescue boat carried?	No
5.15	The type of rescue boat is: Rigid/inflated/ rigid-inflated	

**6. POLLUTION PREVENTION**

**Pollution Prevention**

6.1	Is ship fitted with a continuous deck edge fishplate enclosing the deck area?	Yes
6.1.1	If Yes, what is its minimum vertical height above the deck plating?	260 millimetres
6.1.2	What is maximum vertical height above deck plating at aft thwartships coaming?	400 millimetres
6.1.3	How far forward of the thwartships coaming is this height maintained?	99.5 metres
6.2	Is an athwartship deck coaming fitted adjacent to accommodation and service areas?	Yes
6.3	What is the height of the coaming?	400 millimetres
6.4	Is spill containment fitted under the cargo manifold?	Yes
6.5	Is spill containment fitted under all bunker manifolds?	Yes
6.6	Is containment fitted under the bunker tank vents?	Yes
6.7	Is containment fitted around the deck machinery?	Yes
6.8	Specify type of scupper plugs	expanded rubber
6.9	Are means provided for draining or removing oil from deck area /containment?	Yes
6.10.1	What type of sorbents are provided?	Yes
6.10.2	Are non-sparking hand scoops and shovels provided?	Yes
6.10.3	Disposal Containers	Yes
6.10.4	Are emulsifiers provided?	Yes
6.10.5	Non-sparking pumps	Yes
6.11	Is there two valve segregation between cargo system and sea chest ?	Yes
6.12	What types of valves are fitted to sea chest?	Butterfly
6.13	Is a cargo sea chest valve testing arrangement fitted which meets OCIMF recommendations?	Yes
6.14	Are dump valves fitted that will effectively drain spillage from the deck to designated tanks when tanks are inerted to normal working pressures?	Yes
6.15	Are overboard discharges fitted with blanks or alternatively, is there a testing arrangement for the overboard valves?	Yes
6.16	Is there a discharge below the waterline for Annex II substances	No
6.17	Is there a discharge above the waterline for Annex I oily mixtures	Yes
6.18	Does Operator have policy to pressure test cargo piping at intervals no greater than 12 months?	Yes
6.18.1	If Yes, specify pressure	18 bar
6.19	Is incinerator fitted?	Yes

**Opa 90 Requirements**

6.20	Has the vessel Operator submitted a Vessel Spill Response Plan to the US Coast Guard which has been approved by official USCG letter?	Yes
6.21	Has a Geographic Specific Appendix been filed with the Captain of the Port for each Port Zone the vessel expects to enter or transit?	Yes
6.22	Has the vessel Operator deposited a letter with the US Coast Guard confirming that the Operator has signed a service contract with an oil spill removal organisation for responding to a 'worst case scenario'?	Yes

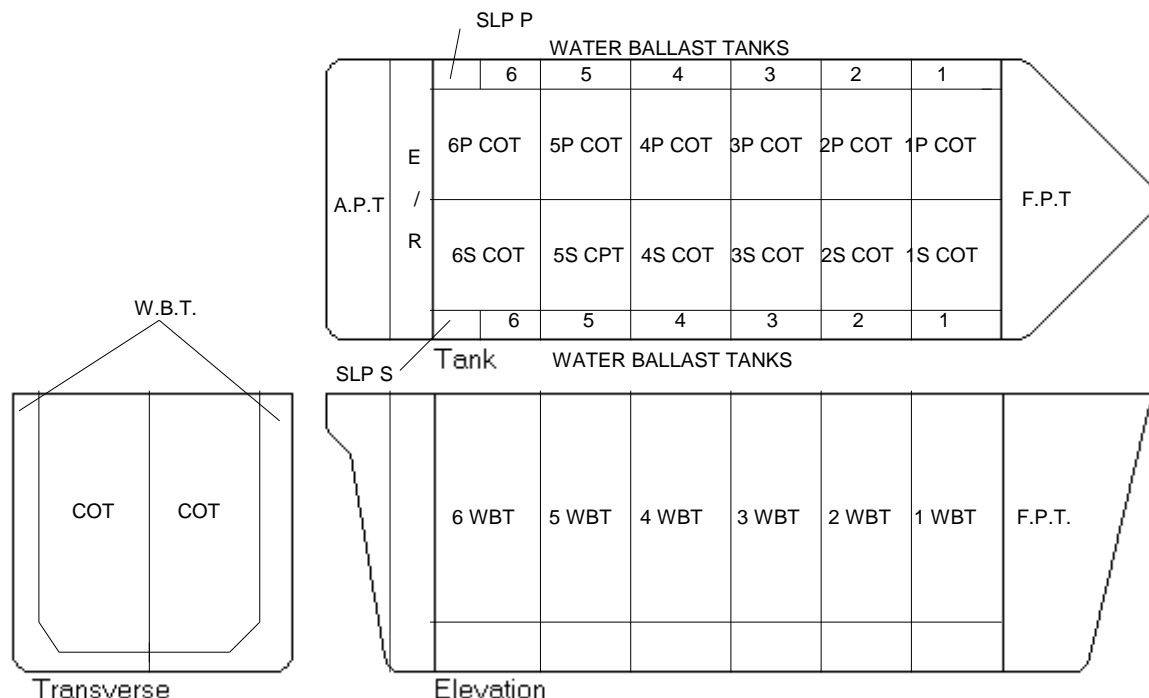
**7. STRUCTURAL CONDITION**

**Structural Condition**

7.1	Are cargo tanks coated?	Yes
7.1.1	If Yes, specify type of coating	HEMPADUR
7.1.2	If partially coated, specify which tanks are coated	Cargo tanks are partly coated, Slop tanks are fully coated
7.1.3	If cargo tanks are coated, specify to what extent	3 m Under Main Deck, 1 m Above Bottom
7.2	What is the condition of coating as determined by the criteria listed below?	Good
7.3	Are ballast tanks coated?	Yes
7.3.1	If ballast tanks are coated, specify to what extent	Whole Tank
7.3.2	What is the condition of cargo/ballast tank coating?	Good
7.4	Are there anodes in the cargo tanks?	No
7.5	Are there anodes in the ballast tanks?	Yes
7.6	What type of anodes are used?	ZINC TYPE
7.7	What is the overall percentage of wastage of the anodes?	10 %
7.8	If anodes are aluminum, what is the height above tank bottom?	Millimetres
7.9	Is a formal programme in place for regular inspection of void spaces, cargo and ballast tanks?	Yes
7.10	Does ship have planned prevention maintenance programme (PPM)?	Yes
7.10.1	Is PPM manual (card system) or computerised?	Computerised
7.10.2	What areas of vessel does PPM cover?	All Ship
7.10.3	Is PPM Class approved?	No

**8. CARGO AND BALLAST SYSTEMS**

**Cargo And Ballast Handling**



**Double Hull Vessels**

8.2	Is vessel fitted with centreline bulkhead in all cargo tanks?	Yes
8.2.1	If Yes, is bulkhead solid or perforated?	Solid
8.2.2	Is vessel fitted with any full breadth ballast tanks?	No
8.2.3	If Yes, how many ballast tanks are full breadth?	-
8.2.4	Does vessel meet the IMO definition of 'double hull'?	Yes

**Cargo Tank Capacities**

8.3	Cargo Tank Capacities At 98% Full (M3)				
	Centre			Wings (P & S combined)	
	Tank No.			Tank No.	
8.3.1	1	cu. m.	8.3.16	1	22463.8 cu. m.
8.3.2	2	cu. m.	8.3.17	2	28397.8 cu. m.
8.3.3	3	cu. m.	8.3.18	3	28494.6 cu. m.
8.3.4	4	cu. m.	8.3.19	4	28494.6 cu. m.
8.3.5	5	cu. m.	8.3.20	5	28494.6 cu. m.
8.3.6	6	cu. m.	8.3.21	6	27074.5 cu. m.
8.3.7	7	cu. m.	8.3.22	7	cu. m.
8.3.8	8	cu. m.	8.3.23	8	cu. m.
8.3.9	9	cu. m.	8.3.24	9	cu. m.
8.3.10	10	cu. m.	8.3.25	10	cu. m.
8.3.11	11	cu. m.	8.3.26	11	cu. m.
8.3.12	12	cu. m.	8.3.27	12	cu. m.
8.3.13	13	cu. m.	8.3.28	13	cu. m.
8.3.14	14	cu. m.	8.3.29	14	cu. m.
8.3.15	15	cu. m.	8.3.30	15	cu. m.

8.4	Total	0 Cu. Metres	8.6	Total	163419.9 Cu. Metres
8.5	Slops 1st Tank	2355.6 cu. m.	8.7	Slops 3rd tank	cu. m.
8.5.1	Slops 2nd Tank	2353.8 cu. m.	8.7.1	Slops 4th tank	cu. m.
8.8	Total	4709.4 Cu. Metres	8.9	Total	163419.9 Cu. Metres
8.10			Grand Total Capacity (98%)		168129.3 Cu. Metres

**Ballast Tank Capacities**

8.11	Ballast Capacities At 100% Full (M3)	
	Tank Identity	Capacity
8.11.1	F.P.T.	5575.5 cu. m.
8.11.2	No. 1 WBT (P/S)	8010.2 cu. m.
8.11.3	No. 2 WBT (P/S)	8136.6 cu. m.
8.11.4	No. 3 WBT (P/S)	8197 cu. m.
8.11.5	No.4 WBT (P/S)	8197 cu. m.
8.11.6	No. 5 WBT (P/S)	8126.8 cu. m.
8.11.7	No. 6 WBT (P/S)	9497 cu. m.
8.11.8	A.P.T.	914.4 cu. m.
8.11.9		cu. m.
8.11.10		cu. m.
8.11.11		cu. m.
8.11.12		cu. m.
8.11.13		cu. m.
8.11.14	Total Ballast Tank Capacities at 100% full	56654.5 Cu. Metres

**Ballast Handling**

8.12.1	If vessel is a Pre-MARPOL tanker, indicate by tank number, tanks usually designated for departure ballast.	Not Applicable
8.12.1.1	Tank Location	
8.12.2	If vessel is a Pre-MARPOL tanker, indicate by tank number, tanks usually designated for arrival ballast.	Not Applicable
8.12.2.1	Tank Location	
8.12.3	Can vessel handle cargo and non-segregated ballast concurrently maintaining two valve segregation?	N/A
8.12.4	Can dirty ballast be safely loaded with gas transfer method? (simultaneous cargo discharge and loading of ballast into empty tanks)	N/A

**If Vessel Is Cbt Tanker With Manual**

8.13	If the vessel is a CBT Tanker with Approved Manual:	
8.13.1	Which cargo tanks are indicated as CBT in the IOPP Certificate?	Not Applicable
8.13.2	What is total capacity of CBT tanks?	cu. m.
8.13.3	Is the piping for CBT common with cargo piping or independent?	Not Applicable

**If Vessel Is Sbt Tanker**

8.14.1	What is total capacity of SBT?	56654.5 Cu. Metres
8.14.2	What percentage of summer deadweight can vessel maintain with SBT only?	39 %
8.14.3	Does vessel meet the requirements of MARPOL Reg 13 (2)?	Yes
8.14.4	Can segregated ballast be discharged through vessel's manifold?	Yes
8.14.5	Is vessel equipped with spool piece designed to connect ballast system to cargo system?	Yes
8.14.6	Do cargo lines pass through any dedicated or segregated ballast tanks?	No
8.14.7	If Yes, what type of expansion is fitted?	Not Applicable
8.14.8	Do ballast lines pass through any cargo tanks?	No
8.14.9	If Yes, what type of expansion is fitted?	Not Applicable
8.14.10	Can vessel pump water ashore for line clearing?	Yes
8.14.11	If Yes, what is maximum attainable discharge rate?	3500 cu.m./hr.
8.14.12	If Yes, what is maximum acceptable back pressure?	12 bar

8.14.13	Which cargo tanks are designated for heavy weather ballast as per IMO?	4 port and stbd
8.14.13.1	Tank Location	Midship

**Cargo Handling**

8.15	How many grades/products can vessel load/discharge with double valve segregation?	3
8.15.1	How many grades can vessel load/discharge using blank flanges?	
8.15.2	If vessel is fitted with deepwell pumps and heat exchangers, can pumps and heat exchangers be by-passed during loading?	N/A
8.15.3	Is there Oil Discharge Monitoring Equipment (ODME) fitted?	Yes
8.15.4	Is an Oil Discharge Monitoring System connected to the above waterline discharge?	Yes
8.15.5	If yes, is the Oil Discharge Monitoring System designed to automatically stop the discharge of effluent when its oil content exceeds permitted levels?	Yes
8.16	Is vessel equipped with class approved or certificated stability computer?	Yes
8.16.1	Does this stability programme consider damage stability conditions?	No
8.17	Is computer integrated with cargo system and equipped with alarm to monitor loading and discharging operations?	Yes

**Cargo And Ballast Pumping Systems**

		ID	No.	Type	Prime Mover	Self Priming / Draining	Capacity	Normal back pressure	At what head? (Metres)	RPM	Max RPM
8.18	Main Pump 1	CAR GO PUMP	3	Centrifugal	Steam	Self Priming	3500 cu.m./hr.	bar	150 metres		1450 rpm
8.19	Main Pump 2						cu.m./hr.	bar	metres		rpm
8.20	Main Pump 3						cu.m./hr.	bar	metres		rpm
8.21	Main Pump 4						cu.m./hr.	bar	metres		rpm
8.22	Main Pump 5						cu.m./hr.	bar	metres		rpm
8.23	Main Pump 6						cu.m./hr.	bar	metres		rpm
8.24	Main Pump 7						cu.m./hr.	bar	metres		rpm
8.25	Main Pump 8						cu.m./hr.	bar	metres		rpm
8.26	Booster Pumps						Cu. M/Hr	bar	M		
8.27	Stripping		1		Electric		320 cu.m./hr.	bar	150 metres		
8.28	Eductors		1				600 cu.m./hr.	bar	metres		
8.29	Ballast Handling Main Pump		2	Centrifugal	STEAM / ELECTRIC		2000 cu.m./hr.	bar	30 metres		1170 rpm
8.30	Ballast Stripping						cu.m./hr.		metres		
8.31	Ballast Eductors		1				500 cu.m./hr.		metres		
8.32	Is vessel fitted with dedicated stripping lines and pumps?	No									

**Cargo And Ballast Pumping Systems and Control Room**

	State location of cargo pump emergency stops	
8.33	(i)	MANIFOLDS (P/S)
8.34	(ii)	CARGO CONTROL ROOM
8.35	(iii)	ENGINE CONTROL ROOM
8.36	(iv)	PUMP ROOM ENTRANCE
8.37	(v)	PUMP ROOM LOWER PLATFORM
8.38.1	Are bearings of cargo pumps fitted with high temperature alarms?	Yes
8.38.2	Are bearings of cargo pumps fitted with high temperature trips?	Yes

8.39.1	Are bearings of ballast pumps fitted with high temperature alarms?	Yes
8.39.2	Are bearings of ballast pumps fitted with high temperature trips?	Yes
8.40.1	Are casings of cargo pumps fitted with high temperature alarms?	Yes
8.40.2	Are casings of cargo pumps fitted with high temperature trips?	Yes
8.41.1	Are casings of ballast pumps fitted with high temperature alarms?	Yes
8.41.2	Are casings of ballast pumps fitted with high temperature trips?	Yes
8.42.1	Are pumproom shaft glands through bulkheads fitted with high temperature alarms?	Yes
8.42.2	Are pumproom shaft glands through bulkheads fitted with high temperature trips?	Yes
8.43	What is the principal type of cargo valve?	Butterfly
8.44	What type of cargo valve actuator is fitted?	Hydraulic
8.45	Is ship fitted with a Cargo Control Room? (CCR)	Yes
8.46	Can cargo and ballast pumps be controlled from the CCR?	Yes
8.47	Can all valves be controlled from the CCR?	No
8.48	Can tank innage/ullage be read from the CCR?	Yes
8.49	Is ODME readout fitted in the CCR?	Yes
8.50	Can the IGS be controlled from the CCR?	Yes

### Gauging And Sampling

8.51	Can vessel operate under closed loading conditions in accordance with Section 7.6.3 of ISGOTT?	Yes
8.51.1	What type of fixed closed tankgauging system is fitted?	Radar
8.52	Does tank gauging system have local reading?	Yes
8.52.1	Is gauging system certified and calibrated?	Yes
8.52.2	If it is a portable system does the sounding pipe extend to full tank depth?	No
8.53	Are bunker tanks fitted with a full depth gauging system?	Yes
8.54	Are high level alarms fitted to cargo tanks?	Yes
8.54.1	If Yes, indicate whether to all tanks or partial?	All
8.54.2	Are high level alarms independent of the gauging system?	Yes
8.55	Are bunker tanks fitted with high level alarms?	Yes
8.56	If Yes, are bunker tank high level alarms part of the primary tank gauging system?	Yes
8.57	Are closed sampling devices on board?	Yes
8.58	Are cargo tanks fitted with dipping points as per IMO Res 497 4.4.4?	Yes
8.59	If portable equipment for gauging uses vapour locks, are vapour locks calibrated?	Yes
8.59.1	If Yes, by whom are vapour locks calibrated?	ABS
8.59.2	If Yes, by whom are vapour locks certified?	ABS
8.60	If portable equipment used for gauging who is manufacturer?	MMC
8.60.1	If portable equipment used for gauging how many units are supplied?	2
8.61	What is size of vapour lock?	50 millimetres
8.61.1	Can vapour lock be used for ullaging?	Yes
8.61.2	Can vapour lock be used for temperature?	Yes
8.61.3	Can vapour lock be used for interface?	Yes
8.61.4	Can vapour lock be used for cargo sampling?	Yes
8.62	Specify portable equipment for checking oil/water interface	MMC
8.63	Can cargo samples be taken at the manifold?	Yes
8.64	What is the means of taking cargo temperatures?	MMC

### Vapour Emission Control

8.65	Is a vapour return system fitted?	Yes
8.65.6	If fitted, is vapour line return manifold in compliance with OCIMF Guidelines?	Yes
8.66	Is vessel certified for vapour transfer?	Yes
8.66.1	If yes, by which organisation?	ABS

**Venting**

8.67	State what type of venting system is fitted	INDIVIDUAL HIGH VELOCITY
8.68	State maximum venting capacity	2470 cu.m./hr.
8.69	State P/V valve opening pressure	1400 mm/Wg
8.70	State P/V valve vacuum setting	-350 mm/Wg
8.71	Does each tank have isolating valve?	Yes
8.72	Are cargo tanks fitted with full flow P/V valves without isolating valves between the P/V valve and tank?	Yes
8.73	Is there a means of measuring the pressure in the vapour space in each cargo tank?	
8.74	Is venting through a mast riser?	Yes
8.75	Are mast risers fitted with high velocity vents?	No
8.76	If Yes, state opening pressure	mm/Wg
8.77	State vacuum setting of mast riser	mm/Wg
8.78	State throughput capacity of mast riser.	cu.m./hr.
8.79	What is the maximum loading rate for homogenous cargo?	13500 Cu. Metres/Hour

**Cargo Manifolds**

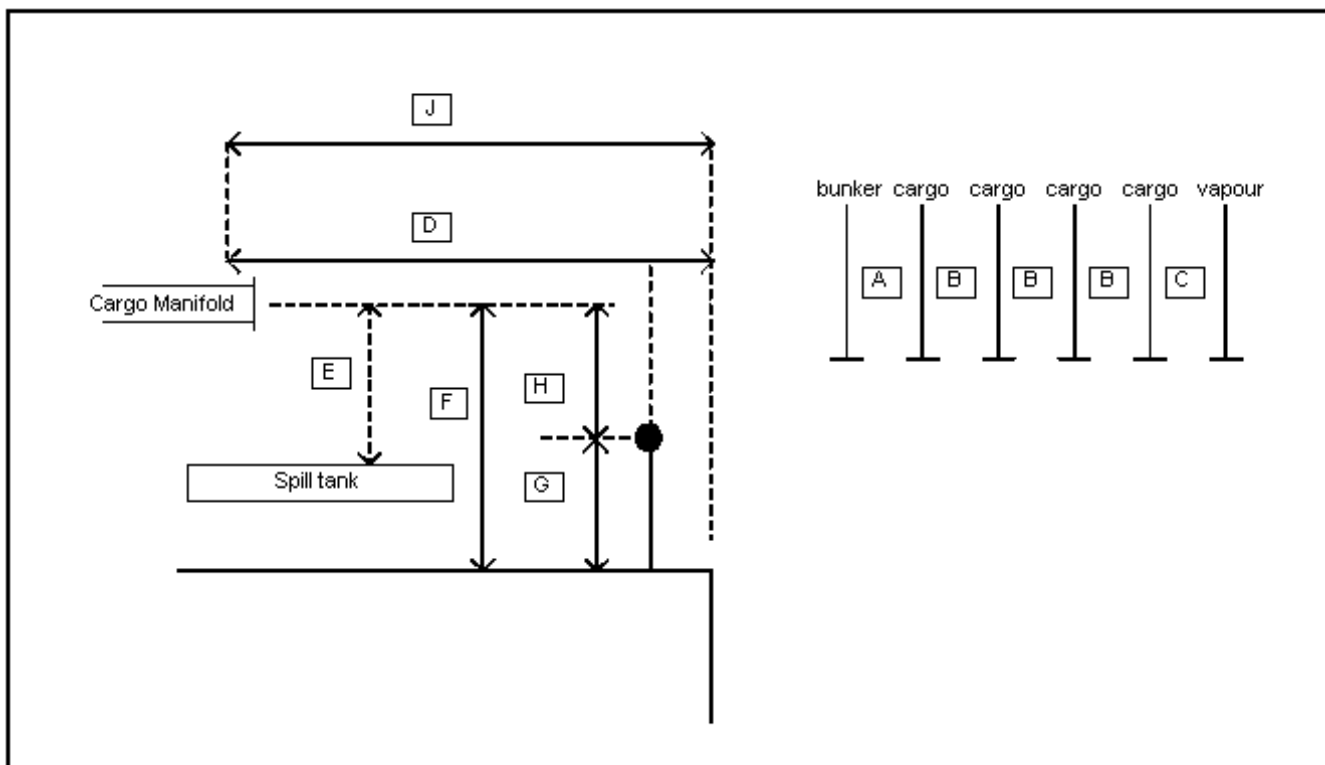
8.80	Does vessel comply with the latest edition of the OCIMF 'Recommendations for Oil Tanker Manifolds and Associated Equipment'?	Yes
8.81	What type of valves are fitted at manifold?	Butterfly
8.82	If hydraulic valves fitted, what are closing times?	0 seconds
8.83	What is the number of cargo connections per side?	3
8.84	What is the size of cargo connections?	400
8.85	Are pressure gauges fitted outboard of manifold valves?	Yes
8.86	What is the material of the manifold?	STEEL
8.87	Is the vessel fitted with a crossover at the manifold?	Yes
8.88	Are manifold cross-connections made by hard or flexible piping? (chemical carriers)	Not Applicable

**Bunker Manifolds**

8.89	What is the number of bunker connections per side?	2
8.90	What is the size of the bunker connection?	D.O: 100 mm HFO: 200 mm

**Manifold Arrangement**

8.91	Manifold Arrangement Diagram	
8.92	Distance A bunker manifold to cargo manifold	2000 Millimetres
8.93	Distance B cargo manifold to cargo manifold	2500 Millimetres
8.94	Distance C cargo manifold to vapour return manifold	4000 millimetres
8.95	Distance D manifolds to ship's rail	4600 millimetres
8.96	Distance E spill tank grating to centre of manifold	900 millimetres
8.97	Distance F main deck to centre of manifold	1800 millimetres
8.98	Distance G maindeck to top of rail	1100 millimetres
8.99	Distance H top of rail to centre of manifold	719 millimetres
8.100	Distance J manifold to ship side	4600 millimetres



**Manifold Arrangement - continued**

8.101	What is the height of the manifold connections above the waterline at loaded (Summer Deadweight) condition?	8.6 metres
8.102	What is the height of the manifold connections above the waterline in normal ballast?	16.61 Metres
8.103	What is the distance between the keel and centre of manifold?	24.62 metres
8.104	Is vessel fitted with a stern manifold?	No
8.104.1	If stern manifold fitted, state size	millimetres
8.105	Is vessel fitted with a bow manifold?	No
8.105.1	If bow manifold fitted, state size	millimetres

**Reducers**

8.106	Number of Reducers carried	6	from	400 millimetres	to	400 millimetres	(diameter)
8.107	Number of Reducers carried	5	from	400 millimetres	to	300 millimetres	(diameter)
8.108	Number of Reducers carried	5	from	400 millimetres	to	250 millimetres	(diameter)
8.109	Number of Reducers carried	3	from	400 millimetres	to	200 millimetres	(diameter)
8.110	Number of Reducers carried	1	from	300 Millimetres	to	200 Millimetres	(diameter)
8.111	To what standard are manifold reducers manufactured?	ANSI					

**Gas monitoring**

8.112	Is the vessel fitted with a fixed system to continuously monitor for flammable atmospheres?	Yes
8.112.1	What spaces are monitored?	WBT PUMPROOM
8.113	Where are sensors/sampling points located in pumproom?	BOTTOM
8.113.1	Are sensors/sampling points calibrated/tested?	Yes
8.113.2	Who is responsible for testing sensors/sampling points?	CHIEF OFFICER
	Portable and Personal gas detection equipment carried	Number of units
8.114	COMBUSTIBLE GAS INDICATOR	2
8.115	TANK SCOPE	1
8.116	GAS SCOPE	1
8.117	O2 ANALYSER	2

8.118	MULTIGAS INDICATOR	2
8.119	H2S PULSAR +	2

**Cargo Heating**

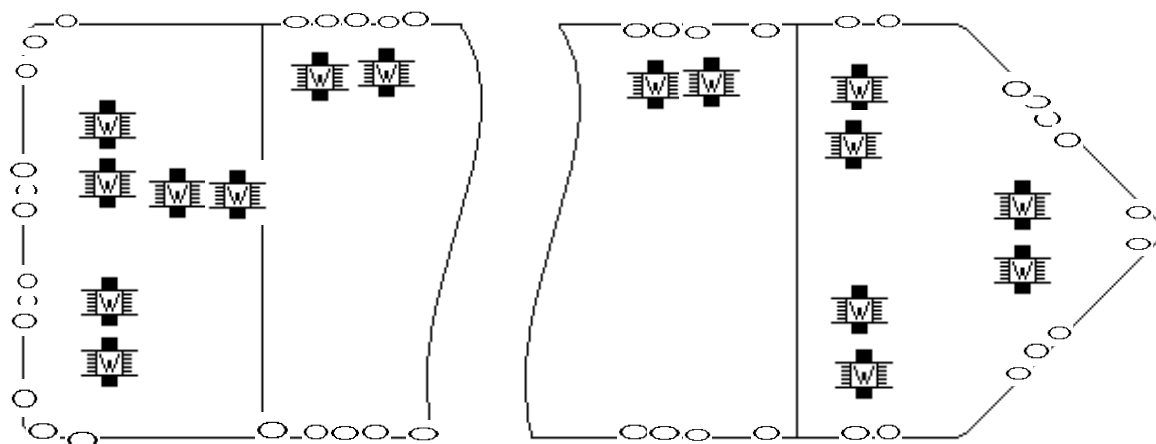
8.120	Are cargo tanks fitted with heating coils?	Yes
8.121	State the Number of independent sets of coils per tank	4
8.122	Are all tanks coiled?	Yes
8.123	What is the Height of coils above tank bottom?	150 Millimetres
8.124.1	Heating surface per tank	170 Square Metres
8.124.2	Heating surface per tank volume ratio (X:Y)	0.01
8.125	Are heating coils welded or coupled?	Welded
8.126	Are heat exchangers external to cargo tanks?	N/A
8.127	Are there external ducts?	
8.128	What is the Material of heating coils?	All-Brass
8.129	Inlet heating medium to coils...	Steam
8.130.1	...with Sea temperature	5 Degrees C
8.130.2	...with air temperature	2 Degrees C
8.131	Heating agent	
8.132	Number of heaters	
8.133.1	Able to raise temperature from	44 Degrees C
8.133.2	Able to raise temperature to	66 Degrees C
8.133.3	Time taken to raise temperature	96 Hours
8.134	Total capacity of boilers	Kcal

**9. INERT GAS AND CRUDE OIL WASHING SYSTEMS**

**Inert Gas And Crude Oil Washing**

9.1	Is an inert gas system (IGS) fitted? (If No, ignore remainder of this section)	Yes
9.2	Is a P/V breaker fitted?	Yes
9.3	Is IGS supplied by flue gas, inert gas (IG) generator and/or nitrogen?	Flue Gas / IG generator
9.4	Are fixed O2 alarms fitted in inert gas generating spaces?	
9.5	What is the capacity of the IGS?	13500 Cu. Metres/Hour
9.6	How many fans does it have?	2
9.7	What is the total combined fan capacity?	13500 Cu. Metres/Hour
9.8	Is a top-up IG generator fitted?	Yes
9.8.1	If Yes, what is its capacity?	500 cu.m./hr.
9.9	Is an IGS operating manual on board?	Yes
9.10	What type of deck seal is fitted?	Semi-Wet
9.11	How many segregations does the IGS have?	1
9.12	What method is used to isolate individual tanks?	BUTTERFLY VALVES
9.13	What type of non-return valve is fitted?	Flap
9.14	What means of protection is fitted, other than minimum thermal variation P/V valves, if tanks can be individually isolated from the IG ?	Full Flow P/V Valve
9.15	If ship has double hull or sides, are facilities available to inert ballast tanks and other void spaces?	Yes
9.15.1	Can these tanks/spaces be purged with air?	Yes
9.16	Where is the location of the emergency IGS connection?	Deck
9.16.1	What is the size of the emergency IGS connection?	100 millimetres
9.17	Is a Crude Oil Washing (COW) installation fitted? (If No, ignore remainder of this section)	Yes
9.18	Are COW drive units fixed or portable?	Fixed
9.19	Are COW drive units programmable?	Yes
9.20	Is vessel capable of performing COW at the same time as cargo discharge?	Yes
9.21	Is there an approved COW Manual on board?	Yes
9.22	What is the working pressure of the COW lines?	10 bar

10. MOORING



Mooring Wires (on Drums)

10.1	Does the vessel comply with the latest edition of OCIMF Mooring Equipment Guidelines?	Yes				
	Mooring Wires (On Drums)	Number	Diameter	Material	Length	Breaking Strength
10.2	Forecastle	6	36	GALV. STEEL	220	84 Tonnes
10.3	Forward Main Deck	2	36	GALV. STEEL	220	90 Tonnes
10.4	Aft Main Deck	2	36	GALV. STEEL	220 Metres	90 Tonnes
10.5	Poop	6	36	GALV. STEEL	220	84 Tonnes
	Mooring Wire Tails	Number	Diameter	Material	Length	Breaking strength
10.7	Forecastle	6	80	KAPA FLEX	11	129 Tonnes
10.8	Forward Main Deck	2	80	KAPA FLEX	11	129 Tonnes
10.9	Aft Main Deck	2	80	KAPA FLEX	11	129 Tonnes
10.10	Poop	6	80	KAPA FLEX	11	129 Tonnes
10.6	Type of shackle	18 Stainless Steel 40 Tonnes				
	Mooring Ropes (On Drums)	Number	Diameter	Material	Length	Breaking Strength
10.11	Forecastle					
10.12	Forward Main Deck					
10.13	Aft Main Deck					
10.14	Poop					
	Other Mooring Lines	Number	Diameter	Material	Length	Breaking Strength
10.15	Forecastle	2	60 mm	KAPA-FLEX	220	74.4 Tonnes
10.16	Forward Main Deck					
10.17	Aft Main Deck	0	0 mm			
10.18	Poop	2	60 mm	KAPA-FLEX	220	74.4 Tonnes

**Spare Mooring Wires**

	Spare Mooring Wires	Number	Diameter	Material	Length	Breaking strength
10.19	FORECASTLE STORE ROOM	0	0 Millimetres	GALV. STEEL	0 Metres	0 Tonnes
10.19.1	POOP STORE ROOM	2	36 Millimetres	GALV. STEEL	220 Metres	84 Tonnes
	Spare Mooring Ropes	Number	Diameter	Material	Length	Breaking strength
10.20	FORECASTLE STORE ROOM	1	60 Millimetres	KAPA-FLEX	220 Metres	74.4 Tonnes
10.20.1						
	Spare Mooring Tails	Number	Diameter	Material	Length	Breaking strength
10.21	FORECASTLE STORE ROOM	0	0 Millimetres		0 Metres	0 Tonnes
10.21.1	POOP STORE ROOM	2	80	NYLON	11 Metres	125 Tonnes

**Mooring Winches**

		Number	Single/Double Drums	Split Drums	Motive Power	Heaving Power	Brake Capacity	Hauling Speed
10.22	Forecastle	2	Split Drums	Yes	Hydraulic	20	50	15
10.23	Forward Main Deck	1	Double Drums	Yes	Hydraulic	20	50	15
10.24	Aft Main Deck	1	Double Drums	Yes	Hydraulic	20	50	15
10.25	Poop	3	Double Drums	Yes	Hydraulic	20	50	15
10.26	What type of winch brakes are fitted?	BRAKE BAND						
10.27	Is brake testing equipment on board?	Yes						
10.28	When were the brakes last tested?	20/03/2007						

**Mooring Bits**

10.29	How many sets of mooring bitts are fitted on forecastle?	4
10.29.1	What is their Safe Working Load?	78 Tonnes
10.30	How many sets of mooring bitts are fitted on forward main deck?	8
10.30.1	What is their Safe Working Load?	78 Tonnes
10.31	How many sets of mooring bitts are fitted on aft main deck?	6
10.31.1	What is their Safe Working Load?	78 Tonnes
10.32	How many sets of mooring bitts are fitted on poop deck?	4
10.32.1	What is their Safe Working Load?	78 Tonnes
10.33	Distance of mooring chock for breast/spring lines forward of center of manifold	70 Metres
10.34	Distance of mooring chock for breast/spring lines aft of center of manifold	51 Metres

**Anchors And Windlass**

10.35	What is the motive power of the windlass?	Hydraulic
10.36	What is the cable diameter?	97 millimetres
10.37	Number of shackles - port cable?	14
10.38	Number of shackles - starboard cable?	13
10.39	Are bitter end connections to both cables capable of being slipped?	Yes

**Emergency Towing Arrangemnts**

10.40	Is the vessel fitted with an Emergency Towing Arrangement? (if "No" then ignore the remainder of this section)	Yes
		Forward
		Aft
10.41	Type of system	CHAIN STOPPER (TONGUE TYPE)
		PUSNES
10.42	Safe Working Load (SWL) of system	200 tonnes
		200 tonnes
10.43	Is pick-up gear provided?	No
		Yes
10.44	Towing pennant length	metres
		100 metres
10.45	Towing pennant diameter	millimetres
		77 millimetres

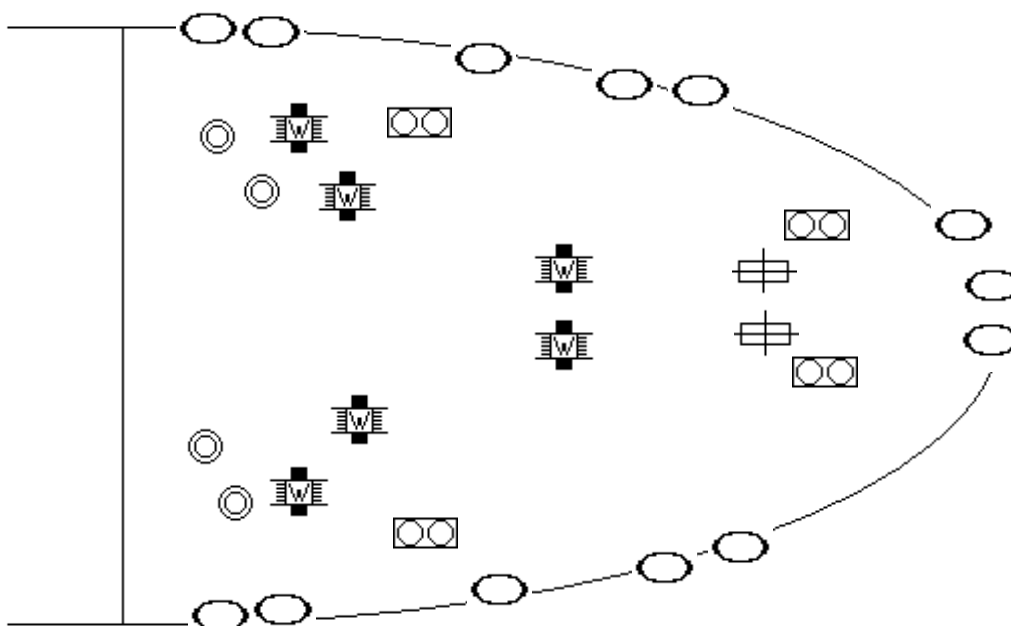
10.46	Type of strong point (Smit bracket etc)	TONGUE TYPE	pusnes towing bracket
10.47	Chafing chain size	76 millimetres	millimetres
10.48	Fairlead size (in format ABCmm x XYZmm)	600 x 450 mm	600 x 450 mm
10.49	Is pedestal roller fitted?	No	No
10.50	Is vessel provided with towing wire?	No	Yes
10.50.1	If Yes, what is the diameter of towing wire?	millimetres	77 millimetres
10.50.2	If Yes, what is the length of towing wire?	metres	100 metres
10.52	What is the number of bitts in the bow area?	4	
10.53	What is the height of the bitts in the bow area?	860 millimetres	
10.54	What is the safe working load of the bitts in the bow area?	78 Tonnes	
10.55	What is the distance between bow fairleads and nearest bitts?	2000 millimetres	
10.56	Is the bow area clear of any obstructions which would hamper towing connections?	Yes	

**Escort Tug**

10.57	SWL of closed chock on stern	165 Tonnes
10.58	SWL of bollard on poopdeck suitable for escort tug	78 Tonnes
10.59	Are stern chock and bollard capable of towing astern to 90 degrees?	Yes

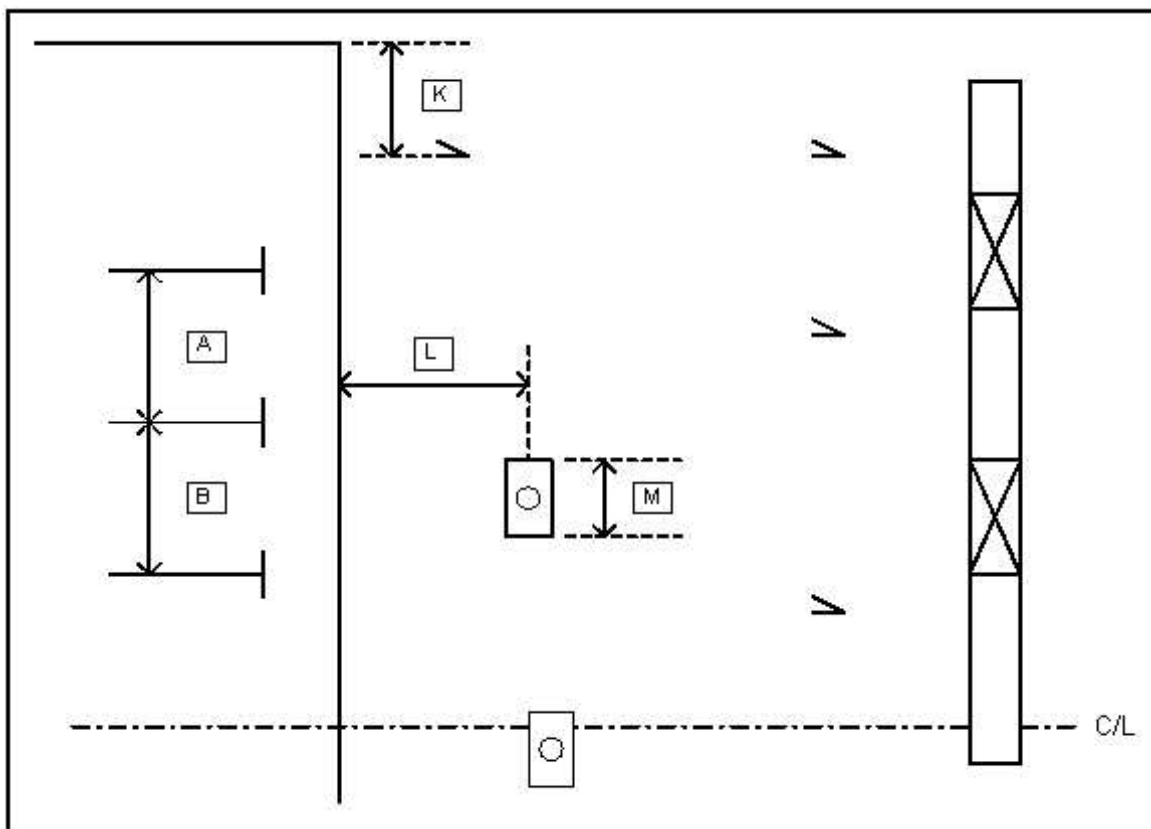
**Single Point Mooring (spm) Equipment**

10.60	Does vessel comply with the latest edition of OCIMF 'Recommendations for Equipment Employed in the Mooring of Vessels at Single Point Moorings (SPM)'?	Yes
10.61	Is vessel fitted with chain stopper(s)?	Yes
10.61.1	If Yes, how many?	2
10.61.2	If Yes, state type	TONGUE TYPE
10.61.3	If Yes, what is the Safe Working Load (SWL)?	200 tonnes
10.62	What is the maximum size chain diameter the bow stopper(s) can handle?	78 millimetres
10.63	Are closed fairleads of OCIMF recommended size (600mm x 450mm)?	Yes
10.63.1	If not, give details of size (in format ABCmm x XYZmm)	Not Applicable
10.64	If two forward bow fairleads are fitted give distance between them	1900 millimetres
10.65	What is the distance between the bow fairlead and stopper/bracket?	3430 millimetres
10.66	What is the distance from the stopper bracket to roller lead/winch drum?	4280 metres
10.67	Is there a direct lead from the bow stopper to the winch drum (not the warping end)?	Yes
10.68	Is the winch storage drum capable of safely accommodating 150m X 80mm fibre pick up rope?	Yes
10.69	Is the winch storage drum capable of accommodating 200m x 80mm fibre pick-up rope?	



**Manifold Arrangement**

10.71	Manifold Arrangement Diagram	
10.72	Distance K end of drip tray to center line of deck cleat	3400 millimetres
10.73	Distance L spill tray to centre line of bollard	430 millimetres
10.74	Distance M length of bollard	600 millimetres



**Lifting Equipment**

10.75	How many derricks does the vessel have?	
10.75.1	What is their safe working load (SWL)?	tonnes
10.75.2	Date last tested	
10.76	If cranes are fitted, how many?	2
10.76.1	What is their safe working load (SWL)?	15 tonnes
10.76.2	Date last tested	03/06/2006
10.77	Is Safe Working Load (SWL) clearly marked on all lifting equipment?	Yes
10.78	Do the vessel's derricks or cranes reach at least 1 metre outboard of rail?	Yes
10.79	How many bitts are there on each side of the manifold for tying off submarine hoses?	3

**Other Equipment**

10.80	Are accommodation ladders arranged to face aft when rigged?	Yes
10.81	Does vessel have Suez Canal boat davits?	No
10.82	Does vessel have Suez Canal projector?	Yes

**11. COMMUNICATIONS AND ELECTRONICS**

**Communications And Electronics**

11.1	Is vessel certified for GMDSS?	Yes
11.2	What GMDSS areas is the vessel classed for?	A1+A2+A3
11.3	Transponder (SART)	Yes
11.4	EPIRB	Yes
11.5	How many VHF radios are fitted on the bridge?	2
11.6	Is vessel fitted with VHF in the cargo control room (CCR)?	Yes
11.7	Is the CCR connected to the vessel's internal communication system?	Yes
11.8	How many intrinsically safe walkie talkies are provided for cargo handling?	10
11.9	Is vessel fitted with an INMARSAT satellite communications system?	Yes
11.10	Does vessel carry at least three survival craft two-way radio telephones?	Yes
11.11	List any other communications equipment carried:	Mini M: Tel: 764501887, Fax: 764501889
11.12	Can vessel transmit the helicopter homing signal on 410 KHz?	No

## 12. ENGINE ROOM AND STEERING GEAR

### Main Propulsion

12.1	Means of main propulsion	Motor
12.1.1	If motor state whether two stroke or four stroke	2 Stroke
12.1.2	If four stroke, state how many engines fitted	
12.2	Does vessel have single or twin propellers?	Single
12.3	Is vessel fitted with fixed or controllable pitch propeller(s)?	Fixed Pitch
12.4	How many boilers are fitted?	2
12.4.1	What is rated output of boilers?	40 tonnes/hr.
12.5	What type of fuel is used for main propulsion?	IFO - 380
12.6	Are pressurised fuel pipes double sheathed?	Yes
12.7	When moored at SBM, is main engine capable of being run astern at low revolutions for extended periods (up to 24 hours continuously)?	Yes
12.8	Is vessel capable of maintaining speed below 5 Knots?	Yes
12.9	Is vessel fitted for Unmanned Machinery Space (UMS) operation?	Yes
12.9.1	Is vessel operated in UMS mode?	Yes

### Thrusters

12.10	Is vessel fitted with a bow thruster?	No
12.10.1	If Yes, give Brake Horse Power	-
12.11	Is vessel fitted with a stern thruster?	No
12.11.1	If Yes, give Brake Horse Power	bhp
12.12	Is vessel fitted with high angle rudder?	No
12.12.1	If yes, what type	

### Generators

12.13	How many power generators are fitted?	3
12.13.1	Indicate type of power generator(s)	Diesel
12.14	What type of fuel is used in the generating plant?	IFO -380
12.15	Is vessel fitted with emergency generator or batteries?	Emergency Generator

### Main Engine Air Start Compressors

12.16	Number of main engine start compressors	3
12.17	Operating pressure	30 bar
12.18	Motive power of emergency compressor	ELECTRIC MOTOR 4.1 KW

### Bunkers

	Fuel Oil		Diesel Oil		Gas Oil	
	Tank name	Capacity	Tank name	Capacity	Tank name	Capacity
12.19	No.1 HFO ST. (P)	536.5 cu.m.	D.O.ST(S)	502.6 cu.m.		cu.m.
12.20	No.2 HFO ST. (P)	1873.3 cu.m.	D.O SERV. (P)	21.5 cu.m.		cu.m.
12.21	No.1 HFO ST. (S)	536.5 cu.m.		cu.m.		cu.m.
12.22	No.1 HFO ST. (S)	1115.396 cu.m.		cu.m.		cu.m.
12.23	HFO SETTling (S)	96.8 cu.m.		cu.m.		cu.m.
12.24	HFO SERVICE (S)	121.1 cu.m.		cu.m.		cu.m.
12.25		cu.m.		cu.m.		cu.m.

### Steering Gear

12.26	What type of steering gear fitted?	Cylinder
12.27	How many motorised hydraulic pumps or motors fitted?	2
12.28	How many telemotors fitted?	2
12.29	Is an emergency rudder arrest/rudder control fitted?	Yes

### Anti-pollution

12.30	Is an engine-room bilge high level alarm fitted?	Yes
12.31	Is a pump room bilge high level alarm fitted?	Yes

12.32	Is there a permanently installed system for the disposal of residues from the machinery space sludge tank to shore?	Yes
12.33	Are there facilities on board to incinerate machinery space sludge?	Yes

**13. SHIP TO SHIP TRANSFER SUPPLEMENT**

**Ship To Ship Transfer**

13.1	Does vessel comply with recommendations contained in OCIMF/ICS Ship To Ship Transfer Guide (Petroleum)?	Yes
13.2	Are at least 7 ratings available to assist with mooring operations?	Yes
13.3	What is Safe Working Load (SWL) of bitts in the manifold area?	25 tonnes
13.4	Are manifold bitts at least 35 metres away from the breastlines leading fore and aft?	Yes
13.5	What is maximum outreach of vessel's cranes or derricks outboard of the ship's side?	5.5 metres
13.6	Are four (4) 200m x 40mm messenger lines available for Ship-To-Ship (STS) mooring operations?	Yes
13.7	Are there two (2) closed chocks with associated bollards and leads to winches located within 35 metres forward and aft of the centre of the cargo manifold?	Yes

**14. CHEMICAL CARRIER SUPPLEMENT****Chemical Carrier Information**

14.1	In the case of a Chemical Carrier carrying oil, does the vessel comply fully with the requirements of MARPOL as per Section 8 of the IOPP Supplement (Form B)?	N/A
14.2	Is vessel equipped with an emergency portable cargo pump?	N/A
14.3	Are independent high level alarms fitted?	N/A
14.4	Is a tank overflow control system fitted?	N/A
14.4.1	Are these also fitted to deck tanks?	
14.5	Are there cargo tank filling restrictions?	
14.5.1	If yes:	
14.5.2	Filling restrictions are:	
14.6	Is the ship fitted with a fixed remote reading temperature system?	
14.7	Is the ship fitted with a fixed remote pressure gauging equipment?	
14.8	Specify other cargo measurement equipment available:	
14.9	Is an Efficient Stripping System fitted?	
14.9.1	Are independent stripping lines fitted?	
14.9.2	What is the material of stripping lines?	
14.9.3	What is the diameter of the stripping lines?	Millimeters

**Igs**

	(IGS) Composition of gas supplied by:	Nitrogen%	Carbon Dioxide %	Oxygen %	Sulphur Dioxide %	Carbon Monoxide %	Oxides of Nitrogen %	Dew Point (Celcius)
14.10		%	%	%	%	%	%	Deg C
14.11		%	%	%	%	%	%	Deg C
14.12	Is Cargo Tank Drier fitted?							
14.13	Is bottled Nitrogen available for deck use?							
14.14	Is steam available on deck?							

**Tank Conditioning**

14.15	Is there a fixed ventilation system?	
14.15.1	What is the Total capacity?	Cu. Metres/Hour
14.16	Is the fixed ventilation system fitted with a dehumidifier ?	
14.16.1	What is the Total capacity?	Cu. Metres/Hour
14.17	Is there independent piping?	
14.17.1	Through cargo lines	
14.17.2	Portable fans	
14.17.3	Number:	
14.17.4	Type:	
14.17.5	Capacity (one)	Cu. Metres/Hour
14.18	Are there gas freeing stand pipes?	
14.18.1	Portable:	
14.18.2	Fixed	

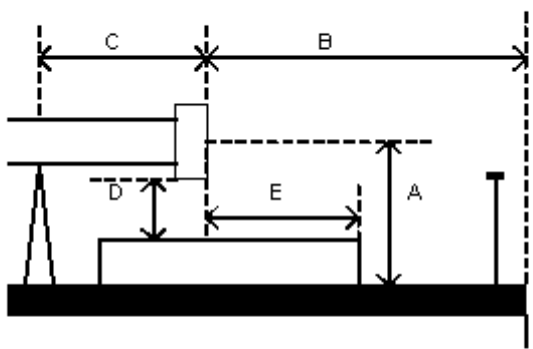
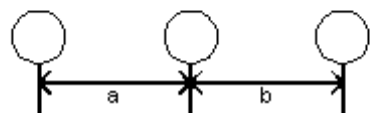
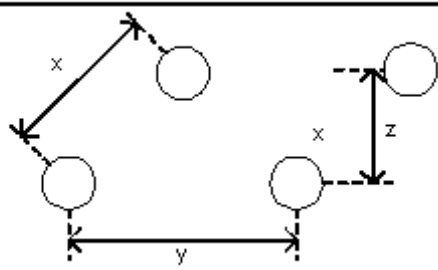
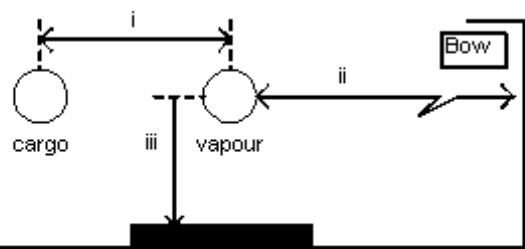
**Safety**

14.19	Is there Protective equipment for the protection of crew members available as per IBC 14.1.1 / BCH 3.16.1.?	
14.20	When required by the Chemical Code, is respiratory and eye protection for every person on board available for emergency escape purposes?	
14.21	When required by the Chemical Code, is there on board at least three sets of personnel protection safety equipment (IBC 14.2.1 / BCH 3.16)?	
14.22	Is an Oxygen resuscitator available on board?	
14.23	Are there at least two decontamination showers available on deck?	

**Cargo And Other Manifolds**

14.24	Total number of manifold connections per side	
14.24.1.1	Number	
14.24.1.2	MM	Millimetres
14.24.2.1	Number	

14.24.2.2	MM	Millimetres
14.25	Designed Max. loading rate	Cu. Metres/Hour
14.26	Height of cargo vapour connections above keel	Metres
14.27	Located on both sides?	
14.28	Is there an additional connection to cargo system on deck?	
14.28.1	If yes, position (distance from bow)	Metres

<b>CARGO AND VAPOUR MANIFOLD CONNECTION DIAGRAM</b>								
				A _____ mm B _____ mm C _____ mm D _____ mm E _____ mm				
Bunker                      Cargo 				1	Configuration No. 1  a _____ mm b _____ mm			
				2	Configuration No. 2 Please indicate position of bunker flange x _____ mm y _____ mm z _____ mm			
				i _____ M ii _____ mm iii _____ mm				
Number of Cargo Connections:				Number of Vapour Connections:				
Size (mm)	Number	Rating	RF/FF	Size (mm)	Number	Rating	RF/FF	

**Cargo And Other Manifold Diagram**

14.29	Cargo and Other Manifold Diagram	
14.30	Dimension A	Millimetres
14.31	Dimension B	Millimetres
14.32	Dimension C	Millimetres
14.33	Dimension D	Millimetres
14.34	Dimension E	Millimetres
14.35	Dimension a	Millimetres
14.36	Dimension b	Millimetres
14.37	Dimension x	Millimetres
14.38	Dimension y	Millimetres
14.39	Dimension z	Millimetres
14.40	Dimension i	Metres
14.41	Dimension ii	Millimetres
14.42	Dimension iii	Millimetres

**Cargo Tank Particulars**

No.	Location	IMO type	Capacity (100%) (Cubic Metres)	Max load rate (Cu.Mtrs/Hour)	Max pressure	Max venting capacity	Pressure monitor	Cargo pump capacity
14.43			Cu.M	Cu.M/Hr	bar	Cu.M/Hr		Cu.M/Hr
14.44			Cu.M	Cu.M/Hr	bar	Cu.M/Hr		Cu.M/Hr
14.45			Cu.M	Cu.M/Hr	bar	Cu.M/Hr		Cu.M/Hr
14.46			Cu.M	Cu.M/Hr	bar	Cu.M/Hr		Cu.M/Hr
14.47			Cu.M	Cu.M/Hr	bar	Cu.M/Hr		Cu.M/Hr
14.48			Cu.M	Cu.M/Hr	bar	Cu.M/Hr		Cu.M/Hr
14.49			Cu.M	Cu.M/Hr	bar	Cu.M/Hr		Cu.M/Hr
14.50			Cu.M	Cu.M/Hr	bar	Cu.M/Hr		Cu.M/Hr
14.51			Cu.M	Cu.M/Hr	bar	Cu.M/Hr		Cu.M/Hr
14.52			Cu.M	Cu.M/Hr	bar	Cu.M/Hr		Cu.M/Hr
14.53			Cu.M	Cu.M/Hr	bar	Cu.M/Hr		Cu.M/Hr
14.54			Cu.M	Cu.M/Hr	bar	Cu.M/Hr		Cu.M/Hr
14.55			Cu.M	Cu.M/Hr	bar	Cu.M/Hr		Cu.M/Hr
14.56			Cu.M	Cu.M/Hr	bar	Cu.M/Hr		Cu.M/Hr
14.57			Cu.M	Cu.M/Hr	bar	Cu.M/Hr		Cu.M/Hr
14.58			Cu.M	Cu.M/Hr	bar	Cu.M/Hr		Cu.M/Hr
14.59			Cu.M	Cu.M/Hr	bar	Cu.M/Hr		Cu.M/Hr
14.60			Cu.M	Cu.M/Hr	bar	Cu.M/Hr		Cu.M/Hr
14.61			Cu.M	Cu.M/Hr	bar	Cu.M/Hr		Cu.M/Hr
14.62			Cu.M	Cu.M/Hr	bar	Cu.M/Hr		Cu.M/Hr
14.63			Cu.M	Cu.M/Hr	bar	Cu.M/Hr		Cu.M/Hr
14.64			Cu.M	Cu.M/Hr	bar	Cu.M/Hr		Cu.M/Hr

**Cargo Tank Particulars - continued**

Strippe d ROB (Litres)	Heatin g max. temp. °C	Coolin g min. temp. °C	Construction material / Coating	Coating date	High level alarm	Hi/Hi level alarm	Level gauge	Vapour locks diameter mm	Closed sample type
L	°C	°C						mm	
L	°C	°C						mm	
L	°C	°C						mm	
L	°C	°C						mm	
L	°C	°C						mm	
L	°C	°C						mm	
L	°C	°C						mm	
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L	°C	°C						mm	
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L	°C	°C						mm	
L	°C	°C						mm	
L	°C	°C						mm	
L	°C	°C						mm	
L	°C	°C						mm	
L	°C	°C						mm	

**Ballast Tank Capacities**

General tank details	Tank number	Location	Coating date	Capacity
	14.65			Cu. Metres
	14.66			Cu. Metres
	14.67			Cu. Metres
	14.68			Cu. Metres
	14.69			Cu. Metres
	14.70			Cu. Metres
	14.71			Cu. Metres
	14.72			Cu. Metres
	14.73			Cu. Metres
	14.74			Cu. Metres
	14.75			Cu. Metres
	14.76			Cu. Metres
	14.77			Cu. Metres
	14.78			Cu. Metres
	14.79			Cu. Metres
	14.80			Cu. Metres
	14.81			Cu. Metres
	14.82			Cu. Metres
	14.83			Cu. Metres
	14.84			Cu. Metres
	14.85			Cu. Metres
	14.86		TOTAL CAPACITY	0 Cu. Metres

**Tank Cleaning System**

14.87	Is tank cleaning equipment fixed in cargo tanks?	
14.88	Is portable tank cleaning equipment available?	
14.89	What is the capacity of one tank cleaning machine?	Cu. Metres/Hour
14.89.1	At pressure of:	bar
14.89.2	Duration of complete cycle	Minutes
14.89.3	Nozzle diameter	Millimetres
14.90	Tank washing pump capacity	Cu. Metres/Hour
14.91	Is a washing water heater fitted?	
14.91.1	What is the Max. washing water temperature?	Degrees C
14.92	Maximum number of machines operative at pressure above	
14.93	Where there is different type of equipment used, what is the capacity and type of equipment?	

**15. GAS CARRIER SUPPLEMENT**

**Gas Carrier Information**

15.1	Does vessel have an IOPPC with Form B identifying the vessel as an oil product carrier?	N/A
15.2	Do the Safety Construction and Safety Equipment Certificates identify the vessel as a 'tanker engaged in the trade of carrying oil other than crude oil'?	N/A

**Cargo Information**

15.3	List products which the ship is Certified to carry	
------	--	--

**Transport And Carriage Conditions**

15.4	What is the Minimum allowable tank temperature?	Degrees C
15.5	What is the Maximum Permissible tank pressure?	Kp/cm2
15.6	Lowest permissible cargo tank pressure	Kp/cm2
15.7	What is the maximum number of grades that can be handled simultaneously?	
15.8	What is the Number of Products that can be conditioned by reliquefaction simultaneously?	
15.9	What is the maximum number of fully segregated groups that can be attained by removal of spool pieces and insertion of blank flanges?	
15.10	Material of Construction of Cargo Piping System	
15.11	Is Cargo piping system fitted with filters?	
15.11.1	If yes, can cargo piping filters be by-passed or removed?	
15.12	Are Expansion loops fitted?	
15.13	Are liquid cargo lines free of expansion bellows?	
15.14	Location of Booster pumps (If Fitted)	

**Cargo Tanks**

15.15	What Type and materials of cargo tanks?	
15.16	Maximum allowable relief valve setting	Bar Gauge
15.17	IMO Setting	Bar Gauge
15.18	USCG Setting	Bar Gauge
15.19	Safety valve set pressure -	Bar Gauge
15.19.1	If variable give range of pilot valves - from:	Bar Gauge
15.19.2	To:	Bar Gauge
15.20	Maximum Vacuum	Kp/cm2
15.21	Maximum cargo density	Kp/cm2
15.22	Maximum rate of cool down	Degrees C/Hour
15.23	State any limitations regarding partially filled tanks	
15.24	State allowable combinations of filled and empty tanks	

**Cargo Tank Capacities**

		Capacity m3 (100%)	Butane		Propane		Ammonia	
			Tonnes	Degrees C	Tonnes	Degrees C	Tonnes	Degrees C
15.25	Tank 1	Cu. Metres	Tonnes	Deg C	Tonnes	Deg C	Tonnes	Deg C
15.26	Tank 2	Cu. Metres	Tonnes	Deg C	Tonnes	Deg C	Tonnes	Deg C
15.27	Tank 3	Cu. Metres	Tonnes	Deg C	Tonnes	Deg C	Tonnes	Deg C
15.28	Tank 4	Cu. Metres	Tonnes	Deg C	Tonnes	Deg C	Tonnes	Deg C
15.29	Tank 5	Cu. Metres	Tonnes	Deg C	Tonnes	Deg C	Tonnes	Deg C
15.30	Tank 6	Cu. Metres	Tonnes	Deg C	Tonnes	Deg C	Tonnes	Deg C
15.31	Tank 7	Cu. Metres	Tonnes	Deg C	Tonnes	Deg C	Tonnes	Deg C
15.32	Tank 8	Cu. Metres	Tonnes	Deg C	Tonnes	Deg C	Tonnes	Deg C
15.33, 34, 35, 36		Cu. Metres	Tonnes		Tonnes		Tonnes	
		Other						
		Cargo	Tonnes	Degrees C	Tonnes	Degrees C		
15.25	Tank 1		Tonnes	Deg C	Tonnes	Deg C		
15.26	Tank 2		Tonnes	Deg C	Tonnes	Deg C		
15.27	Tank 3		Tonnes	Deg C	Tonnes	Deg C		
15.28	Tank 4		Tonnes	Deg C	Tonnes	Deg C		
15.29	Tank 5		Tonnes	Deg C	Tonnes	Deg C		

15.30	Tank 6		Tonnes	Deg C	Tonnes	Deg C		
15.31	Tank 7		Tonnes	Deg C	Tonnes	Deg C		
15.32	Tank 8		Tonnes	Deg C	Tonnes	Deg C		
15.37, 38			Tonnes		Tonnes			

**Loading Rates**

From Refrigerated Storage					
15.39	Butane rate	Propane rate	Ammonia rate	(Specify other cargo)	
	Tonnes/Hour	Tonnes/Hour	Tonnes/Hour	Tonnes/Hour	Tonnes/Hour
	With vapour return				
	Without vapour return				
From Pressure Storage					
15.40	Butane 0-30 deg C rate	Propane 0 deg C rate	Propane 10 deg C rate	Propane 20 deg C rate	Propane 30 deg C rate
	Tonnes/Hour	Tonnes/Hour	Tonnes/Hour	Tonnes/Hour	Tonnes/Hour
	With vapour return				
	Without vapour return				
15.41	Special remarks				

**Discharging - General**

15.42	Cargo Pumps	
15.42.1	Type of Cargo Pumps	
15.42.2	Number of pumps per tank	
15.42.3	Rate per Pump m3/hr	Cu. Metres/Hour
15.42.4	At Delivery Head mlc	Metres Liquid Column
15.42.5	Maximum density kg/m3	Kg/Cu. Metre
15.43	Booster Pump	
15.43.1	Type of Booster Pumps	
15.43.2	Number of pumps per tank	
15.43.3	Rate per Pump m3/hr	Cu. Metres/Hour
15.43.4	At Delivery Head mlc	Metres Liquid Column
15.43.5	Maximum density kg/m3	Kg/Cu. Metre

**Discharge Performance**

Fully Refrigerated		Back Press 1 kP/cm2	Back Press 5 kP/cm2	Back Press 10 kP/cm2
15.44.1	With vapour return	Hours	Hours	Hours
	Without vapour return	Hours	Hours	Hours
Pressurised		Back Press 1 kP/cm2	Back Press 5 kP/cm2	Back Press 10 kP/cm2
15.44.2	With vapour return	Hours	Hours	Hours
	Without vapour return	Hours	Hours	Hours

**Unpumpables**

15.45	Tank 1 (m3)	Cu. Metres
15.46	Tank 2 (m3)	Cu. Metres
15.47	Tank 3 (m3)	Cu. Metres
15.48	Tank 4 (m3)	Cu. Metres
15.49	Tank 5 (m3)	Cu. Metres
15.50	Tank 6 (m3)	Cu. Metres
15.51	Tank 7 (m3)	Cu. Metres
15.52	Tank 8 (m3)	Cu. Metres
15.53	Total	Cu. Metres

**Vaporizing Unpumpables**

15.54	Process used	
	Time to vaporize liquid unpumpables remaining after full cargo discharge	
15.55	Propane	Hours

15.56	Butane	Hours
15.57	Ammonia	Hours
15.58	(Other)	Hours
15.59	(Other)	Hours
15.60	(Other)	Hours

**Reliquefaction Plant**

15.61	Plant Design Conditions - air temperature	Degrees C
15.61.1	Plant Design Conditions - sea temperature	Degrees C
15.62	Is the plant single stage/direct?	
15.62.1	Is the plant two stage/direct?	
15.62.2	Is the plant simple cascade?	
15.63	Coolant type	
15.64	Compressor type	
15.64.1	Compressor makers name	
15.64.2	Number of compressors	
15.64.3	Capacity per unit	Cu. Metres/Hour
15.64.4	Are they Oil Free?	

**Cooling Capacity**

15.65.1	State Cooling capacity for Propane @ -42 degrees C	Kcal/Hour
15.65.2	State Cooling capacity for Propane @ -20 degrees C	Kcal/Hour
15.65.3	State Cooling capacity for Propane @ -5 degrees C	Kcal/Hour
15.66.1	State Cooling capacity for Butane @ -42 degrees C	Kcal/Hour
15.66.2	State Cooling capacity for Butane @ -20 degrees C	Kcal/Hour
15.66.3	State Cooling capacity for Butane @ -5 degrees C	Kcal/Hour

**Cargo Temperature Lowering Capability**

Time taken to lower the temperature of:					
15.67.1	Propane				
	deg C to -42 deg C	-5 deg C to - 42deg C	-38 deg C to - 42deg C	+20 deg C to - 0.5deg C	+10 deg C to -0.5 deg C
	Hours	Hours	Hours	Hours	Hours
15.67.2	Butane				
	+20 deg C to -0.5 deg C	+10 deg C to -0.5 deg C	+10 deg C to -5 deg C		
	Hours	Hours	Hours		
15.67.3	(Specify Cargo)				
	From	To	Time		
	Degrees C	Degrees C	Hours		
15.67.4	(Specify Cargo)				
	From	To	Time		
	Degrees C	Degrees C	Hours		
15.67.5	(Specify Cargo)				
	From	To	Time		
	Degrees C	Degrees C	Hours		
15.67.6	(Specify Cargo)				
	From	To	Time		
	Degrees C	Degrees C	Hours		
15.68	Is there an emergency discharge method available?		If yes, the method is:		
15.69	Sample points are provided for vapour?				
15.69.1	Sample points are provided for liquid?				

**Deck Tank Capacities**

15.70	Are Deck pressure tanks fitted?	
15.71	Propane Capacity	Cu. Metres
15.72	Butane Capacity	Cu. Metres
15.73	Ammonia Capacity	Cu. Metres
15.74	Maximum allowable relief valve setting	Bar Gauge
15.75	Material of tank	

**Cooling**

15.76.1	Propane - Quantity of Coolant Required	Cu. Metres
15.76.2	Propane - Time required to cooldown cargo tanks from ambient temperature with vapour return line	Hours
15.76.3	Propane - Time required to cooldown cargo tanks from ambient temperature without vapour return line	Hours
15.77.1	Butane - Quantity of Coolant Required	Cu. Metres
15.77.2	Butane - Time required to cooldown cargo tanks from ambient temperature with vapour return line	Hours
15.77.3	Butane - Time required to cooldown cargo tanks from ambient temperature without vapour return line	Hours
15.78.1	Ammonia - Quantity of Coolant Required	Cu. Metres
15.78.2	Ammonia - Time required to cooldown cargo tanks from ambient temperature with vapour return line	Hours
15.78.3	Ammonia - Time required to cooldown cargo tanks from ambient temperature without vapour return line	Hours
15.79.1	VCM - Quantity of Coolant Required	Cu. Metres
15.79.2	VCM - Time required to cooldown cargo tanks from ambient temperature without vapour return line	Hours
15.79.3	VCM - Time required to cooldown cargo tanks from ambient temperature with vapour return line	Hours

**Vaporiser**

15.82.3	Delivery Temperature	Degrees C
15.83.1	Capacity per unit - Ammonia	Cu. Metres/Hour Vapour
15.83.2	Liquid Supply Rate	Cu. Metres/Hour Liquid
15.83.3	Delivery Temperature	Degrees C
15.84.1	Capacity per unit - Nitrogen	Cu. Metres/Hour Vapour
15.84.2	Liquid Supply Rate	Cu. Metres/Hour Liquid
15.84.3	Delivery Temperature	Degrees C

**Blower**

15.85	Type of Blower	
15.85.1	Rated Capacity	Cu. Metres/Hour
15.85.2	Delivery Pressure	Kp/cm2

**Cargo Re-heater**

15.86	Type of Re-Heater	
15.86.1	Number Fitted	
15.86.2	Heating Medium	
15.87.1	Discharge rates with sea water at 15 degrees C to raise product temperature of Propane from -42 degrees C to -5 degrees C	Cu. Metres/Hour
15.87.2	Discharge rates with sea water at 15 degrees C to raise product temperature of Ammonia from -42 degrees C to -5 degrees C	Cu. Metres/Hour

**Hydrate Control**

15.88	What is the type of Depressant?	
15.89	What is the freezing point temperature?	Degrees C
15.90	What is the Quantity of Depressant Carried?	Litres
15.91	What is the means of injection?	
15.92	Name any other system used	
15.93	Is there an Additional pressure relief system fitted?	
15.94	Is Emergency cargo jettison provided?	
15.95	If yes, can Emergency cargo jettisoning be isolated from the cargo system when not in use?	

**Cargo Measurement**

15.96	Level Gauges			
	Are level gauges local or remote?	Name of manufacture	Type	Rated Accuracy millimetres
	Certifying Authority	Are slip tubes installed?		

15.97	Temperature Gauges			
	Name of manufacture	Type	Rated Accuracy	Certifying Authority
			Degrees C	
15.98	Pressure Gauges			
	Name of manufacture	Type	Rated Accuracy	Certifying Authority
			bar	
15.99	Oxygen Analyser			
	Name of manufacture	Type	Lowest level measurable	
			%	
15.100	Fixed Gas Analyser			
	Name of manufacture	Type		
15.101	Are Cargo tank calibration tables available?	Name of Measuring Company	Certifying Authority	
15.102	Calibration calculated to cm?			
	Calibration calculated to 1/2 cm?			
15.103	Tables established to cm?	Tables established to mm?	Tables est. to (specify)	
15.104	Are trim and list corrections available?			
15.105	Are temperature corrections available?			
15.106	Are float gauge tape corections available?			

**Cargo Sampling**

	Whether cargo samples may be obtained from the levels specified:		
15.107	Top	Middle	Bottom
Tank 1			
Tank 2			
Tank 3			
Tank 4			
Tank 5			
Tank 6			
Tank 7			
Tank 8			
15.108	Can samples be drawn from tank vapour outlet?		
15.109	Can samples be drawn from manifold liquid line?		
15.110	Can samples be drawn from manifold vapour line?		
15.111	Can samples be drawn from pump discharge line?		
15.112	State sample connection type		
15.112.1	Size of sample connection	Millimetres	
15.113	Number of ESD actuation points		

**Connections To Shore For ESD And Communications Systems**

15.114	Is ESD connection to shore available?	
15.114.1	If yes, is the system pneumatic?	
15.114.2	If yes, is the system electrical?	
15.114.3	If yes, is the system fiber optic?	

15.115	What is the type of connection used?	
15.116	Are ESD hoses or cables available on board?	
15.116.1	If yes, length of pneumatic	Millimetres
15.116.2	If yes, length of electrical	Millimetres
15.116.3	If yes, length of fiber optic	Millimetres
15.117	Is there a connection available for a telephone line?	
15.118	Are ESD connections available on both sides of vessel?	
15.118.1	Are ESD Fusible plugs fitted at tank domes?	
15.118.2	Are ESD Fusible plugs fitted at manifolds?	
15.119	Is the link compatible with the SIGTTO guidelines?	
15.120	Type of manifold valve	
15.120.1	Closing time in seconds	seconds
15.120.2	Is closing time adjustable?	
15.121	Is Independent high level shut down system fitted(overflow control)?	
15.121.1	If yes, does the independent high level shutdown system also switch off running cargo pumps?	
15.122	Shut down level %	%

**Inert Gas**

	15.123 Main IG Plant	15.124 Auxiliary IG or Nitrogen plant
Type of system		
Capacity	Cu. Metres/Hour	Cu. Metres/Hour
Type of fuel used		
Composition of IG - oxygen	%	%
Composition of IG - CO2	%	%
Composition of IG - Nox	%	%
Composition of IG - N2	%	%
Lowest dewpoint achievable	Degrees C	Degrees C
Used for		
	Nitrogen	
15.125.1	Liquid storage capacity Cu. Metres	
15.125.2	Daily boil-off loss Cu. Metres	
15.125.3	Maximum supply pressure Kp/Cu. Cm	
15.125.4	Supply capacity Cu. Metres/Hour	
15.125.5	Used for	

**Cargo Tank Inerting/de-inerting**

15.126	What is the time taken to inert from fresh air to under 5% O2 at -25 degree C?	Hours
15.127	What is the time taken to inert from cargo vapour to fully inert at -25 degrees dewpoint when IG density is less than product?	Hours
15.128	What is the time taken to inert from cargo vapour to fully inert at -25 degrees dewpoint when IG density is greater than product?	Hours
15.129	Do relief valves discharging liquid cargo from the cargo piping system , discharge to the cargo vent mast?	
15.129.1	If yes, is the vent mast equipped with liquid sensor and alarm?	
15.129.2	If yes, does the alarm activate the pump stop?	
15.130	Is there one ESD valve per manifold?	
15.130.1	If no, the arrangement is:	
15.131	Is a hand operated valve fitted outboard of the manifold ESD valve?	
15.132	Does inert gas piping pass through accomodation spaces, service spaces or control stations?	
15.133	Can the Inert Gas System be fully segregated from the cargo system?	
15.134	Are liquid drains fitted in cargo piping?	
15.135	Are purge points fitted?	
15.136	Are local pressure gauges fitted outboard of the manifold valves?	
15.137	Is a temperature sensor fitted at or near the manifold?	
15.138	Is a cargo compressor room fitted?	
15.139	Is protective equipment for the protection of crew members available on board?	

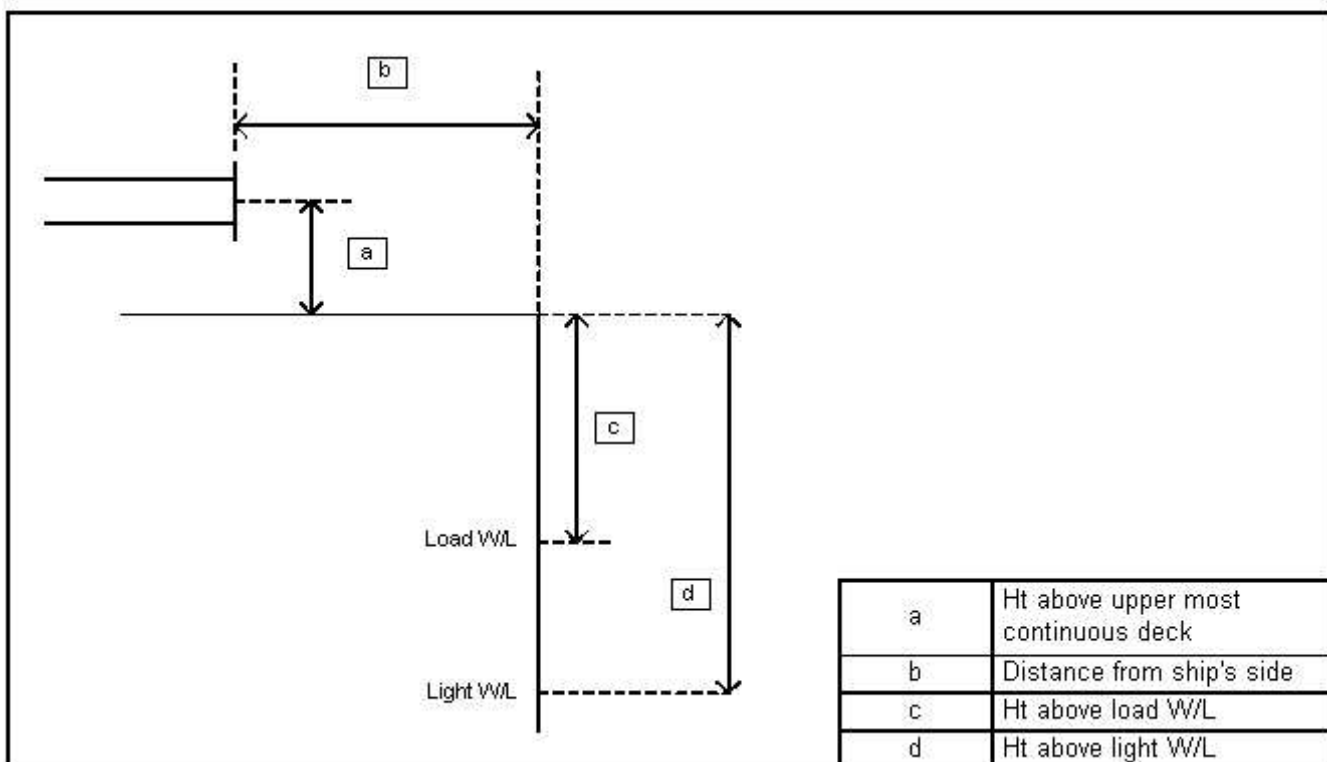
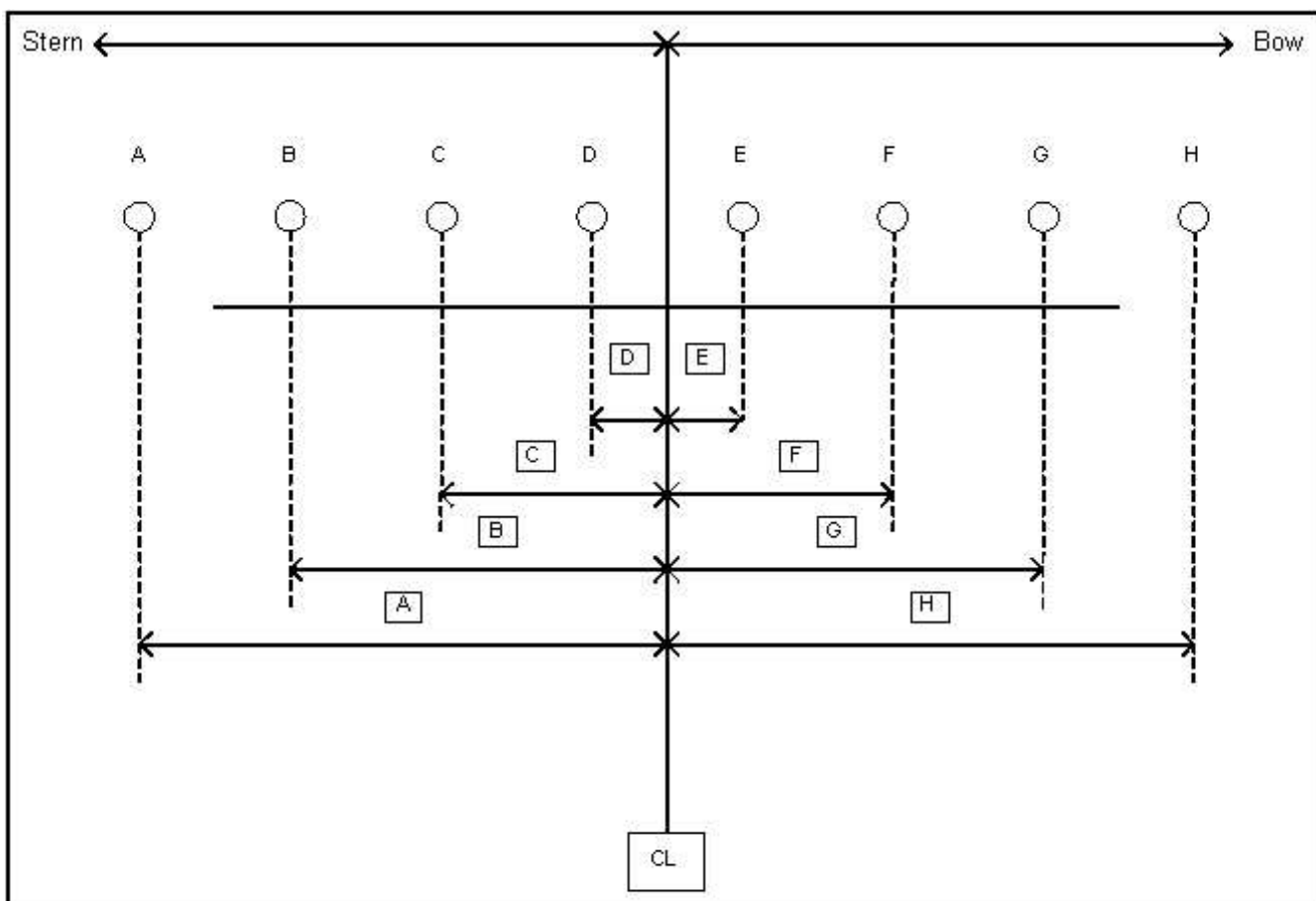
15.140	When required by the Gas Code, is respiratory and eye protection for every person on board available for emergency escape purposes?	
15.140.1	Are two additional sets of respiratory and eye protection available on the navigating bridge?	
15.141	Is there a permanently installed system of gas detection fitted?	
15.141.1	Is the gas detection system fitted with high and low sampling heads/sensors?	

**Gas Freeing To Fresh Air**

15.142	Plant used	
15.143	What is the time taken from fully inert condition to fully breathable fresh air?	Hours

**Changing Cargo Grades**

15.144	Indicate number of hours needed to change grades from the removal of pumpables to tanks fit to load and the quantity of inert gas consumed during the operation	
15.144.1.1	From propane to butane	Hours
15.144.1.2	From propane to butane	Cu. Metres
15.144.1.3	From propane to ammonia	Hours
15.144.1.4	From propane to ammonia	Cu. Metres
15.144.1.5	From propane to VCM	Hours
15.144.1.6	From propane to VCM	Cu. Metres
15.144.2.1	From butane to propane	Hours
15.144.2.2	From butane to propane	Cu. Metres
15.144.2.3	From butane to ammonia	Hours
15.144.2.4	From butane to ammonia	Cu. Metres
15.144.2.5	From butane to VCM	Hours
15.144.2.6	From butane to VCM	Cu. Metres
15.144.3.1	From ammonia to propane	Hours
15.144.3.2	From ammonia to propane	Cu. Metres
15.144.3.3	From ammonia to butane	Hours
15.144.3.4	From ammonia to butane	Cu. Metres
15.144.3.5	From ammonia to VCM	Hours
15.144.3.6	From ammonia to VCM	Cu. Metres
15.144.4	Restrictions	
15.144.5.1	From VCM to propane	Hours
15.144.5.2	From VCM to propane	Cu. Metres
15.144.5.3	From VCM to butane	Hours
15.144.5.4	From VCM to butane	Cu. Metres
15.144.5.5	From VCM to ammonia	Hours
15.144.5.6	From VCM to ammonia	Cu. Metres
15.144.6	Note any operations that cannot be carried out at sea	



**Cargo Manifold**

15.145	Center of manifold to bow	Metres			
15.146	Center of manifold to stern	Metres			
15.147	Dimension				
	A	millimetres			
	B	millimetres			
	C	millimetres			
	D	millimetres			
	E	millimetres			
	F	millimetres			
	G	millimetres			
	H	millimetres			
	Pipe Flange	Duty	Rating	Size	Raised / Flat face
15.148	A		bar	millimetres	
15.149	B		bar	millimetres	
15.150	C		bar	millimetres	
15.151	D		bar	millimetres	
15.152	E		bar	millimetres	
15.153	F		bar	millimetres	
15.154	G		bar	millimetres	
15.155	H		bar	millimetres	
15.156	Height above uppermost continuous deck	millimetres			
15.157	Distance from ship side	millimetres			
15.158	Height above load waterline	millimetres			
15.159	Height above light waterline	millimetres			

**Manifold Arrangement Located On Top Of Compressor**

15.160	Distance from rail of compressor room/platform to presentation flanges	millimetres
15.161	Distance from deck of compressor room/platform/try to centre of manifold	millimetres

**Cargo Manifold Reducers**

15.162.1	Number of ANSI Class 300 reducers carried onboard	
15.162.2	Flange rating of ANSI Class 300 reducer	bar
15.162.3	Size of ANSI Class 300 reducer	millimetres
15.162.4	Length of ANSI Class 300 reducer	millimetres
15.163.1	Number of ANSI Class 300 to Class 150 reducers carried onboard	
15.163.2	Flange rating of ANSI Class 300 to Class 150 reducer	bar
15.163.3	Size of ANSI Class 300 to Class 150 reducer	millimetres
15.163.4	Length of ANSI Class 300 to Class 150 reducer	millimetres
15.164.1	Number of ANSI Class 150 reducers carried onboard	
15.164.2	Flange rating of Class 150 reducer	bar
15.164.3	Size of ANSI Class 150 reducer	millimetres
15.164.4	Length of ANSI Class 150 reducer	millimetres

**16. OBO/OO/COB CARRIERS**

**OBO / OO / COB Carriers**

16.1	State design of hatches	
16.2	State type of hatches	
16.3	State if hatches fitted with single or double seals in hatch coaming	
16.4	Last date cargo holds/tanks were tested to normal working pressure(min.500mm wg) to prove gas tightness of hatches.	
16.5	Were the hatches proven to be gas tight?	