

GAS FORM-C

CLIPPER SIRIUS



«Industry leading provider of LPG and petrochemical tonnage»

Information in the CForm is not guaranteed and is based on best possible information.

BASED ON:
OCIMF/SIGTTO
Ship Information Questionnaire for Gas Carriers
2nd Edition 1998

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Solvang ASA dates back to 1936. From very modest beginnings, the shipping company has now developed into one of the world's leading transporters of LPG and petrochemical gases. Solvang ASA has its headquarters in Stavanger, with offices in Oslo and the Philippines.

Solvang has a fleet of modern and efficient vessels - all built in the accordance with the most up to date specifications and fitted with new and efficient technology. Perhaps of greater importance than the modern technology is the way in which the vessels are operated – the people onboard. Good seamanship represents the very core of our business, and we place a firm focus on this area in the form of education, working on attitudes and training.

On every single sailing, we are required to demonstrate the full range of our experience and expertise. Our strength lies in reliable, high-quality deliveries. It is our goal to maintain a steady course towards the future, at the same time as making good use of the experience we have gained.

«Industry leading provider of LPG and petrochemical tonnage»

1. SECTION A – GENERAL INFORMATION

1.1 PRINCIPAL SHIP PARTICULARS

A1	PRINCIPAL SHIP PARTICULARS		CLIPPER SIRIUS
1.0	Date Questionnaire Completed		18.08.2017
1.1	Name of vessel		Clipper Sirius
1.2	LR/IMO Number		IMO 9379404
1.3	Last Previous Name		N/A
1.3.1	Date of Name change		N/A
1.4	Second Last Name Change		N/A
1.4.1	Date of Name change		N/A
1.5	Third Last Name Change		N/A
1.5.1	Date of Name change		N/A
1.6	Fourth Last Name Change		N/A
1.6.1	Date of Name change		N/A
1.7	Flag		NIS
1.8	Port Of Registry		Stavanger
1.9	Official Number		
1.10	Call Sign		LJA6
1.11	VSAT		+44 203 145 4266
1.12	Fleet 77		+87 076 484 1887
1.13	Fax		+87 076 484 1886
1.14	Mini – M		+87 076 484 2025
1.15	E-mail		clipper.sirius@solvangship.no
1.16	GSM Mobile		+47 488 69 596
1.17	SAT C		
1.18	Vessel's MMSI Number		258 707 000
1.19	Max tank pressure	UNIT	
1.19.1	(1) Pressurized	[bar g]	
1.19.2	(2) Semi- Refrigerated	[bar g]	
1.19.3	(3) Refrigerated	[bar g]	0,275
1.20	Minimum tank temperature	UNIT	
1.20.1	(1) Pressurized	[°C]	
1.20.2	(2) Semi- Refrigerated	[°C]	
1.20.3	(3) Refrigerated	[°C]	-50
A1	OWNERSHIP AND OPERATION		
1.21	REGISTERED OWNER		P/R CLIPPER SIRIUS DA
1.22	Visitor's address		Strandkaien 36
1.22.1	City		N-4005 Stavanger
1.22.2	Country		Norway
1.23	Postal address		P.O. Box 90
1.23.1	City		N-4001 Stavanger
1.23.2	Country		Norway
1.24	Office Telephone Number		+47 51 84 84 00
1.25	Office Fax Number		+47 51 84 84 11
1.26	Office Telex Number		
1.27	Office e-mail Address		solvang-vlgc@solvangship.no
1.28	Number of Years Vessel Owned		9,2
1.29	NAME OF TECHNICAL OPERATOR		Solvang ASA
1.30	Visitor's address		Strandkaien 36
1.30.1	City		N-4005 Stavanger
1.30.2	Country		Norway
1.31	Postal address		P.O. Box 90
1.31.1	City		N-4001 Stavanger
1.31.2	Country		Norway
1.32	Office Telephone Number		(+47) 51 84 84 00

1.33	Office Fax Number		(+47) 51 84 84 11
1.34	Office Telex Number		
1.35	Office e-mail Address		solvang-vlgc@solvangship.no
1.36	Number of Years as vessel Operator		9,2
1.37	Total number of vessels, Operator		23
1.38	COMMERCIAL OPERATOR	Solvang ASA	
1.39	Visitor's address	Haakon VII's gt 6	
1.39.1	City	N-0121 Oslo	
1.39.2	Country	Norway	
1.40	Postal address	P.O.Box 1734 Vika	
1.40.1	City	N-0121 Oslo	
1.40.2	Country	Norway	
1.41	Office Telephone Number	(+47) 22 47 19 50	
1.42	Office e-mail Address	chartering@solvangship.no	
1.42.1	Office e-mail Address 2	operation@solvangship.no	
1.43	Number of Years as vessel Operator	9,2	
1.44	Builder	Hyundai HI	
1.45	Name of Yard Vessel Built At	Ulsan, Korea	
1.46	Hull Number	1918	
1.47	Date Keel Laid	24.12.2007	
1.48	Date Launched	28.03.2008	
1.49	Date Delivered	11.06.2008	
1.50	Date of Completion of Major Hull Changes (If Any)	N/A	
1.51	If Changes were made, specify changes and yard	N/A	
A1	CLASSIFICATION	UNIT	CLIPPER SIRIUS
1.52	Classification Society	[Text]	DNV GL
1.53	Class Notation	[Text]	1A1, Tanker for Liquefied Gas,
1.53.1	Cont.	[Text]	Ship Type 2G, BWM-E(S), EO
1.53.2	Cont.	[Text]	NAUTICUS, PLUS-1, NAUT-OC, TMON
1.54	If Class Society Changed, Name of Previous society	[Text]	N/A
1.55	If Class Society Changed, Date of Change	[Date]	N/A
1.56	Built in accordance with Regulations:		Approval recieved
1.56.1	IMO	[Yes/No]	YES
1.56.2	USCG	[Yes/No]	YES
1.56.3	RINA	[Yes/No]	NO
1.56.4	Other	[Yes/No]	NO
1.57	IMO Certification Certificate of Fitness		Approval recieved
1.57.1	IGC	[Yes/No]	YES
1.57.2	A328	[Yes/No]	NO
1.57.3	A329	[Yes/No]	NO
1.57.4	Letter of compliance	[Yes/No]	YES
1.57.5	Issued By	[Text]	DNV GL
1.58	Unattended Machinery Space certificate	[Yes/No]	Yes (24h)
A1	TONNAGES	UNIT	CLIPPER SIRIUS
1.59	Nett Registered Tonnage	[NT]	16755
1.60	Gross Tonnage	[GT]	42897
1.61	Suez Canal Tonnage		
1.61.1	Net Tonnage	[NT]	40889,18
1.61.2	Gross Tonnage	[GT]	46040,06
1.62	Panama Canal Tonnage		
1.62.1	Net Tonnage	[NT]	35542
1.62.2	Gross Tonnage	[GT]	

1.2 HULL DIMENSIONS

A2	HULL DIMENSIONS	UNIT	CLIPPER SIRIUS
2.1	Length Overall	[m]	227,2
2.2	Length Between Perpendiculars	[m]	217,0
2.3	Distance Bow to Bridge	[m]	188,4
2.4	Distance Bridge Front to Mid-Point Manifold	[m]	77,1
2.5	Distance Bow to Mid-Point Manifold	[m]	111,3
2.6	Extreme Breadth	[m]	32,3
2.7	Extreme Depth	[m]	22,2
2.8	Summer Draught	[m]	12,8
2.9	Corresponding Deadweight	[ton]	54048,0
2.10	Light Displacement/weight	[ton]	17957,0
2.11	Loaded Displacement (Summer)	[ton]	72005,0
2.12	Cargo Tank Cubic Capacity (100% full)	[m3]	75013,0
2.13	Distance from Keel to Highest Point (With mast down)	[m]	49,2
2.14	Air Draught normal ballast (With mast down)	[m]	42,0

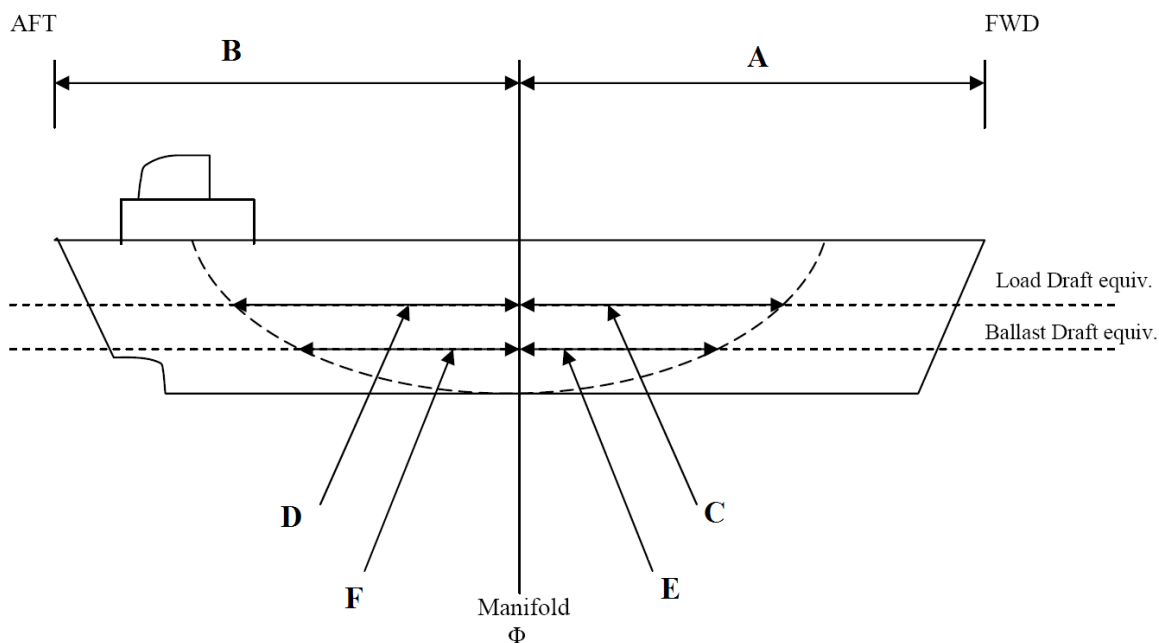
1.3 IMMERSION

A3	IMMERSION	UNIT	CLIPPER SIRIUS
3.1	Normal Ballast Draught	[TPC]	58,40
3.1.1	Draught	[m]	7,2
3.2	Loaded Draught	[TPC]	63,96
3.2.1	Draught	[m]	12,82

1.4 LOADED PARTICULARS

A4	LOADED PARTICULARS	UNIT	CLIPPER SIRIUS		
4.1	Cargo:		Propane	VCM	Ammonia
4.2	Density:	[ton/m3]	0,58	0,97	0,68
4.3	Cargo	[ton]	42638,00	49989	50121
4.4	Bunkers	[ton]	3283,57	3283,572214	3283,572214
4.5	DO	[ton]			
4.6	Fresh Water	[ton]	310,00	310	310
4.7	Stores/Spares	[ton]			
4.8	Lube Oil	[ton]	120	120	120
4.9	Ballast	[ton]			
4.10	Deadweight Const.	[ton]	114	114,00	114,00
4.11	Draught – Forward	[m]	10,94	12,74	12,77
4.11.1	Aft	[m]	12,25	12,85	12,87
4.11.2	Equiv.	[m]	11,59	12,79	12,82

1.5 PARALLEL MID-BODY DIMENSIONS



A5	PARALLEL MID-BODY DIMENSIONS	UNIT	CLIPPER SIRIUS
5.1	A Manifold to FWD	[m]	111,30
5.2	B Manifold to AFT	[m]	115,8
5.3	Loaded draft equiv-		
5.3.1	C Manifold to FWD side tangent line	[m]	55
5.3.2	D Manifold to AFT side tangent line	[m]	65,6
5.4	Ballast draft equiv.		
5.4.1	E Manifold to FWD	[m]	46
5.4.2	F Manifold to AFT	[m]	54

1.6 BUNKER CAPACITIES

A6	BUNKER CAPACITIES	UNIT	CLIPPER SIRIUS
6.1	HFO	[Grade]	IFO 380 (Standard)
6.1.1	Capacity @ 100 %	[m3]	2540,3
6.2	LSHFO	[Grade]	N/A
6.2.1	Capacity @ 100 %	[m3]	N/A
6.3	Diesel Oil	[Grade]	DO
6.3.1	Capacity @ 100 %	[m3]	901,5

1.7 FUEL CONSUMPTION DETAILS

Average speed and consumption, based on max force 4 Beaufort and 15% Sea Margin.

Vessel use mainly HFO for all consumers. DO/GO for INCN and when Rules & Regulations demands it for other consumers

A7	FUEL CONSUMPTION DETAILS	UNIT	CLIPPER SIRIUS
7.1	LOADED CONDITION		*About
7.2	Average speed over 12 months	[kn]	16,00
7.3	Average consumption, Main engine	[ton/day]	44
7.4	Consumption, AUX		
7.4.1	Butane	[ton/day]	4
7.4.2	Ammonia	[ton/day]	4-8
7.5	Average consumption, AUX		
7.5.1	Ammonia	[ton/day]	5,5
7.5.2		[ton/day]	
7.6	BALLAST CONDITION		
7.7	Average speed over 12 months	[kn]	16
7.8	Average consumption, Main engine	[ton/day]	42
7.9	Average consumption, AUX	[ton/day]	4
7.10	PORT/IDLE		
7.11	Average consumption, AUX, Loading	[ton/day]	8
7.12	Average consumption, AUX, Discharging	[ton/day]	5,5
7.13	Average consumption, AUX, Idle	[ton/day]	4
7.14	Average consumption, Boiler (depending on weather)	[ton/day]	2,0-3,0
7.15	OTHER		
7.16	INCN (When operating) - MDO/MGO	[ton/day]	0,2
7.17	IGG-plant (When operating)	[ton/day]	0,2
7.18	ME CONSUMPTION GRAPH/KNOTS		LOADED BALLAST
7.18.1	17	[ton/day]	51,0 49,0
7.18.2	16	[ton/day]	44,0 42,0
7.18.3	15	[ton/day]	37,0 35,0
7.18.4	14	[ton/day]	31,0 30,0
7.18.5	12	[ton/day]	23,0 22,0

1.8 MAIN ENGINE PARTICULARS

A8	MAIN ENGINE PARTICULARS	UNIT	CLIPPER SIRIUS
8.1	Main Engine Make and Type	[Text]	HYUNDAI-B&W 6S60MC-C
8.2	No of Units	Pcs	1
8.3	Maximum Continuous Rating (MCR)	[kW]	12270
8.3.1	RPM	[RPM]	96
8.4	Total Available Power	kW	12 270
8.5	Normal service Power	kW	11 043

1.9 AUXILIARY PLANT

A9	AUXILIARY PLANT	UNIT	CLIPPER SIRIUS
9.1	Make and Type of Auxiliary Generators	[Text]	HHI-EES, 8H21/32
9.2	Main Generators	[Pcs]	
9.2.1	No of Units	[Pcs]	3
9.2.2	Maximum Generator Output per Unit	[kW]	1 200
9.3	Generators, other	[Yes/No]	NO

9.3.1	No of Units	[Pcs]	N/A
9.3.2	Maximum Generator Output per Unit	[kW]	N/A
9.4	Shaft Generator	[kW]	N/A
9.5	Total Available Power	[kW]	3600
9.6	Emergency Generator	[kW]	130
9.7	Emergency Fire Pump	[Text]	
9.7.1	Type	[Text]	Vertical Centrifugal
9.7.2	Delivery Pressure	[Bar]	10
9.7.3	Motive Power	[Text]	Electric
9.7.4	If Electrical, Indicate Power Required in kW	[kW]	55
9.8	Steering Gear Type		Cylinder
9.8.1	kW to Steer the Vessel with One Pump Unit	[kW]	45,75

1.10 POWER/SPEED INFORMATION

A10	POWER/SPEED INFORMATION	UNIT	CLIPPER SIRIUS
10.1	Trial Data		
10.1.1	NCR	[kW]	11 043
10.1.2	MCR	[kW]	12 270
10.1.3	Speed	[kn]	17,3
10.1.4	Draught	[m]	6,65
10.2	Normal Service Speed		
10.2.1	NCR	[kW]	11045
10.2.2	MCR	[kW]	11707
10.2.3	Speed	[kn]	16,1
10.2.4	Draught	[m]	11,9

1.11 THRUSTERS

A11	THRUSTERS	UNIT	CLIPPER SIRIUS
11.1	Make and Type	[Text]	Kawasaki, KT-157B5
11.2	No. Installed	[Pcs]	1,00
11.3	Location and Rated Bollard Pull or kW output	[kW]	1500

1.12 FRESH WATER

A12	FRESH WATER	UNIT	CLIPPER SIRIUS
12.1	Capacity of Distilled Tanks	[ton]	N/A
12.2	Capacity of F/D.W. Ts	[ton]	310,00
12.3	Daily Consumption	[ton/day]	8,00
12.4	Daily Evaporator Output	[ton/day]	20,00

1.13 BALLAST CAPACITIES AND PUMPS

A13	BALLAST CAPACITIES AND PUMPS	UNIT	CLIPPER SIRIUS	
13.1	Tank Capacities		Capacity [m3]	Tanks [Pcs]
13.1.1	Forepeak	[Col]	773,10	1
13.1.2	Wing or Side tanks	[Col]	16381,2	8
13.1.3	Aft Peak	[Col]	1381,1	1
13.1.4	Other	[Col]		
13.1.5	Other	[Col]		
13.1.6	Total	[Col]	18 535,40	10
13.2	Ballast Pumps			
13.2.1	Capacity per pump	[m3/h]	800	
13.2.2	Model	[Text]	Shinko	
13.2.3	Type	[Text]	Electric	
13.2.4	Setting	[Text]	Vertical Centrifugal	
13.3	No of Pumps	[Pcs]	2	
13.4	Total Capacity	[m3/h]	1600	
13.5	Location	[Text]	Engine Room	
13.6	Control Location	[Text]	Cargo Control Room (A-Deck)	

1.14 MOORING

A14	MOORING EQUIPMENT	UNIT	CLIPPER SIRIUS			
14.1	Mooring wires (On drums)		FWD	FWD DECK	AFT DECK	POOP
14.1.1	Number	[Pcs]				
14.1.2	Diameter	[mm]				
14.1.3	Length	[m]				
14.1.4	Maximum Breaking Load	[ton]				
14.2	Mooring wire tails		FWD	FWD DECK	AFT DECK	POOP
14.2.1	Number	[Pcs]				
14.2.2	Type	[Text]				
14.2.3	Diameter	[mm]				
14.2.4	Length	[m]				
14.2.5	Maximum Breaking Load	[ton]				
14.3	Mooring ropes (On drums)		FWD	FWD DECK	AFT DECK	POOP
14.3.1	Number	[Pcs]	6	2	2	6
14.3.2	Type	[Text]	MAXI-CARAT	MAXI-CARAT	MAXI-CARAT	MAXI-CARAT
14.3.3	Diameter	[mm]	64	64	64	64
14.3.4	Length	[m]	220	220	220	220
14.3.5	Maximum Breaking Load	[ton]	78	78	78	78
14.4	Mooring winches		FWD	FWD DECK	AFT DECK	POOP
14.4.1	Number	[Pcs]	3	1	1	3
14.4.2	[S]ingle/[D]ouble drums	[S/D]	Double	Double	Double	Double
14.4.3	Split drums	[Yes/No]	YES	YES	YES	YES
14.4.4	Motive power	[Text]	Hydraulic	Hydraulic	Hydraulic	Hydraulic
14.4.5	Heaving power	[ton]	75	75	75	75
14.4.6	Brake capacity	[ton]	47	47	47	47
14.4.7	Hauling speed	[m/s]	1	1	1	1
14.5	Wires/ropes not on drums		WIRES	ROPES	EM'GENCY	
14.5.1	Number	[Pcs]		3/3		
14.5.2	Type	[Text]		MAXI-CARAT		
14.5.3	Diameter	[mm]		64		
14.5.4	Length	[m]		220		

14.5.5	Maximum Breaking Load	[ton]	78
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A14	ANCHORS AND WINDLASSES	UNIT	CLIPPER SIRIUS
14.5.1	Windlass Motive Power (e.g. Steam, Hydraulic)	[Text]	Hydraulic
14.5.2	Hauling Power	[ton]	28,9
14.5.3	Brake Holding Power	[ton]	206,4
14.5.4	Anchor Type	[Text]	High Holding Power
14.5.5	Weight	[kg]	7 875
14.5.6	Is Spare Carried	[Yes/No]	NO
14.5.7	Cable Diameter	[mm]	78
14.5.8	No of Shackles Port	[Pcs]	12
14.5.9	No of Shackles Starboard	[Pcs]	12
14.6	TOWING EQUIPMENT		
14.6.1	Is Ship fitted with a Towing Bracket AFT(drum)	[Yes/No]	YES
14.6.2	If Yes, state SWL	[ton]	200
14.6.3	Is Towing Chain provided	[Yes/No]	YES
14.6.4	Dimensions of Towing Wire - Diameter	[mm]	57
14.6.5	Length	[m]	86
14.7	Windage on Ballast Draught		
14.7.1	End-on	[m2]	956
14.7.2	Lateral	[m2]	3970

Mooring diagram is provided in the appendix.

1.15 NAVIGATIONAL EQUIPMENT

A15	NAVIGATIONAL EQUIPMENT	UNIT	CLIPPER SIRIUS
15.1	Magnetic Compass	[Yes/No]	YES
15.2	Off Course Alarm – Magnetic	[Yes/No]	YES
15.3	Gyro Compass	[Yes/No]	YES
15.3.1	Specify number	[Pcs]	2
15.4	Off Course Alarm – Gyro	[Yes/No]	YES
15.5	Bridge Repeaters	[Yes/No]	YES
15.5.1	Specify Number	[Pcs]	2
15.6	Radar 3 GHz	[Yes/No]	YES
15.7	Radar 9 GHz	[Yes/No]	YES
15.8	Are Radars Gyro Stabilized	[Yes/No]	YES
15.9	Radar Plotting Equipment	[Yes/No]	YES
15.10	ARPA	[Yes/No]	YES
15.11	ECDIS (Electric Display and Information System)	[Yes/No]	YES
15.11.1	Make/Type	[Text]	Kongsberg
15.12	Depth Echo Sounder with Recorder	[Yes/No]	YES
15.13	Depth Echo Sounder without Recorder	[Yes/No]	NO
15.14	Speed/Distance Indicator	[Yes/No]	YES
15.15	Doppler Log	[Yes/No]	YES
15.16	Speed of Approach Doppler	[Yes/No]	YES
15.17	Rudder Angle Indicator	[Yes/No]	YES
15.18	Rudder Angle Indicator on Each Bridge Wing	[Yes/No]	YES
15.19	R.P.M Indicator	[Yes/No]	YES
15.20	R.P.M Indicator on Each Bridge Wing	[Yes/No]	YES
15.21	Controllable Propeller Pitch Indicator	[Yes/No]	NO
15.22	Thruster (s) indicator	[Yes/No]	YES
15.23	Rate of turn Indicator	[Yes/No]	YES
15.24	Radio Direction Finder	[Yes/No]	NO
15.25	NAVTEX Receiver	[Yes/No]	YES
15.26	GPS	[Yes/No]	YES
15.27	Transit SATNAV	[Yes/No]	NO
15.28	DECCA navigator	[Yes/No]	NO
15.29	Omega	[Yes/No]	NO
15.30	Loran C	[Yes/No]	NO
15.31	Weather Route System	[Yes/No]	YES
15.32	Sextant(s)	[Yes/No]	YES
15.33	Signal Lamp ALDIS	[Yes/No]	YES
15.34	Anemometer	[Yes/No]	YES
15.35	Engine Order Recorder	[Yes/No]	YES
15.36	Course Recorder	[Yes/No]	YES
15.37	Steering motor controls controls fitted on bridge wings	[Yes/No]	YES
15.38	Is bridge Equipped with a “Dead Man” Alarm Equipment	[Yes/No]	YES
15.39	What chart outfit coverage is provided	[Yes/No]	
15.39.1	Worldwide	[Yes/No]	NO
15.39.2	Limited	[Yes/No]	NO
15.39.3	If Limited Please Indicate	[Text]	
15.40	Formal Chart Correction System in use	[Yes/No]	YES
15.41	Electronic Chart System in use	[Yes/No]	YES

1.16 COMMUNICATIONS EQUIPMENT

A16	COMMUNICATIONS EQUIPMENT	UNIT	CLIPPER SIRIUS
16.1	Main Transmitted Including Radio Telephone Distress Frequency	[Yes/No]	YES
16.2	Main Receiver Including Radio Telephone Distress Frequency	[Yes/No]	YES
16.3	Radio Telephone Distress Frequency Watch Receiver	[Yes/No]	YES
16.4	Main Radio Antenna	[Yes/No]	YES
16.5	Reserve Radio Antenna	[Yes/No]	NO
16.6	Main and Reserve Installations Electrically Separate and Independent	[Yes/No]	YES
16.7	2182 kHz Bridge auto Alarm	[Yes/No]	YES
16.8	Alarm Signal Generating Device	[Yes/No]	YES
16.9	VHF Radio (s)	[Yes/No]	YES
16.9.1	Specify Number	[Pcs]	3
16.10	Portable VHF/UHF Radios	[Yes/No]	YES
16.10.1	Specify Type and Number	[Pcs]	3/4(OFE)
16.11	Are Sets Intrinsically Safe	[Yes/No]	YES
16.12	Inmarsat Satellite System	[Yes/No]	YES
16.13	Specify System Type A, B, C, F or VSAT	[Text]	C, F, VSAT
16.14	Is the ship equipped as per GMDSS Requirements	[Yes/No]	YES
16.15	If Yes, which area of operation is vessel certified to operate in	[Text]	A1, A2, A3
16.15.1	EPIRB	[Yes/No]	YES
16.15.2	SARTS	[Yes/No]	YES
16.16	Emergency Lifeboat Transceiver	[Yes/No]	Incl. in EPIRB
16.17	At least Three Survival craft Two-way Radio Telephone Apparatus	[Yes/No]	YES
16.18	Full Set of Publications	[Yes/No]	YES

2. SECTION B – CARGO SYSTEMS

2.1 GENERAL INFORMATION

B1	CARGO - GENERAL INFORMATION		CLIPPER SIRIUS	
1.1	List Products Which the Ship is Certified to Carry			
1.1.1	1.	Ammonia		
1.1.2	2.	Butadiene		
1.1.3	3.	Butane		
1.1.4	4.	Butane-propane		
1.1.5	5.	Butylenes		
1.1.6	6.	Propane		
1.1.7	7.	Propylene		
1.1.8	8.	VCM		
1.1.9	9.			
1.1.10	10.			
1.1.11	11.			
1.1.12	12.			
1.1.13	13.			
1.1.14	14.			
1.1.15	15.			
1.1.16	16.			
1.1.17	17.			
1.1.18	18.			
1.1.19	19.			
1.1.20	20.			
1.1.21	21.			
1.1.22	22.			
1.1.23	23.			
1.1.24	24.			
1.2	Transport and Carriage Condition		UNIT	
1.3	Minimum Allowable Tank Temperature		[Celsius]	-50
1.3.1	Maximum Allowable Tank Pressure (Seagoing setting)		[bar g]	0,275
1.3.2	Maximum Allowable Tank Pressure (Harbour setting)		[bar g]	0,4
1.4	Grades which can be Loaded or Discharged Simultaneously		[Pcs]	2
1.5	Grades which can be Transported Simultaneously		[Pcs]	2
1.6	Number of Products Re-liquefied Simultaneously		[Pcs]	2
1.7	State Natural Tank Segregations (Possible combinations)		UNIT	
1.7.1	1.		[Tank]	1+3 & 2+4
1.7.2	2.		[Tank]	2 & 1+3+4
1.7.3	3.		[Tank]	1+2+3+4

2.2 CARGO TANKS

B2	CARGO TANKS	UNIT	CLIPPER SIRIUS
2.1	Cargo Tanks		
2.1.1	Type	[Text]	NV 4-4-MOD32
2.1.2	Material	[Text]	Carbon Manganese LT
2.2	Maximum Allowable Relief Valve setting	[bar g]	0,4
2.3	Safety Valve Set Pressure – If Variable Give Range of Pilot Valves		
2.3.1	Seagoing setting	[bar g]	0,275
2.3.2	Harbour setting	[bar g]	0,4
2.4	Maximum Vacuum	[bar g]	-0,05
2.5	Maximum Cargo Density (98% full)	[kg/m3]	690
2.6	Maximum Rate of Cool-Down	[C/h]	10

2.7	State any Limitations regarding Partially Filled Tanks	[Text]	VCM=68,7%
2.7.1	Cont.	[Text]	
2.8	State Allowable Combinations of Filled and Empty Tanks	[Text]	
2.8.1	Cont.	[Text]	

2.3 CARGO TANK CAPACITIES

B3	CARGO TANK CAPACITIES	UNIT	CLIPPER SIRIUS				
3.1	Capacity	Tank	1	2	3	4	Total
3.1.1	100 %	[m3]	16788	19614	19608	19031	75041
3.1.2	98 %	[m3]	16452	19222	19216	18651	73541
3.2	Cargo						
3.2.1	iso-butane	[ton]	9772	11418	11414	11079	43683
3.2.2	Propane	[ton]	9542	11149	11145	10817	42654
3.2.3	Butadiene	[ton]	10710	12513	12510	12142	47875
3.2.4	Propylene	[ton]	10036	11725	11722	11377	44860
3.2.5	Ammonia	[ton]	11187	13071	13067	12683	50008
3.2.6	Butylene/Butenes	[ton]	9772	11418	11414	11079	43683
3.2.7	n-butane	[ton]	9888	11552	11549	11209	44198
3.2.8	Ethylene	[ton]					

- Cargoes may not be applicable for vessel. Check which cargoes the vessel is certified to carry.

2.4 LOADING RATES

VR = Vapour Return, W/O VPR = Without Vapour Return

B4	LOADING RATES		UNIT	CLIPPER SIRIUS			
				REFRIGERATED		PRESSURE	
4.1	Cargo		[m3/h]	VR	W/O VR	VR	W/O VR
4.1.1	1	Propylene	[m3/h]	2700	1200		
4.1.2	2	Propane	[m3/h]	2600	1200		
4.1.3	3	Ammonia	[m3/h]	3000	1200		
4.1.4	4	Iso butane (0°C)	[m3/h]				420
4.1.5	5	Propane (0°C)	[m3/h]				50
4.1.6	6	Propane (10°C)	[m3/h]				40
4.1.7	7	Propane (20°C)	[m3/h]				30
4.1.8	8	Propane (30°C)	[m3/h]				20
4.1.9	9		[m3/h]				
4.1.10	10		[m3/h]				
4.1.11	11		[m3/h]				
4.1.12	12		[m3/h]				
4.1.13	13		[m3/h]				
4.1.14	14		[m3/h]				
4.1.15	15		[m3/h]				
4.1.16	16		[m3/h]				
4.1.17	17		[m3/h]				
4.1.18	18		[m3/h]				
4.1.19	19		[m3/h]				
4.1.20	20		[m3/h]				

2.5 DISCHARGING – GENERAL

Pumping curves for cargo main pumps and booster pumps are given in the appendix.

B5	DISCHARGING – GENERAL	UNIT	CLIPPER SIRIUS
5.1	Cargo Pumps	[Text]	Deepwell
5.1.1	Type of Pumps	[Text]	Centrifugal
5.1.2	Number per Tank	[Pcs]	2
5.1.3	Rate (per pump)	[m3/h]	550
5.1.4	Delivery Head	[mlc]	120
5.1.5	Maximum Density	[kg/m3]	970
5.2	Booster Pumps		
5.2.1	Type of Pumps	[Text]	Centrifugal
5.2.2	Number	[Pcs]	2
5.2.3	Rate (per pump)	[m3/h]	550
5.2.4	Delivery Head	[mlc]	115
5.2.5	Maximum Density	[kg/m3]	690

2.6 DISCHARGE PRESSURE

B6	DISCHARGE PERFORMANCE	UNIT	CLIPPER SIRIUS
6.1	Fully Refrigerated, Full Cargo Discharge Times (all pumps):		VR W/O VR
6.1.1	Manifold Back Pressure (1 kg/cm2) x	[h]	17 17
6.1.2	Manifold Back Pressure (5 kg/cm2) x	[h]	18 18
6.1.3	Manifold Back Pressure (10 kg/cm2) ^	[h]	70 70
6.2	Pressurized, Full Cargo Discharge Times (all pumps):		VR W/O VR
6.2.1	Manifold Back Pressure (1 kg/cm2) ^	[h]	
6.2.2	Manifold Back Pressure (5 kg/cm2) ^	[h]	
6.2.3	Manifold Back Pressure (10 kg/cm2) ^	[h]	

x = Based on largest single tank volume

^ = Based on discharging tanks one at a time

2.7 UNPUMPABLES

B7	UNPUMPABLES	UNIT	CLIPPER SIRIUS
7.1	Unpumpables, liquid		
7.1.1	Tank 1	[m3]	17
7.1.2	Tank 2	[m3]	18
7.1.3	Tank 3	[m3]	18
7.1.4	Tank 4	[m3]	17
7.1.5	Total	[m3]	70

2.8 VAPORISING UNPUMPABLES

B8	VAPORISING UNPUMPABLES	UNIT	CLIPPER SIRIUS
8.1	Process Used	[Text]	Hot Gas / Puddle heating
8.2	Time to Vaporize Liquid Unpumpables After Discharge:		
8.2.1	Propane	[h]	24
8.2.2	iso-Butane	[h]	30
8.2.3	n-Butane	[h]	36
8.2.4	Ammonia	[h]	52
8.2.5		[h]	

2.9 RELIQUEFACTION PLANT

B9	RELIQUEFACTION PLANT	UNIT	CLIPPER SIRIUS
9.1	Plant Design Conditions		
9.1.1	Air Temperature	[°C]	45
9.1.2	Sea Temperature	[°C]	32
9.2	Plant Type		
9.2.1	Single Stage/Direct	[Yes/No]	YES
9.2.2	Two Stage / Direct	[Yes/No]	YES
9.2.3	Three Stage / Direct	[Yes/No]	NO
9.2.4	Coolant Type	[Text]	Seawater
9.3	Compressors		
9.3.1	Type	[Text]	Sulzer + Burckhardt
9.3.2	Model	[Text]	2K 160-2F
9.3.3	Number	[Psc]	4
9.3.4	Capacity (per unit)	[m3/h]	Varies
9.3.5	Are they oil free?	[Yes/No]	YES

2.10 COOLING CAPACITY

B10	COOLING CAPACITY	UNIT	CLIPPER SIRIUS	
10.1	State Cooling Capacity (per compressor, 2-stage @ - 0.4 bar g)		SW 32 [°C]	SW 15 [°C]
10.1.1	1 Propane @ -42 [°C]	[kcal/h]	250000	
10.1.2	2 Com. Propane (5 mol.% ethane) @ -42 [°C]	[kcal/h]	245000	
10.1.3	3 Propane @ -20 [°C]	[kcal/h]		
10.1.4	4 n-Butane @ -5[°C]	[kcal/h]	380000	
10.1.5	5 Iso-Butane @ -5 [°C]	[kcal/h]	320000	
10.1.6	6 Ammonia @ -33 [°C]	[kcal/h]	390000	
10.1.7	7 VCM @ -11 [°C]	[kcal/h]	350000	

2.11 CARGO TEMP. LOWERING CAPABILITY

B11	CARGO TEMPERATURE LOWERING CAPABILITY	UNIT	CLIPPER SIRIUS
11.0	Time taken to lower the temp of:		
11.1	Propane from ...0 [°C] to -42 [°C]	[h]	
11.2	-5[°C]to -42[°C]	[h]	
11.3	-38[°C] to -42[°C]	[h]	144
11.4	+20[°C] to -42[°C]	[h]	
11.5	+10[°C] to -42[°C]	[h]	
11.6	Iso-Butane from +20[°C] to -0.5[°C]	[h]	
11.7	+10[°C] to -0.5[°C]	[h]	
11.8	+10[°C] to -5[°C]	[h]	
11.9	-5[°C] to -12[°C]	[h]	84
11.10	Ammonia from -30[°C] to -33[°C]	[h]	177
11.11	VCM from -8,2[°C] to -13[°C]	[h]	62

2.12 INERT GAS

B12	INERT GAS	UNIT	CLIPPER SIRIUS
12.1	Main IG Plant		
12.1.1	Type of System	[Text]	Gin 5500-0.4BUFD
12.1.2	Capacity	[m3/h]	5500
12.1.3	Type of Fuel Used	[Text]	MGO
12.1.4	Composition of I.G.		
12.1.5	Max O2	[%]	0,5
12.1.6	Max CO2	[%]	14
12.1.7	Max Nox	[%]	Traces
12.1.8	Max N2	[%]	Balance
12.2	Lowest Dewpoint Achievable	[°C]	-45
12.3	Used for	[Text]	Inerting/purging
12.4	Auxiliary IG or Nitrogen Plant		Unitor Marine Systems
12.4.1	Type of System	[Text]	Nitrogen Generator
12.4.2	Capacity	[m3/h]	6
12.5	Lowest Dewpoint Achievable	[°C]	-70
12.6	Used for	[Text]	Inerting/topping
12.7	Nitrogen generator installed?	[Yes/No]	NO
12.7.1	Liquid storage Capacity	[m3]	N/A
12.7.2	Daily Boil-Off Loss	[m3]	N/A
12.7.3	Maximum Supply Pressure	[Bar]	N/A
12.7.4	Supply Capacity	[m3/h]	N/A
12.7.5	Used For	[Text]	N/A
12.7.6	HP Nitrogen	[Nm3]	N/A

2.13 CARGO TANK INTERTING/DE-INERTING

B13	CARGO TANK INTERTING/DE-INERTING	UNIT	CLIPPER SIRIUS
13.1	Time Taken From Fresh Air to Under 5% O2 at -25oC Dewpoint	[h]	41
13.2	Time taken from cargo Vapor to Fully Inert at - 25oC Dewpoint when:		
13.2.1	IG density less than product	[h]	N/A
13.2.2	IG density greater than product	[h]	41

2.14 GAS FREEING TO FRESH AIR

B14	GAS FREEING TO FRESH AIR	UNIT	CLIPPER SIRIUS
14.1	Plant Used	[Text]	IGG Plant – Dry Air
14.1.1	Number of fans	[Pcs]	2
14.1.2	Total capacity	[m3/h]	20000
14.2	Time taken from Fully Inert Condition to Fully Breathable Air	[h]	16

2.15 CHANGING CARGO GRADES

The table below show the number of hours needed to change grades from the removal of unpumpables to tanks fit to load. The quantity of inert gas consumed during the operation is also indicated.

B15	CHANGING CARGO GRADES	UNIT	CLIPPER SIRIUS	
15.1	From propane to:		[h]	[m3]
15.1.1	Iso-butane	[COL]	24/0	
15.1.2	Ammonia	[COL]	106	225000
15.2	From Iso-butane to:		[h]	[m3]
15.2.1	Propane	[COL]	32/0	
15.2.2	Ammonia	[COL]	112	225000
15.3	From ammonia to:		[h]	[m3]
15.3.1	Propane	[COL]	134	225000
15.3.2	Iso-butane	[COL]	134	225000

2.16 DECK TANK CAPACITIES

B16	DECK TANK CAPACITIES	UNIT	CLIPPER SIRIUS
16.1	Deck tank	[Yes/No]	NO
16.2	Deck tank capacities		
16.2.1	1 Propane	[ton]	N/A
16.2.2	2 Ammonia	[ton]	N/A
16.2.3	3 Ethylene	[ton]	N/A
16.3	Maximum Allowable Relief Valve Setting	[bar g]	N/A
16.4	Lowest Permissible Temperature	[°C]	N/A
16.5	Materials	[Text]	N/A

2.17 PRE-LOADING CONDITIONS

The table below indicates time and quantity of coolant required to cool down cargo tanks from ambient temperature and fully gassed up state sufficient to allow loading to commence.

B17	PRE-LOADING CONDITIONS	UNIT	CLIPPER SIRIUS		
17.1	Product		Quantity [ton]	VPR [h]	W/O VPR [h]
17.1.1	Propane	[COL]	220	24	24
17.1.2	Butane	[COL]	220	24	24
17.1.3	Butadiene	[COL]	220	24	24
17.1.4	Propylene	[COL]			
17.1.5	Ammonia	[COL]			
17.1.6	VCM	[COL]			

2.18 VAPORISER

B18	VAPORISER	UNIT	CLIPPER SIRIUS
18.1	Type of Vaporizer	[Text]	Shell and tube
18.2	Number Fitted	[Pcs]	1
18.3	Capacity (per unit) – Propane	[Nm3/h]	4800
18.3.1	Liquid Supply rate	[m3/h]	16,9
18.3.2	Delivery temperature	[°C]	
18.4	Capacity (per unit) – Ammonia	[Nm3/h]	4800
18.4.1	Liquid Supply rate	[m3/h]	5,48
18.4.2	Delivery temperature	[°C]	
18.5		[Nm3/h]	
18.5.1		[m3/h]	
18.5.2		[°C]	

2.19 BLOWER

B19	BLOWER	UNIT	CLIPPER SIRIUS
19.1	Type of Blower	[Text]	High pressure centrifugal fan
19.2	Number fitted	[Pcs]	2
19.3	Rated Capacity (per unit)	[Nm ³ /h]	10000
19.4	Delivery Pressure	[Bar]	0,12

2.20 CARGO RE-HEATER

Cargo re-heater capacities are given in the appendix.

B20	CARGO RE-HEATER	UNIT	CLIPPER SIRIUS
20.1	Type of re-heater	[Text]	Shell/tube
20.2	Number Fitted	[Pcs]	1
20.3	Heating Medium	[Medium]	Seawater
20.4	Discharge rates, SW = 15[°C], to raise product temperature:		
20.4.1	Propane from -42[°C] to 0[°C]	[ton/h]	335
20.4.2	Ammonia from -33[°C] to 0[°C]	[ton/h]	240
20.5	Cargo Heater Curve:	[Yes/No]	YES

2.21 HYDRATE CONTROL

B21	HYDRATE CONTROL	UNIT	CLIPPER SIRIUS
21.1	Type of Depressant	[Medium]	Ethanol
21.2	Depressant Freezing Point Temperature	[°C]	-114
21.3	Max capacity of depressant	[Liter]	2000
21.4	Means of Injection	[Text]	Hand pump
21.5	Any other system used	[Text]	Hot gas

2.22 CARGO MEASUREMENT

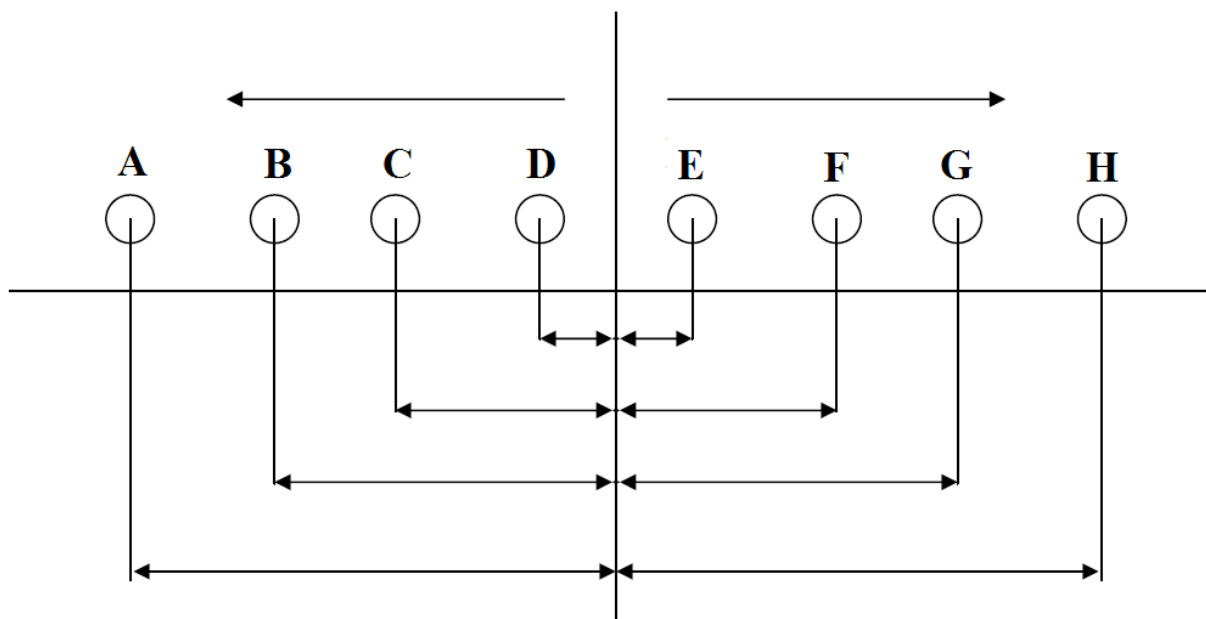
B22	CARGO MEASUREMENT	UNIT	CLIPPER SIRIUS
22.1	Level Gauges		
22.1.1	Are level gauges Local or Remote	[Text]	Both
22.1.2	Manufacturer	[Text]	HENRI
22.1.3	Type	[Text]	Float
22.1.4	Rated Accuracy	[-]	± 5 mm
22.1.5	Certifying Authority	[Text]	DNV
22.2	Temperature Transmitter		
22.2.1	Manufacturer	[Text]	ABB
22.2.2	Type	[Text]	Electronic
22.2.3	Rated Accuracy	[-]	±0.02 %
22.2.4	Certifying Authority	[Text]	Intertek Caleb Brett – Kimsco
22.3	Pressure Transmitter		
22.3.1	Manufacturer	[Text]	ABB
22.3.2	Type	[Text]	Electronic
22.3.3	Rated Accuracy	[-]	± 0.075 %
22.3.4	Certifying Authority	[Text]	Intertek Caleb Brett – Kimsco
22.4	Oxygen Analyzer		

22.4.1	Manufacturer	[Text]	Riken
22.4.2	Type	[Text]	RX 415OX or OX-227A
22.4.3	Lowest Level Measurable		
22.5	Fixed Gas Analyzer		
22.5.1	Manufacturer	[Text]	Consilium
22.5.2	Type	[Text]	Salwico SW2020 (sampling)
22.6	Cargo Tank Calibration Tables		
22.6.1	Are Cargo Tank Calibration tables available	[Yes/No]	YES
22.6.2	Measuring Company	[Text]	Intertek Caleb Brett – Kimsco
22.6.3	Certifying Authority	[Text]	Intertek Caleb Brett – Kimsco
22.6.4	Calibration calculated tocm ½ cm.....	[Yes/No]	YES
22.6.5	Tables established tocmcm.....mm	[Yes/No]	
22.6.6	Trim and List corrections Available	[YES/NO]	YES
22.6.7	Temperature Corrections available	[YES/NO]	YES
22.6.8	Float Gauge Tape Corrections Available	[YES/NO]	YES

2.23 CARGO SAMPLING

B23	CARGO SAMPLING	UNIT	CLIPPER SIRIUS			
23.1	Cargo tank sample level	[Tank]	1	2	3	4
23.1.1	Top	[Yes/No]	Yes	Yes	Yes	Yes
23.1.2	Middle	[Yes/No]	Yes	Yes	Yes	Yes
23.1.3	Bottom	[Yes/No]	Yes	Yes	Yes	Yes
23.2	Can sample be drawn from?					
23.2.1	Tank Vapor Outlet	[Yes/No]	YES			
23.2.2	Manifold Liquid Line	[Yes/No]	YES			
23.2.3	Manifold Vapor Line	[Yes/No]	YES			
23.2.4	Pump Discharge Line	[Yes/No]	YES			
23.3	State connection					
23.3.1	Type	[Text]	Female, double valve			
23.3.2	Size	[Inch]	0,5			

2.24 CARGO MANIFOLD



B24	CARGO MANIFOLD	UNIT	CLIPPER SIRIUS			
24.1	Distance from center of manifold to:					
24.1.1	Stern	[m]	115,17			
24.1.2	Bow	[m]	112,04			
24.1.3	A	[mm]	5950			
24.1.4	B	[mm]	5450			
24.1.5	C	[mm]	3450			
24.1.6	D	[mm]	1150			
24.1.7	E	[mm]	1150			
24.1.8	F	[mm]	3450			
24.1.9	G	[mm]	5450			
24.1.10	H	[mm]				
24.2	Flange		Duty [Bar]	ASA	Size ["]	[R]aised/[F]lat
24.2.1	A	[COL]	Diesel Oil	150	4	R
24.2.2	B	[COL]	Fuel Oil	150	8	R
24.2.3	C	[COL]	Cargo Liquid	300	14	R
24.2.4	D	[COL]	Cargo Vapour	150	10	R
24.2.5	E	[COL]	Cargo Vapour	150	10	R
24.2.6	F	[COL]	Cargo Liquid	300	14	R
24.2.7	G	[COL]	Fuel Oil	150	8	R
24.2.8	H	[COL]				
24.3	Height above uppermost continuous deck	[mm]	1600			
24.4	Distance from ship side	[mm]	3700			
24.5	Height above load waterline	[mm]	10978			
24.6	Height above light waterline	[mm]	16800			

2.25 CARGO REDUCERS

B25	CARGO REDUCERS	CLIPPER SIRIUS
25.0	ANSI 300	ANSI 300 -150
25.1	2 off 16"NB 300# ' 14"NB 300#	2 off 14"NB 300# ' 16"NB 150#
25.2	2 off 14"NB 300# ' 12"NB 300#	2 off 14"NB 300# ' 12"NB 150#
25.3	2 off 14"NB 300# ' 10"NB 300#	2 off 14"NB 300# ' 10"NB 150#
25.4	2 off 14"NB 300# ' 8"NB 300#	2 off 14"NB 300# ' 8"NB 150#
25.5	1 off 14"NB 300# ' 6"NB 300#	
25.6		
25.7		
25.8		
25.9		
25.0	ANSI 150	FUEL
25.1	2 off 10"NB 150# ' 12"NB 150#	1 off 12"NB 150# ' 8"NB 150#
25.2	2 off 10"NB 150# ' 10"NB 150#	1 off 10"NB 150# ' 8"NB 150#
25.3	2 off 10"NB 150# ' 8"NB 150#	1 off 8"NB 150# ' 8"NB 150#
25.4	2 off 10"NB 150# ' 6"NB 150#	1 off 8"NB 150# ' 6"NB 150#
25.5		
25.6		
25.7		
25.8		
25.9		

2.26 CONNECTION TO SHORE FOR ESD/COM SYSTEMS

B26	CONNECTIONS TO SHORE FOR ESD AND COM. SYSTEMS	UNIT	CLIPPER SIRIUS
26.1	Is ESD connection to Shore available?	[Yes/No]	YES
26.1.1	System	[Text]	Electric
26.1.2	Type of plug	[Text]	Electric
26.3	Is Hose or cables Available on Board	[Yes/No]	YES
26.3.1	Specify Length	[m]	
26.3.2	Specify type	[Text]	Electric

2.27 MANIFOLD DERRICK/CRANE

B27	MANIFOLD DERRICK/CRANE	UNIT	CLIPPER SIRIUS
27.1	Is Manifold Derrick Provided?	[Yes/No]	NO
27.2	Is Manifold Crane Provided?	[Yes/No]	YES
27.3	Is Lifting equipment Same P&SB?	[Yes/No]	YES
27.3.1	If NO, give details	[Text]	
27.3.2	Maximum outreach	[m]	21
27.3.3	Capacity at max. Outreach	[ton]	7,5

2.28 STORES HANDLING

B28	STORES HANDLING	UNIT	CLIPPER SIRIUS
28.1	Number of cranes	[Pcs]	2
28.1.1	Location(s)	[Text]	Port/starboard

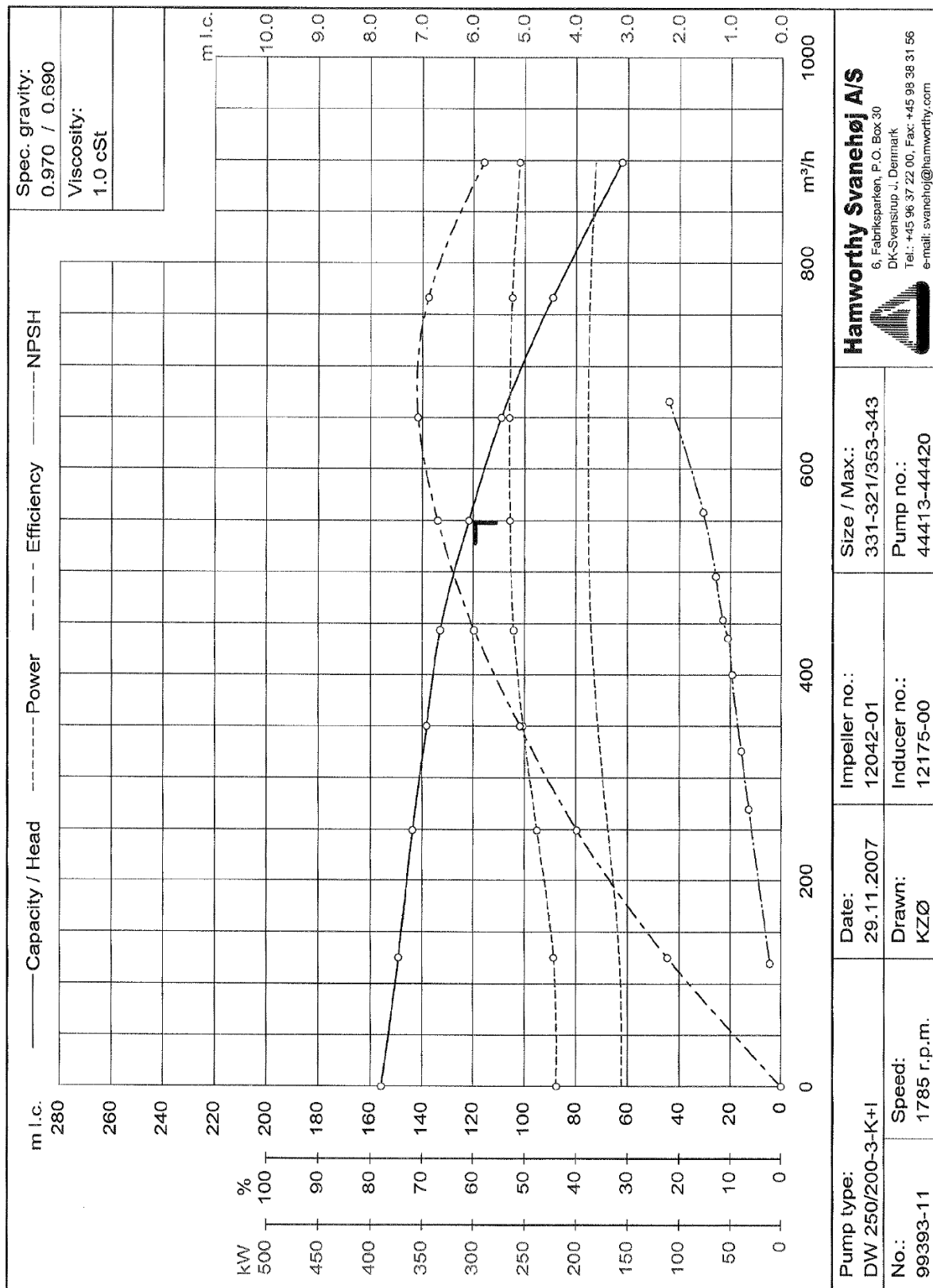
3. ADDITIONAL INFORMATION

CODE	C1	NOx factor	UNIT	CLIPPER SIRIUS
1.1.0	Main engine			
1.1.1		Power	[kW]	12270
1.1.2		RPM	[RPM]	96
1.1.3		NOx limit	[g/kWh]	17
1.1.4		NOx factor	[g/kWh]	12,3
1.1.5		EIAPP	[Ref]	EIAPP-752-1-A
1.1.6		Issued	[Date]	20.02.2008
1.2.0	Auxiliary engine 1			
1.2.1		Power	[kW]	1200
1.2.2		RPM	[RPM]	720
1.2.3		NOx limit	[g/kWh]	12,1
1.2.4		NOx factor	[g/kWh]	11,4
1.2.5		EIAPP	[Ref]	EIAPP-730-1-A
1.2.6		Issued	[Date]	24.01.2008
1.3.0	Auxiliary engine 2			
1.3.1		Power	[kW]	1200
1.3.2		RPM	[RPM]	720
1.3.3		NOx limit	[g/kWh]	12,1
1.3.4		NOx factor	[g/kWh]	11,4
1.3.5		EIAPP	[Ref]	EIAPP-730-2-A
1.3.6		Issued	[Date]	24.01.2008
1.4.0	Auxiliary engine 3			
1.4.1		Power	[kW]	1200
1.4.2		RPM	[RPM]	720
1.4.3		NOx limit	[g/kWh]	12,1
1.4.4		NOx factor	[g/kWh]	11,4
1.4.5		EIAPP	[Ref]	EIAPP-730-3-A
1.4.6		Issued	[Date]	24.01.2008
1.5.0	Auxiliary engine 4			
1.5.1		Power	[kW]	
1.5.2		RPM	[RPM]	
1.5.3		NOx limit	[g/kWh]	
1.5.4		NOx factor	[g/kWh]	
1.5.5		EIAPP	[Ref]	
1.5.6		Issued	[Date]	
CODE	C2	EGCS/SCRUBBER	UNIT	CLIPPER SIRIUS
2.1.0	Main engine			
2.1.1		Scrubber installed	[Yes/No]	NO
2.1.2		Maker	[Text]	N/A
2.1.3		Type	[Text]	N/A
2.1.4		VGP compliant	[Yes/No]	N/A
2.2.0	Auxiliary engines			
2.2.1		Scrubber installed	[Yes/No]	NO
2.2.2		Maker	[Text]	N/A
2.2.3		Type	[Text]	N/A
2.2.4		VGP compliant	[Yes/No]	N/A
CODE	C3	HEAT RECOVERY	UNIT	CLIPPER SIRIUS
3.1.0	Main engine			
3.1.1		Economizer installed	[Yes/No]	YES
3.1.2		Type	[Text]	0
3.1.3		Capacity	[kW]	0
3.1.4	Auxiliary engines			
3.1.5		Economizer installed	[Yes/No]	NO
3.1.6		Type	[Text]	0
3.1.7		Capacity	[kW]	0
CODE	C4	OTHER RELEVANT TECHNICAL INFORMATION	UNIT	CLIPPER SIRIUS
4.0		Rudder type	[Text]	Conventional

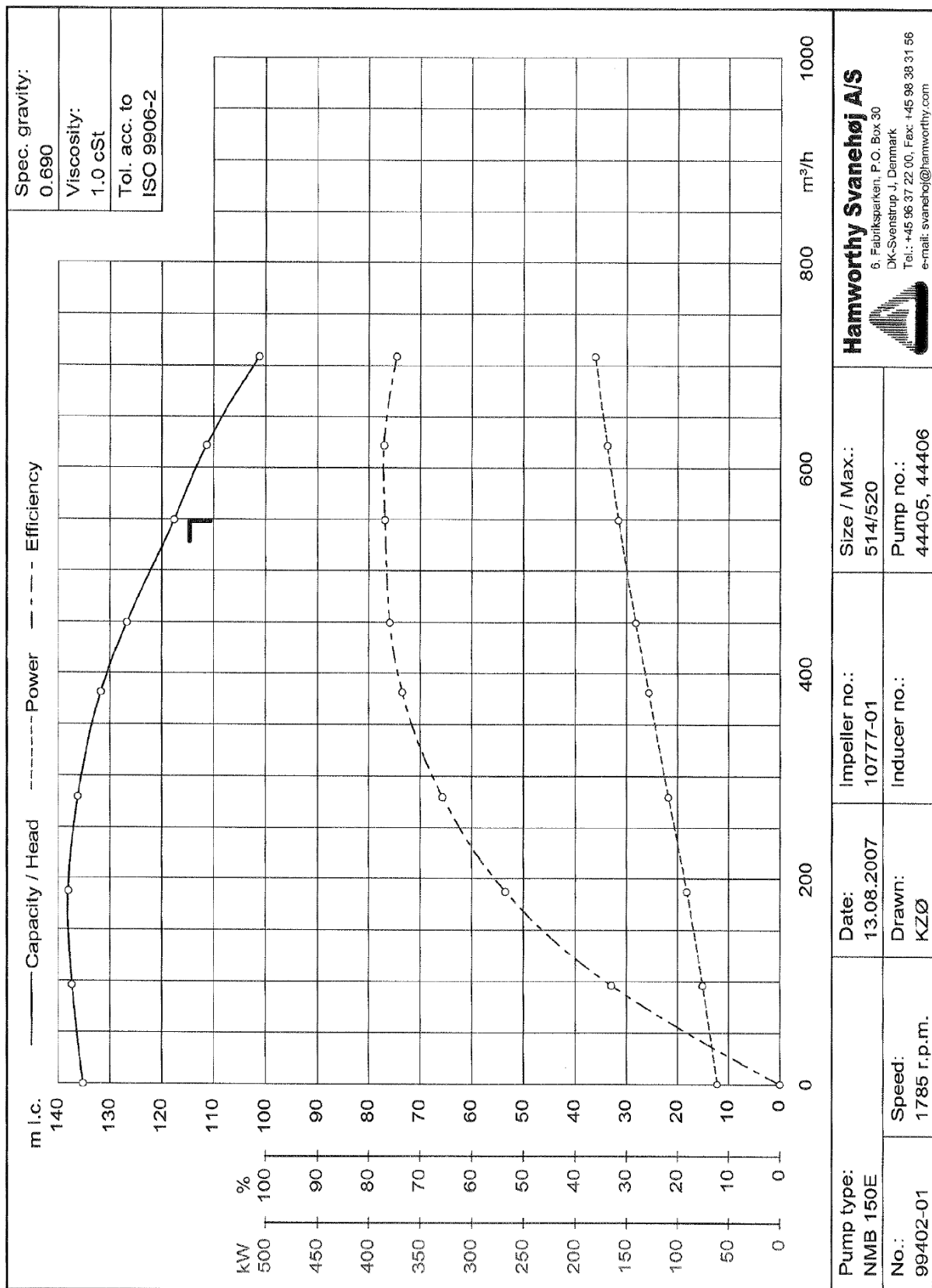
4.0.1	Number of rudders	[Pcs]	1
4.1	Type of propeller	[Text]	Fixed propeller
4.1.1	Blades	[Pcs]	4
4.2	Mewis Duct	[Yes/No]	NO
CODE	C5 ENVIRONMENTAL/PERFORMANCE TECHNOLOGIES INSTALLED	UNIT	CLIPPER SIRIUS
5.0	EEDI (Energy Efficiency Design Index)	[-]	6,40
5.1	ESI (Environmental Ship Index) - not confirmed	[-]	21,09

4. APPENDIX/DRAWINGS

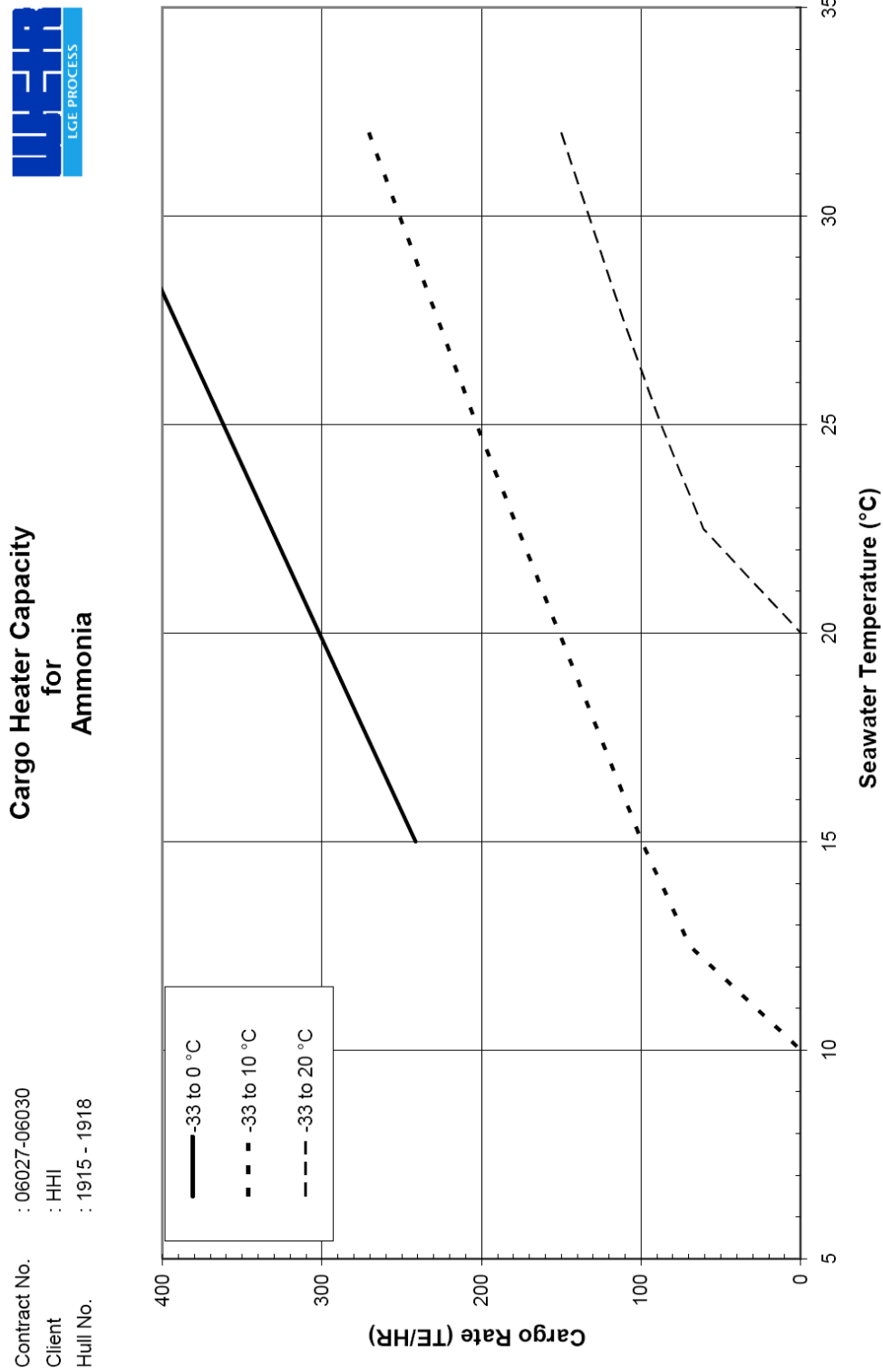
4.1 CARGO PUMPS



4.2 BOOSTER PUMPS



4.3 RE-HEATER CAPACITY, AMMONIA

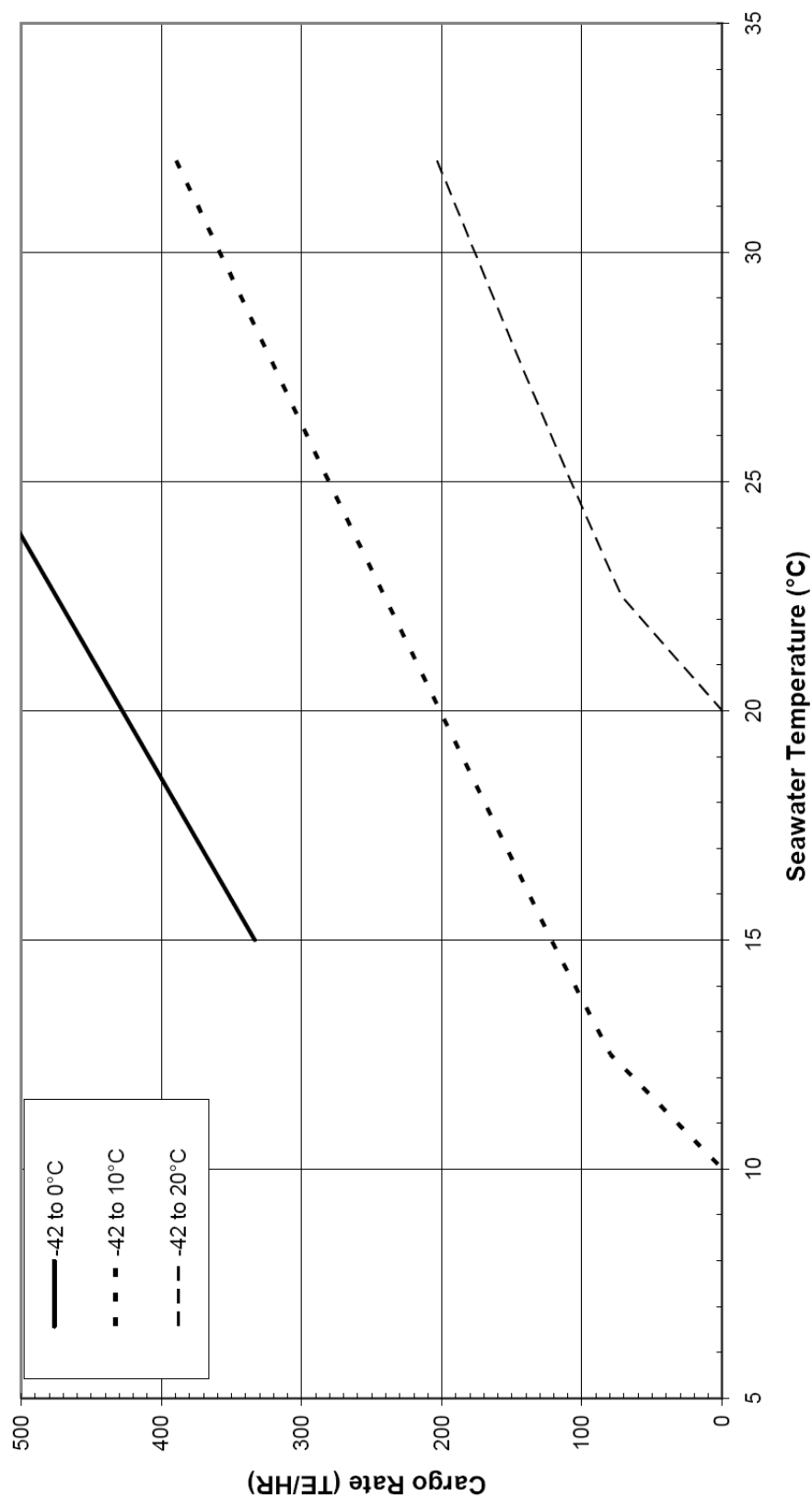


4.4 RE-HEATER CAPACITY, PROPANE



Cargo Heater Capacity for Propane

Contract No. : 06027-06030
Client : HHI
Hull No. : 1915 - 1918



4.5 MOORING DIAGRAM

The diagram below illustrates the position of Winch Mounted Wires (W) and Ropes (R) together with Open (O) and Closed (C) Fairleads. Indicate also the position of mooring Bitts (B)

