

**INTERTANKO Standard Gas Form - LPG**

<b>1. GENREAL INFORMATION</b>			
1.1	Vessels Name (IMO number):	Clipper Mars (9377078)	
1.2	Flag/Port of Registry:	Norway -	
1.3	Date delivered/Builder:	20.11.2008 / Hyundai Heavy Industries, Ulsan, Korea	
1.4	Hull Type:	Double Bottom	
1.5	Call sign/MMSI:	LAHZ6 / 258667000	
1.6	Vessels contact:	+44 2031 454635 (VSAT Capt. Office) / +44 2031 454 master.clipper.mars@solvangship.no	
<b>Classification</b>			
1.7	Classification society:	DNV	
1.8	Class notation:	+1A1 Tanker for Liquefied Gas BWM(T) E0 NAUT (OC) NAUTICUS(Newbuilding) PLUS (1) TMON	
1.9	Previous Classification Society (if applicable) / Date of Classification Society Change	N/A	
1.10	EEDI Rating:	N/A	
1.11	Does the ship have a Condition Assessment Programme (CAP) rating? What is the latest CAP rating (if applicable):	Yes ()	
<b>Ownership and Operation / QI</b>			
1.12	Registered Owner:	Partrederiet Clipper Mars II DA Strandkaien 36 N-4005 Stavanger Norway Norway Tel: +47 51848400 Fax: N/A Telex: N/A Email: maritime.vetting@solvangship.no Web: www.solvangship.no	
1.13	Technical Operator:	Solvang ASA Strandkaien 36 N-4005 Stavanger Norway Norway Tel: +47 51848400 Fax: N/A Telex: N/A Email: maritime.vetting@solvangship.no Web: www.solvangship.no Company IMO#: 1242256	
1.14	Commercial Operator:	Solvang ASA Haakon VII's gate 6 N-0161 Oslo Norway Norway Tel: +47 22 47 19 50 Fax: Not Applicable Telex: Not Applicable Email: operation@solvangship.no Web: www.solvangship.no	
1.15	Qualified Individual:	Hudson Marine Management Service 1800 Chapel Avenue West, Suite 360 Cherry Hill, NJ 08002 Tel: + 1 856 342 7500 (24 hrs) Fax: + 1 856 372 8888 (24 hrs) Telex: NA Email: reporting@hmms-usa.com Web: http://hudsonanalytix.com/	
<b>Insurance</b>			
1.16	P & I Club - Full style:	Gard P&I (Bermuda) Ltd. Kittelsbuktveien 31, NO- 4836 Arendal, Norway Tel: +47 37 01 91 00 Fax: +47 37 02 48 10 Email: companymail@gard.no Web: http://www.gard.no/	
<b>Dimensions</b>			
1.17	Type of vessel (Fully ref/ semi ref/ pressurized):	Fully ref	
1.18	Length overall (LOA):	204,98 Metres	
1.19	Extreme Breadth (Beam):	32,23 Metres	
1.20	Distance bow to bridge:	138,04 Metres	
1.21	Parallel body distances	<b>Lightship</b>	<b>Normal Ballast</b>
	Parallel body length:	59,90 Metres	80,70 Metres
	Aft to mid-point manifold:	32,10 Metres	42,80 Metres
	Fwd to mid-point manifold:	27,80 Metres	37,90 Metres
			<b>Summer Dwt</b>
			100,40 Metres
			54,80 Metres
			46,20 Metres
<b>Tonnages</b>			
1.22	Gross Tonnage:	36459,00 Tonnes	
1.23	Net Tonnage:	10938,00 Tonnes	
1.24	Suez Canal Tonnage Gross(SCGT)/ Net(SCNT):	38815,25	34288,97
	Panama Canal Net Tonnage:	38815,25	
<b>Loadline information</b>			

1.25	Loadline:	<b>Freeboard</b>	<b>Draft</b>	<b>Deadweight</b>	<b>Displacement</b>
	Summer	6,220 Metres	12,120 Metres	43544 MT	59167 MT
	Winter	6,470 Metres	11,870 Metres	42115 MT	57738 MT
	Tropical	5,960 Metres	12,370 Metres	44979 MT	60602 MT
	Normal Ballast Condition:	11,370 Metres	7,000 Metres	17194 MT	32744 MT
1.26	FWA/TPC at summer draft:			260 mm	56,85 MT
1.27	Does vessel have multiple SDWT? If so, please enter Maximum deadweight (mt)			No	

<b>2 DEADWEIGHTS</b> *All cargoes listed are as per Certificate of Fitness					
	<b>Cargo</b>	<b>Draft Foré (m)</b>	<b>Draft Aft' (m)</b>	<b>Draft Mean (m)</b>	<b>Corresponding Deadweight (mt)</b>
2.1	Ammonia anhydrous (98,0%)	11,92	11,92	11,92	42312
2.2	Butadiene (98,0%)	11,61	11,61	11,61	40680
2.3	Butane (98,0%)	10,81	11,06	11,30	37645
2.4	Butane-propane (98,0%)	10,63	10,94	11,25	37026
2.5	Butylene (98,0%)	10,69	10,98	11,26	37323
2.6	Commercial propane (%)				
2.7	Mixed C4 (98,0%)	10,75	11,02	11,28	37439
2.8	Propane (98,0%)	10,45	10,82	11,19	36406
2.9	Propylene (98,0%)	10,93	11,17	11,40	38258
2.10	VCM (66,0%)	11,05	11,20	11,36	38455

<b>3. CARGO TANK CAPACITIES</b> *All cargoes listed are as per Certificate of Fitness						
		<b>Density</b>	<b>Tank 1 (m3)</b>	<b>Tank 2 (m3)</b>	<b>Tank 3 (m3)</b>	<b>Tank 4 (m3)</b>
3.1	100% Capacity		13799	15694	15697	15095
3.2	98% Capacity		13523	15380	15383	14793
3.3	Ammonia anhydrous	0,680	9195,7	10458,5	10460,5	10059,3
3.4	Butadiene	0,651	8803,5	10012,5	10014,4	9630,3
3.5	Butane	0,573	7748,7	8812,8	8814,5	8476,4
3.6	Butane-propane	0,594	8032,7	9135,8	9137,5	8787,1
3.7	Butylene	0,620	8384,3	9535,7	9537,5	9171,7
3.8	Commercial propane	0,493	6666,8	7582,4	7583,8	7293,0
3.9	Mixed C4	0,670	9060,4	10304,7	10306,7	9911,4
3.10	Propane	0,580	7843,4	8920,5	8922,2	8580,0
3.11	Propylene	0,610	8249,0	9381,9	9383,7	9023,8
3.12	VCM	0,970	9369,5	10656,2	10658,3	10249,5

<b>4. DECK MACHINERY</b>		
<b>Mooring</b>		
4.1	Number Of Mooring Winches:	Forecast: 3 Maindeck Fwd: 1 Maindeck Aft: 1 Poopdeck: 3
4.2	Mooring lines on drum (Number/Length/Diameter)	Forecast: 6/220,00 m/64,00 Maindeck Fwd: 2/220,00 m/64,00 Maindeck Aft: 2/220,00 m/64,00 Poopdeck: 6/220,00 m/64,00
4.3	Mooring lines (Material)	Forecast: PLAITED KARAT MAXI, 8 STRANDS, ESTALON UV-resistant Maindeck Fwd: PLAITED KARAT MAXI, 8 STRANDS, ESTALON UV-resistant Maindeck Aft: PLAITED KARAT MAXI, 8 STRANDS, ESTALON UV-resistant Poopdeck: PLAITED KARAT MAXI, 8 STRANDS, ESTALON UV-resistant
4.4	Number of Mooring lines onboard:	22
4.5	Ship design minimum breaking load (mt):	75,0
4.6	Winch Brake holding Capacity (mt):	Forecast: 62,70 Maindeck Fwd: 62,70 Maindeck Aft: 62,70 Poopdeck: 62,70
<b>Lifting Equipment</b>		
4.7	Number of Cranes:	Derricks: 0.00 Tonnes, Cranes: 1 x 7.5 Tonnes One - midships (7.5 Tonnes), two - aft (4.0 Tonnes)
4.8	SWL Of Cranes(mt):	Derricks: 0.00 Tonnes, Cranes: 1 x 7.5 Tonnes One - midships (7.5 Tonnes), two - aft (4.0 Tonnes)

<b>5. MACHINERY AND PROPULSION</b>				
<b>Engines</b>		<b>No</b>	<b>Power (KW)</b>	<b>Make/Type</b>
5.1	Main Engine:	1	10150	Hyundai B&W 5S60MC-C
5.2	Auxiliary Engine:	3	0	

5.3	Main Engine - Type of fuel used:				
5.4	Auxiliary Engine - Type of fuel used:	IFO380			
<b>Propulsion</b>					
5.5	Propeller number and type:	Fixed			
5.6	Bow Thruster Power (if fitted):	1609,23			
<b>Bunkers</b>					
5.7	Capacity of bunker tanks:	Fuel oil:2183,00 Diesel oil: 785,00			
5.8	Ballast Tank Capacity (100%):	349687,2			
<b>6. CARGO HANDLING</b>					
<b>Discharging General</b>					
6.1	Number of Cargo Tanks:	4			
6.2	Cargo Pumps:	<b>Type</b>	<b>No Per Tank</b>	<b>Run simultaneously at full capacity</b>	<b>Rate per pump (m3 per hour)</b>
		Centrifugal	2	8	500 (m3/hour)
6.3	Number and Capacity of Booster Pumps:	2 - 500 (m3/hour)			
6.4	Max loading rate for homogenous cargo (without vapour return):	4000			
6.5	Max loading rate for homogenous cargo per manifold (without vapour return):	4000			
<b>Unpumpables</b>					
6.6	Total Unpumpables:	<b>Tank Number</b>	<b>Unpumpable (m3)</b>		
		1	17		
		2	18		
		3	18		
		4	17		
<b>Transport and Carriage Conditions</b>					
6.7	What is the minimum/maximum permissible tank pressure?	-0,06Kp/Sq. cm	0,40Kp/Sq. cm		
6.8	What is the minimum/maximum permissible tank temperature?	-50 °C	N/A		
6.9	Does the vessel have a cargo heater? If yes, stat capacity of cargo heater	Yes			
6.10	Number and capacity of Vapouriser	Yes			
6.11	Number and capacity of Cargo Deck Tanks	1 1 Propane: 172,956 2 Ammonia: 202,776 3 Ethylene: 169,6758			
6.12	IS ESD shore connection available? If yes, state type of connection	Yes			
		If yes, is the ESD system pneumatic?	Yes		
		If yes, is the ESD system electrical?	Yes		
		If yes, is the ESD system fiber optic?	Yes		
6.13	Maximum number of grades that can be loaded/carried/discharged simultaneously with complete segregation	2			
6.14	No. of products that can be conditioned by the reliquefaction plant simultaneously	2			
<b>7. INERT GAS</b>					
<b>Main IG Plant</b>					
7.1	Inert Gas system fitted:	Yes			
7.2	Inert Gas Capacity:	5500,00			
7.3	Inert Gas - Lowest dew point achievable:	-50,00			
<b>Nitrogen</b>					
7.4	N2 Plant fitted:	Yes			
7.5	N2 Generating Plant - Lowest dew point achievable:	-40,00			
<b>8. RELIQUEFACTION PLANT</b>					
8.1	Coolant Type:				
8.2	Manufacturer/type of compressors:	SULZER BURKHARDT 2K 160-2F	Reciprocating		
8.3	Number and capacity of compressors:	4	2024.00 m3/hour		
8.4	Are compressors oil free?:	Yes			
<b>Plant Design Conditions</b>					
8.5	Design temperature conditions - Air:	45.00 °C			
8.6	Design temperature conditions - Sea:	32.00 °C			
<b>9. MANIFOLD</b>					
9.1	Type of manifold valve:	Butterfly			

9.2	Manifold Layout (Fwd to Aft):	Cargo Manifold Dimension A: 100 Cargo Manifold Dimension B: 200 Cargo Manifold Dimension C: 356 Cargo Manifold Dimension D: 254 Cargo Manifold Dimension E: 254 Cargo Manifold Dimension F: 356 Cargo Manifold Dimension G: 200			
9.3	Do manifold arrangements comply with SIGTTO standards?:	Yes			
9.4	Liquid manifold size:	356			
9.5	Vapour manifold size:	254			
9.6	Are local pressure gauges fitted outboard of the manifold valve:	Yes			
9.7	<b>Pipe Flange</b>				
	<b>Pipe Flange letter</b>	<b>Duty</b>	<b>Rating (bar)</b>	<b>Size</b>	<b>Raised/Flat face</b>
	A	Other	10.00	100.00	Raised
	B	Fuel oil	10.00	200.00	Flat face
	C	Cargo	25.00	356.00	Raised
	D	Vapour	10.00	254.00	Raised
	E	Vapour	10.00	254.00	Raised
	F	Cargo	25.00	356.00	Raised
	G	Fuel oil	10.00	200.00	Flat face
<b>Dimensions</b>					
9.8	Bow to center manifold (BCM)/Stern to center manifold (SCM):	102 Metres	103 Metres		
9.9	Distance manifold to ship side:	3125 mm			
9.10	Height above uppermost continuous deck:	1500 mm			
9.11	Height of the manifold connections above the waterline at light condition:	18700 mm			
9.12	Height of the manifold connections above the waterline at loaded condition:	10300 mm			
9.13	Reducers:	<b>No.</b>	<b>Flange Rating</b>	<b>Size</b>	<b>Length</b>
	ANSI Class 300:	12	25 bar	406 mm	450 mm
	ANSI Class 300 to 150:	4	25 bar	406mm	450 mm
	ANSI Class 150:	8	25 bar	250 mm	450 mm
<b>10. SHIP TO SHIP TRANSFER</b>					
10.1	Does vessel comply with recommendations contained in OCIMF/ICS Ship To Ship Transfer Guide (Petroleum, Chemicals or Liquidified Gas, as applicable)?	Yes			

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