

HAPPY S-TYPE

KEY IN
HEAVY
LIFT



GIANT
MARINE

BIG LIFT

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02 HAPPY SKY
03 HAPPY STAR

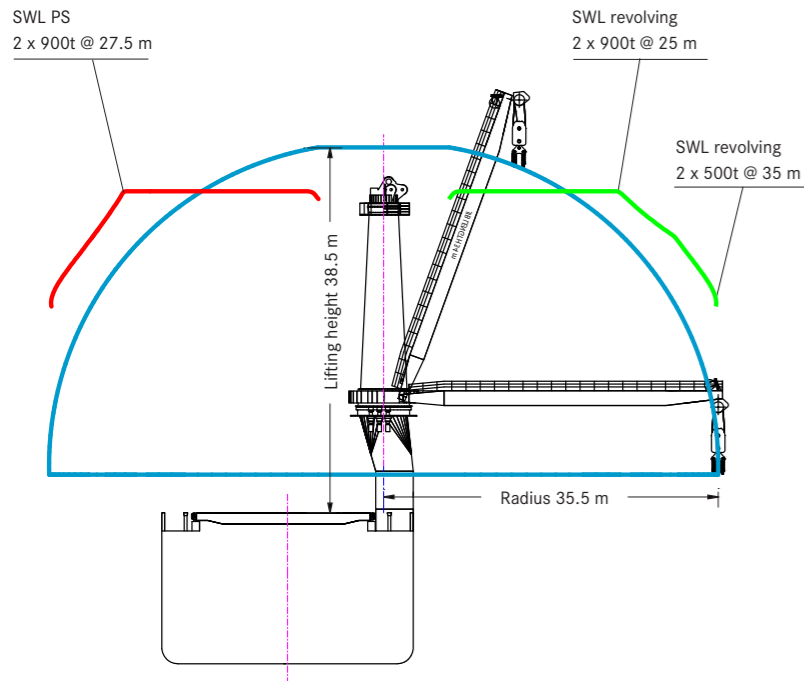
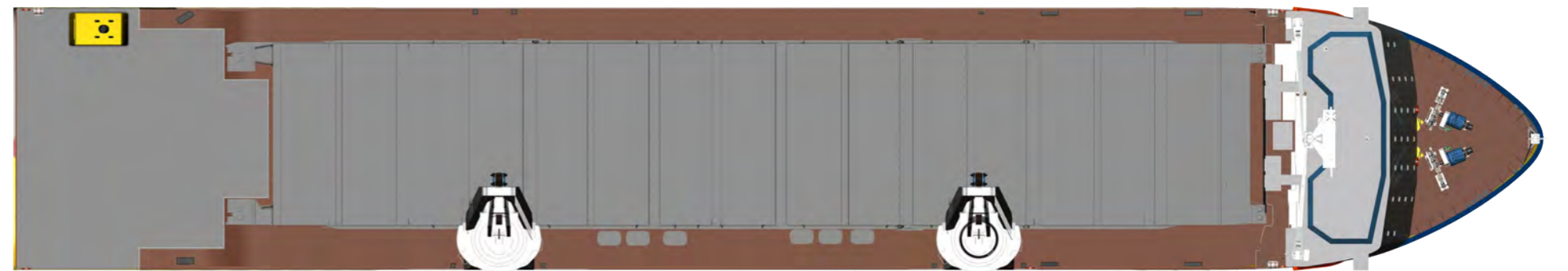
HAPPY SKY

Happy Sky has excellent lifting and handling capabilities and is a well-tuned heavy lift vessel offering efficient and safe transportation solutions, which meet customer requirements. With her two 900 mt Heavy Lift Mast Cranes, she is in the top class of modern heavy lift vessels.

Happy Sky's lifting curves range from 1,800 mt at 21 metres, 1,600 mt at 25 metres to 1,000 mt at 32 metres, with a lifting height of 41 metres above the main deck. Lifting stability is achieved without the need for stability pontoons during loading or discharging operations.

The 17,775 tdwt vessel is 155 metres long and her length, combined with the forward position of her superstructure, provide a single, large cargo hold and a wide, open deck area. She is equipped with folding hatch covers, a large poop deck and cargo rails to facilitate the full use of the vessel's deck area for cargo stowage. Happy Sky's tweendeck is adjustable in height and she is allowed to sail with open weather deck hatches at a draught of up to 7.5 metres. Utilising modern design methods, special attention was given to the optimisation of her powering performance, which resulted in a good working speed. Besides all this, she has Finnish/Swedish 1A Ice Class notation.

HAPPY SKY



PRINCIPAL DIMENSIONS

Length overall	154.8 m
Length p.p.	145.8 m
Breadth moulded	26.5 m
Scantling draft	9.5 m
Draft open sailing	7.5 m

CRANES

2 x 900 mt SWL

COMBINABLE

1,800 mt

TROLLEY

37.5 mt SWL

HATCH OPENINGS AND ALLOWABLE LOADS

HATCH OPENINGS

Weather deck	96 x 17.7 m
Tween deck	92 x 17.7 m

ALLOWABLE LOADS

Weather deck hatch covers	12.5 t/m ²
Tween deck hatch covers	12.5 t/m ²
Tank top	20.0 t/m ²

FLOOR SPACE

Weather deck	3,000 m ²
Tween deck	1,742 m ²
Tank top	1,530 m ²

MAIN ENGINE

Wärtsilä	8,775 kW
Bowthruster	1,000 kW
Service speed	15 kn

CAPACITY

Grain = bale	20,561 m ³
If tween deck installed	17,068 m ³

DEADWEIGHT

At Scantling draft 17,775 mton inc. tween deck hatch covers, pillars

REGISTRATION

The Netherlands

CLASS

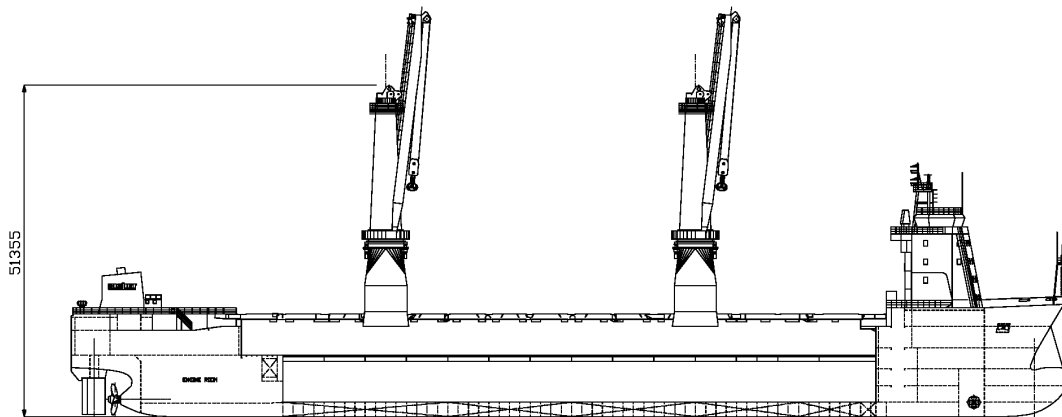
LRS X100 A1, Ice class 1A (Finnish) strengthened for heavy cargoes



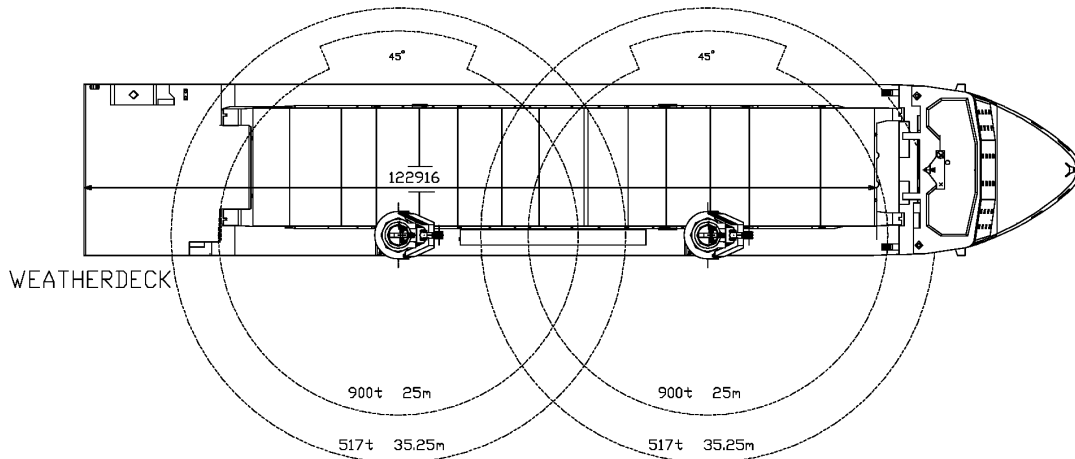
KEY IN HEAVY LIFT

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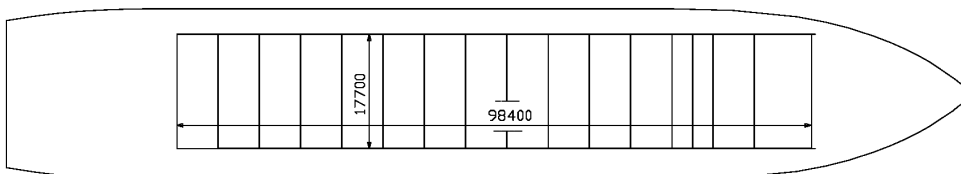
HAPPY SKY



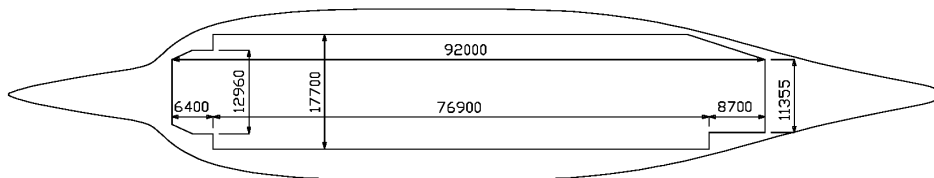
SIDE VIEW



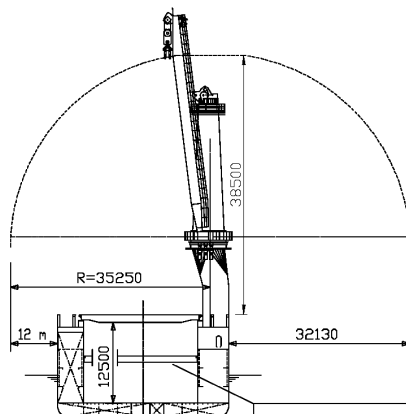
WEATHERDECK



TWEENDECK



TANKTOP



CROSS SECTION

NOTE: Tweendeck hatches adjustable in height

vessel description

m.v. HAPPY SKY

General				
type of vessel	Specialised Cargo, Heavy Load (selected) RB-Carrier, LoLo Gen. dry cargo, Container facility			
class	Lloyds Register \boxtimes 100 A1, Strengthened for Heavy Cargoes, , Ice Class Finnish/Swedish 1A, Containers cargoes in all Holds and on Upper Deck and on all Hatch Covers, Shipright (ACS(B)) LA *IWS, LI, BWMP (F.T.), UMS, NAV1, \boxtimes LMC, Shipright SCM			
built	2013			
flag	Dutch			
port of registry	Amsterdam			
disponent owner	BigLift Shipping B.V.			
P&I club	The Standard Club Europe Ltd			
official number	23542 Z 2013			
IMO no.	9457220			
NSI No.	53182			
call sign	PCCH			
satellite number	phone	+870 7731 58963		
	GSM	+31 6 2278 4821		
	fax	+31 20 448 9167		
	SAT-C telex	4246 71410		
	e-mail	pcch@globeemail.com		
Tonnage		<u>International</u>	<u>Panama</u>	<u>Suez</u>
GT		15,989	54,257	14,469.5
NT		4,989		
Measurements				
Length overall		154.68	m	
Length between perpendiculars		146.62	m	
Breadth overall		26.50	m	
Depth moulded		14.00	m	
Draft Summer (salt)		9.500	m	
Draft open sailing		7.500	m	
Deadweight Summer (salt)		16,680	mton	
Airdraft over keel		51.43	m crane jibs down	
Immersion (min, 5m draft)		30.29	mton / cm	
	(max, 9.5m draft)	37.45	mton / cm	
Floor space weather deck		3,250	m ² (deck space only)	
	tween deck	1,743	m ²	
	lower hold	1,549	m ²	
Cargo capacity		20,561	m ³ (17,068 m3 with tween deck installed)	

<p>Hatches</p> <p>Weather deck</p> <p>Tween deck</p> <p>Bulkheads / compartments</p> <p>hold heights:</p> <p>Total height, no tween decks installed:</p> <p>Deck strength weather deck tween deck tank top</p>	<p>96.96 x 18.30 m steel lift away, end folding type and rolling type</p> <p>99.00 x 17.72 m 12 steel pontoons 6.36 x 17.72 m 2 steel pontoons 3.17 x 17.72 m 1 steel pontoon 8.74 x 17.72 m</p> <p>removable pontoons for up to 12 compartments</p> <p>adjustable tween deck height. Height in lower hold ranging in 12 steps from 3.34 m to 8.84 m in 50 cm increments</p> <p>12.515 m</p> <p>4.0 mton/m² 12.5 mton/m² with pillars installed 4.0 mton/m² 12.5 mton/m² with pillars installed 20.0 mton/m²</p>
<p>Cargo facilities</p> <p>Cranes</p> <p>Both cranes positioned on SB side</p> <p>900 mt rigging</p> <p>800 mt rigging</p> <p>Both cranes working in tandem:</p> <p>auxiliary hoist</p>	<p>SWL 6.9 to 25 m radius revolving (16 falls) SWL 6.9 to 27.5 m over portside only (16 falls) SWL 6.9 to 28 m radius revolving SWL 6.9 to 32 m portside only upto 500 mt SWL at 35.25 m Combinable upto 1800 mt SWL</p> <p>Each crane equipped with a trolley travel hoist, upto 37.5 mt SWL, plus a sling handling hoist, SWL 10 mt, plus 2 tugger winches, SWL 25 mt</p>
<p>Lifting beams</p> <p>capacity / length</p>	<p>2 units, SWL 950 mt, length 12 m between outer lifting points. 2 extension pieces to increase length to 15 m Own weight per beam 35mt, extended 41 mt</p>
<p>Mechanical details</p> <p>mechanical ventilation, empty holds</p> <p>CO₂</p> <p>evaporator</p> <p>power supply</p> <p>reefer plugs</p>	<p>15x per hour</p> <p>yes</p> <p>yes; capacity 20t/day</p> <p>440 volts, 60 Hz</p> <p>up to 1275 kW, 60 pcs</p>
<p>Tank capacities</p> <p>ballast</p> <p>fresh water</p>	<p>8,902.10 m³</p> <p>182.20 m³</p>



HFO	1,551.00 m ³												
MDO	182.70 m ³												
Speed/Consumption Speed through water with fuel consumption basis IFO 380 centistokes; wind not exceeding 2 beaufort; calm smooth sea without current; deep water; draft 7 m, 16.7 knots													
Fuel consumption per day (even keel)	abt. 25 mt HFO at abt. 14.5 kn abt. 30 mt HFO at abt. 15.5 kn abt. 37 mt HFO at abt. 16.0 kn no MDO at sea, except for manoeuvring												
In port:	abt. 3.0 ton HFO per day, cargo gear working abt. 1.5-2.0 ton HFO per day, cargo gear idle Note: in seca area MDO to be used in stead of HFO												
Engine type bow thruster capacity auxiliaries ballast pumps, capacity ballast Intering system	Wärtsilä 8L46, 8775 kW engine Wärtsilä 1000 kW 3 x Wärtsilä 900 kW 2 ballast pumps, each approx. 800 m ³ /hr 1 anti heeling pump 1000 m ³ /hr 2 tanks total 796 m ³												
Cargo space container capacity deck hold (upto IMO line) (basis 20 ton / teu, 30 ton / feu) stackloads deck tween deck hold Remarks: Vessel is partly equipped	<table><thead><tr><th></th><th><u>TEU</u></th><th><u>FEU</u></th></tr></thead><tbody><tr><td></td><td>850</td><td>380</td></tr><tr><td></td><td><u>388</u></td><td><u>166</u></td></tr><tr><td></td><td><u>1237</u></td><td><u>360</u></td></tr></tbody></table> upto 60 ton/stack TEU, upto 90 ton/stack FEU upto 120 ton/stack TEU, upto 140 ton/stack FEU		<u>TEU</u>	<u>FEU</u>		850	380		<u>388</u>	<u>166</u>		<u>1237</u>	<u>360</u>
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