

HAPPY S-TYPE

KEY IN
HEAVY
LIFT



GIANT
MARINE

BIG LIFT

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03 HAPPY STAR

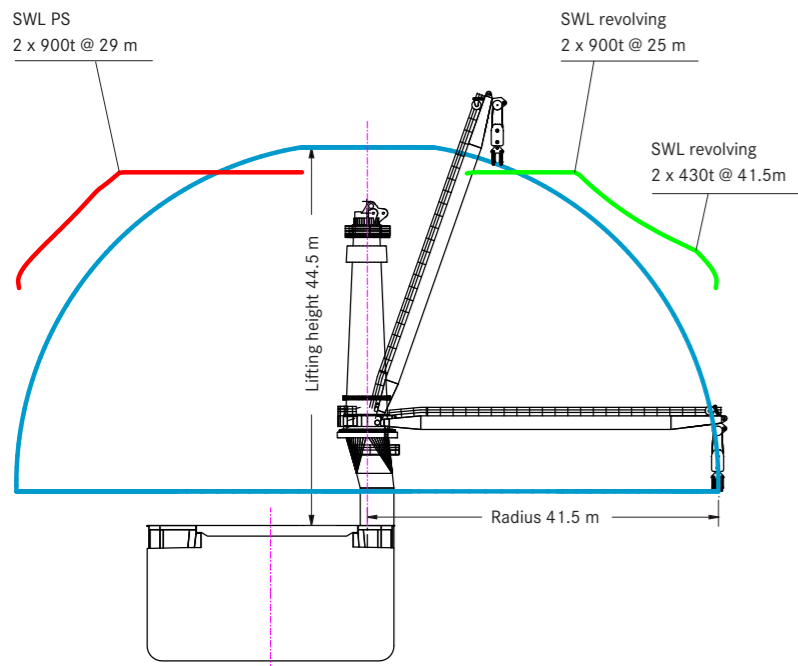
HAPPY STAR

Happy Star offers unique lifting capabilities for the heavy lift and project cargo market. The 18,374 tdwt vessel features two 900 mt Heavy Lift Mast Cranes which make her ideally suited for handling heavy cargoes all over the world.

Given her high crane pedestals and lengthened jib, her lifting height is unrivalled in the worldwide heavy lift fleet. With a beam of 29 metres, the vessel has sufficient anti-heel capacity and stability to use the cranes to their full capacity - 1,800 mt at 25 metres, 1,600 mt at 28 metres and 1,000 mt at 41 metres - with a lifting height of close to 47 metres above the main deck. Stability is guaranteed without the need for a stability pontoon during loading or discharging operations.

At 156 metres long, her length and the forward position of her superstructure provide a single, large cargo hold and a wide, open deck area. With the weather deck extending over the full width of the vessel, her load space can be used to its full potential. She has 8 pontoon hatch covers, with 15 t/m² carrying capacity over the full length and beam. The tweendeck is adjustable in height and it is possible to sail with open weather deck hatches at a draught of up to 8 metres. The hull was designed using the latest technology and special attention was given to optimising her powering performance, resulting in a good working speed. Happy Star has Finnish/Swedish 1A Ice Class notation.

HAPPY STAR



PRINCIPAL DIMENSIONS

Length overall	156.0 m
Length p.p.	147.6 m
Breadth moulded	29.0 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	96.0 x 17.87 m
Tween deck	89.6 x 17.87 m

ALLOWABLE LOADS

Weather deck hatch covers	15.0 t/m ²
Tween deck hatch covers	15.0 t/m ²
Tank top	20.0 t/m ²

FLOOR SPACE

Weather deck	3,280 m ²
Tween deck	1,716 m ²
Tank top	1,624 m ²

MAIN ENGINE

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

CAPACITY

Grain = bale	20,535 m ³
If tween deck installed	18,677 m ³

DEADWEIGHT

At Scantling draft 18,374 mton inc. tween deck hatch covers, pillars

REGISTRATION

The Netherlands

CLASS

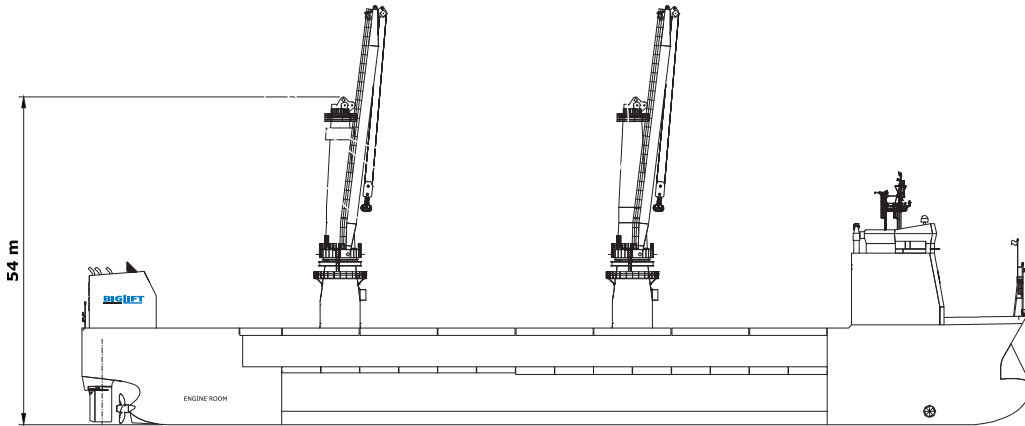
LRS X100 A1, Ice class 1A (Finnish) strengthened for heavy cargoes



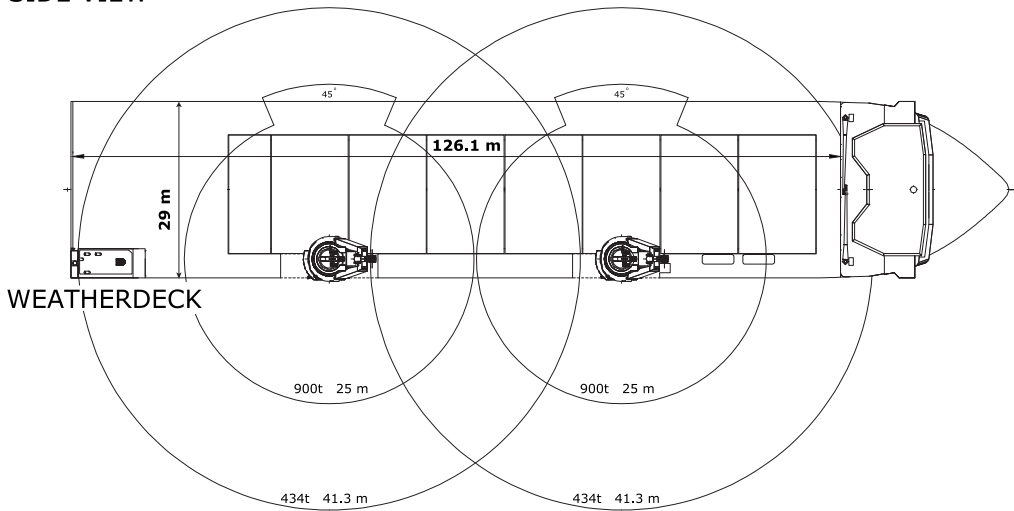
KEY IN HEAVY LIFT

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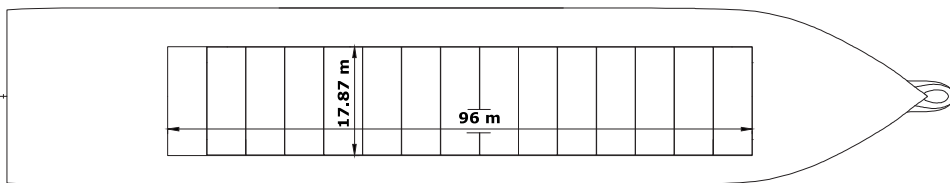
HAPPY STAR



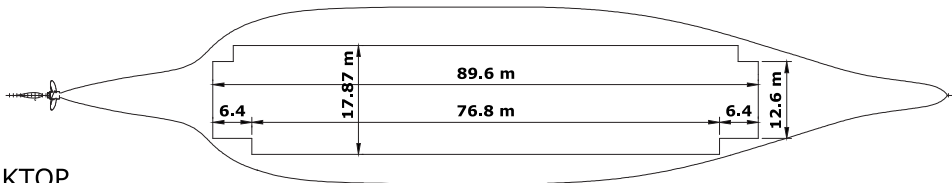
SIDE VIEW



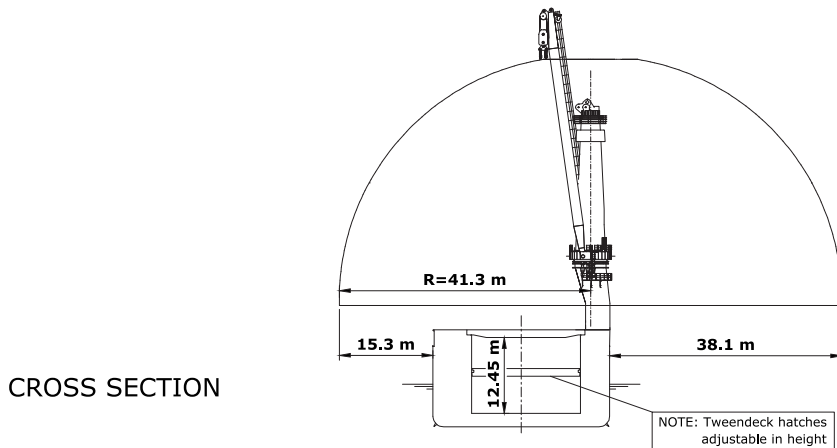
WEATHERDECK



TWEENDECK



TANKTOP



CROSS SECTION

vessel description

m.v. HAPPY STAR

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	2014			
flag	Dutch			
port of registry	Amsterdam			
disponent owner	BigLift Shipping B.V.			
P&I club	The Standard Club Europe Ltd			
official number	23889 Z 2014			
IMO no.	9661259			
NSI No.				
call sign	PCCP			
satellite number	phone	+870 773235510		
	GSM	+31 6 13665217		
	VSAT phone	+31 20 7083393		
	SAT-C telex	424671510 & 424671511		
	e-mail	happystar@bigliftshipping.com		
Tonnage		<u>International</u>	<u>Panama</u>	<u>Suez</u>
GT		18,374	16,537	18,374
NT		5,583	–	5,583
Measurements				
Length overall		155.97	m	
Length between perpendiculars		147.60	m	
Breadth overall		29.00	m	
Depth moulded		13.20	m	
Draft Summer (salt)		9.50	m with removable bulkhead in hold	
Draft open sailing		8.00	m	
Deadweight Summer (salt)		18,374	mton	
Airdraft over keel		54.00	m crane jibs down	
Immersion (min, 5m draft)		33.80	mton / cm	
	(max, 9.5m draft)	40.70	mton / cm	
Floor space weather deck		3,280	m ² (deck space only)	
	tween deck	1,716	m ²	
	lower hold	1,624	m ²	
Cargo capacity below deck		20,535	m ³ (20,253 m ³ with bulkhead installed)	
		18,677	m ³ (with tweendecks installed)	
Deck area		abt. 130 m x 29 m		

<p>Hatches</p> <p>Weather deck</p> <p>Tween deck</p> <p>hold heights:</p> <p>Total hold height</p> <p>Deck strength weather deck tween deck tank top</p>	<p>96 x 19.20 m</p> <p>7 steel pontoons 12.74 x 18.58 m 1 steel pontoon 6.60 x 18.58 m steel lift away type</p> <p>96.00 x 17.87 m 14 steel pontoons 6.36 x 17.75 m</p> <p>adjustable tween deck height. Height in lower hold ranging in 11 steps from 2.60 m to 8.52 m in 50 cm increments. In some places to 7 m.</p> <p>12.447 m, no tween decks installed:</p> <p>15.0 mton/m² 15/6.4 mton/m², with pillars installed 20.0 mton/m²</p>
<p>Cargo 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 10.5 to 23.8 m radius revolving (16 falls) SWL 7.8 to 28.7 m over portside only (16 falls) SWL 7.8 to 27.2 m radius revolving (14 falls) SWL 7.8 to 32.1 m portside only (14 falls) upto 430 mt SWL at 41.25 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 (650 mt SWL) 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>6x per hour</p> <p>yes</p> <p>yes; capacity 20t/day</p> <p>440 volts, 60 Hz</p>
<p>Tank capacities</p> <p>ballast</p> <p>fresh water</p> <p>HFO</p> <p>MDO</p>	<p>12,559 m³</p> <p>313 m³</p> <p>1,526 m³</p> <p>287 m³</p>

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, abt. 16.7 knots	
Fuel consumption per day (even keel) In port:	abt. 25 mt HFO at abt. 14.0 kn abt. 30 mt HFO at abt. 15.0 kn abt. 37 mt HFO at abt. 15.5 kn no MDO at sea, except for manoeuvring 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 W6L20 1,025 kW 3 ballast pumps, each approx. 1,000 m ³ /hr Air compressed, abt. 3000 m ³ /hr 2 tanks total 800 m ³

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