VIKING NORSAFE
Boats and davits

Enterprise No.: NO940411696
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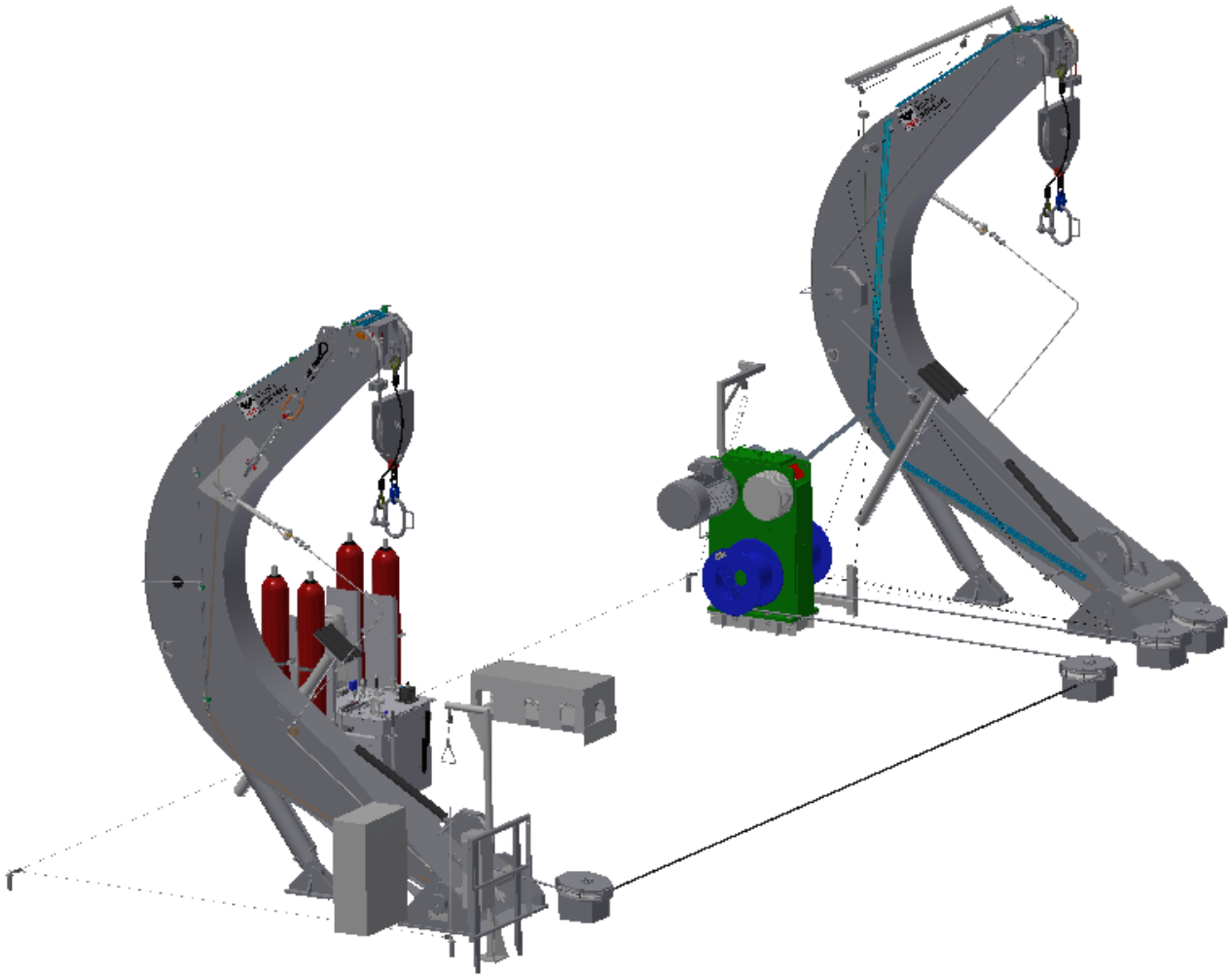
LH-140 MKIII - Lifeboat Davit



TECHNICAL SPECIFICATION

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VIKING Project No.: TBA
VIKING Doc. No.: TSD-0027
Rev. Date: 29.05.2020
Rev. No: 5

1. REGULATION AND CERTIFICATION

Applicable rules and regulations	**In accordance with IMO/ SOLAS requirements, LSA Code and European Council Directive 2014/90/EU on Marine Equipment (MED)**
Certificate	MED
Other certificate	Class certificate or flag acceptance on request

2. DAVIT SPECIFICATION

2.1. GENERAL DAVIT

Type	**Hydraulic Luffing Lifeboat davit**
Model	LH-140 MKIII
Application	Conventional lifeboat handling
Drawing reference	G-500059
Execution	Hydraulic pivoting davit
Boarding position	Inboard on deck level
Operating position	From deck and from inside the boat (Gravity lowering)
Davit system weight (Approx.)	8300 kg, davit incl. winch (dry weight)
Safe Working Load (SWL)	15290 kg
Trim / list conditions	10° / 20°
Max. lowering height	33 m (including 10°/20° trim/list condition)
Operation temperature	-20°C till +45°C (other range on request)
Hoisting speed	0~5 m/min
Min. lowering speed	According to SOLAS regulation (S = 0.4 + 0.02H)
Pivot bearing type	Bronze bearings
Wire sheaves	Galvanized
Installation	11 (eleven) deck welding points
Deck reinforcement requirements	See general arrangement drawing
Davit system H / W / D	See general arrangement drawing
Deck space required	See general arrangement drawing

The Viking Norsafe LH type Lifeboat Davit system is especially designed for safe and efficient launching and retrieval of Viking Norsafe Conventional Lifeboats. The davit system is designed for long time operation in a tough and corrosive marine/offshore environment. The davit system is designed to fulfil all requirements as given in latest SOLAS/IMO requirements.

The system will allow:

- Launch of the lifeboat in maximum load condition
- Gravity lowering of the loaded lifeboat independent of external power supply
- Retrieval of the lifeboat with a crew of three persons using electric power
- Retrieval of the lifeboat by manual hand-cranking
- Optional approval for rescue function, according to latest SOLAS regulations

The davit comprises of two pivoting arms, hydraulic power unit and an electrically powered winch operating two wire falls. LH type davit system is optimized for low height and low depth recesses. It is intended for lifeboats placed onboard ships and similar installations, where compact hydraulically operated davits offer the best solution.

The davit is designed to achieve optimum performance in terms of safety and reliability, and minimal maintenance levels. The davit is designed to minimize noise emission and provide straightforward service access.

To activate the davit, push and hold down the appropriate button or pull the remote control wires to cause the desired operation. When the button/wire is released, davit operation will cease immediately.

The winch is fitted with a one-way clutch. In the event of power loss during hoisting, the brake will automatically activate and davit motion will stop.

A centrifugal brake is located on the winch. The brake controls the speed of descent for the lifeboat. The brake is enclosed, and provides reliable operation in all climate conditions.

Electrical limit switch is used to cut power to the winch, if the boat is hoisted above stowage height.

Electrical limit switches will prevent the boat from being hoisted above its upmost position / stowed position. Electrical limit switches on the winch provide failsafe operation of the hand crank.

2.2 WINCH AND WIRE

Type	**NW-85 winch**
Drawing reference	G-501367
Execution	Electrical hoisting / Gravity lowering
Brakes type	Centrifugal brakes
Wire rope type	Galvanized, rotation resistant (certified item)
Wire rope diameter, MBL and spec.	Ø 18 mm, MBL 225 kN, 1960N/mm2
Inner / outer wire end	Secured to drum / Wedge socket and safety wire clamp
Wedge socket	Included
Master link w/handle	Included (certified item)

2.3. ELECTRICAL

Electric power supply	**440V/3ph/60Hz (other on request)**
Electrical cabinet	IP56
Remote control	IP56
Limit switch	IP56
Power consumption	27 kW
Starting method	DOL - Direct on line
Duty rating	S2-10min
Motor space heating	Included, 40W
Electrical cabinet heating	Heat loss from 42V transformer
Wiring	Included, (only power supply cable required)
Cables type	Marine type, flame retardant halogen free
Transformer	Included, 440/42VAC (other on request)

Emergency stop	Yes, mushroom type

2.4. HYDRAULIC

Type	**Independent integrated hydraulic system**
Oil flow	56 l/min @60HZ
Max. working pressure	220 bar
Oil amount	270 l
Motor type	180L-4
Hydraulic cylinders	4x blader type 40 l
System fittings	ISO 8434-1 (DIN 2353) bite type metric fittings
Fittings and hose fittings	Zinc chromate Cr(VI)-free, secured with Denso tape
Tubes	AISI 316L
UV and weather protection	Shielded from environmental exposure

2.5. PAINTING SYSTEM

Blasting	**SA 2.5**
Specification	ISO 12944-5
System	Marine paint system (Jotun paint system)
Coating Two (2) layers (other on request)	Layer 1 Penguard universal, Alu - 220 µm Hardtop XP - 80 µm RAL 9016 (Traffic white)
Total dry film thickness	300 µm

2.6. DOCUMENTATION

Technical specification davit	**According to contract specification**
General arrangement drawing	According to contract specification
Electrical wiring diagram	According to contract specification
Starter cabinet drawing	According to contract specification
Product certificate	According to contract specification
Lubrication oil chart	Viking Norsafe standard
Spareparts list	Viking Norsafe standard
Operation & Maintenance manual	Viking Norsafe standard
Installation manual	Viking Norsafe standard
Preservation & storage procedure	Viking Norsafe standard

3. PACKING

Format	**Packed for transport in a 40 ft OT container**

4. OPTIONS

Note: Some options influence davit weight and performance, some option combinations may be incompatible. Maximum SWL must not be exceeded.

☒ marking means to be supplied by maker, ☐ marking means not supplied by maker.

GENERAL DAVIT	
Hoisting fully loaded boat	☐
Winterization / cold climate heating / canvas solutions	☐
Alternative winch (NW-120)	☐
Commissioning performed by Viking Norsafe or Viking Norsafe Service Partners	☐
Additional lowering height	
Other options on request	☐

ELECTRIC SYSTEM	
Voltage variation	☐
Protection box for remote control	☐
Ex-proof, Zone II 2 G Ex de IIB T3 (other on request)	☐
Additional electric cabinet heater	☐
Alternative cabinet size / material / surface protection	☐

HYDRAULIC SYSTEM	
Stainless steel fittings and hose fittings	☐
Protection cover for control valve	☐
Stainless steel HPU tank	☐
Alternative HPU size / material / surface protection	☐
HPU heater	☐

PAINTING SPECIFICATION	
Norsok M-501 system （Viking Norsafe Doc. No. TSS-0030）	☐
Other painting system and final color	☐

SPARE PARTS	
Spare parts for Startup / Commissioning	☐
Spare parts for Onboard spare	☐
Spare parts for 1 year	☐
Spare parts for 2 years	☐

DOCUMENTATION	
Factory acceptance test procedure	☐
Factory acceptance test report	☐
Inspection and test plan	☐
Shipping, handling and lifting procedure	☐
Packing & unpacking procedure	☐
Commissioning procedure	☐
TAG list	☐

Winch drawing	☐
Noise test report	☐
Weight and COG datasheet	☐
Weighing report/certificate	☐
Other drawings/documentation/procedures	☐

5. POSSIBLE BOAT FITTING THIS DAVIT SYSTEM

The VIKING Norsafe boats fit the LH-140 davit types and variants.

JYN-74	JYN-75
JYN-85	JYN-100
Miriam-85	Maggie-107
(Others on request)	

6. YARD SUPPLY / RESPONSIBILITY

Transport	Depending on contract
Deck foundations / reinforcement	
Assembly, erection and welding to deck	
Wire installation on winch, routing on davit and termination	
Hydraulic piping between HPU unit, davit and control valves	
Hydraulic oil filling	
All cables to starter cabinet and agreed interface	
Testing according to regulation after installation onboard	
Preservation and maintenance after davit arrived yard and installed	