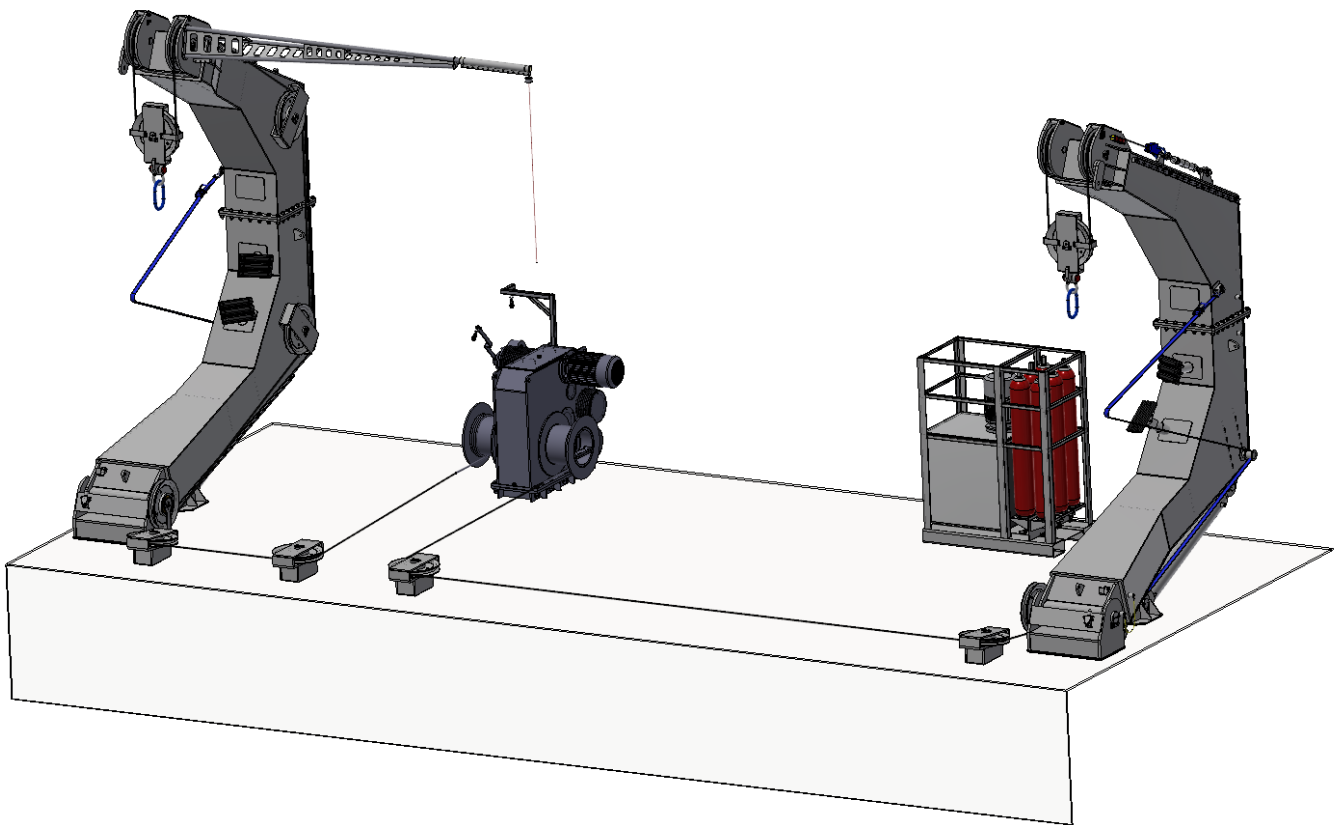




**VIKING
NORSAFE**
Boats and davits

Enterprise No.: NO940411696
www.VIKING-life.com

LH-230 – Hydraulic Lifeboat Davit



TECHNICAL SPECIFICATION

VIKING Norsafe Life-Saving Equipment Norway AS
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VIKING Project No.: TBA

VIKING Doc. No.: TSD-0176

Rev. Date: 30.08.2019

Rev. No: 1

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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 Lifeboat Davit
Model	LH-230
Application	Conventional Lifeboat handling
Drawing reference	G-502734
Execution	Hydraulic luffing lifeboat davit
Boarding position	Inboard on deck level
Operating position	From deck side and from inside the boat (Gravity lowering)
Davit system weight	17000 kg, davit incl. winch (dry weight)
Safe Working Load (SWL)	23445 kg
Trim / list conditions	10° / 20°
Max. lowering height	40 m (including 20°/20° trim/list condition)
Operation temperature	-20°C till +40°C (other range on request)
Max. hoisting speed	5 m/min (60Hz)
Max. lowering speed	According to SOLAS regulation (S=0.4+0.02H)
Manual hoisting	By manual hand-cranking
Wire sheaves	Galvanized, equipped with ball bearings
Installation	9 (nine) 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

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



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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 provides failsafe operation of the hand crank.

2.2 WINCH AND WIRE

Type	NW-118 winch
Drawing reference	NW118-G-01
Wire rope type	Galvanized, rotation resistant (certified item)
Wire rope diameter, MBL and spec.	Ø 22 mm, MBL 345 kN, 1960N/mm ²
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	50 kW / 60 Hz
Starting method	DOL - Direct on line
Duty rating	S2-10min
Motor space heating	Included, 40W
Electrical cabinet heating	Heat loss from 42V transformer
Wiring	By yard, to agreed interface
Cable type	Marine type, flame retardant halogen free
Transformer	Included, 440/42VAC (other on request)
Emergency stop	Yes, mushroom type



2.4. HYDRAULIC SYSTEM

Fitting system	DIN 2353, bite type
Tube material	AISI 316L
Fittings material	Steel, zinc chromate Cr(VI)-free
UV and weather protection	Shielded from environmental exposure

2.5. PAINTING SYSTEM

Blasting	SA 2.5
Specification	ISO 12944-5 / Norsok M-501
System	Jotun System 1-85
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 standard container**



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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	
Additional manual handling crane for electric motor on winch	<input type="checkbox"/>
Additional supports for lights, lanterns, starter cabinet etc.	<input type="checkbox"/>
Winterization / cold climate heating / canvas solutions	<input type="checkbox"/>
Commissioning performed by Viking Norsafe or Viking Norsafe Service Partners	<input type="checkbox"/>
Other options on request	<input type="checkbox"/>
ELECTRIC SYSTEM	
Voltage variation	<input type="checkbox"/>
Protection box for remote control	<input type="checkbox"/>
Star Δ starting method	<input type="checkbox"/>
Additional electric cabinet heater	<input type="checkbox"/>
Alternative cabinet size / material / surface protection	<input type="checkbox"/>
PAINTING SPECIFICATION	
Marine paint system	<input type="checkbox"/>
Norsok M-501 system	<input type="checkbox"/>
Other painting system and final color	<input type="checkbox"/>
SPARE PARTS	
Spare parts for Startup / Commissioning	<input type="checkbox"/>
Spare parts for Onboard spare	<input type="checkbox"/>
Spare parts for 1 year	<input type="checkbox"/>
Spare parts for 2 years	<input type="checkbox"/>
DOCUMENTATION	
Factory acceptance test procedure	<input type="checkbox"/>
Factory acceptance test report	<input type="checkbox"/>
Inspection and test plan	<input type="checkbox"/>
Shipping, handling and lifting procedure	<input type="checkbox"/>
Packing & unpacking procedure	<input type="checkbox"/>
Commissioning procedure	<input type="checkbox"/>
TAG list	<input type="checkbox"/>
Winch drawing	<input type="checkbox"/>
Noise test report	<input type="checkbox"/>
Weight and COG datasheet	<input type="checkbox"/>



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- Weighing report/certificate**
- Other drawings/documentation/procedures**

5. POSSIBLE BOAT FITTING THIS DAVIT SYSTEM

The VIKING Norsafe boats fit the LH-200 davit types and variants.

- Maxima-120**
- (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	
All cables to starter cabinet and agreed interface	
Hydraulic oil filling of winch	
Testing according to regulation after installation onboard	
Preservation and maintenance after davit arrived yard and installed	

