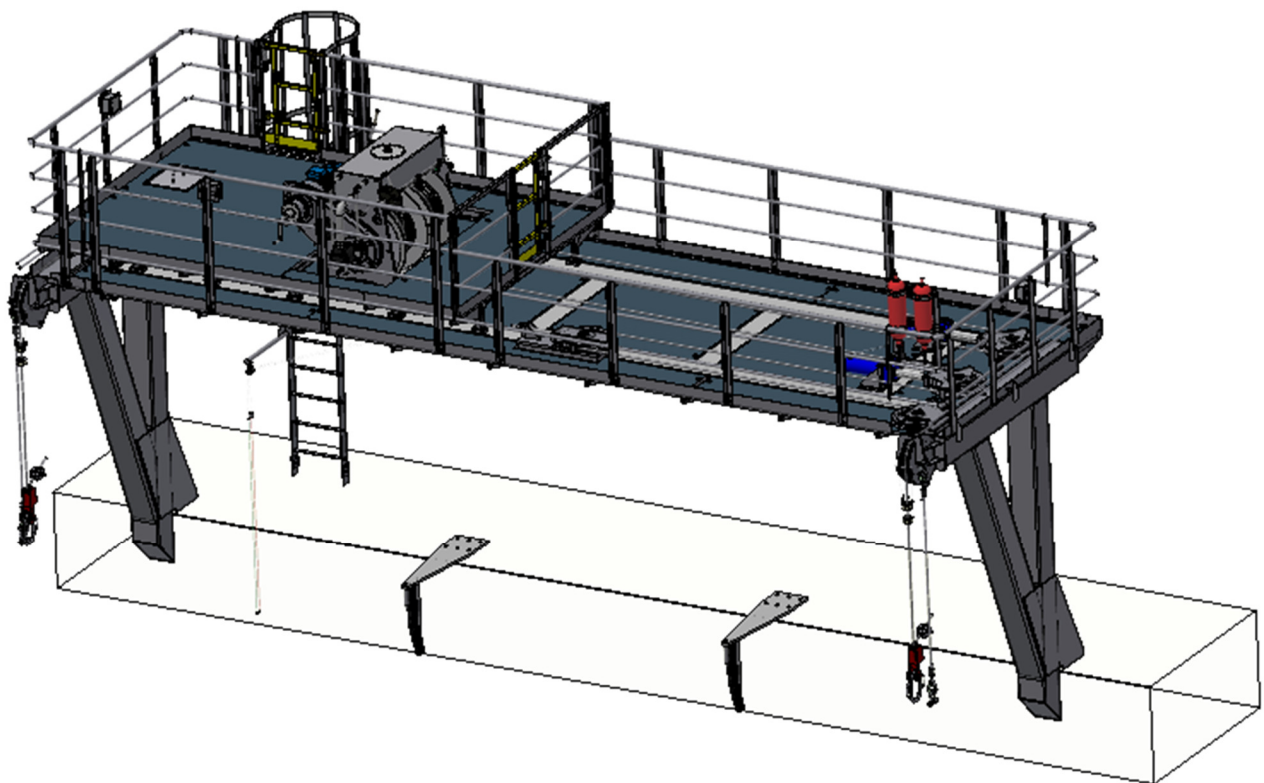




**VIKING  
NORSAFE**  
Boats and davits

Enterprise No.: NO940411696  
[www.VIKING-life.com](http://www.VIKING-life.com)

## C-9.7 NO – Cantilever Lifeboat Davit



TECHNICAL SPECIFICATION

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VIKING Project No.: TBA

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# 1. REGULATION AND CERTIFICATION

<b>Applicable rules and regulations</b>	<b>In accordance with IMO/ SOLAS requirements, LSA Code and European Council Directive 2014/90/EU on Marine Equipment, Norsok R-002 and DNVGL-ST-0378</b>
<b>Certificate</b>	MED, DoC to Norsok R-002
<b>Other certificate</b>	Class certificate or flag acceptance on request

# 2. DAVIT SPECIFICATION

## 2.1. GENERAL DAVIT

Type	<b>Cantilever Lifeboat Davit</b>
<b>Model</b>	C-9.7 NO
<b>Application</b>	Conventional Lifeboat handling
<b>Drawing reference</b>	G-500293, G-500044
<b>Execution</b>	Gravity lowering davit
<b>Boarding position</b>	Inboard on deck level
<b>Operating position</b>	From deck side and from inside the boat (Gravity lowering)
<b>Davit system weight</b>	10300 kg, davit incl. winch (dry weight)
<b>Safe Working Load (SWL)</b>	12233 kg
<b>Trim / list conditions</b>	20° / 20°
<b>Max. lowering height</b>	90 m (including 20°/20° trim/list condition)
<b>Operation temperature</b>	-20 °C till +45 °C (other range on request)
<b>Max. hoisting speed</b>	3.75 m/min (60Hz)
<b>Max. lowering speed</b>	Emergency mode: 1 m/s Training & Maintenance mode: 0.4 m/s
<b>Manual hoisting</b>	By manual hand-cranking
<b>Wire sheaves</b>	Galvanized, equipped with ball bearings
<b>Installation</b>	3 (three) deck welding points
<b>Deck reinforcement requirements</b>	See general arrangement drawing
<b>Davit system H / W / D</b>	See general arrangement drawing
<b>Deck space required</b>	See general arrangement drawing

The Viking Norsafe Cantilever Lifeboat Davit system is especially designed for safe and efficient launching and retrieval of a Viking Norsafe Conventional Lifeboat. 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, NORSOK R-002, LSA Code and DNV DNVGL-ST-0378 requirements.

The R-002 davit system provides:

- Launch of lifeboat maximum load condition
- Gravity lowering of the loaded lifeboat independent of external power supply
- Retrieval of lifeboat with the crew of three persons with electric power
- Retrieval of the lifeboat by air ratchet or manual hand-cranking



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- Dual operation modes
- Approval, according to R-002:
  - Dampening system for each wire fall acc. to Norsok R-002
  - Winch with 'Pull&Go' and 'Stop&GO' systems, designed acc. to Norsok R-002

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.

Several safety measures have been included in the design so no single failure shall be able to prevent the winch from lowering the lifeboat on a safe manner.

The winch system has the following safety mechanisms.

The winch can operate in two modes

- a) Standby Mode
- b) Training & Maintenance mode

To reduce dynamic amplification the davit is equipped with two damping cylinders, one on each wire routing. Damping cylinder system increases the time and length of stopping the load during emergency braking. It also reduces forces during re-entry and lowering under rough sea.

An overload relay in the starter cabinet prevents the davit from lifting loads in excess of the safe working load.

The winch is fitted with two independent hydraulic multi-disc brakes. In the event of power loss, the brake will automatically activate and davit motion will stop.

Two hydraulic brake pumps controls the lowering motion and prevents free fall. If the primary hydraulic brake pump fails, the secondary brake pump will take over.

Two bladder accumulators provide hydraulic pressure to release the holding brakes and lowering can be initiated. Each accumulator alone has the capacity of opening both holding brakes.

Pull and go lowering is available at Standby mode. Lowering speed is set to 1 m/s and once lowering of the lifeboat is initiated, the lifeboat will continue until seaborne regardless of any lifeboat crew intervention.

Stop and go lowering is available at training/Maintenance mode. Lowering speed is set to 0.4m/s and descent of the lifeboat can stop and be resumed at any time by the lifeboat crew.

To activate the davit, push and hold down the appropriate button to cause the desired operation. When the button is released, davit operation will cease immediately

Indication lamps on the control cabinet and inside the lifeboat show selected operation mode.

Electrical limit switches to cut power to the winch if the lifeboat is hoisted above stowed height are placed one on each wire fall. Each of the limit switchers is capable of stopping the hoisting motion when the lifeboat reaches its upper most position. Electrical limit switches on the winch provide operation of the air ratchet or hand crank.



## 2.2 WINCH AND WIRE

<b>Type</b>	<b>NW-150 NO winch</b>
<b>Drawing reference</b>	A-501389
<b>Wire rope type</b>	Galvanized, rotation resistant (certified item)
<b>Wire rope diameter, MBL and spec.</b>	Ø 26 mm, MBL 477 kN, 1960N/mm <sup>2</sup>
<b>Inner / outer wire end</b>	Secured to drum / Wedge socket and safety wire clamp
<b>Wedge socket</b>	Included
<b>Master link w/handle</b>	Included (certified item)

## 2.3. ELECTRICAL

<b>Electric power supply</b>	<b>440V/3ph/60Hz (other on request)</b>
<b>Electrical cabinet</b>	IP66
<b>Remote control</b>	IP66
<b>Limit switch</b>	IP56
<b>Power consumption</b>	13-16 kW / 60 Hz
<b>Starting method</b>	DOL - Direct on line
<b>Duty rating</b>	S2-10min
<b>Motor space heating</b>	Included, 40W
<b>Electrical cabinet heating</b>	Heat loss from 42V transformer
<b>Wiring</b>	Included, (only power supply cable required)
<b>Wiring</b>	Included, (only power supply cable required)
<b>Transformer</b>	Included, 440/42VAC (other on request)
<b>Emergency stop</b>	Yes, mushroom type
<b>Ex Zone</b>	Ex-proof, Zone II 2 G Ex de IIB T3

## 2.4. PAINTING SYSTEM

<b>Blasting</b>	<b>SA 2.5</b>
<b>Specification</b>	Norsok M-501
<b>System</b>	System 1
<b>Total dry film thickness</b>	280 µm

## 2.5. DOCUMENTATION

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



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### 3. PACKING

Format

Packed for transport in a 40 ft standard 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

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 $\Delta$ starting method	<input type="checkbox"/>
Additional electric cabinet heater	<input type="checkbox"/>
Alternative cabinet size / material / surface protection	<input type="checkbox"/>

#### PAINTING SPECIFICATION

Other painting system and final color	<input type="checkbox"/>
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#### 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"/>



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Noise test report	<input type="checkbox"/>
Weight and COG datasheet	<input type="checkbox"/>
Weighing report/certificate	<input type="checkbox"/>
Other drawings/documentation/procedures	<input type="checkbox"/>

## 5. POSSIBLE BOAT FITTING THIS DAVIT SYSTEM

The VIKING Norsafe boats fit the C-9.7 NO davit types and variants.

JYN-100	Maggie-10.7
Miriam-8.5	(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	



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