



**VIKING
NORSAFE**
Boats and davits

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

Merlin-615 MKI, Waterjet



TECHNICAL SPECIFICATION

VIKING Norsafe Life-Saving Equipment Norway AS
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VIKING Project No.: TBA
Rev. Date: 06.05.2022

VIKING Doc. No.: TSB-1357
Rev. No: 0

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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. BOAT SPECIFICATION

2.1. GENERAL BOAT

Type	Fast Rescue Boat
Model	Merlin-615 MKI, Waterjet
Length overall	6,25 m
Length on fender	6,17 m
Breadth	2,45 m
Height	2,50 m
Capacity, SOLAS	6 Persons
Weight, fully equipped	1.563 kg
Davit load, with 6 pers@82,5 kg	2.058 kg
Color	Orange (RAL 2004)
Operation temperature:	-15°C till +40°C
Hull/deck material	Fire retardent glass reinforced polyester (GRP)
Buoyancy material	Polyurethane foam
Bollards/towing	Aft bollard P & S, painter hook in bow
Steering	Mechanical
Fender	Polyethylene closed cell foam fender with double skinned heavy duty PVC cover
Deck	Self-bailing
Console cover	PVC
Loose equipment	According to SOLAS

Fast rescue boat designed and manufactured according to latest SOLAS requirements.

The rescue boat has excellent reliability, maneuverability, and sea keeping abilities in order to fulfil its prime function - to provide an effective means of search and recovery for persons missing at sea. Design and construction fulfil the need for reliable, low maintenance standby and operation. When installed with an approved davit, the boat fulfils the requirements for fast rescue boats on offshore installations and standby vessels, and is fully compliant with latest requirements for Ro-Ro ships.

The boat is further designed to serve the patrol, boarding and inspection role, with deck layout allowing the crew to operate efficiently and comfortably over long time periods. The layout and performance of the boat ensures optimum diving support, survey and work boat duties.



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Two longitudinal bulkheads along the length of the hull, transverse bulkheads and spray rails provide structural strength. The hull is a fully planning, deep-V type with transom, giving optimum sea keeping ability at all speeds in all sea conditions.

The space between hull and inner liner is filled with polyurethane buoyancy foam. If damaged below the waterline, the boat will float at safe level in fully flooded and loaded condition. The boat is self-bailing through two drainage outlets at the stern. The deck has an anti-slip surface. Lifelines are fitted on the gunwale.

A heavy duty fender protects the hull by absorbing impacts. The foam fender is protected by a double skin of reinforced PVC, secured with sail tracks at gunwale and chine level.

Lifting is made by a single point arrangement. An approved Off Load release hook, with connection ring for davit hook, is installed on top of the console reinforced with backing plates and structural connections down to each side in the console and bolted in to the deck. There is a painter hook in bow and bollards on each side astern.

The boat has been designed to provide a protected and safe working environment for the crew, engine and equipment. Console with a large spacious engine room makes service and maintenance easier and more comfortable. All electrical equipment are placed inside the console.

2.2 PROPULSION AND PERFORMANCE

Propulsion	Inboard diesel engine with waterjet
Engine	BUKH R210J
Waterjet	Alamarin-230
Gearbox	N/A
Speed, with 3 persons	Approx. 22~30 knots
Bollard pull	Approx. 5.3 kN
Waterjet protection frame	Aluminium
Instrument gauges	Fuel level, tachometer, (subject to standard engine type), audible alarm for temperature and oil pressure
Engine cooling	Engine fresh water cooling with header tank and heat exchanger as primary circuit. Secondary sea water circuit cooling heat exchanger with supply from waterjet
Engine freshwater flushing	Connectors and valves installed for flushing of secondary circuit
Exhaust system	Seawater cooled
Fuel tank	120 L, Seawater resistant Aluminum
Fuel valves	Shut-off on top of fuel tank and tank drain

Typical data – subject to variation in engine installation and specified equipment. Engines of at least 92kW can be installed. Please note that boat weight, bollard pull, speed and personnel capacity are only for reference and may vary with several factors.



2.3. ELECTRIC SYSTEM AND NAVIGATION

Electric power supply to boat	42 VAC male and female connectors included (Power delivered from VIKING Norsafe davit starter cabinet)
Electric system voltage	12 VDC
Cables type	Marine type, flame retardant halogen free
Position light	12 VDC on top of self-righting frame
Search light	12 VDC handheld
Compass light	12 VDC inside compass
Bilge pump	Electrical and manual
Alternator	For 12 VDC system
Batteries	Main and secondary start battery
Switches	Main switch / Secondary switch / Electrical consumers switches

2.4. DOCUMENTATION

Technical specification boat	According to contract specification
General arrangement drawing	According to contract specification
Seating plan	According to contract specification
Electrical system drawing	According to contract specification
Product certificate	According to contract specification
Lubrication oil chart	VIKING standard
Spare parts list	VIKING standard
Operation & Maintenance man.	VIKING standard
Lifting arrangement drawing	VIKING standard
SOLAS loose equipment list	VIKING standard
Preservation & storage procedure	VIKING standard

3. PACKING

Packing **Secured in transport cradle**



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4. OPTIONS

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

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

GENERAL BOAT				
Spare parts for 1 year, 2 years, 5 years or 10 years				<input type="checkbox"/>
Aft towing hook				<input type="checkbox"/>
Boarding sprayhood				<input type="checkbox"/>
Cargo tie down points in deck				<input type="checkbox"/>
CO2 fire extinguisher system in engine room				<input type="checkbox"/>
Embarkation ladder				<input type="checkbox"/>
Fire pump				<input type="checkbox"/>
Labelling in dual language				<input type="checkbox"/>
Painted railings and hand rails				<input type="checkbox"/>
Rescue cradle				<input type="checkbox"/>
Shock mitigating seats				<input type="checkbox"/>
Trawler net on fender				<input type="checkbox"/>
PROPULSION AND PERFORMANCE				
Steyr 144	Bollard Pull: 4.6kN			<input type="checkbox"/>
Steyr 164	Bollard Pull: 4.6kN			<input type="checkbox"/>
Yanmar 4JH3-DTE	Bollard Pull: 4.6kN	2473kg	12 Persons	<input type="checkbox"/>
Gear box				<input type="checkbox"/>
Dual oil or fuel filters				<input type="checkbox"/>
Flywheel protection on engine				<input type="checkbox"/>
Hydraulic steering system				<input type="checkbox"/>
Sand filter for cooling water				<input type="checkbox"/>
Oil pressure instruments				<input type="checkbox"/>
Water temp. instruments				<input type="checkbox"/>
Rudder pos. instruments				<input type="checkbox"/>
Wireless Deadman switch				<input type="checkbox"/>
RELEASE SYSTEM				
Release hook K4-D FM (Height 1.95m)				<input type="checkbox"/>
Release hook HMK 3,5 T (Height 1.95m)				<input type="checkbox"/>
ELECTRIC SYSTEM AND NAVIGATION				
AIS system				<input type="checkbox"/>
12V outlet in console				<input type="checkbox"/>
Ex plug for ext. power supply				<input type="checkbox"/>



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Echo sounder	<input type="checkbox"/>
Engine heater	<input type="checkbox"/>
Engine room heater	<input type="checkbox"/>
EIPRB	<input type="checkbox"/>
Fire detector in engine room	<input type="checkbox"/>
GPS equipment	<input type="checkbox"/>
Loud hailer	<input type="checkbox"/>
Intercom system	<input type="checkbox"/>
HID or LED search lights	<input type="checkbox"/>
LED illumination in engine room	<input type="checkbox"/>
LED illumination of instrument panel	<input type="checkbox"/>
Loose el. cable for ext. power supply	<input type="checkbox"/>
Electrical system according to NMD requirements	<input type="checkbox"/>
Radar equipment	<input type="checkbox"/>
SART	<input type="checkbox"/>
Strobe lights	<input type="checkbox"/>
VHF equipment	<input type="checkbox"/>
Waterproof battery box	<input type="checkbox"/>
Work lights on self-righting frame	<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"/>
Fuel system drawing	<input type="checkbox"/>
Steering system drawing	<input type="checkbox"/>
Engine, propulsion, exhaust and cooling system drawing	<input type="checkbox"/>
Bilge system drawing	<input type="checkbox"/>
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 DAVIT SOLUTIONS

The VIKING Norsafe Merlin-615 Waterjet fits below davit models and variants. HS=high speed, HST=high speed tension



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NDA-25	SOLAS/HS/HST/RORO
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NDC-40	SOLAS
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NRB-30	SOLAS/HS/HST
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Others on request

6. YARD SUPPLY / RESPONSIBILITY

Transport	Depending on contract
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Fuel	Marine diesel oil according to engine manual specification
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Connection cable	From starter cabinet to rescue boat supply plug
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