



**VIKING
NORSAFE**
Boats and davits

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

Magnum-850 MKI



TECHNICAL SPECIFICATION

VIKING Norsafe Life-Saving Equipment Norway AS
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VIKING Project No.: TBA
Rev. Date: 30.07.2019

VIKING Doc. No.: TSB-0254
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. BOAT SPECIFICATION

2.1. GENERAL BOAT

Type	Fast Rescue Boat
Model	Magnum-850 MKI
Length overall	9,13 m
Length on fender	8,37 m
Beam	3,27 m
Height	3,20 m
Capacity, SOLAS minimum	6 persons
Capacity, SOLAS maximum	17 persons
Weight, fully equipped	4.400kg
Davit load, with 6 pers @82,5 kg	4.895kg (Davit load with 17pers @82,5kg=5803kg)
Color	Orange (RAL 2004)
Operation temperature:	-20°C till +40°C
Hull/deck material	Fire retardent glass reinforced polyester
Buoyancy material	Polyurethane foam
Self-righting frame	Seawater resistant Aluminium
Bollards/towing	Aft bollard P & S, painter hook in bow
Steering	Hydraulic
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.



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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.

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 is installed on top of the console. It is bolted through the console to a backing plate and a tie-rod connection down between the engines. Bottom of the tie-rod is supported to a bottom foundation bolted to the hull structure. 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	Twin inboard diesel engines with waterjets
Engine size	Approx. 2 x 160-315hp
Speed, with 3 persons	Approx. 28-40 knots
Bollard pull	Approx. 800-1200 kg
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	2 x 180 L, Seawater resistant Aluminium
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 117kW can be installed. Please note that boat weight, bollard pull and speed are only for reference and may vary with several factors.



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"/>
Anchor	<input type="checkbox"/>
Anti-skid sand on deck and gunwale	<input type="checkbox"/>
Aluminium deck hatches	<input type="checkbox"/>
Aft towing hook	<input type="checkbox"/>
Bimini top	<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"/>
Dive ladder	<input type="checkbox"/>
Fire pump	<input type="checkbox"/>
Labelling in dual language	<input type="checkbox"/>
Painted railings and handrails	<input type="checkbox"/>
Rescue cradle	<input type="checkbox"/>
Shock mitigating seats	<input type="checkbox"/>
Trawler net on fender	<input type="checkbox"/>
White top-coat in engine and jet room	<input type="checkbox"/>
PROPULSION AND PERFORMANCE	
Dual oil or fuel filters	<input type="checkbox"/>
Flywheel protection on engine	<input type="checkbox"/>
MEC – Mechanical Engine Control (Steyr)	<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	
Off-load Release hook HMKST 8 (Height 3.40m)	<input type="checkbox"/>



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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"/>
Ex battery box	<input type="checkbox"/>
Bilge water detector in engine and waterjet room	<input type="checkbox"/>
Crew finder	<input type="checkbox"/>
Echo sounder	<input type="checkbox"/>
Engine room heater	<input type="checkbox"/>
EIPRB	<input type="checkbox"/>
Fire detector in engine room	<input type="checkbox"/>
FLIR camera	<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"/>
Work lights in bow	<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"/>
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"/>



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5. POSSIBLE DAVIT SOLUTIONS

The VIKING Norsafe Magnum-850 MKI fits below davit models and variants. HS=high speed, HST=high speed tension

NDA-65	SOLAS/HS/HST
Others on request	

6. YARD SUPPLY / RESPONSIBILITY

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