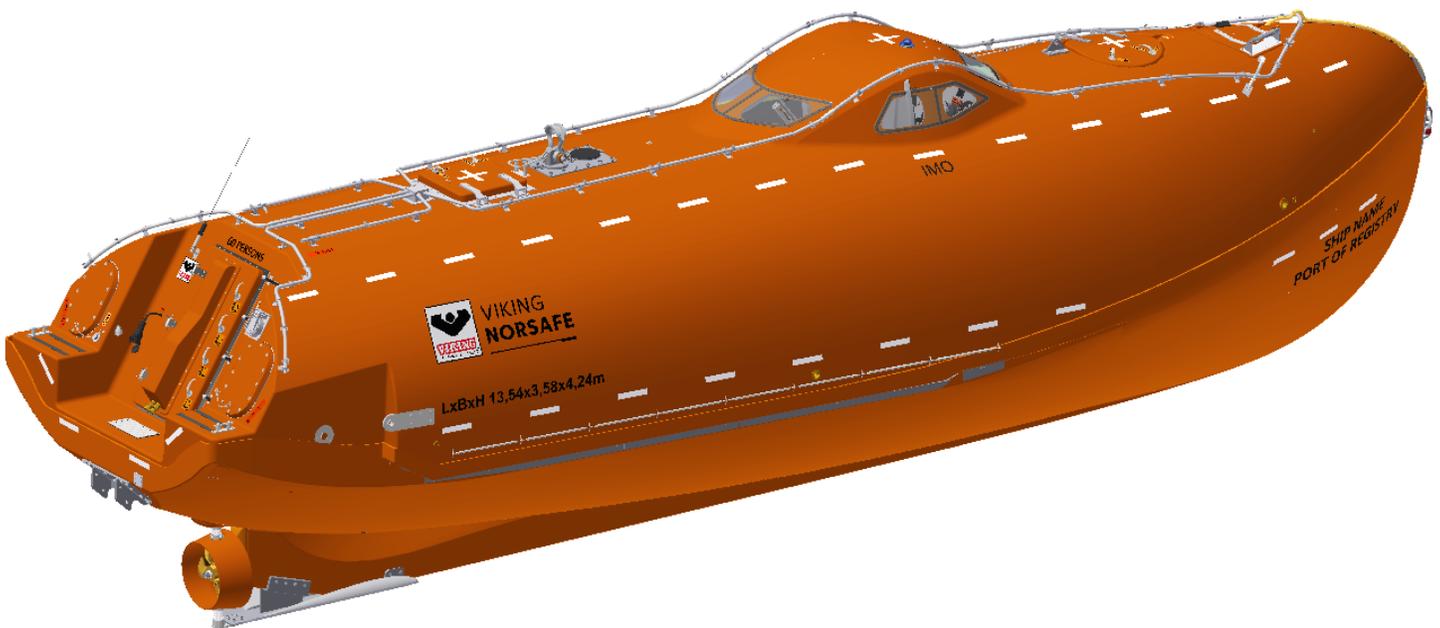




**VIKING
NORSAFE**
Boats and davits

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

GES-45 – Free-Fall Lifeboat



TECHNICAL SPECIFICATION

VIKING Norsafe Life-Saving Equipment Norway AS
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VIKING Project No.: TBA
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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	Totally Enclosed Free-Fall Lifeboat
Model	GES-45
Length overall	13,54 m
Beam	3,58 m
Height	4,24 m
Maximum installation height [m]	40 m
Launching ramp length and angle	13,54 m, 35°
Capacity, maximum	60 persons
Weight, fully equipped	14.500 kg
Davit load, with 60 pers@82,5 kg	19.450 kg
Davit load, with 60 pers@100 kg	20.500 kg
Color external	Orange (RAL 2004)
Color internal	Grey (RAL 7032)
Operation temperature:	-20°C to +40°C (other range on request)
Hull/deck material	Fire retardant glass reinforced polyester (GRP)
Buoyancy material	Polyurethane foam
Windows	Polycarbonate
Bollards/towing	Aft bollard port and starboard side, bollard in bow
Steering	Hydraulic
Fender	None
Hatches	1 aft door 1 top hatch 1 front top hatch
Seat belt type	5-point adjustable seat harness
Sprinkler pipe system (tank ver.)	Seawater resistant aluminum piping, stainless steel deflectors
Sprinkler pump (tank ver.)	Shaft driven from engine
Sprinkler shut-off valve (tank ver.)	Butterfly valve 4"
Compressed air system (tank ver.)	4 x 50L air bottles, air regulator and high-pressure hoses
Under/overpressure valves	Automatic spring loaded overpressure valve on aft door, Automatic under pressure mechanism on aft door
Loose equipment	According to SOLAS



Totally Enclosed Free-Fall Lifeboat designed and manufactured according to latest SOLAS requirements.

The lifeboat provides a secure and protected means of escape for persons onboard vessels or platforms.

The lifeboat is for skid launch by a specific davit. Design and construction fulfil the need for reliable, low maintenance standby and operation.

The space between hull and hull liner, and between deck and deck liner, is filled with polyurethane buoyancy foam. In fully flooded and loaded condition, the lifeboat is self-righting. If damaged below the waterline, buoyancy is sufficient to float the boat at safe level.

Free-fall release is activated by either of two, fully independent, hydraulic pump arrangements both located on the transom. Primary and secondary release pump control handles are located at the helmsman's positions in cockpit. During launch, the hydraulic pump lifts the aft of the boat until the hook disengages the securing bar on the davit.

The boat is equipped with single point lifting plug (SPLP) to allow retrieval of the boat with a crew of three persons after launch.

Embarkation is through the aft door. Seats are positioned on each side of the central aisle. All seats are anatomically shaped and angled, rear facing and fitted with a 4-point harness to provide optimum safety and comfort during free fall launch.

There is a forward hatch on top of the canopy and one at single point lifting plug aft on the top of the canopy.

The lifeboat is equipped with hydraulic steering. A steering nozzle gives optimum maneuverability and increased bollard pull. The steering position is at the middle of the boat.

2.2 PROPULSION AND PERFORMANCE

Propulsion	Diesel engine with gearbox, shaft, propeller and propeller nozzle
Engine	Steyr 286E40, 205 kW
Gearbox	ZF 63 (for Steyr 286E40 engine)
Propeller	Bronze, 23 inches in diameter
Propeller nozzle	GRP
Speed	Minimum 6 knots in calm water
Bollard pull, approx.	17450 N (for Steyr 286E40 engine)
Instrument gauges:	Tachometer, Fuel level, Battery level, Oil pressure with audible alarm and Water temperature
Cooling system	Engine freshwater cooling with header tank and heat exchanger as primary circuit. Secondary sea water circuit cooling heat exchanger with supply from ballast tank by belt driven water pump.
Exhaust system	Dry exhaust with water lock to prevent water ingress
Fuel tank	200 L, Seawater resistant aluminum
Fuel valves	Shut off on top of fuel tank & tank drain



Typical data – subject to variation in engine installation and specified equipment. Please note that boat weight and bollard pull are only for reference and may vary with several factors.

2.3. LIFTING/RELEASE SYSTEM

Release system	Hydraulic model, HRS-30
Lifting arrangement	Single point lifting plug with lifting sling for lifting boat into davit in 35 deg.
Hang-off system	Turnbuckles
Simulated free-fall system	SIM MKII extension plates

2.4. ELECTRIC SYSTEM AND NAVIGATION

Electric power supply to boat	42 VAC male and female connectors included (Power delivered from VIKING davit starter cabinet)
Electric system voltage	12 VDC
Cables type	Marine type, flame retardant halogen free
Position light	12 VDC on top of canopy
Search light	12 VDC handheld
Cabin lights	12 VDC
Compass light	12 VDC inside compass
Bilge pump	2 x Manual, 1 x electric
Alternator	For 12 VDC system
Batteries	Main and secondary start battery, 2 x consumption batteries
Switches	Main switch / Secondary switch / Electrical consumption switches

2.5. 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
Sprinkler system P&ID drawing	VIKING standard
Compressed air system P&ID drawing	VIKING standard
Lifting instructions drawing	VIKING standard
SOLAS loose equipment list	VIKING standard
Preservation & storage procedure	VIKING standard



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3. PACKING

Packing

Secured in transport cradle

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"/>
Sprinkler system in stainless steel	<input type="checkbox"/>
Test connection for testing of sprinkler system in davit	<input type="checkbox"/>
De-humidifier	<input type="checkbox"/>
HVAC connection	<input type="checkbox"/>
Aft door with two gas springs	<input type="checkbox"/>
Compressed air filling hose	<input type="checkbox"/>
Labelling in dual language	<input type="checkbox"/>
Plastic shrink wrap	<input type="checkbox"/>
Winterization package / cold climate heating / defroster / heat tracing of hatches and aft door	<input type="checkbox"/>
Remote towline release system	<input type="checkbox"/>
Remote sprinkler system activation	<input type="checkbox"/>
Watertight engine and battery compartments	<input type="checkbox"/>
Other options on request	<input type="checkbox"/>

PROPULSION AND PERFORMANCE

Stainless steel fuel tank	<input type="checkbox"/>
Rudder position instruments	<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"/>
Crew finder	<input type="checkbox"/>
Cabin heater	<input type="checkbox"/>
EPIRB	<input type="checkbox"/>
Fire detector in engine room	<input type="checkbox"/>
GPS equipment	<input type="checkbox"/>
HID or LED searchlights	<input type="checkbox"/>
LED illumination in engine room, instr. panel or cabin	<input type="checkbox"/>



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Loose el. cable for ext. power supply	<input type="checkbox"/>
Electrical system according to NMD requirements	<input type="checkbox"/>
SART	<input type="checkbox"/>
Fixed VHF radio	<input type="checkbox"/>
Portable VHF radio	<input type="checkbox"/>
Air quality mitigation control	<input type="checkbox"/>
UHF radio	<input type="checkbox"/>
PAGA system	<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 and handling procedure	<input type="checkbox"/>
Packing & unpacking procedure	<input type="checkbox"/>
Commissioning procedure	<input type="checkbox"/>
TAG list	<input type="checkbox"/>
Fuel system P&ID drawing	<input type="checkbox"/>
Steering system P&ID drawing	<input type="checkbox"/>
Bilge and ballast system P&ID drawing	<input type="checkbox"/>
Release system P&ID 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 GES-45 fits below davit models and variants.

DAVIT HD-45 / SW-45

Others on request.

6. YARD SUPPLY / RESPONSIBILITY

Transport (depending on contract)

Marine diesel fuel according to engine manual specification

Installation of 42 VAC Supply cable from starter cabinet to lifeboat supply plug

Testing according to regulation after installation onboard

Preservation and maintenance after boat arrived yard and installed



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