

Marine and Submarine Applications

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**Outline Specification - Mobimar 12 Work
Workboat, Tugboat, Oil Recovery Vessel**

GENERAL DESCRIPTION

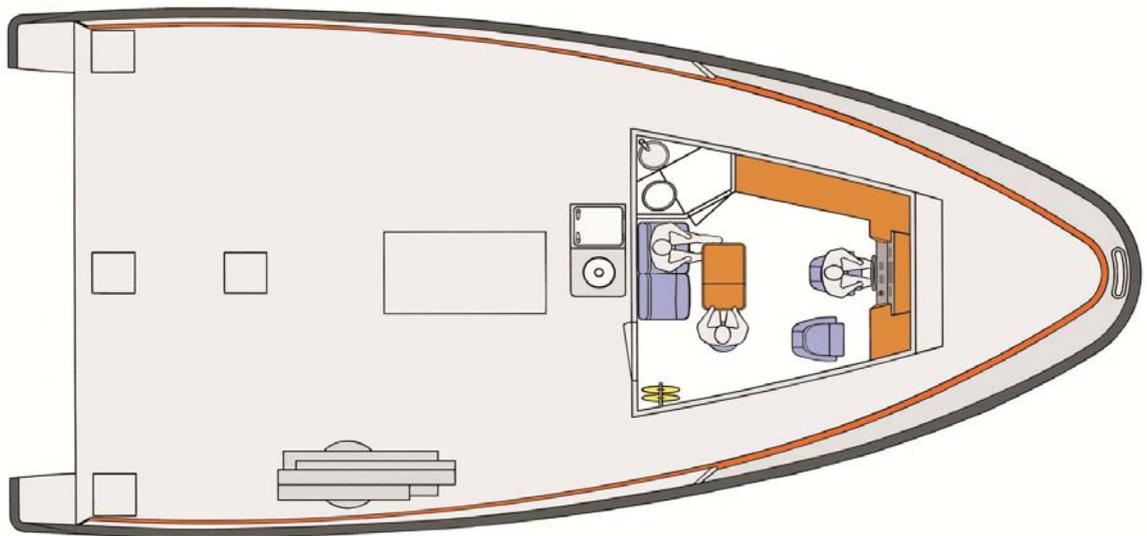


Mobimar 12 Work offers an exceptionally wide and stable working platform. The vessel hull form is a carefully optimised trimaran. Different load conditions have relatively little influence to speed. Fuel consumption is low allowing for smaller fuel tanks and better payload. Smaller operation costs.

Navigation in ice

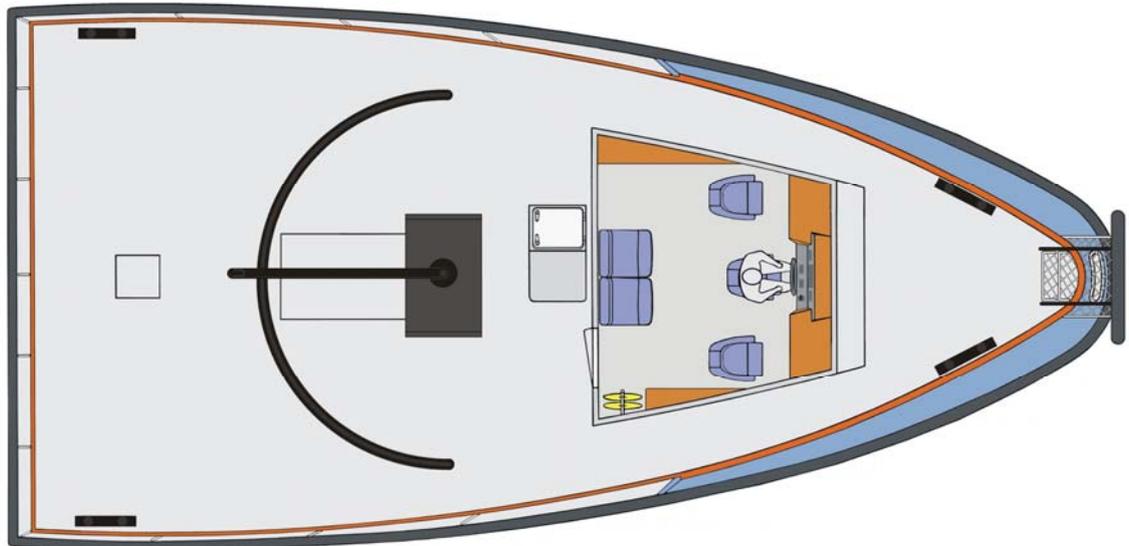
The basic model of the vessel is not constructed for navigation in ice field. However, we have tested the trimaran hull in arctic research laboratory and know that when the hull is properly strengthened, the 12 m version can operate in 10cm solid ice. The shape has been patented for navigation in ice conditions. The navigation ability in Nordic waters will be offered as an option.

Deckhouse options



Deckhouse arrangement option No. 1 for workboat: Control pulpit and navigation table are located forward while pantry and sofa are in the aft part. The deckhouse is in fore ship leaving flush and wide working deck of ~ 35 m². Deck crane will be as an option.

The bridge is designed for single person navigation. There can be a co-pilot sitting next to the helmsman. A small sofa with table is mounted behind the pilots as shown in the option No. 1 above. A kitchenette is arranged on the bridge.



Deckhouse arrangement option No. 2 for tugboat: Control pulpit and additional chairs for navigator and a deckhand. The towing hook has a wide space around with reasonable working area. Aft deck railings are removable in addition.

The propulsion is marine diesel engine with conventional shafting and propeller arrangement. The vessel has low wave making properties. Because of the relatively high speed low-weight materials and constructions are preferred throughout the vessel.

The vessel can be outfitted for many different types of operations with optional equipment. For example the vessel can be turned into an oil recovery version by equipping it with an integrated FinnSweep™ brush skimmer. See OPTIONS.

Operational requirements

The vessel described in this text is designed for any work operations in ports and coastal waters. The specified operational requirements are as follows:

Design Category: Workboat 6 persons, Coastal service.
 Work: "Workboat, non-sinking with one flooding department, deck crane".
 Ambient temperature: + 5 °C - + 28 °C
 Sea water temperature: + 5 °C - + 23 °C

The Builder's quality assurance system is based on ISO9001-2003. The whole project will be classified and surveyed by BV, DNV, GL, Lloyds or equal according to rules:

I HULL •MACH Special service/Workboat/Oil recovery.

The Builder will be responsible of the design of the vessel and takes care that the plans are properly approved by Classification Society.

GENERAL ARRANGEMENT

VESSEL DIMENSIONS

Length, moulded	12,0 m
Beam	6,0 m
Draft	1,3 m (with fixed-pitch propeller)
Working deck area	35 m ²
Speed, service	20 kn
Fuel Capacity	1500 litres
Engine	~580 kW
Range	200 nm
Deadweight	Work version 3 tons
Number of crew	2, classified max capacity 6 persons.

OPTIONS**PROPULSION AND MACHINERY****Remote control**

There will be one control position for the helmsman in the middle of control pulpit and a side steering position at the back of the wheelhouse. In both positions there shall be electric control of rudder, main engine and bow thruster. Additionally the rudder angle indicator shall be at the aft steering position.

Control pulpit shall have all communication equipment, alarm panels, light panel, motor control panel and indicators.

Auxiliary engine

Auxiliary engine 9kW.

See Air Conditioning system.

OUTFITTING**FinnSweep™ oil recovery system**

The vessel can be delivered with a well proven integrated FinnSweep™ oil recovery system. There shall be mounted two brush skimmers in a watertight compartment behind the engine room. Under pressure is created behind the brushes and when oily water flows through them oil is separated from the water separated from the brush with the help of a comb. After the comb oil is pumped with a dedicated pump to sacks, a deck container or a rubber container tank floating behind the vessel.

Classification change: "Oil recovery boat, non-sinking with one flooding department, deck crane".

Deck crane

Hydraulic crane type Ferrari 330.A2 or equivalent, capacity ~ 2,7tm with ~ 500kg winch shall be installed on main deck.

ACCOMMODATION**Heating**

Heating for Nordic conditions

Air conditioning system

One roof mounted air condition unit.

Aux engine 9kW needed

Refrigerator

1 refrigerator with freeze box, total volume abt. 70L

Head

There will be a head with the following outfitting:

- 1 toilet bowl
- 1 cupboard with mirrored door
- 1 sink and faucet
- 3 hand towel hooks