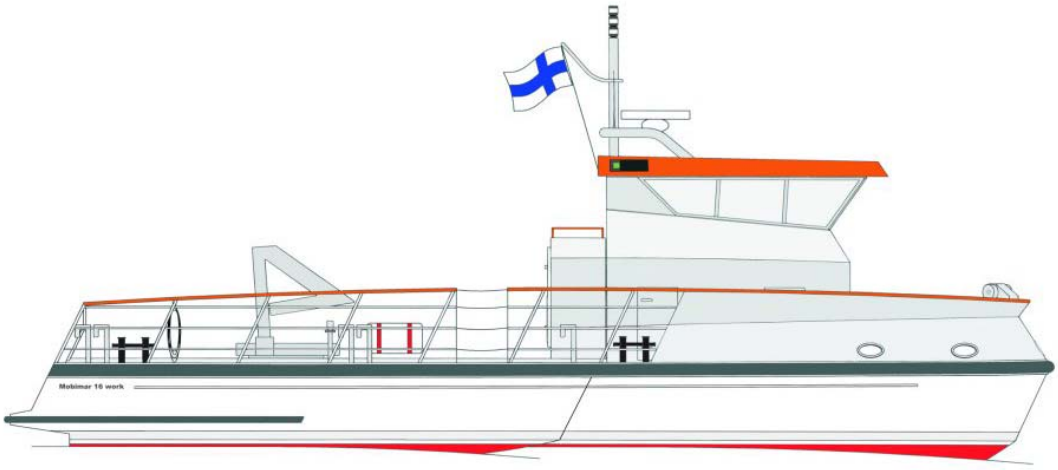
*Marine and Submarine Applications*

MOBIMAR LTD. STREET PANSIONTIE 56 VAT FI0944501-4
P.O. BOX 86 ☎: +358-207 698500 email sales@mobimar.com
FIN-20101 TURKU FAX: +358-207 698501 URL http://www.mobimar.com


# Outline Specification - Mobimar 16 Work

## Workboat, Oil Recovery Vessel

## GENERAL DESCRIPTION

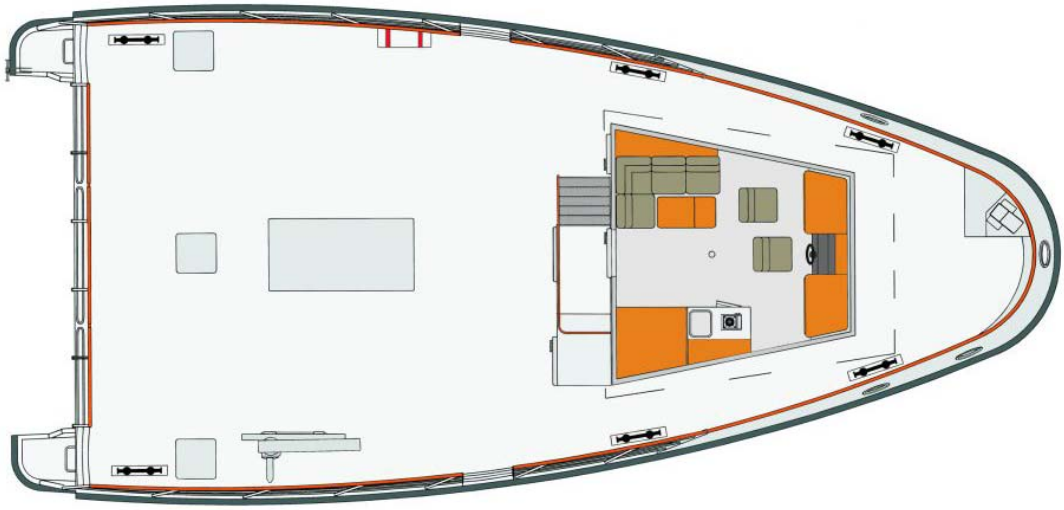


**Mobimar 16 Work offers an exceptionally wide and stable working platform. The vessel hull form is a carefully optimised trimaran. Different load conditions have relatively little influence to speed. Fuel consumption is low allowing for smaller fuel tanks and better payload. Smaller operation costs.**

*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 16 m version can operate in 20cm 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*



**Deckhouse arrangement D.1: Control pulpit and navigation table are located forward while pantry and sofa are in the aft part.**

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 GA. A kitchenette is arranged on the bridge.

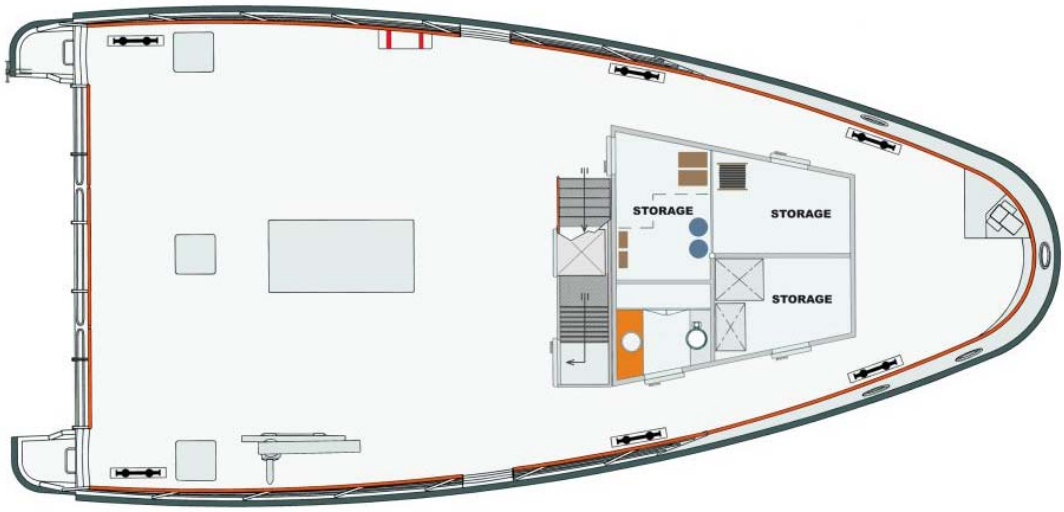
The deckhouse is in fore ship leaving flush and wide working deck of ~ 60 m2. Mobimar 16 Work offers an exceptionally wide and stable working platform.





MOBIMAR OY
PO Box 86
FIN-20101 TURKU

☎: +358-206 698 500
Fax: +358-207 698 501
Internet www.mobimar.com
email office@mobimar.com




**Deckhouse arrangement Main Deck: Water closet, Deck storage with small work area**

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.

Controllable pitch propeller is offered as an option for constant low speed working and maximum hydraulic power output in different sea states and load conditions. CP-propeller helps moving the vessel accurately and allowing simultaneous use of the needed hydraulic equipment.

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 | 16,0 m |
| Beam | 8,2 m |
| Draft | 1,5 m (with fixed-pitch propeller) |
| Working deck area | 60 m² |
| Speed, service | 18 kn |
| Fuel Capacity | 2500 litres |
| Range | 300 nm |
| Deadweight | Work 10 tons, FinnSweep™ 4,5 tons |
| Accommodation | Crew 2-4, classified max capacity 8 persons |

.




MOBIMAR OY
PO Box 86
FIN-20101 TURKU
☎: +358-206 698 500
Fax: +358-207 698 501
Internet www.mobimar.com
email office@mobimar.com

## OPTIONS

### *PROPULSION AND MACHINERY*

#### CP-propeller

In oil recovery mode the speed of the vessel is to be kept low, typically between 1,5 to 2 knots. However, simultaneously the hydraulic systems for the bow thruster, oil recovery system, crane and others must be on. Because the hydraulic pump uses the PTO of the main engine, revs must be kept high. On the other hand, hull resistance of this vessel is low, so typical speed even at idling exceeds the target speed.

Using a fixed-pitch propeller means that speed can be kept low only by switching the clutch on and off. At larger oil spill the recovery time can be days, so control of the vessel becomes straining for both the helmsman and the clutch.

This is why we recommend a CP-propeller for oil recovery application and it is practical to almost any other work also.

#### 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.

### *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.

Dead weight reduction 4,5 tons.

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

### *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



FinnSweep®
MOBIMAR OY
PO Box 86
FIN-20101 TURKU
☎: +358-206 698 500
Fax: +358-207 698 501
Internet www.mobimar.com
email office@mobimar.com