MARUM COASTER

HB- G 473 DK 8740



Description of MARUM COASTER as work boat

The MARUM COASTER is a robust, weatherproof cabin boat that is suitable for rough water, but which has been converted and equipped as a work boat. According to the CE classification, the boat is also approved for offshore work with a crew of 6 people. In addition to the skipper/co-skipper (2x seats in the cabin), there is a fixed workplace in the rear area of the cabin (bench for 2 people). 12V, 230V, access to CAN bus Raymarine, chart plotter (12", 9"), logging PC, WLAN access point, LAN switch, and 19" slots are available. A laptop, keyboard, large screen, etc. can easily be placed on the work surface. Typical tasks should be device tests so that the MARUM COASTER can be used as a base of operations. From the work station there is a cable duct to the rear on the small deck. A complete tarpaulin offers sun/weather protection.

Another work corner is set up in the companionway/bow area. Ideally, 1 person sits here. In this area there are also 230 V, a sink with fresh water (kitchen) and a 230 V capsule coffee machine/or fully automatic. The fresh water is provided via a 12V pressure water pump normally via taps.

The separate on-board toilet is accessible from this area (small room with door). A typical seawater toilet (manual, pump directional control valve) and a washbasin (fresh water) are installed in the on-board toilet. The toilet can be used at any time as it is drained into a holding tank, i.e. not overboard.

The MARUM COASTER is extensively equipped and complex in order not only to be "a boat", but also as a "control base" to enable the use of e.g. small submersible vehicles and the use of larger 230 V sensors (e.g. MBES). Due to the bow and stern thruster, the MARUM COASTER can also be maneuvered and turned very well on the spot. The fixed plumbs for DEPTH, BOTTOM VIEW, FORESIGHT, SIDE VIEW have good resolution but are not of scientific quality. Various GPS antennas allow the MARUM COASTER to be "tracked" without any problems.

In the bowsprit there is a central mount for the passage of a linkage (e.g. pole for MBES, which must be tightened laterally).

A small PALFINGER crane is installed centrally on the rear platform (optional), so that a sensor can also be lowered into the water from there via a suspended block (max. 50 kg). The 10 hp outboard engine is also installed here on the platform as an emergency engine.

To use the MARUM COASTER, 2 instructed skippers should always be present (1 mandatory). Ideally, 2-3 additional users are then on board. At slow speed (< 5 knots) the boat typically "yaws" because it has no real keel, Z-drive and is designed as a faster "half-glider". The faster, the more stable.

The technical parameters of the MARUM COASTER are listed below.

BOAT

Call Sign: MMSI: ATIS: RegNo.:	DK 8740 211 710 620 921 111 8740 HB- G 473
Туре:	NORDSTAR 26 PATROL Walk-Around
Design-Cat.:	Offshore B (beyond coastal waters)
Crew:	6 Pers./ respect. 600 kg payload
Length:	8.60 m
Width:	2.80 m
Draught:	0.80 m
weight:	4.1 t
speed:	23 kn // consumption approx. 15 – 45 1 / n // depending on speed
MOTOR -	
Motor: Propulsion: Steering: Trim: Tank: Freshwater: WC:	VOLVO Penta D3 inborder/ 220 HP VOLVO Z-Drive, Power-Trim Servo, Hydraulic 2x Trimflaps, Hydraulic 320 L Gas Oil 55 I // Cold, 12 V Pump 55 I // Seawater-Toilet, Wastewater Tank
1 st Thruster: 2 nd Thruster: Safety:	12 V // Bow 24 V // Stern TOHATSU Outborder RegFuel / 10 PS / manual Steering
1 st Heating: 2 nd Heating: Fridge:	VOLVO Motor Warmwater, electr. Ventilation WEBASTO Gas Oil Heating 12V, ca. 50 l

NAUTICAL TOOLS

1st SIMRAD, SeaChartplotter, NSS 12", Touch SIMRAD, Satellite Compass SIMRAD, GPS SIMRAD, Autopilot SIMRAD, SONAR, (Depth-Ahead, Forward-SONAR) SIMRAD, Tri-LOG (Depth, Speed, Temperature) 2nd RAYMARINE, SeaChartplotter 12", 9", Touch // cabin work space RAYMARINE, 4G Radar RAYMARINE, SONAR (Depth, Bottom, Fish-Finder) RAYMARINE, SIDESCAN

VOLVO, 9" Display, Motor-Display, VOLVO, NMEA Magnet Compass / console Hand-held Compass

SAFETY TOOLS

RF-COM / offshore (MMSI, 211 710 620, SRC permit) RF-COM / inshore (ATIS, 921 111 8740, UBI permit) Emergency Button // *DSC* (Digital Selective Call), incl. GPS, MMSI 211 710 620 AIS_B (Transceiver), incl. GPS NAVTEXT Weather Receiver, RF RADAR-Reflector (passive), 4 nm Range Ocean Signal, EPIRB Radio-Beacon (SARSAT) Ocean Signal, LED-FLASHER (10 km) Pyro-Flash (RED) SEAGO SEAMASTER, life raft (6 Persons) Life-wests (6+2) Bilge-pump, 1x automatic/electric, 1x manual

TECHNSICHE AUSSTATTUNG

<u>1st Voltage</u> :	12V
Batteries:	1x 12 V 100 Ah (Start)
	2x 12 V 100 Ah (User, Nautic, Bow-Thruster)
Charge:	Gen-Set, Volvo, D3
2 nd Voltage:	24 V
Batteries:	1x Li-Ion Battery, MASTERVOLT, 24V, 5000 Wh
	(MV-Inverter, Stern-Thruster, Palfinger Crane-Option,
	Anchor-Winch-Option)
Charge:	Main, Harbor, Gen-Set, Volvo D3; switchable via 12/24 Inverter,
	24V@30A @ running Volvo D3
<u>3rd Voltage</u> :	4x 230 V@10A // MAX. 3.5 kW steady, 7 kW Boost
Primary:	MASTERVOLT 24V, Li-Ion Battery
Secondary:	MASTERVOLT, Inverter, MASS KOMBI ULTRA 24V@230V/3500 W
4 th Voltage/main:	230V (Harbor) // Socket@stern via isolating transformer
Primary:	MASTERVOLT isolating transformer MASS GI 230V@3500 W



Skipper-console STB, with main 12"SeaChartPlotter, add. Tools (position STB, gliding door).



Co-Skipper-seat, gliding door, Port-Side.

Cabin works-space (rear seats). WLAN Access point, Logging-PC, 12V-, 230V-supply, access to RAYMARINE data-bus (NMEA 2000), add. SeaChartPlotter 9" or 12".



View from galley towards rear seats. Fridge at left, store cabinets left and right.



View to forward cabin and galley (left). 2nd work-space in front, access to toilet the door on right side.



Forward cabin with desk.



Separate seawater toilet.



Small galley with fresh water supply (electr. Pump system)



Small aft deck with engine hatches.



Robust Platform at stern.

Temporarily installed PALFINGER Crane (limited to 50 kg).

A small winch is installed as well (24 V).



Transportation

The MARUM COASTER can easily be "trailed". Due to the weight > 3.5 t, the MARUM now has its own heavy duty HARBECK 7 t trailer. The transport must be planned and prepared, as the BOOT with 2.8 m wide has excess-width, for which an excess-width permit must be applied for in the VEMAGS portal. For Bremen and the Wesermarsch, this is generally available as a permanent permit (renewed routinely). As fallback-solution, the MARUM COASTER must be significantly "lightened" in order to be able to be transported with a 3.5 t aluminum trailer (this is also available). The Mitsubishi 4x4 Pajero is then available as the towing vehicle. Due to the absolutely necessary trailer experience, the trailer transport is carried out exclusively by the persons named.



Application example: MARUM COASTER as a control base for a field test with the hybrid ROV in the "Blauer Werder" lake. The hybrid ROV is connected to the MARUM COASTER with a thin fiber optic cable and is controlled from here. The corresponding control PCs are installed on the MARUM COASTER.

For further information, please contact:

Dr. Gerrit Meinecke (gmeinecke@marum.de) 0421 218-65600

Götz Ruhland (gruhland@marum.de) 0421 218-65556

Klaus Dehning (kdehning@marum.de)

Daniel Hüttich (dhuettich@marum.de)

Tobias Schade (<u>tschade@marum.de</u>)

All named persons know and drive the MARUM COASTER and can act as skipper for the boat in consultation. Without this agreement, use is excluded, since instruction in the MARUM COASTER is mandatory.