



**VanDerHeijden  
Steelyachts**

Representative for  
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SCANDINAVIA – GERMANY – INT.

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# **SPECIFICATION**

**VanDerHeijden  
DYNAMIC**

**1500-1600-1700-1800**

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# 1 Design and features

## 1.1 Construction of the body

The body and the superstructure will be made of shipbuilding steel 42. The thickness of the keel insole will amount to 10mm. The bottom plate will amount to 5 mm and the rest of the ship to 4mm.

Where necessary the ship will be welded in a double manner and 4 bulkheads will be constructed in the body, frames will be placed every 40cm.

### Finishing

- 4 x ventilation holes in the engine room
- 1 x rudder at main helm
- 1 x steel propulsion-shaft tubes, galand
- 1 x steel exhaust pipes for the engine
- 1 x steel exhaust pipe for the generator
- 1 x diesel tank 1.200-1.800l

## 1.2 Hull

The form of the hull of the VanDerHeijden will be a hard-chine hull.

The VanDerHeijden *Dynamic* design is characterised by the stylised superstructure, a flared bow and a slim-lined rear side of the ship which ends in a slanting stern with an integrated swimming plateau.

As a consequence a ship movement with favourable features, like stability and comfort, is obtained at high as well as at low speeds. This ship is pre-eminently suitable to sail all coastal waters.

## 1.3 Model

The VanDerHeijden DYNAMIC can be delivered in Wheelhouse or Windscreen edition with a flared bow.

Standard: Wheelhouse version is equipped with 2 engines – Windscreen with 1 engine.

Standard specifications:

<b>DYNAMIC Model</b>	<b>1400</b>	<b>1600</b>	<b>1800</b>
Overall length [m]	14.20	16.30	17.90
Hull length [m]	13.20	15.50	16.90
Beam [m]	4.25	4.60	4.90
Draught [m]	1.20	1.30	1.30
Displacement approx. [t]	26	29	35
Content water tank approx. [l]	780	1000	1000
Content diesel tank approx. [l]	1800	1800	1800
Content waste water tank approx. [l]	372	372	472
Propulsion*	1 x 220 HP	1 x 220 HP	1 x 280 HP
Alternativ	2 x 100 HP	2 x 150 HP	2 x 220 HP
Bridge clearace (windscreen) min	2.90	2.90	2.90
Brigde clearance (windscreen) max	3.60	3.60	3.60
Bridge clearance (wheelhouse)	3.60	3.60	3.60

\* *Brand and type in consultation*

On account of the fact that the weight of the ship has a considerable effect on the correct performances of the ship the builder reserves the right to select good and light equipment pieces in all instances where no type and/or brand is mentioned.

## **2 Deck equipment**

### **2.1 Railing**

A polished stainless steel railing with a diameter of 38 mm(quality 316), will be placed on the main deck which will switch over into two spiral staircases on the rear side.

### **2.2 Anchor gear**

An electrical anchor hoist with sufficient tractive power, suitable for an anchor of approx. kg or 23 kg and a chain of 10 mm, will be installed on the forward deck. According to the standards of the shipyard, the anchor will be coupled to a 25-meter long galvanised chain which at the end will be connected to the hull. The chain will be guided by a stainless steel foldable anchor detail.

### **2.3 Bollards**

The ship will be provided with stainless steel bollards with a diameter of 90 mm (D1800) or 110mm (D2250). The bitts will be divided as follows:

- 2 x 2 bollards on the bow, welded
- 2 x 1 bollard amidships, welded
- 2 x 2 bollards on the stern, welded

### **2.4 Radar bracket**

On the main deck at the rear side of the superstructure a aluminium- radar bracket will be installed. Manually foldable.

The following equipment will be installed on the radar mast:

- Navigation illumination
- Air horn
- Various antennas
- Radar – brand SIMRAD
- Electrical floodlight

### **2.5 Deck boxes**

A deck box will be integrated in the permanent bulwarks on the aft-deck with teak covers on top.

### **2.6 Fender holders**

On the rear side of the ship a set of fender holders (for the benefit of 3 fenders) will be placed. At the bow will be placed, on both sides, 1 fender holder for 3 fenders each.

### **2.7 Bulwarks**

The entire aft deck (gangways and aft deck) will be provided with continuous bulwarks.

## **3 Propulsion**

The ship will be provided with a single- or double propulsion installation.

### **3.1 Engines**

The engine is of IVECO and provided with the following appendages:

- Heat exchanger
- Outboard water pump
- Inter-cooling water system with circulation pump
- Thermostat

- Lubricant filter
- Fuel pump
- Fuel filter

The electrical system consists of:

- 24 Volt starting engine
- 24 Volt/60 Amps dynamo
- Revolution and hour counter
- Volt meter
- Acoustic alarm

Engine control (reverse gear and revolutions) takes place by means of handles on the dashboard.

### **3.2 Reverse gear**

The reverse gears are related to the motor and shaft.

### **3.3 Propeller shaft**

The propeller shafts are water lubricated and have a diameter of 50 mm. The shafts will be provided with an intermediate bearing.

### **3.4 Flexible arrangements**

The main engine with a flanged rear gear will, in a flexible manner, be arranged on a rigid engine foundation by means of flexible supports which will be provided by the relevant engine supplier.

The connections for cooling water, fuel, exhaust and electricity will also be executed in a flexible manner. A flexible PHYTON-Drive will be placed between the rear gear and the propeller shaft.

### **3.5 Propeller**

One bronze 4-bladed propellers will conjointly be installed on the propeller shafts.

Measurement and type in consultation with the manufacturer.

### **3.6 Exhaust**

Main engines: water cooled stainless steel exhaust pipes with a sufficient diameter will be installed to the main engines. A water lock, located in the engine room, will be placed between the exhaust pipe and the engine.

## **4 Control**

In a standard manner control of the ship will be executed in a manual-hydraulic manner by means of a plunger pump and will be operated from the control position.

The installation consists of the following components:

- one balanced rudders with steel rudderstock with a diameter of 50 mm.
- one rudder trunks equipped with bronze bearings with lubrication grooves and sealing.
- a hydraulic control machine, complete with coupling, relay and copper pipes with a diameter of 10 mm.

The whole will be placed on a thereto designated foundation.

## **5 Systems**

### **5.1 Fuel system**

The fuel tank, placed in the front of the engine room, constitutes part of the construction. The tank will accurately be cleaned and pressured; filling and ventilation pipe.

A float will be placed in the tank for the benefit of the level meter; extra water separators with sufficient capacity will be placed between the main engine and the tank. The fuel pipes will be executed in copper and the system will be provided with the necessary valves which can be operated remotely.

## **5.2 Cooling water system**

The engine will be provided with:

- a heat exchanger
- an oil cooler
- a circulation pump
- an outboard water pump

The outboard inlet will be provided with a mud box of which the cover will be placed above the waterline and which can be locked by a valve.

## **5.3 Bilge suction and deck washing system**

The front peak, used as chain box, will be provided with a small drain pipe which extends into the bilge. The engine room will be bilged by means of a bilge suction pump placed in the bilge.

## **5.4 Fresh water system**

The capacity of the fresh water system will amount to 1000 litres. The fresh water tank, made of stainless steel, will be placed under the bed in the rear bedroom.. A hydrophore will be placed in the engine room which will take care of the water pressure system.

The pipes and couplings will be executed in accordance with the standards of the shipyard.

Warm water will be provided by the central heating boiler.

The system will include mixing taps at all tapping points of the kitchen, washing basins and shower/bath rooms and will be provided with the necessary filling and ventilation pipes. The bathing platform will be equipped with a tap and a shower.

## **5.5 Waste water system**

The capacity of the waste water system will amount to 370-470 l. Draining from the kitchen, washing basins and toilets will take place directly to the waste water tank. The toilet at the guest room and the master bedroom will be electronically and will be rinsed with clean fresh water. Draining of the bath/shower will take place by means of an electronic extender pump with a capacity of 20 liter /min.

# **6 Auxiliary tools**

## **6.1 Generator**

A water cooled diesel generator set of the brand ONAN 7 KWA will be installed in the engine room. The generator set will, in a flexible manner, be arranged on a foundation and will be provided with a soundproof box.

The whole will completely be installed and connected. The exhaust will be water cooled and will consist of a water separator and hose delivered by the generator supplier and will be connected to a separate outlet through the hull.

See page 10 for “schematic overview of the electrical installation”.

## **6.2 Hydraulics**

See chapter 4.

## **6.3 Heating**

The heating of the ship will take place by means of an oil burning 220 Volt central heating installation of a brand in accordance with the standards of the shipyard. The entire ship will be provided with radiators and a designer radiator in the bathroom.

Radiators at the following locations:

- 1 small one at the front peak
- 1 behind the dinette
- 1 behind the salon couch
- 1 above the TV
- 2 in the rear bedroom

- 1 designer radiator in the bathrooms
- 1 in the guestroom

The heating can be controlled by means of a central thermostat in the salon.

## **6.4 Ventilation**

The engine room will be ventilated in a natural manner. End ventilation grooves are placed in the hull, on starboard as well as on port, which will be connected to the engine room by means of channels.

All rooms can be ventilated in a natural manner by means of the portholes and windows.

## **6.5 Bow thruster**

In a standard manner a 90 kgf electrical bow thruster of the brand CUPA will be installed. A hydraulic bow thruster is possible (additional fee).

## **6.6 Stern thruster**

In a standard manner a 90 kgf electrical stern thruster of the brand CUPA will be installed.

The stern thruster channel will be integrated under the swimming plateau in the hull. A hydraulic stern thruster is possible (additional fee).

# **7 Insulation**

## **7.1 Thermal insulation**

The entire ship above the waterline will be insulated with isolation foam (PUR) and Rockwool.

## **7.2 Acoustic insulation**

The engine with the flanged reverse gear will be arranged in a flexible manner to prevent a transmission of sound of the engine to the construction as much as possible. The salon floor will be covered with noise absorbing material to limit the transmission of sound as much as possible.

# **8 Electrical installation**

## **8.1 Electrical system**

The ship will be executed with a 24 Volt and 220 Volt electrical installations, where possible, placed on cable carriers. The electrical system will be constructed as follows:

- 12/24 Volt starting system for the engine and the generator
- 220 Volt shore power system for board use general services
- Volt starting system for the engine

A switch box will be installed at the hall to the rear cabin in which the necessary automatic safety fuses and earth leakage circuit breakers will be placed for the 12, 24 and 220 Volt groups.

A full automatic switch for the 220 Volt system will be placed in the switch box.

The latter will switch the following functions with the subsequent priority:

1. generator (operational from kitchen and main helm)
2. shore connection
3. converter

In the "shore connection" or "generator" position all 220 Volt equipment and illumination groups will be available. In the "converter" position all heavy groups will be out of operation. The 220 Volt shore connection will be placed at the rear side of the ship.

Complete system is shown in 6.1.

## **8.2 Shore connection**

1 x shore connection at the rear bulwarks, stainless steel, incl. 1 x 15-meter cable.

### **8.3 Converter/batterle charger**

VICTRON type 24/2500

### **8.4 Batterles**

A total of 6 batteries will be installed, 200 Ah. These will be switch into a series.  
Charging of the batteries will take place by means of dynamos, generator with battery charger or shore power supply with battery charger.

## **9 Lighting fittings and wall sockets**

The ship will be equipped with the following fittings, wall sockets and so forth.

Guest cabin front:	2 halogen lights with alternating switch 2 bed lights
Guest bathroom front:	1 wall socket 220 Volt 1 halogen light
Dinette:	2 halogen lights 1 wall socket 220 Volt
Kitchen:	neon cove lighting 2 wall sockets 220 Volt
Salon:	6 halogen lights (ceiling) 2 wall sockets 220 Volt 1 TV connection 1 radio connection
Engine room:	2 water-tight neon lights 2 wall sockets water resistant 220 Volt
Owner bathroom:	2 halogen lights
Owner bedroom:	6 halogen lights 2 bed lights 2 wall sockets 220 Volt
Nursery:	2 halogen lights 2 bed lights
Hall:	1 wall socket 220 Volt 1 halogen light

All wall sockets will be provided with earth limb.

## **10 Navigation and communication system**

The ship will be equipped with the following navigation and communication means:

- Navigation illumination: starboard light (green)  
port light (red)  
rear light (white)  
top light (white)  
anchor light (white)

All in accordance with the standards of the shipyard.

- Control position: depth gauge  
speedometer/ distance meter  
rudder position indicator  
necessary content meters of the tank  
instrument panel supplied by IVECO  
compass  
autopilot  
colour-radar/ plotter

All in accordance with the standard of the shipyard.

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## 11 Dashboard

The dashboard will be arranged as follows:

- 1 double/single engine control
- 1 steering wheel diameter 650 mm, black
- 1 switch panel navigation illumination
- anchor light
- horn
- 3 x windscreen wipers
- navigation equipment
- various pumps

The arrangement of the dashboard will take place in consultation with the customer.

## 12 Panelling

The interior will be designed together with the customer.

### 12.1 Panelling of the Interior

The finishing of the interior for partitions, cabinets, beds and so forth will be executed in teak or cherry laminate in accordance with the standard requirements of the shipyard. Locks and hinges will be of brass or stainless steel quality and will be executed in accordance with the standards of the shipyard.

### 12.2 Panelling of the exterior

The entire gang-board and aft-deck will be provided with a teak/composite deck according to the standards of the shipyard

### 12.3 Home appliances

The ship will be delivered with the following home appliances:

- 1 x ceramic hot plate
- 1 x refrigerator, 1 x freezer (kitchen)
- 1 x cooker hood
- 1 x dishwasher
- 1 x washer/dryer combination
- 1 x refrigerating upper deck
- 1 x combi-microwave

Brands according to the standards of the ship yacht.

### 12.4 Stereo system

Salon: 1 Dolby surround set with DVD/CD-player  
1 TV (TFT) screen  
Wheelhouse: 1 radio with 2 loudspeakers

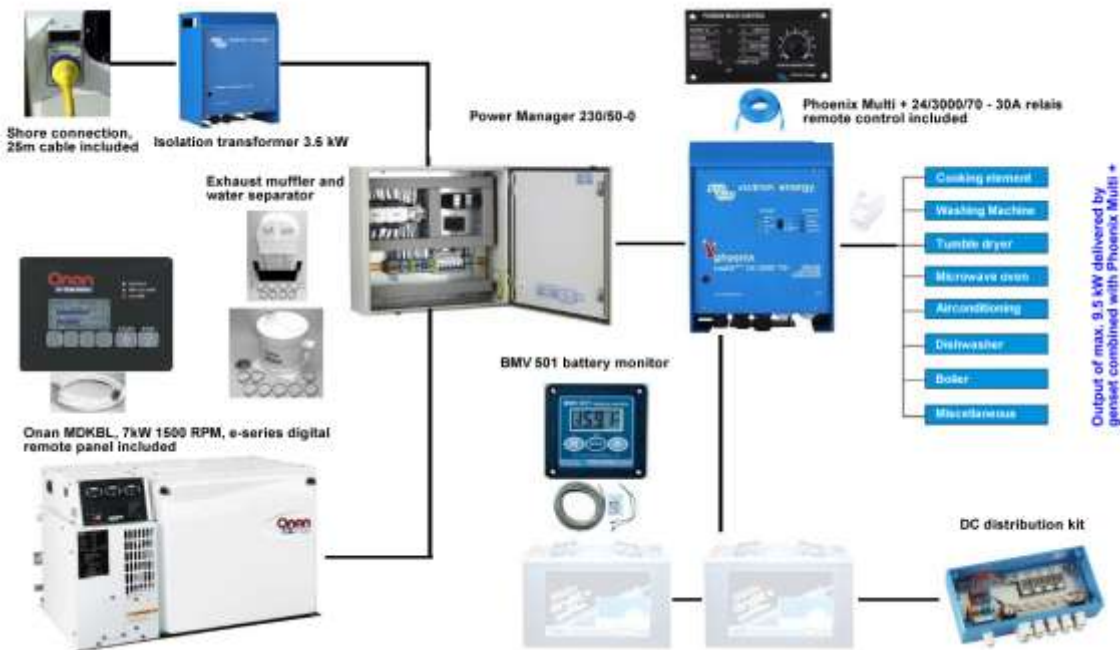
### 12.5 Windows and portholes

All windows will be made of double security glass. The windows will be placed in an aluminium frame with round corners. The glass used will be tinted grey. All windows will be provided with a condensation groove, partly lockable. The portholes will be made of 6 mm "Tinted Perspex" and installed in a cantilever manner in a coated aluminium frame.



## 15.5 CE certificate

The seller commits to provide, within a period of 6 month after delivery, a CE certificate with regards to the ship.



**Schematic overview of the electrical installation**