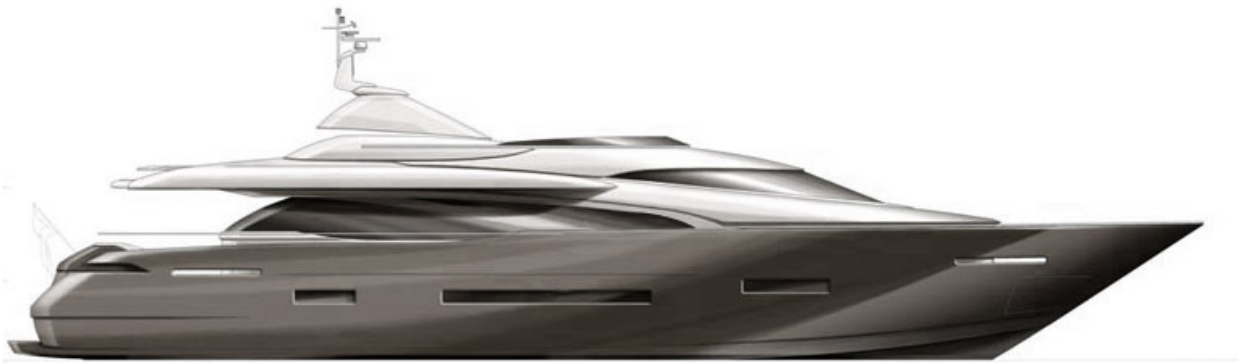


# BARON29



## FULL SPECIFICATION



KAISERWERFT®

2013



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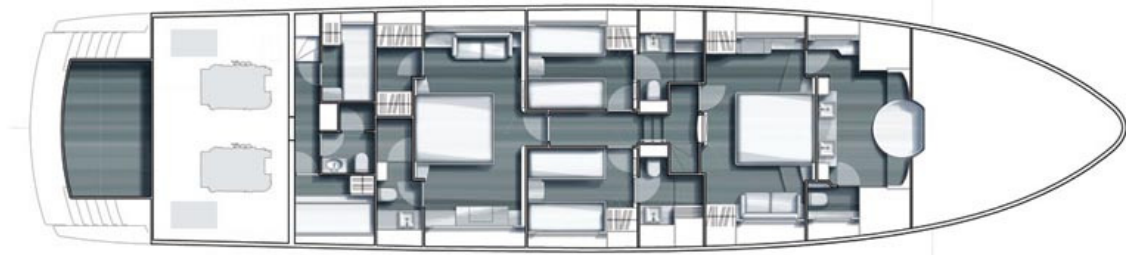
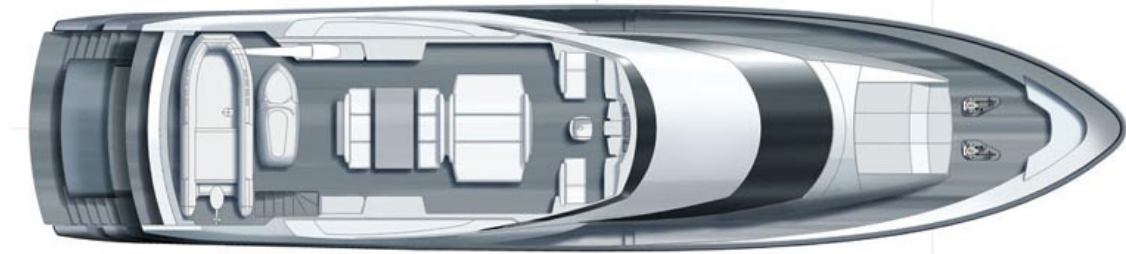
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0. GENERAL ARRANGEMENT PLAN



## 1. GENERAL CONDITIONS

### 1.1. INTENT

#### 1.1.1. CONTRACT SPECIFICATION

The purpose and intent of these Contract Specifications are to set forth the requirements for the design, construction, testing and delivery of one 29 m. V planing motor yacht to suit the Client's requirements for a pleasure yacht. These specifications are not intended to describe every detail of construction, materials methods, or design, but to set out the Client's minimum requirements for performance, appearance, materials and arrangement.

KAISERWERFT Yachts has the right to apply minor changes to all of these specifications in order to improve the vessel performance in a positive manner during the construction KAISERWERFT. Conditions to be fulfilled during the building of this vessel is set forth in the General Sales and Construction Agreement between the Client and KAISERWERFT Yachts. When attached to the General Sales and Construction Agreement, this Contract Specification and any Design Drawings will become part of the agreement and are binding to the Client and Builder. In case of discrepancies between the General Sales and Construction Agreement and the Contract Specification, the General Sales and Construction Agreement will prevail; in case of discrepancies between the Contract Specification and the Drawings, the Contract Specification will prevail.

#### 1.1.2. CONTRACT PLANS

The preliminary design concept prepared by the naval architect and the designer, is the basis for their detailed design and shop drawings to be prepared by KAISERWERFT Yachts. It is recognized by the parties that the Contract Plans do not represent a complete design and that they will be revised and developed as required during the design and construction process to accommodate the needs of the production techniques.

#### 1.1.3. CONTRACT

The Contractor with whom the contract has been signed is referred to as KAISERWERFT Yachts, whilst the Purchaser (as well as his authorized representatives – also called su KAISERWERFT intendents) is referred to as the Client or Clients.





## 1.2. PRINCIPAL CHARACTERISTICS

### 1.2.1. DIMENSIONS

Length Overall .....	28.61 m.
Length of Design Waterline .....	21.73 m.
Maximum Beam .....	6.44 m
Draft .....	1.16 m.
Displacement .....	62 MT

### 1.2.2. TYPE OF YACHT

V planing motor yacht.

### 1.2.3. CONSTRUCTION

- Built using hand laid technique with PVC foam, unidirectional and multiaxial E-glass with Epoxy resin
- Longitudinal stringers stiffened, transverse bulkheads and frames supported hull
- All final painted hull and superstructure
- PVC based or honeycomb cored veneered plywood partition bulkheads
- Fire insulation on all engine room bulkheads and emergency zones according to classification and MCA rules
- The integral tanks are built along the hull structure.

### 1.2.4. PROPULSION & SPEED

Propulsion engines to be:

- Two (2) MTU 12V 2000 M94 Marine Diesel engines, rated 1920 HP at 2450 rpm.
- Estimated max speed at 1/3 load: 28 knots at 2450 rpm.
- Estimated cruising speed at 1/3 load: 21 knots at 1800 rpm.



**1.2.5. DISPLACEMENT AND LIGHTWEIGHT**

- The lightweight is the displacement of the yacht excluding\*:
  - Guest and their effects
  - Diesel in tanks and pipes
  - Lubricating oil in storage tanks and pipes
  - Freshwater in tanks and pipes
  - Consumable stores
  - Crew and their effects
  - Spare parts in excess of class requirements and other contractual, regulatory bodies

\*Weights are approximate until detailed weight study has been undertaken, and final determination made and agreed.

**1.2.6. TANK CAPACITIES**

Fresh Water Tank Capacity .....	2450 L
Fuel Tank Capacity .....	6650 L
Black Water Capacity .....	650 L
Grey Water Capacity.....	800 L

\*It is agreed that the total tank capacity is to be maximized within the design parameters of the yacht. The basis is 10.850 liters +/- 1000 liters. The detailed distribution of volumes and tanks to be agreed upon in good faith within the design parameters.

**1.2.7. INTERIOR LAYOUT**

- Number of Guest.....8 persons in 4 cabins
- Number of Crew.....3 (+1) persons in 2 cabins

**1.3. DESIGN & STYLING**
**1.3.1. DESCRIPTION**

The exterior, incorporating all of the latest design features and new technology, combines modern elegance with an unmistakable sense of style. The luxurious accommodation makes full use of its great internal volumes and offers two (2) spacious guest cabins, one (1) VIP cabin and one (1) Owner's stateroom.

Exterior and Interior Design & Styling .....	Scaro Design Engineering
.....	Scaro Design Naval Architecture
.....	Dixon Yacht Design Scantling and
Structural F.E.A.....	High Modulus



### 1.3.2. MATERIALS AND APPROVALS

All materials and items of equipment installed in or delivered with the yacht are new and suitable for the intended purpose. All equipment will be of the latest proven design, manufactured by reliable makers.

Where makes are mentioned in the specification, they are the suppliers used for production at the time of print. The Maker's List is evaluated on a regular basis. KAISERWERFT Yachts has the privilege to substitute components where they are equal in design, performance, material and suitability aspects.

### 1.3.3. COPYRIGHT

All drawings and specification made by KAISERWERFT Yachts are covered by copyright and can not be copied and/or made available to third parties, without the express written consent of KAISERWERFT Yachts.

These drawings and specifications will, however, be made available to the Clients and/or his representative and to all other parties, connected with the construction of the yacht.

## 1.4. STANDARDS

The overall standard for measuring and dimensions is Metric (SI) system.

### 1.4.1. LANGUAGES

- The text on all principal drawings is to be in English.
- The text on name plates and label plates is to be in English.
- Instruction books are to be in English.



## **1.5. THE BUILDER**

### **1.5.1. SCHEDULE**

**KAISERWERFT Yachts shall provide a built plan as per general sales and construction agreements with target dates for completion to be determined so milestones can be anticipated. After completing the schedule it could be reviewed once every month to determine if contract requirements are being met.**

### **1.5.2. BUILD PROVISIONS**

**The following provisions shall be adhered to during the construction of the vessel:**

- **The vessel and all additional structure shall be built under cover and free from the influence of weather.**
- **The vessel's equipment shall not be used during any phase of construction.**
- **The vessel's generators shall not be used during any phase of construction, except for specific equipment testing**
- **The vessel shall be kept clean at all times, with receptacles provided in all areas for refuse.**
- **Open equipment or exposed elements of equipment shall be covered and protected from damage, dust or contamination.**
- **All finish work shall be thoroughly protected at all times. Particular attention shall be given to workers**
- **The covering of materials that have the ability to absorb impacts from tools, materials and workers.**
- **All finish work in machinery spaces shall be protected to maintain highest level of yacht quality.**
- **Whenever possible, all work involving the cutting and sanding of materials shall be performed off the vessel proper.**
- **Where it is deemed necessary to perform said work aboard, measures shall be taken to extract and minimize dust.**
- **Once flooring and/or carpeting have been installed, shoes shall be protected or not worn aboard.**
- **Smoking aboard the vessel is strictly prohibited during construction.**
- **Provisions to be made for adequate fire protection during construction and trials.**

## **1.6. TESTING, COMMISSIONING AND SEA TRIALS**

**Testing, commissioning and sea trials will be performed as per general sales and construction agreement.**

### **1.6.1. SEA TRIAL (SAT) & HARBOUR TRIAL (HAT)**

**The detail program including schedule and test procedure for all relevant equipment of the sea and harbour trials is to be submitted to the Client 3 weeks before the sea trials. Extensive sea trials will be conducted on deep open water at Beaufort**

**3 force max, no more than 3 crew members and 2 surveyors on board.**



### 1.6.2. DELIVERY DOCUMENTS

On delivery and acceptance of the Yacht the originals (or where permitted copies) of the following paperback documents will be delivered to Client:

- Builder's Certificate;
- Bills of sale;
- Tonnage Certificate in form required by classification society;
- Any/all documents required for export of the Yacht;
- Builder's Certificate that the Yacht is lien free ;
- The Classification Society interim classification certificate;
- Yachts Operating Manual;

### 1.6.3. OTHER

- All integral double bottom tanks will be pressure tested, in accordance with RINA's Rules.
- All systems, such as electric and electronic installation, fuel transfer, bilge and deck wash, plumbing, air- conditioning, hydraulics, will be subjected to dockside trials.
- All windows, hatches, doors and openings will be checked for water tightness.

### 1.7. DELIVERY

After it has been established that all items of work, which were listed during the sea trials, have been properly completed, KAISERWERFT

Yachts shall have the yacht cleaned and made ready for immediate use and delivery.

#### 1.7.1. QUALITY ASSURANCE

All mechanical and electrical systems shall be tested as necessary.

After the Yacht is completed, thorough HAT trials shall be run to demonstrate the operation of all systems through a normal variation of conditions.

After HAT Trials, SAT (Sea Trials) shall be conducted as necessary to demonstrate compliance with the Contract Specification. KAISERWERFT Yachts shall develop a SAT Agenda and submit it to the Client for approval. The SAT Agenda shall be submitted at least seven (7) days in advance of the scheduled date for Sea Trials.

Within seven (7) days after sea trials KAISERWERFT Yachts shall provide a completed SAT Report to the Client. The Client shall have seven (7) days (after receipt of the completed SAT Report) to reply, comment and notify KAISERWERFT Yachts of any defects, or anything which, in the opinion of the Client, is an item of non- compliance with the requirements of the Construction Contract.



### 1.7.2. CLIENTS CONSIGNMENTS

The supervision fees and commissioning for the Client supplied articles, if any, are to be paid by the Client.

However, custody charges and installation costs, both occurred at KAISERWERFT Yachts's shipyard, are to be paid by KAISERWERFT Yachts. The following to be furnished by Client:

- All chandlery (soaps, lamp oil, etc.)
- All charts and nautical books, oil journals etc.
- All medicine and medical equipment's, in excess of what is mentioned in this specification
- Mooring lines, in excess of what is mentioned in this specification
- Paintings, pictures, decorations, articles of art and literature

KAISERWERFT Yachts shall supply all liquids for systems, such as, lubricating, and hydraulic oil etc. for initial filling of systems. The Client shall pay for all diesel and hydraulic oil required to fill the storage tanks.

KAISERWERFT Yachts will pay the Client's cost price for quantities of diesel consumed during harbour tests and sea trials.

### 1.7.3. AS BUILT DRAWINGS

Upon completion of the vessel, KAISERWERFT Yachts will supply two sets updated "as built" plans and drawings of the following:

#### GENERAL PLANS

- General Arrangement (Exterior and interior)
- Docking Plan
- Tank Plan
- Engine Room Layout
- Shaft-line and Propeller

#### SCHEMATICS OF SYSTEMS

- Bilge and Fire Main
- Seawater Cooling
- Scuppers
- Diesel Oil
- Hydraulics
- Fresh Water
- Gray Water
- Black Water
- AC Chilled Water and Drains

#### ELECTRICAL DIAGRAMS

- General Distribution Plan
- Main Switchboard Line System
- Emergency Switchboard



## 2. CLASSIFICATION

The YACHT is to be constructed in accordance with CLASSIFICATION SOCIETY Rules and under survey requiring approval of all drawings and quality assurance procedures to the following notation:

RINA C @ HULL • MACH Ych

KAISERWERFT Yachts will provide the required Class Certificate upon completion of the Yacht.

The Yacht is to be registered by flag authority to be designated by the client as a Commercial Yacht. The Client will carry out the legal registration.

All rules, regulations and codes applied are to be those current at the time of the contract.

## 3. CONSTRUCTION

### 3.1. HULL AND SUPERSTRUCTURE

#### 3.1.1. GENERAL LAMINATION

The structural design of laminates and structural members shall be prepared in accordance with the Classification Society High Speed Craft Rules and are to comply with RINA charter class rules. The hull design and building processes shall be submitted to and approved by the Classification Society.

The lamination and post curing procedures shall be carried out and all necessary precautions shall be taken as per production processes that set by KAISERWERFT Yachts.

#### 3.1.2. CONSTRUCTION OF THE HULL

The hull is a PVC-foam cored GRP laminate. Lamination is hand-laid and vacuumed over PVC foam in the mould that have a satin surface finish.

#### 3.1.3. TYPE OF CONSTRUCTION

All construction plans and analyses to be decided in accordance with RINA rules.

Type of constructions to be as follows:

- Hull construction type..... E-glass reinforced epoxy sandwich
- Superstructure construction type..... E-glass reinforced epoxy sandwich
- Deck construction type ..... E-glass reinforced epoxy sandwich with longitudinal elements



### 3.2. DECK LAMINATION, BEAMS AND SUPPORTS SANDWICH DECK PANELS

The deck structure is a foam cored GRP laminate. The multi-axial lamination is done by hand (i.e. hand-laid) and vacuumed over PVC-foam, where high stress areas to have a high-density foam or marine plywood reinforcement. Internal structure to be hand-laid and vacuumed, longitudinal girders to be PVC cored with Multi-axial skin

#### OUTER SKIN

- Woven and/or stitched E-glass fabrics.

#### CORE

- Cross-linked PVC (Divinycell H-grade or equivalent). 60-80 kg/m<sup>3</sup> density, 20-50 mm thick on deck and deckhouse
- High density inserts in way of through bolted fittings.

#### INNER SKIN

- Woven and/or stitched E-glass fabrics.
- Local reinforcement shall be provided as necessary.

### 3.3. BULKHEAD CONSTRUCTION

Bulkhead structures are hand-laid and vacuumed over PVC structure. The construction is done separately on a shopfloor. Main structural bulkheads are of hand-laid and vacuumed construction with multi-axial skins.

### 3.4. EXTERIOR GRP ITEMS

The external/technical GRP structures are of hand-laid and vacuumed monolithic or sandwich construction, using high-density foam as core material. In limited areas and with specific approval of the Classification Society, plywood may be used if no other commercially available material is approved by the Classification Society.

### 3.5. INTERIOR GRP ITEMS

The internal GRP structures are of hand-laid and vacuumed single skin or sandwich construction, using high-density foam as core material.

Internal structure to be hand-laid and vacuumed, longitudinal girders to be PVC cored with Multi-axial skin.

### 3.6. PAINTING

- Paint system application and painting to be carried out as recommended by the paint manufacturer.
- The hull topsides have a "SICOMIN®" or equivalent paint finish, preferably light colour of which is to be decided with Client.
- The hull below waterline shall be sealed and coated with an approved anti-fouling marine paint suitable for planing yachts.
- The coating and finishing shall be of high quality, the hull exterior is to have a high gloss finish. Care shall be taken to follow the coating manufacturer's recommendations and to use compatible systems for the service intended.
- The inside of all areas such as lockers and spaces above the hull sole shall be smooth and painted, if not lined.





- KAISERWERFT Yachts shall make an effort to avoid odours from the cured GRP laminate, hereunder making sure that the curing process of the lamination is totally completed.

#### 4. PLUMBING

##### 4.1. FUEL OIL SYSTEM

###### 4.1.1. FUEL TANKS

The Yacht shall be fitted with main integral structural tanks and a day tank composed of two interconnected tanks. Each tank shall be provided with inspection manholes, vent pipes. Remote level reading and high level alarms shall be provided. Piping sizes and valves shall all be in accordance with the engine manufacturer's requirements, and as required for safe operation.

###### 4.1.2. QUICK CLOSING VALVES

The main and auxiliary engines are to take suction from the day tank in engine room. The system is fitted with quick closing valves, the controls of which are situated outside the engine room.

###### 4.1.3. FUEL FILL SYSTEM

Fuel filling operation is carried out on port side in deck bunker box. All tank vents shall terminate in radar arch.

###### 4.1.4. WATER-FUEL SEPARATOR

Feeding of engines and of generators is performed through water-fuel separator filters, "SEPAR®", "RACOR®" or equivalent.

###### 4.1.5. TANK VENTS

All tanks shall be fitted with vent pipes. Each vent shall be connected to a common vent pipe. The sizes of the vents as well as the pipes shall be in accordance with Class requirements..

###### 4.1.6. TANK LEVEL MEASURING

The Day tank having a magnetic level gauge on tank sides. Fuel oil tanks with a tank level measuring device.

###### 4.1.7. MATERIALS

All valves are to be stainless steel. All piping of CuNiFe  
Manifolds are to be stainless steel. Tank fittings to be of bronze/ss

###### 4.1.8. FUEL TRANSFER PUMPS

Fuel transfer by means of a dedicated electrical pump.

- 1 x "G&R®" or equivalent fuel transfer pump

#### 4.2. DECK DRAIN (SCUPPER)

Deck drain water is to be through integral drain lines.



#### 4.3. FRESH AIR SYSTEM

Fresh air will be supplied to the accommodation by means of fresh air supply plant. System will consist of a central unit, pre- insulated air pipes.

#### 4.4. SEA WATER

##### 4.4.1. MAIN SEAWATER COOLING SYSTEM

The system has separate port and starboard units for main engines. Sea intake will be installed port and starboard of the engine room with hull strainers. All seawater valves shall be ball valves of appropriate type.

All water requirements for air conditioning system, located in the engine room, shall be supplied by a third sea intake. The fire pump will be supplied separately.

##### 4.4.2. GENERAL UTILITIES SEAWATER

- A third intake is subject to design for general utilities.
- An independent suction shall be provided for watermakers.

##### 4.4.3. WATER STRAINERS

- The water strainers shall be one pipe size larger than the dimension of the seawater pumps mounted on the engines, fitted with a stainless steel perforated basket.
- Appropriate materials and hose connections shall be used after the strainer body, between the strainer and the engine mounted seawater pump.
- A share of main engines cooling water is used to cool the gearbox and the raisers for exhaust gas discharges.

#### 4.5. AIR CONDITIONING

##### 4.5.1. AC COMPRESSORS

- The compressor units shall be “WEBASTO®” or equivalent
- There shall be two compressor units, operating in sequence to provide water for a chilled water line, to the individual evaporators in each cabin.
- The compressor units shall be of Scroll-type 400 VAC, 3-phase, 50 Hz with a total cooling capacity of around 96,000 BTU.
- The sea water cooling pump shall be installed in the engine room.
- The chilled water circulating pump shall be installed in the crew area.



#### 4.5.2. FAN COILS

Fan coil units shall be mounted in deep pans with appropriate drainage to the waste water system.

Fan coil repartition shall be as follows (to be confirmed by the air conditioning supplier):

- Electrical room: ..... 1 x 4500 BTU
- Guest quarters: ..... 2 x 9000 BTU one for each guest cabin
- Crew quarters: ..... 2 x 4500 BTU one for each crew cabin
- Main salon:..... 2 x 16000 BTU
- Galley: ..... 1 x 6000 BTU
- Owner's quarter:..... 1 x 6000 BTU + 1 x 9000 BTU
- Wheelhouse: ..... 2 x 9000 BTU
- VIP Cabin: ..... 1 x 12000 BTU Control panel of the fan

coils shall be of electronic type.

Maintenance and installation instructions, operators manuals, pipe flow diagrams shall be supplied..

#### 4.5.3. AIR-CONDITIONING DUCTS, INLETS & OUTLETS

A single duct system consisting of PVC, ABS or equivalent prefabricated ducting.

Inlets in cabins and other locations covered by the AC system to be provided with individual temperature controls and shall be protected with easily accessible filters.

#### 4.6. BILGE - FIRE AND DECK WASH SYSTEMS

##### 4.6.1. CENTRALIZED BILGE SYSTEM

A centralized bilge system composed of a "G&R®" or equivalent Central Bilge System Pump

Self priming bilge pumps, located in the engine room, are connected to each compartment via electrically operated valves. The bilge pump is to be connected to the fire fighting system via a valve, in order that it can be used as a backup.

Suction manifolds in the engine room with two 1 1/2" ball valves, one for each pump. All bilge suction lines with strainers and ball type check valves.

##### 4.6.2. CHAIN WASH

The anchoring system is provided with a seawater washing-up, operated by a separated pump located under the owner's bathroom.

##### 4.6.3. ENGINE ROOM FIRE FIGHTING SYSTEM

A "SEA FIRE®" FM 200 or equivalent inert gas system shall be installed, with remote control from the fire station. The system should be activated with a handle placed outside of the engine room.



#### 4.6.4. FIRE FIGHTING SYSTEM

Yacht is to be fitted with a "G&R®" or equivalent self-priming pump. This pump shall be connected to the seawater intake for general utilities. Piping shall be in accordance with Classification requirements.

3 Fire hoses of 15m length with nozzle to be supplied. Fire hoses to be stored near the fire hydrants, and pump switches located in fireboxes and near the pump.

#### 4.6.5. FIRE ALARM SYSTEM

A fire alarm system with smoke detectors shall be installed with sensors fitted throughout the vessel. The control unit shall be fitted in the pilothouse.

#### 4.7. FRESH WATER SYSTEM

A complete fresh water system shall be provided and installed with all necessary fill vents and drains, to deliver water in the required volume at reasonable pressure to all equipment and fixtures requiring hot or cold water service.

The water piping shall be PPR or equivalent. All hot water pipes will be insulated.

The system is based on integral structural tanks of approximately 2450 litres, incorporated into the hull double bottom.

##### 4.7.1. FRESH WATER TANKS

Combined fresh water tank capacity is to be approximately 2450 litres, with 2" fill pipes to deck level, vent pipes and valves. Both tanks are to be equipped with approved tank level measuring devices. The gauges to be calibrated at first filling.

##### 4.7.2. WATER PRESSURE PUMPS

- "G&R®" or equivalent water pressure pumps with pressure tanks shall be provided.
- Each pressure system has a valve on both sides and a relief valve on the suction side.
- Switching pressure is to be as follows: on at 2 bars, off at 3.5 bars. Maximum working pressure is to be 4 bars.

##### 4.7.3. BOILER

One "G&R®" or equivalent boiler shall be installed. The heater will be supplied from the cold water pressure system, entering the tank at the bottom and discharging to the fixtures from the top.

##### 4.7.4. PLUMBING SYSTEM

The piping and valves will be of PPR or equivalent. The pressure tank, all fresh water lines located in the engine room and all hot water lines to be insulated.

After all piping is done, the whole system is to be tested with a water pressure of 4–4.5 bars for at least 6 hours.



#### 4.7.4.1. COLD WATER SYSTEM

Each water pressure system is connected to a pressure manifold from which a mainline runs fore and aft, to main deck, upper deck and the heaters. A valve is installed between each main line and the manifold. A fresh water shore supply with a reducing valve will be connected to the pressure manifold.

#### 4.7.4.2. HOT WATER SYSTEM

Hot water heater is connected to a hot water supply manifold, from which a hot water mainline runs fore and aft, to main deck and upper deck. A valve is installed between each main line and the manifold. Each mainline returns to a return manifold, with a valve between the mainlines and the manifold.

#### 4.7.5. DECK WATER HOSE CONNECTION

Hose connections shall be equipped with quick fit hose clips and installed in the following places:

- Foredeck
- Aft deck
- Flybridge bar

#### 4.7.6. WATER FILLING

Water filling connection near transom door, including handheld shower for sun bathers..

#### 4.7.7. SHORE FRESH WATER

The system can be permanently pressurized from shore fresh water supply through the connection located in the stairs leading down to the swimming platform.

#### 4.7.8. WATERMAKER

"HP®" or equivalent watermaker with a capacity of 200 litres/hour is to be installed in the engine room.

#### 4.7.9. WATER FILTERS

Sand, carbon and UV filters to be installed for the fresh water system.

### 4.8. GRAY WATER SYSTEM

All showers, sinks, washbasins and similar fixtures shall drain into a grey water tank to be discharged overboard or to shore as appropriate. The tank will have a "TANK SENTRY®" or equivalent gauge and alarm, so that the crew can start the transfer of waste when necessary. The total capacity of the grey water tanks is approximately 800 litres.

#### 4.8.1. GRAY WATER TANK

An integral gray water tank with a total capacity of 800 litres, having its own vent pipes and crossover line with valves. The gray water tank is to be equipped with an approved tank level measuring device.

#### 4.8.2. PLUMBING SYSTEM

Piping is to be "GEBERIT®" or equivalent and showers to have siphon loops.



#### 4.9. BLACK WATER SYSTEM

The toilet system is to be “TECMA®” or equivalent, discharging to the black water tank. A transfer pump controlled manually or automatically will pump the black water either to shore facility or overboard as directed.

##### 4.9.1. BLACK WATER TANK

One integral holding tank with a capacity of 650 litres.

Tank to be provided with manhole, fill, vent and suction line connections and a tank level indicators that connected to the alarm panel.

##### 4.9.2. BLACK WATER PUMP

Two “G&R®” or equivalent macerator pumps for toilets will be installed into the engine room.

##### 4.9.3. TOILETS

Toilets of the brand “TECMA®” or equivalent will be installed:

- 1 x crew quarter at lower deck
- 2 x guest quarter at lower deck
- 1 x vip stateroom at lower deck
- 1 x day head at main deck
- 1 x owner stateroom at lower deck

##### 4.9.4. PLUMBING SYSTEM

- Systems and manifolds to be installed in the engine room.
- All black water pipes to be “GEBERIT®” or equivalent.
- Vent line of black water holding tank is to have an odour filter.

##### 4.9.5. VENTILATION

- All grey water, black water and WC vents shall have filters.
- All grey water discharges shall be fitted with ventilated siphons.

#### 4.10. HYDRAULIC SYSTEM

##### 4.10.1. BASIS HYDRAULIC SYSTEM

The Hydraulic system is built as follows:

- 1 x 380 VAC Hydraulic Power Pack
- 2 x PTO Units at gearboxes
- Windlass and mooring winches
- Bow thruster
- Stabilizers



#### 4.10.2. PLUMBING SYSTEM

- High-pressure piping is used for the piping system with flexible high-pressure hoses.
- Watertight through-bulkhead construction.
- All hydraulic fittings in fore peak, bowthruster compartment, bilge and lazarette to be of stainless steel. The entire system will be pressure tested and flushed clean before commissioning.

### 5. MACHINERY

#### 5.1. STEERING SYSTEM

Electro-hydraulic steering system is to be "BCS®" or equivalent.

All of the manufacturer's standart scope of supply for this type of installation shall be provided and installed. The cylinders are to be sized by the manufacturer for the predicted speed and shall employ two cylinders accepted by Classification Society. All mechanical connections shall have bushings or sleeves, and fittings for grease are to be applied.

KAISERWERFT Yachts shall provide all of the components, miscellaneous fittings, hoses, brackets and fasteners to install the steering system in accordance with the manufacturer's recommendations as approved by the Classification Society.

For emergency steering a wheel controlled hand pump and rudder indicator in the aft peak/lazarette will be provided. The emergency steering hydraulic pump unit, with it proprietary oil tank is to be mounted with oil lines to pumps and oil tank

##### 5.1.1. RUDDER CONSTRUCTION

The rudders are fitted in a GRP rudder stock tube. Rudder tubes are fitted with lip seals and synthetic bearings. Each rudderstock is fitted with a bronze tiller, interconnected with an adjustable tie bar, and has safety retainers and mechanical stops.

##### 5.1.2. STEERING GEAR

- Two axial hydraulic cylinders to be installed.
- One manual hydraulic pump with wheel, mounted on a column to be installed in the lazarette for emergencies, close to the steering gear for manual emergency steering.
- Box for control system.

#### 5.2. BOW THRUSTER

The Yacht shall be fitted with a "TRAC®" or equivalent 30 hp hydraulic bow thruster, driven by the hydraulic system. The thruster shall be on/off controlled. There shall be two control stations, one located in the pilothouse and the other in the flybridge.

#### 5.3. ZERO SPEED STABILIZER

Zero speed wing stabilizer "TRAC®" 300/9X 2 fin or equivalent



#### 5.4. PROPULSION SYSTEM

##### 5.4.1. PROPULSION ENGINES

KAISERWERFT Yachts shall provide and install two MTU 12V 2000 M94 Marine Diesel engines, rated 1920 hp, 2450 RPM, with all required engine mounted accessories as specified herein.

The below description, unless noted otherwise, is for one engine and its parts. Components and systems which are normally part of the basic engine shall be furnished even though they may not be listed below:

##### COMBUSTION AIR AND EXHAUST SYSTEM

- Turbo charger
- Water jacketed manifolds
- Separate water after cooled, charge air coolers
- Dry air filters
- Heat exchange oil cooler
- Internal oil filter

##### COOLING SYSTEM

- Heat exchanger
- Seawater pump
- High capacity engine lube oil cooler
- High capacity fuel oil cooler
- Piping for gear oil cooler piping

##### FUEL AND LUBE OIL SYSTEMS

- Fuel filters
- Remote electric shutdown
- Oil pan with two drain plugs
- Oil dipsticks located inboard
- Lube oil filters

##### CENTRIFUGE FUEL CLEANING SYSTEM

- "GEA®" OTC 2-02 or equivalent will be installed to clean up the diesel oil in the daily tanks.
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#### ELECTRICAL SYSTEM

- Electric starter
- Alternator
- Electrical system 24 VDC ungrounded
- Engine wiring harness with terminal strip in an enclosure
- Start and Stop switches, panel mounted
- Oil level gauge
- Alarm contacts
- Engine mounted instrument panel

#### MISCELLANEOUS EQUIPMENT

- Engine lifting eyes
- Flywheelmounted torsional coupling
- Flexible engine mounts

#### 5.4.2. MARINE GEARS

KAISERWERFT Yachts shall provide 12,5 degrees reverse reduction “ZF®” V drive gearboxes. The gearbox and the engine are connected with standard torsional coupling in accordance with the specifications of the manufacturer. The gearbox is flywheel mounted to the main engine and the assembly is aligned with the shaft line. The gearbox is bolted down to the foundation with flexible mounts, same as the main engine.

The below description, unless noted otherwise, is for one gearbox and its parts. Components and systems which are normally part of the basic gearbox shall be furnished even though they may not be listed below:

- Marine reverse/reductiongear with electronically level function
- Gear oil cooler
- Cruise Command control box
- Gear oil temperature gauged

#### 5.4.3. ENGINE MOUNTING

The engines shall be mounted to foundations, which have been securely fastened to the fiberglass hull structure with bolted flexible mounts approved by the engine maker.

#### 5.4.4. PROPELLER SHAFT INSTALLATION

##### 5.4.4.1. TAIL SHAFT

The Yacht driveline is a straight-drive located in a shaft tunnel. The composite stern tube is fitted with a seawater- cooled lip seal of approved type “TIDES MARINE®” or equivalent.

- The engines are mounted on flexible mounts as recommended by the manufacturer.
- The engine is connected to the gearbox by a coupling.
- The gearbox is aligned with the shaft line.



#### 5.4.4.2. INNER SHAFT LOGS

- Each shaft is to be fitted with inner shaft logs: “TIDES MARINE®” or equivalent.
- Shaft logs with rubber bearings.
- The cut-less bearings shall be of dripless type: “TIDES MARINE®” or equivalent, with spare seals.

#### 5.4.4.3. OUTER SHAFT LOGS

- Each shaft is fitted with an outer shaft log by “TIDES MARINE®” or equivalent.
- After completion of the engine alignment, the inner shaft log is fixed to the outer shaft log with poured orange chock fast.
- The cut-less bearings shall be of dripless type: “TIDES MARINE®” or equivalent, with spare seals.

#### 5.4.4.4. PROPELLERS

The propellers are to be “DUNCAN®” or equivalent, five-blade, made of special nickel bronze alloy, designed for best performance and for suppression of noise and vibrations.

#### 5.4.4.5. SHAFT BRACKETS

Shaft brackets cast in bronze, mechanically fastened to the hull by “DUNCAN®” or equivalent.

#### 5.4.5. EXHAUST SYSTEM

The exhaust system shall be installed in accordance with the engine manufacturer’s recommendations.

The system consists of a riser that combines the exhaust outlets on each main engine. The exhaust gas is thereafter led through the water mixer that cools the exhaust gas. The exhaust gas and cooling water exit below waterline. The exit is fitted with a permanent bypass over the waterline.

Those parts of the exhaust system, which are hot, shall be stainless steel. Those parts of the exhaust system that are water- cooled shall be 316L stainless steel. The exhaust system shall be tested.

### 5.5. VENTILATION SYSTEM

#### 5.5.1. VENTILATION – GENERAL

The vessel is to be equipped with air-conditioning and ventilation systems.

Control system for the air conditioning system, including fancoils, compressors, cooling water pumps, temperature control, etc. is to be automatic type.

In general, the ventilation of hull spaces is to have forced air supply and natural exhaust, except where other arrangements are found to be more efficient.

Spaces such as bathrooms, toilets are to have natural supply through louvers and mechanical exhaust by separate fan systems.

Nameplates for fans and dampers are to be provided.



#### 5.5.2. FAN BOX

The fan boxes are to be located within their fire shutters, as close as possible to their designated areas and to be served by supply and exhaust trunks from same deck level or higher deck levels. Fans, motors, filters and coils are to be as easily accessible as possible for inspection and maintenance.

#### 5.5.3. VENTILATION ENGINE ROOM

The engine room is to be ventilated by “G&R®” or equivalent intake fans and two exhaust fans. All fans are to have quick closing fire dampers. The air intake and air change in the engine room is dimensioned to meet the engine manufacturer’s recommendations.

#### 5.5.4. DUCTS, INLETS & OUTLETS

Inlets and exhaust ducts to and from AC central and exhaust fans to be fiberglass or PVC with socket connections. Internal vent ducts to be of “ARMAFLEX®” or equivalent, covered with ABS and/or PVC wherever possible. Pipes to be insulated, in general, to prevent sweating, heat rise and minimize noise levels due to airflow in ducts.

- Air intakes and air outlets to be equipped with louvers/grills to prevent rain and spray from entering the ventilation system.
- Air intakes are to be located in a way that they are protected against splashing seawater and exhaust gases.
- Air intakes to be arranged provision for water drainage.
- All air intakes boxes exposed to weather shall be made of GRP.

### 5.6. NOISE AND VIBRATION CONTROL AND INSULATION

#### 5.6.1. GENERAL

All motors, pumps, blowers and similar equipment shall be installed on flexible mounts with hose connections on the piping system.

The hydraulic piping system will be installed with rigid pipe clamps.

#### 5.6.2. ENGINE ROOM INSULATION

Fire insulation shall be provided throughout the engine room and engine room bulkheads, and to be insulated according to the directions of Classification rules.

### 6. ELECTRICAL SYSTEMS

#### 6.1. GENERAL

All electrical equipment to be located so as to be readily accessible for maintenance, repair or removal and to be of a type proven satisfactory for marine use.



## 6.2. GENERATORS

### 6.2.1. GENERATOR

KAISERWERFT Yachts shall install two 380 VAC, three-phase, 50 Hz, 22/27.5 kW, Permanent Magnetic Alternator, electric started diesel engines to drive the shipboard main generators, “CAT®” / “ONAN®” or equivalent. The generators to have 24 VDC starting system. The generators are connected to the vessel’s main distribution switchboard.

The generators will be supplied with the following:

- Sound proof box with double flex mounts
- Oil cooler
- Built-in freshwater circulating and cooling system with heat exchanger
- Automatic stop for oil pressure, water temperature and over-speed
- Alternator for charging starting battery

### 6.2.2. AUXILIARY GENERATOR

“FISCHER PANDA®” 6.7 Kw or equivalent aux. genset will be installed. Silent running, minimal power solution

### 6.2.3. EXHAUST SYSTEM

The generator exhaust shall be “CENTEK®” or equivalent. The system shall be ‘wet-type’ with silencer. The generator’s dry exhaust shall exit the hull side in the engine room. The dry exhaust hull outlet shall have a GRP deflector down and aft for noise abatement.

## 6.3. 220/380 V AC SYSTEM

The yacht is fitted with a 380/220-volt 50 Hz, 3P+N main electrical AC system. The system consists of a main switchboard, which is supplied either from the yacht generators or from the shore power. The shorepower setup is as follows:

380 volts, 3P+N, 50 Hz shorepower supply system with;

- 25 meter shorepower cord
- Watertight 5 pin shorepower plug and socket

The switchboard supplies all main loads on the yacht as air conditioning, galley equipment, lights, computers, engine room ventilation, 24 volt chargers etc.

## GROUNDING SYSTEM

- Dynaplate or equivalent ground plate shall be fitted externally to the hull bottom.



#### 6.4. NAVIGATION LIGHTS

“LOPO LIGHT®” or equivalent navigation lights, 24 VDC conform international regulations. It will be controlled by AMS.

The following lights will be installed:

- 1 x masthead light (white, 225°, from right ahead to 22.5° abaft the beam on either side of vessel)
- 1 x sidelight starboard (green, 112.5°, from right ahead to 22.5° abaft the beam on starboard)
- 1 x sidelight starboard (red, 112.5°, from right ahead to 22.5° abaft the beam on portside)
- 1 x stern light (white, 135°, 67.5° from right aft on each side of vessel)
- 1 x all-round light (white, 360°)
- 2 x NUC light (red in vertical line, 360°)

#### 6.5. ALARM AND MONITORING SYSTEM

A general alarm system to be installed with open-close alarms for all hatches and exterior doors; level alarms for all bilges and tanks. Alarm indication panels mounted in wheelhouse.

##### 6.5.1. HELM STATION

The bridge control console contains control devices for information. All required information regarding main engines and technical equipment is available from vessel instruments or from the integrated alarm and control system.

##### 6.5.2. SECURITY CAMERAS

- Three “PIXUS®” or equivalent external cameras shall be installed.
- The engine room shall have two cameras as needed to monitor the machinery.
- The display for these cameras shall be provided at the main helm.

#### 6.6. 24 V DC SYSTEM

##### 6.6.1. GENERAL

- The 24 VDC system is bi-polar with isolated ground.
- Emergency lighting in all staterooms, cabins, passages, stairs, galley, wheelhouse, and deck salon.

##### 6.6.2. BATTERY SYSTEM

###### BATTERY BANKS:

- Service battery banks .....24 V DC - 6 X 200 Ah, located at E/R
- Main engine and generator battery bank .....24 V DC - 4 X 200 Ah, located at E/R
- Harbor generator battery bank .....24 V DC - 1 X 95 Ah, located at E/R



**EMERGENCY BATTERIES**

- Emergency battery bank ..... 24 V DC - 2 X 200 Ah, located at the lazarette
- Wheelhouse service battery bank ..... 24 V DC - 2 X 200 Ah, located at the cockpit
- VHF battery bank ..... 24 V DC - 2 X 120 Ah, located at the cockpit

**6.6.3. BATTERY CHARGERS**

- 2 x 100 Ah “MASTERVOLT®” or equivalent automatic battery charger for service bank
- 2 x 30 Ah “MASTERVOLT®” or equivalent automatic battery charger for emergency bank

**6.6.4. 24 V DC SWITCHBOARD**

A 24 VDC switchboard will be installed complete with emergency switches, diodes, volt and ampere meters and automatic fuses for 24 VDC users and spare groups.

**6.7. VARIOUS ELECTRICAL EQUIPMENT****6.7.1. SEARCH LIGHT**

Two “RCL®”, “JABSCO®” or equivalent type large remote controlled search lights mounted on stack, with control panel in wheelhouse and on the flybridge.

**6.7.2. SIGNAL HORN AND COMPRESSOR**

An approved and good quality horn that will match the overall quality of the yacht.

**6.7.3. WINDSHIELD WIPERS**

The pilothouse front windows are to be provided with windscreen wipers and fresh water washing jets mounted on the wiper blades.

**6.7.4. WINDSHIELD WASHING SYSTEM**

A freshwater line with nozzle over each front window of wheelhouse to be installed.



## 6.8. NAVIGATION EQUIPMENT

### 6.8.1. PILOTHOUSE HELM STATION

- 2 x 19" "HATTELAND®" HD19T03 or equivalent TFT display
- 1 x "SIMRAD®" OP40 Processor or equivalent
- 1 x "SIMRAD®" BSM1 or equivalent network sounder
- 1 x "SIMRAD®"AP28 or equivalent autopilot
- 1 x "SIMRAD®" RF300 or equivalent rudder feedback
- 1 x "SIMRAD®" RC42 or equivalent fluxgate compass
- 1 x "SIMRAD®" IS20 or equivalent wind system pack
- 1 x "SIMRAD®" NAVICO RDR1064 or equivalent radar pack
- 1 x "SIMRAD®" AC12 or equivalent control unit
- 1 x "SIMRAD®" RS87 VHF Radio
- 1 x "SIMRAD®" HT50 or equivalent hand held VHF radio
- 1 x "SEATEL®" C.24 sat tv antenna
- 1 x "C-MAP®" Max pro chart mega wide - East and West Med.Sea
- Flaps panel control
- Anchor washer control

### 6.8.2. NAVTEX

The "NAVTEX®" system is used for the automatic broadcast of localised Maritime Safety Information (MSI) using Radio Telex. The system mainly operates in the Medium Frequency radio band just above and below the old 500 kHz Morse Distress frequency. System range is generally 300 or so nautical miles from the transmitter.

### 6.8.3. FLYBRIDGE HELM STATION

- 2 x 15" "SIMRAD®" DI15 or equivalent TFT display
- 1 x "SIMRAD®" GB40 Processor or equivalent
- 1 x "SIMRAD®"AP28 or equivalent autopilot
- 1 x "SIMRAD®" RF300 or equivalent rudder feedback
- 1 x "SIMRAD®" RC42 or equivalent fluxgate compass
- 1 x "SIMRAD®" AC12 or equivalent control unit



## 7. DECK HARDWARE AND EQUIPMENT

### 7.1. MATERIAL

- All wood to be used is to be well-seasoned, free from moisture, splits, wind shake, checks, sap and large knots and of a kind and quality well suited for the use intended.
- All plywood to be used of exterior quality.
- All staples, screws and bolts of stainless steel.
- All bedding compounds and elastic seam compounds to be of first quality.

### 7.2. DECK HARDWARE

#### 7.2.1. BOAT NAME

Boat name in high gloss finish stainless steel.

#### 7.2.2. STAIRS AND LADDERS

Integral stairs from aft deck to lazarette and from aft deck to fly deck (starboard side only). Stairs to have wide teak treads.

#### 7.2.3. BOLLARDS, CLEATS AND FAIRLEADS (CHOCKS)

- All bollards, cleats and fairleads to be polished 316L stainless steel.
- There are to be four bollards on fore deck and four bollards on aft deck.
- Six double cleats, one either side of fairlead, three on port and three on starboard inside of bulwark.
- All bollards to be bolted on the necessary reinforcements on deck.

#### 7.2.4. SWIMMING LADDER

Stainless Steel 316L Swimming Ladder.

#### 7.2.5. STANCHIONS AND RAILING

Carbon and stainless steel stanchions around main deck, upper deck, fore deck and fly deck.

#### 7.2.6. HATCHES

- 1 x hatch over fore deck to owner's bathroom.

#### 7.2.7. OUTSIDE DOORS

- 1 x "ALLUFER TEMPESTA®" or equivalent Stainless Steel Sliding Door for Main Salon
- 3 x "ALLUFER TEMPESTA®" or equivalent aluminum pantograph side door for wheelhouse, galley and crew area access

#### 7.2.8. GARAGE DOOR

The yacht is fitted with a single hydraulically operated stern door for garage. The running system is to be developed to insure a smooth and safe operation. Arms shall open the hatches upward. The door incorporates door seals acceptable to Class requirements.

#### 7.2.9. ANCHORS

Two stainless steel anchors will be provided. Vertical chain boxes to allow the chain to self-stow. The chain and anchor are to be provided with a seawater washing-up line, operated by a separated pump.





#### 7.2.10. ANCHOR CHAIN

Two high tensile galvanized chains in accordance with RINA rules.

#### 7.2.11. CHAIN STOPPERS, ROLLERS

Stainless steel chain stopper with associated rollers.

#### 7.2.12. TENDER CRANE

“OPACMARE®”, “BESENZONI®” or equivalent 800 kg. hydraulic tender crane.

#### 7.2.13. BARBECUE ON FLYBRIDGE

A 40 cm wide electric grill unit by "BOSCH®" or equivalent

#### 7.2.14. WINDLASSES AND CAPSTANS

##### FORWARD WINDLASSES

The yacht is to be fitted with 2 x “DATA®” or equivalent vertical hydraulic stainless steel gypsies with capstan windlasses. The windlasses are to be controlled by means of a wired remote control, which will be stowed in a dedicated storage recessed in the GRP structure.

##### AFT CAPSTANS

The yacht is to be fitted with 2 x “DATA®” or equivalent hydraulic aft mooring capstans provided with deck mounted foot controls with covers near the capstan.

#### 7.2.15. HULL WINDOWS

Non-Opening hull windows shall be installed. Hull windows are to be fitted with portable deadlights, and main deck windows are to be fitted with storm covers if and as required by Class rules.

The clear glass thickness of the hull windows will be according to the design parameters and Classification Society requirements.

#### 7.2.16. GANGWAY

The Yacht is fitted with a slewing “OPACMARE®” or equivalent 435 cm. electro-hydraulic gangway. The gangway is fitted on the starboard side stairway to the swim platform and is operated by remote control. The gangway shall incorporate automatic stanchions. The hydraulic system shall be separate from any other system aboard.

#### 7.2.17. WINDSCREEN AND WINDOWS

The Windows shall be double-glazed (except for the wheelhouse where it will be laminated) in tempered high quality glass and are to be glued to the superstructure. The glass thicknesses shall be in accordance with the Class requirements.

#### 7.2.18. BOAT HOOKS

One chrome mounted spruce boat hook to be supplied by builder and proper stowage is to be provided.

#### 7.2.19. FLAG POLES

Bow jack staff to be a thick stainless steel stanchion.

Tapered stern jack staff poles to be supplied with trucks, cleats and stainless steel sockets.



#### **7.2.20. CHOCKS FOR TENDERS**

Mounting chocks and fixing points for tenders.

#### **7.2.21. DACRON COVERS AND ROLL-UPS**

“SUNBRELLA®” or equivalent covers for, tenders, dining tables, flybridge bar and console, pilot house windows and console to be supplied by KAISERWERFT Yachts.

#### **7.2.22. SILL AND CHAFING PLATES**

All outside doorways in superstructure to have sill plates of stainless steel.

#### **7.2.23. FENDERS AND ROPES**

- 2 x PVC Losange fenders, large size
- 6 x PVC Losange fenders, small size
- Mooring Lines

#### **7.3. TENDERS**

“ZODIAC®” or equivalent 4.7 meters tender, located in fly deck with 100 hp outboard “YAMAHA®” or equivalent engine.

#### **7.4. SAFETY EQUIPMENT**

The lifesaving equipment is to be strictly in accordance with the requirements of Classification and RINA, including at least the following:

- 2 x self-inflatable liferafts for six persons, SOLAS approved with pack B
- 14 x SOLAS approved adult life jackets.
- 3 x SOLAS approved child life jackets.
- 12 x Immersions Suits
- 2 x lifebuoys
- Set of line throwing appliances
- 6 x red hand flares
- 2 x buoyant smoke signals
- 4 x rocket parachute flares
- 2 x two-way radiotelephone sets
- Emergency source of lighting
- Posters and signs showing survival craft and equipment operating instructions
- Training manual
- Instructions for onboard maintenance
- Lifesaving signals and rescue poster – SOLAS no1 in wheelhouse
- 1 x first aid kit



## 8. ACCOMMODATION

### 8.1. EXTERIOR

#### 8.1.1. FLYBRIDGE

- Navigation station
- Teak laid deck and stairs
- Stainless steel handrails
- Stainless steel frame supported glass windshield
- Single helm seat
- Forward facing seating on both sides for four
- Teak dining table for eight with sofa for five and sun lounger poufs for three
- Sunbeds on portside with storage below
- Scatter cushions
- Side storage lockers
- High rated overhead & courtesy lights
- Four audio marine speakers
- Switches & sockets
- Wet bar with sink, hot and cold water tap, icemaker and fridge
- Stairs to main deck

#### 8.1.2. MAIN DECK

- Teak laid deck, platform and stairs
- Two hot and cold platform showers
- Stainless steel 316L handrails with carbon top
- Teak dining table for eight
- Sofa for three
- Free standing chairs for five
- High rated overhead & courtesy lights
- Two audio marine speakers
- Stainless steel sliding laminated glass door to salon
- Four stainless steel 316L Bollards
- Two boarding gates from aft to swimming platform
- Remote control telescopic gangway
- Shore line and TV connection socket at the aft
- Switches & sockets
- Stainless steel plate port of registry and boat name
- Stairs to fore deck



### 8.1.3. FORE DECK

- Teak laid deck
- Upholstered sun bed with storage below
- Sofa for four
- High rated courtesy lights
- Two audio marine speakers
- Fender storage
- Self draining fore deck

### 8.2. INTERIOR

The arrangement generally to be in accordance with the Contract Plans and attached sketches from the Interior Designer, the latter only to give method to follow until the final approval of the detailed layout.

The interior shall be delivered inclusive, yet not limited to, accessories, bathroom accessories and fittings, hardware and ironmongery.

In the companionways and centers of the public spaces, quarters and crew quarters the clear headroom from rough floor to finished ceiling shall be no less than the following:

- Crew Accommodation – lower deck ..... 1980mm (local interference accepted)
- Guest Accommodation & Corridor – lower deck..... 2000mm (local interference accepted)
- Salon & Galley – main deck..... 2040mm (local interference accepted)
- Corridor – main deck ..... 2010mm (local interference accepted)
- Pilothouse at steering wheel ..... 1950mm (local interference accepted)
- Hardtop on flying bridge ..... 2100mm (local interference accepted)
- Engine room basic..... 1950mm (except where exhaust and other interference exist)

#### 8.2.1. SALON

- Upholstered and leather wall panels
- Fitted carpet
- Upholstered ceiling
- Upholstered side windows with powered blinds
- Blind for aft door
- Wood veneer and leather side furniture with storage
- Low coffee table
- Large leather sofa for three
- Leather armchairs for two
- Scatter cushions for five
- Glass top dining table
- Dining chairs for eight
- 40” HD TV with lifting system
- AV system
- Overhead lighting



- Switches & sockets
- Telephone & data point sockets
- Air conditioning and heating fan coils
- Fresh air blowers
- Drinks cabinet with glass holders
- Courtesy lights

#### 8.2.2. DAYHEAD

- Lacquered wall panels
- Non slip wood flooring
- Lacquered ceiling
- Lacquered vanity unit with storage
- Mirror
- Washbasin
- Tap
- Toilet
- Set of bathroom accessories
- Overhead & vanity unit lighting
- Switch & socket
- Extractor unit

#### 8.2.3. GALLEY

The galley shall be built to best domestic standards allowing no joints for grease and bacteria to be collected. All working surfaces will "CORIAN®" , with back- splash and rounded edges and corners. Latches and sea rails to be provided as required for refrigerators and other appliances to have sea latches for heavy weather.

All cabinets will be lacquered, lips on shelves and retainers for dishes will be provided. It shall meet all the Class rules and requirements.

Only electricity will be used for cooking.

- Access to portside deck
- Wood veneer and lacquered wall panels
- Non slip wood flooring
- Lacquered ceiling
- Wood veneer door to salon
- Double overhead lockers and under counter cabinets with plate and cup restrains
- Cabinets with drawers and overhead lockers with plate and cup restrains
- Corian work top with stainless steel sink
- Tap
- Rubbish bin
- Two full height fridges with freezers ~800L.
- Built-in extractor hood
- Built-in electric ceramic hob with four cooking zones
- Built-in oven
- Built-in microwave
- Built-in dishwasher
- Free standing small coffee machine
- Overhead & counter lighting
- Switches & sockets



- Extractor unit
- Air conditioning and heating fan coil
- Fresh air blower
- Fire extinguisher

#### 8.2.4. PILOTHOUSE

The console shall house all switches, instruments, warning panels and control necessary for the safe operation of the yacht. Limited functions shall be repeated at the flying bridge and stern control as set out elsewhere in these specifications.

- Wood veneer, lacquered or/and upholstered wall panels
- Non-slip wood flooring
- Upholstered and lacquered ceiling
- Navigation station
- Stairs to main deck corridor
- Upholstered and lacquered ceiling
- Single helm seat
- Leather sofa for three
- Veneer top table
- Chart table area with stowage
- Lacquered wall cabinets
- Switches & sockets
- Telephone & data point sockets
- Overhead, courtesy & cruise lighting
- Air conditioning and heating fan coil
- Fresh air blower
- First aid kit

#### 8.2.5. UPPER CORRIDOR

From salon to cockpit, to dayhead and to guest accommodation

- Access to starboard deck
- Wood veneer and lacquered wall panels
- Non-slip wood flooring
- Upholstered ceiling
- Wood stairs to pilothouse
- Wood stairs to lower corridor
- Stainless steel handrail
- Side storage cabinets
- Overhead & courtesy lighting
- Switches & sockets

#### 8.2.6. MASTER STATEROOM

The full-beam master cabin is located on lower deck, with a large bathroom.

- Upholstered and wood veneer wall panels
- Fitted carpet
- Upholstered and leather ceiling
- Upholstered side windows with powered blinds
- Double bed with storage below
- Foam mattress



- Pillows and covers
- Bedspread, duvet and duvet cover
- Night tables and leather headboard with niche
- Lacquered vanity unit with leather top and vanity mirror
- Full height wood veneer wardrobes with hanging rail and lower storage
- Safe locker
- Leather sofa
- Leather pouffe
- 32" HD ready TV & AV system
- Overhead lighting
- Reading lights
- Wardrobe lighting
- Switches & sockets
- Telephone & data point sockets
- Air conditioning and heating fan coils
- Fresh air blowers
- Doors to corridor & en-suite

#### EN-SUITE

- Wood veneer and lacquered wall panels
- Non slip wood flooring
- Lacquered ceiling
- Vanity unit with storage below
- Full height storage beside vanity unit
- Mirror
- Washbasins for two
- Taps
- Toilet
- Set of bathroom accessories
- Shower area with plexyglass separator
- Teak shower floor with grilles
- Side shelving and storage with stainless steel fiddles
- Overhead & vanity unit lighting
- Switches & sockets
- Extractor unit

#### 8.2.7. VIP STATEROOM

- Upholstered and wood veneer wall panels
- Fitted carpet
- Upholstered and leather ceiling
- Upholstered side windows with powered blinds
- Double bed with storage below
- Foam mattress
- Pillows and covers
- Bedspread, duvet and duvet cover
- Leather headboard
- Side storage as vanity unit with mirror



- Leather sofa with low level table on side
- Leather pouffe
- Night tables
- 32" HD ready TV & AV system
- Overhead lighting
- Reading lights
- Switches & sockets
- Telephone & data point sockets
- Air conditioning and heating fan coil
- Fresh air blowers
- Doors to en-suite, walk-in wardrobe & corridor

**VIP EN-SUITE**

- Lacquered wall panels
- Non slip wood flooring
- Lacquered ceiling
- Lacquered vanity unit with storage below and above
- Mirror
- Washbasin
- Tap
- Toilet
- Set of bathroom accessories
- Shower cubicle with glass door
- Teak shower floor with grilles
- Switches & sockets
- Overhead & vanity unit lighting
- Extractor unit

**VIP WALK-IN WARDROBE**

- Full height open wardrobes with hanging rails and low level drawers
- Non slip wood flooring
- Upholstered ceiling panels
- Shelving with stainless steel fiddles
- Full height mirror
- Overhead & wardrobe lighting
- Switch & socket

**8.2.8. STARBOARD GUEST STATEROOM**

- Upholstered and wood veneer wall panels
- Fitted carpet
- Upholstered ceiling
- Upholstered side windows with powered blinds
- Twin beds with storage below
- Foam mattresses
- Pillows and covers
- Bedspread, duvet and duvet cover
- Leather headboard
- Night table
- Wood veneer wardrobe with hanging rail and low level drawer
- 19" / 20" LCD TV & AV system





- Overhead lighting
- Reading lights
- Switches & sockets
- Telephone & data point sockets
- Air conditioning and heating fan coil
- Fresh air blowers
- Wood veneer door to en-suite

**EN-SUITE**

- Lacquered wall panels
- Non slip wood flooring
- Lacquered ceiling
- Lacquered vanity unit with storage below and above
- Mirror
- Washbasin
- Tap
- Toilet
- Set of bathroom accessories
- Shower cubicle with glass door
- Wood shower floor with grilles
- Wood shower seat with shelving
- Switches & sockets
- Overhead & vanity unit lighting
- Extractor unit

**8.2.9. PORTSIDE GUEST STATEROOM**

- Upholstered and wood veneer wall panels
- Fitted carpet
- Upholstered ceiling
- Upholstered side windows with powered blinds
- Twin beds with storage below
- Foam mattresses
- Pillows and covers
- Bedspread, duvet and duvet cover
  
- Leather headboard
- Night table
- Wood veneer wardrobe with hanging rail and low level drawer
- 19" / 20" LCD TV & AV system
- Overhead lighting
- Reading lights
- Switches & sockets
- Telephone & data point sockets
- Air conditioning and heating fan coil
- Fresh air blowers
- Wood veneer door to en-suite

**EN-SUITE**

- Lacquered wall panels
- Non slip wood flooring
- Lacquered ceiling



- Lacquered vanity unit with storage below and above
- Mirror
- Washbasin
- Tap
- Toilet
- Set of bathroom accessories
- Shower cubicle with glass door
- Wood shower floor with grilles
- Wood shower seat with shelving
- Switches & sockets
- Overhead & vanity unit lighting
- Extractor unit

#### 8.2.10. LOWER DECK CORRIDOR

From guest accommodation to upper corridor

- Wood veneer and upholstered wall panels
- Fitted carpet
- Upholstered ceiling
- Wood stairs to master stateroom lobby
- Wood stairs to upper corridor
- Stainless steel handrail
- Overhead & courtesy lighting
- Switches & sockets

#### 8.2.11. CAPTAIN'S CABIN

- Lacquered wall panels
- Carpet flooring
- Lacquered ceiling panels
- Lacquered side window
- Berth with foam mattress
- Pillow and cover
- Bedspread, duvet and duvet cover
- Storage under berth
- Lacquered wardrobe with hanging rail
- Overhead lighting
- Reading light
- Switches, sockets & data point
- Air conditioning and heating fan coil
- Fresh air blowers
- Door to crew corridor

#### 8.2.12. STARBOARD CREW CABIN

- Lacquered wall panels
- Carpet flooring
- Lacquered ceiling
- Lacquered side window
- Twin bunk berth with foam mattresses
- Pillows and covers
- Bedspread, duvet and duvet cover



- Storage under lower berth
- Lacquered wardrobe with hanging rail
- Overhead lighting
- Reading lights
- Switches, sockets & data point
- Air conditioning and heating fan coil
- Fresh air blowers
- Lacquered door to crew corridor

#### **8.2.13. CREW BATHROOM**

- Lacquered wall panels
- Non slip wood flooring
- Lacquered ceiling
- Corian counter top with stainless steel washbasin
- Lacquered storage under counter with shelving
- Mirror
- Tap
- Toilet
- Set of bathroom accessories
- Shower cubicle with glass door
- Wood shower floor with grilles
- Switches & sockets
- Overhead & mirror lighting
- Extractor unit

#### **8.2.14. CREW CORRIDOR**

- Lacquered wall panels
- Carpet flooring
- Lacquered ceiling
- Stairs to portside deck
- Washer – dryer
- Overhead & courtesy lighting
- Switches & sockets

#### **8.2.15. LAZARETTE**

- Hydraulic garage door
- Teak flooring
- Racks

### **8.3. KITCHENWARE**

#### **8.3.1. SET OF KITCHENWARE**

Complete set of cutlery & cookware by "WMF®" or equivalent

#### **8.3.2. SET OF TABLEWARE**

Complete set of tableware for 8 people by "ROSENTHAL®" or equivalent



#### 8.4. COVERS

##### 8.4.1. EXTERIOR SEATING COVERS

Waterproof lightweight covers to protect all upholstered exterior seating and bed areas by "SUNBRELLA®" or equivalent

##### 8.4.2. FLYBRIDGE IP COVER

Waterproof, lightweight, heat repellent instrument panel cover

##### 8.4.3. INTERIOR BRIDGE IP COVER

Lightweight fabric made-to-fit instrument panel cover to protect the dashboard and the instruments from UV rays and sunlight reflecting from angled pilothouse windows

##### 8.4.4. INTERIOR CARPET COVERS

Lightweight fabric cover to protect all the carpeted areas

##### 8.4.5. INTERIOR SEATING COVERS

Lightweight fabric cover to protect interior upholstered poufs, chairs, armchairs and sofas

##### 8.4.6. SET OF FENDER COVERS

Stretch towel cover to protect the fenders with boat name and KAISERWERFT Yachts logo embroidered

#### 8.5. EQUIPMENT & HARDWARE

##### 8.5.1. ACCESSORIES & APPLIANCES

The appliances shall generally be of best domestic quality.

Care shall be taken that sufficient ventilation and air discharge facilities are provided for those equipment items that do so require.

All equipment installed will be easily accessible and/or removable for cleaning, maintenance and servicing. GALLEY

- 2 x "MIELE®" or equivalent fridge-freezers
- 1 x "MIELE®" or equivalent electric cooking range
- 1 x "MIELE®" or equivalent microwave
- 1 x "MIELE®" or equivalent cooking oven with microwave function
- 1 x "MIELE®" or equivalent dishwasher
- 1 x "MIELE®" or equivalent cooker hood
- 1 x "NESPRESSO®" or equivalent small type coffee machine

The cooking surfaces and electric cooking range shall be modified for shipboard use and include stainless steel fiddle racks with adjustable potholders.

Proper secure stowage provisions shall be provided for all equipment items not permanently installed.

##### FLYBRIDGE APPLIANCES

- 1 x "U-LINE®" or equivalent fridge
- 1 x "U-LINE®" or equivalent ice maker



**CREW APPLIANCES**

- 1 x “MIELE®” or equivalent washer-dryer

**8.5.2. SANITARY****BATHROOMS & DAYHEADS**

The following sanitary accessories will be supplied from “VITRA®” or equivalent for the bathrooms and day head:

- Washbasins

The following sanitary accessories will be supplied from “GROHE®” or equivalent for the bathrooms and day head and will be high quality, finished in chrome:

- Tap
- Soap holder
- Glass holder
- Towel bar and/or ring
- Toilet brush
- Toilet paper holder
- Clothes hook

**GALLEY**

The following Sanitary accessories will be supplied from “FRANKE®” or equivalent for the galley:

- Sink
- Sink mixer (tap)

**8.5.3. HARDWARE**

All hardware will be of marine quality, finished in chrome. All hinges shall be concealed unless directed otherwise by the Interior

Designer.

Door furniture is to be high quality. The mechanism is to be anti-rattle type. Cabin and bathroom door handles are lockable from the inside with a release mechanism on the outside for emergency release. Client’s and guest cabins shall have keyed locks all different with one master key for the maid service.

- Door handles.....“JADO®” or equivalent.
- Door locks..... “HAFELE®” or equivalent.
- Concealed door hinges ..... “HAFELE®” or equivalent.
- Door stoppers ..... “HAFELE®” or equivalent.
- Glass door hinges ..... “DORMA®” or equivalent.
- Hinges..... “HAFELE®” or equivalent.
- Drawer guides ..... “HAFELE®” or equivalent.
- Hanging rail ..... “HAFELE®” or equivalent.



## 8.6. MATERIALS & DECORATION

The indications below are intended for the scope of guaranteeing a set standard of finishing and materials to the buyer of the yacht.

Alternative finishes and materials can be adopted, according to the interior decorator indications, provided if they are of equal cost to the shipyard.

The chosen materials shall reflect the overall weight of the vessel.

The wood veneer on furniture will be satin lacquered, shade of staining as per client's choice.

### 8.6.1. FLOOR COVERINGS

- Salon floor coverings will be wool carpet supplied by "DURA®" or equivalent with underlay
- Guest and VIP staterooms will be wool carpet supplied by "DURA®" or equivalent with underlay
- Master Stateroom floor coverings will be wool carpet supplied by "DURA®" or equivalent with underlay
- Bathroom & day head floor coverings will be non-slip wood. Shower floors will have a composite drip pan and non-slip varnished wood grating.
- Upper corridor and stairwells will be non-slip wood.
  
- Lower corridor will be wool carpet supplied by "DURA®" or equivalent with underlay.
- Pilothouse will be non-slip wood.
- Exterior decks floor coverings will be teak and holly, epoxy non-skid finish.
- Crew Quarter floor coverings will be carpet.

### 8.6.2. WALL & CEILING PANELS

Wall and ceiling panels shall be painted or/and covered with materials as listed below;

- Leathers shall be supplied from "SPINNEYBECK®" or equivalent.
- Artificial leathers will be supplied from "MAJILITE®" or equivalent.
- Fabrics will be supplied from "ALCANTARA®" or equivalent.
- Wood veneered marine type plywood
- Lacquered marine type plywood

### 8.6.3. CURTAIN AND BLINDS

All windows, port lights and patio doors with the exception of the pilothouse and crew windows will have powered curtains, concealed behind pelmets. Curtain system will be supplied from "OCEANAIR®" or equivalent. The curtains and blinds shall be operated by electrical push button switches.

### 8.6.4. COUNTER TOPS & WET SURFACES

- Galley counter top material will be "CORIAN®".
- Guest accommodation bathroom counter top material will be lacquer finished.
- Crew bathroom counter top will be "CORIAN®".



#### 8.6.5. INTERIOR DOORS

##### 8.6.5.1. CABIN DOORS

All internal doors shall be made of double plywood sound insulated panels with a total thickness of 40 mm. The doors will be veneered. The doorframes will be solid wood.

##### 8.6.5.2. SHOWER DOORS

Shower doors shall be 10mm tempered glass.

#### 8.6.6. LOOSE FURNITURE

The following loose furniture shall be supplied within the allowance:

- Internal dining chairs in salon will be “ROLF-BENZ®” or equivalent
- Dining table in salon will be veneered wood and will have a glass top
- Leather armchairs in salon will be upholstered with “SPINNEYBECK®” leather or equivalent
- Leather three seat Sofa in salon will be upholstered with “SPINNEYBECK®” leather or equivalent
- Leather pouffes in salon will be upholstered with “Spinneybeck®” leather or equivalent
- Low coffee table in salon will be veneered wood
- Leather vanity pouffes in staterooms
- External chairs will be teak or/and stainless steel with exterior textile upholstery
- External sun loungers will be upholstered with “SUNBRELLA®” or equivalent
- External dining table in main deck will be solid and veneered teak
- External dining table in flybridge will be solid and veneered teak

#### 8.6.7. MATTRESSES, PILLOWS, LINEN, TOWELS

Mattresses in the Clients and guest cabins shall have air pocket Foam mattresses. Crew cabin mattresses of 15 cm thick foam rubber. Builder does supply one set of pillows and linen. Additional sets are optional.

#### 8.6.8. BIMINI FLYBRIDGE

A %30 transparent black mesh fabric stretch roller mechanism held by two innovatively designed moulded carbon arms

#### 8.6.9. AFT DECK DINING SHADE

A %30 transparent black mesh fabric supported by battens and held by two moulded carbon arms

#### 8.7. LIGHTING

- AC for engine room lighting (via 24 volt inverter if AC is not available)
- Halogen spotlights lights 12 volt via transformers from 220 VAC
- General lighting of cabins to be 220V AC incandescent where possible; except, Clients cabins where LED is used.

##### 8.7.1. GENERAL LIGHTING OF ALL SPACES

All lighting fixtures are selected from ranges demonstrated to be suitable for marine use. All lights will be 24 VDC wherever practical, otherwise they will be 220 VAC.

##### 8.7.2. EXTERIOR LIGHTING

- Overhead lights with controls close to entrances will be IP 65 rated “PALAGI®” or equivalent.
- Courtesy lights will be IP 65 rated “CANTALUPI®” LED or equivalent.



**8.7.3. UNDERWATER LIGHTS**

- “CANTALUPI®” or equivalent 5 underwater LED lights.

**8.7.4. CABIN LIGHTING**

- Overhead cabin lights with controls close to entrance door & night stand will be “KREON®” or equivalent and
- “BTICINO®” or equivalent.
- Reading lights with control units on night stand
- Wardrobe lights will be “PALAGI®” or equivalent controlled by the wardrobe door
- Bathroom and shower lights will be IP 65 rated “CANTALUPI®” or equivalent and control units; such as switches, plugs will be “BTICINO®” or equivalent.
- 220V outlets in the all accommodation

**8.7.5. EMERGENCY LIGHTING**

When the AC power fails for any reason the yacht shall be illuminated throughout by a dedicated set of 24 VDC lights according to Class and RINA.

- LED strip lighting will be used for interior.
- IP 65 rated “PALAGI®” or equivalent will be used for exterior.

**8.8. ENTERTAINMENT & ELECTRONICS**

KAISERWERFT Yachts shall install each cabin individual compact audio & video system.

**SALON**

- 1 x 40” Full HD TV “SONY®” or equivalent. (with lifting system)
- 1 x “SONY®” or equivalent compact surround audio & video system with “I-POD®” connectivity

**MASTER STATEROOM**

- 1 x 32” HD ready TV, “SONY®” or equivalent
- 1 x “SONY®” or equivalent compact surround audio & video system with “I-POD®” connectivity

**VIP STATEROOM**

- 1 x 32” HD ready TV, “SONY®” or equivalent
- 1 x “SONY®” or equivalent compact surround audio & video system with “I-POD®” connectivity

**GUEST STATEROOMS (X2)**

- One for each, 19” / 20” LCD TV, “SONY®” or equivalent
- 1 x “SONY®” or equivalent compact stereo audio & video system with “I-POD®” connectivity

**FLYBRIDGE**

- 4 x wall or ceiling mount loud speakers; “B&W®” marine type or equivalent

**MAIN DECK (AFT)**

- 2 x ceiling mount loud speakers; “B&W®” marine type or equivalent, controlled from salon

**FORE DECK**

- 2 x wall mount loud speakers; “B&W®” marine type or equivalent, controlled from salon





## 9. OPTION LIST

### 9.1. NAVIGATION & YACHT MANAGEMENT SYSTEM

#### 9.1.1. YACHT MANAGEMENT SYSTEM

The vessel information organizer (VIO) is a software solution for the technical, administrative, and safety management of the yachts. Providing the crew with a tools to manage the volume of digital information that they are required to maintain, and to abide the reporting and accountancy requirements.

- reduced equipment breakdowns
- reduced cost and enhanced safety
- improved access to safety information
- optimum stock control of expensive spare parts
- rapid access to critical technical information
- streamlined crew administration
- more efficient preparation for audits and inspections

#### 9.1.2. UPGRADED ALARM AND MONITORING SYSTEM

Advanced alarm monitoring, control and navigation-system which communicate with virtually all equipment, instruments, engines, tanks and alarm systems.

The software-package is capable of showing all kind of virtual instruments, alarms and more. The Navigation-module is made in such a way that it can also act as a independent package. Software to combine electronic navigation with radar, instrument- data, engines, tanks, alarms and camera's into a single package.

Also, control over equipment like generators, pumps, valves, lights and the like is possible through the use of logic circuitry and switches.

#### 9.1.3. UPGRADED SATELLITE TV & COMMUNICATION

Upgrade of sat tv reception from "SEATEL®" C24 to C30, installing sat communication and wireless internet with "SAILOR®" F55 or equivalent

#### 9.1.4. GYROCOMPASS "ANSCHÜTZ®" Standard 22 or equivalent Features:

- High accuracy of 0.1 degrees
- Automatic speed / latitude error correction and a dynamic error correction
- Quick settling mode (option)
- Wide range of accessories
- Short installation time and long maintenance KAISERWERFTods
- IMO approved including high-speed craft (HSC)
- Very attractive for retrofits (easy installation using universal course converter)



## **9.2. LINEN**

### **9.2.1. SET OF LINEN**

%100 cotton, white bed spread, pillow & duvet cover for each bed with boat name and KAISERWERFT Yachts logo embroidered

### **9.2.2. SET OF TOWELS**

600gr/m2, 20 (+2) hand, 16 (+2) face & 8 (+1) bath towels with boat name and KAISERWERFT Yachts logo embroidered

### **9.2.3. SET OF BATHROBES**

600gr/m2, 8 (+1) robes with boat name and KAISERWERFT Yachts logo embroidered

### **9.2.4. SET OF SUN BATHING TOWELS**

600gr/m2, 8 (+1) sun bathing towels with boat name and KAISERWERFT Yachts logo embroidered

### **9.2.5. SIDE WINDOW SHADE**

A %30 transparent black fabric mesh covering the main deck side windows

### **9.2.6. EXTERIOR REMOVABLE TOWEL SEATING COVERS**

Stretch towel cover to protect the upholstered seating and beds from sunbathing oil by "FMG®" or equivalent

## **9.3. ENTERTAINMENT**

### **9.3.1. CENTRALIZED AUDIO SYSTEM**

A configuration containing audio devices such as "I-POD®" docks, music players, in ceiling speakers in every cabin or open decks fed by a central audio server by Kaleidescape or equivalent. The system can be controlled individually from each cabin by touch screen control devices by "AMX®" or equivalent.

### **9.3.2. CENTRALIZED VIDEO SYSTEM**

A configuration containing video devices such as TVs and DVD players in every room fed by a central video server by Kaleidescape or equivalent. The system can be controlled individually from each cabin by touch screen control devices by "AMX®" or equivalent.

