



# MAJESTY 160

## Standard Specifications & Optional Features

The content of this document is the property of Gulf Craft

It is supplied in confidence and its contents must be maintained

It must not be reproduced, modified, and must not to be used for any purpose other than that for which it is supplied, nor information contained be disclosed to unauthorized persons

Requests for reproduction of any data in this document must be addressed to the copyright owners of Gulf Craft

**Please note:**

**All information presented herein are based on the data available at the time of creation, and are subjected to change without prior notice.**

**It is recommended to contact Gulf Craft, Product Development to review this document along with the General Arrangement prior to contract initiation.**

© Gulf Craft Inc 2022. All Rights Reserved

© Gulf Craft Inc 2022. All Rights Reserved



**M160 - MAIN CHARACTERISTICS**

**DIMENSIONS**

	<b>Feet-In</b>	<b>Meters</b>
<b>Length Overall</b>	164'	50
<b>Length Water Line</b>	149' 6"	45.6
<b>Draft (Full load)</b>	7' 5"	2.3
<b>Draft (half load )</b>	6,83"	2.08
<b>Beam</b>	29' 5"	9

**DESIGN**

<b>Hull Type</b>	Mono Hull
<b>Hull Material</b>	Fiber Reinforced Plastics (FRP)
<b>Superstructure Material</b>	Fiber Reinforced Plastics (FRP)
<b>Yacht Type</b>	Motor Yacht
<b>Owner's Stateroom + Guest Cabins</b>	7
<b>Captain's Cabin + Crew Cabins</b>	5
<b>Number of Guests</b>	14
<b>Number of Crew</b>	9
<b>Displacement @ 100% load</b>	420 T
<b>Gross Tonnage</b>	498 GT-TBC
<b>Classification</b>	Bureau Veritas Commercial Yacht Rules
<b>Statutory regulations</b>	Red Ensign Group Yacht Code Part A (Unrestricted)

**TANK CAPACITIES**

	<b>US. Gallons</b>	<b>Liters</b>
<b>Fuel Capacity</b>	10,817	40,950
<b>Fresh Water Capacity</b>	4,025	15,240
<b>Black Water Tank Capacity</b>	1,289	4,880
<b>Grey water Tank Capacity</b>	1,289	4,880
<b>Sewage Mixing Tank Capacity</b>	412	1,560
<b>Sewage Sludge Tank Capacity</b>	412	1,560
<b>Pool Dump Tank Capacity</b>	1,083	4,100
<b>Bilge Tank Capacity</b>	301	1,140
<b>Technical Fresh Water Capacity (Ultra Fog connected)</b>	1,283	4,860
<b>Lube Oil Capacity</b>	192	730
<b>Dirty Oil Capacity</b>	192	730
<b>Urea (DEF) Tank Capacity</b>	911	3,450

**MACHINERY**

<b>Engines</b>	Twin MTU 16V 2000 M87, 2000 HP, 1630 kW, 2450 RPM combined with SCR (Compliance to IMO Tier III)
<b>Generators</b>	- Twin 100 kW, 230/400V AC, 50 Hz, 3~phase - One 70KW 230/400V AC, 50 Hz, 3~phase - One 30 kW, 230/400V AC, 50Hz, 3~phase emergency generator



---

<b>Stabilizer</b>	Fin type zero speed stabilizers, 2 pairs, electric, carbon fins 1.5m <sup>2</sup> each
<b>Power System</b>	Electrical, 230/400V AC, 50Hz, 3~phase, 24V DC
<b>PERFORMANCE</b>	
<b>Top Speed</b>	19 knots*
<b>Cruising Speed</b>	12 knots*
<b>Range @ Cruising Speed</b>	3,230 NM*
<b>Range @ 10Knots</b>	4200NM

\*Speeds and range estimates may vary depending on cleanliness of hull, and sea conditions



---

**MAJESTY 160 OPTIONS**

*The options selected from the below list and any additional requirement shall be considered as a variation and upon confirmation shall become a part of Work Order*

1. Teak inlay electrohydraulic transformer 6 steps and 1,300 kg lifting capacity
2. Tender (6m max load)
3. Jet ski (Two / Three-Seater)
4. Awning at Upper Deck Aft
5. Helm station at Sun deck
6. Stern thruster of 950KG force proportional controlled thruster with control joystick on main helm station and wing stations.
7. Elevator reach on the sun deck
8. Dark colors exterior painting

## HULL AND SUPERSTRUCTURE CONSTRUCTION

Reinforcements: Fiber Glass

Resin: Vinylester and Polyester

Core materials: SAN Foam-typical for marine applications

### **Construction Process**

---

Hand-layup lamination process is applied. Hull is laminated into female molds.

During construction process yacht is kept in clean conditions. All finished work is thoroughly protected. Particular attention is given to the covering of materials that could absorb impacts from tools, materials, and workers

Hazards associated with the handling of composite materials are minimized

### **Antifouling**

---

Antifouling coating is applied to the hull to prevent growth of subaquatic organisms that may affect a yacht's performance and durability

### **Exterior Finishing**

---

Hull and superstructure are minimum faired and finished in White color. The painting work is carried under cover in controlled environment conditions (temperature, humidity, and dust). Paint Manufacturer's recommended procedures are adopted for surface preparation, mixing and reduction, and maintenance of coatings.

### **Bilge Finish**

---

Bilges will be Gel Coat, the final application of Gel coat in the bilges is mixed with Wax

## SUPERSTRUCTURE

### **Decks**

---

Sun Deck

Upper Deck

Main Deck

Lower deck



## EXTERIOR

### Sun Deck

---

Stainless steel railings with glass  
Dumb waiter  
Bar Counter with sink , refrigerator under bench and ice maker  
Four bar stools  
Dining table with 10 chairs  
Two Low height counters with storage  
Coffee tables (4 nos) with pouff  
Two L-shaped sofas  
Two side tables  
Infinity pool with massage jet nozzles and pump  
Sun Lounge around the pool  
Stairway down to upper deck on port and Starboard  
LED exterior lights  
Self-draining  
Teak decking

### Upper Deck

---

Stainless steel railings with glass  
Dining table with 10 chairs  
Two Low height counters with storage  
Lounge seating: Two 2-seater sofa with two armchair and two coffee tables  
Sliding doors to upper saloon  
Side door to upper deck crew lobby on port side  
Side doors to upper deck lobby on starboard side  
Stairway to Main deck on port and starboard side  
Stairway to Sun deck on port and starboard  
Wing station on port and starboard



Pantograph door to wheelhouse on port and starboard side

LED exterior lights

Self-draining

Teak decking

### **Fore Deck**

---

Four stainless steel deck cleats

Two stainless steel fairleads

Bell

One watertight hatch for access to anchor compartment

Tender crane with 2000KG lifting capacity

Rescue boat

Provision for one tender and two jet skis lashing

Sun beds with storage below for rescue boat

LED exterior lights

Self-draining

Teak decking

### **Main Deck**

---

Stainless steel railings with glass

Stainless steel transom doors

Port side door to the crew lobby

Starboard side door to the main lobby

Four stainless steel deck cleats

Two capstans on port and starboard side

Pantographic door and stairway to engine room on port side

Sliding patio door to main saloon

Upholstered sofa + dining table + Seven dining chairs

Stairway to upper deck on PORT and Starboard side

LED exterior lights



Self-draining

Teak decking

### **Swim Platform**

---

Electrohydraulic sliding beach club door

Overhead shower with shower mixer on port side of the platform

Electrohydraulic wing balcony on port and starboard side (not as cell door)

Hydraulic Passarella on port side with capability of turning 90 degrees and serve as embarkation ladder.

Steps to main deck with stainless steel railing

LED exterior lights

Self-draining

Teak decking





## INTERIOR

### Accommodation

---

The arrangements and cabin layouts shall be laid out and organized in accordance with the standard GA

Majesty 160 have six guest cabins and an owner's cabin. The owner's cabin is on the main deck, Also has four crew cabins and a captain's cabin. Captain's cabin is on the upper deck

All guest and crew cabins have en-suite bathrooms. Day heads are provided on upper deck, main deck and lower deck

An elevator connects the upper deck, main deck and lower deck (Safe working load 350 kg).

### Lighting

---

Warm white dimmable interior lights

Reading lights in owner's, captain, and guest cabins

Crew accommodation and amenity spaces will be fitted with LED lights and reading lights

### Interior Finish

---

As per Interior design selections

### Marble

---

As per Interior design selections

### Curtain and Blinds

---

Electric roller blinds

Electric curtains

Pleated blinds

## INTERIOR ARRANGEMENT

### Upper Deck

---

### Wheelhouse

---

Main helm station

Two adjustable captain seats

Elevated sofa with cup holders and coffee tables



Door to Upper deck lobby

Wooden floor

Office desk with chair

AV Rack

---

### **Captain's Cabin**

---

Double Bed with side tables

Wardrobe

Office desk with chair

Electric roller blinds

Parquet floor

Door to Captain's Bathroom

---

### **Captain's Bathroom**

---

Wash basin with mixer tap

Vanity mirror

Vacuum toilet

Glass door to shower room

Sanitary accessories

Solid Surface Floor

---

### **Captain's Shower**

---

Handheld shower

Sanitary accessories

Solid Surface Floor

---

### **Upper Deck Lobby**

---

Elevator

Door to wheelhouse

Door to day head

Sliding door to upper deck saloon

Stairway door to main deck lobby



### **Upper Deck Day Head**

---

Wash basin with mixer tap  
Vanity mirror  
Vacuum toilet  
Sanitary accessories

### **Upper Deck Saloon**

---

Two L-shaped sofas with side tables  
Two coffee tables with two poufs  
Bar counter  
Sliding door to pantry lobby  
Wall lamps  
Electric roller blinds  
Electric curtains at saloon patio door  
Wooden flooring with carpet inlay

### **Upper Deck crew lobby**

---

Sliding door to pantry  
Stairway to main deck crew lobby

### **Upper Deck Pantry**

---

Countertop with storage below  
Resilient tile floor  
Access to dumb waiter

### **Main Deck**

---

### **Owner's Cabin Lounge and office**

---

Double bed with side tables  
Full height wardrobe on port and starboard side



L shaped sofa with coffee table and pouf

Study table with chairs

Sliding door to balcony

Office desk with chair

Full height wardrobe

Electric roller blinds

Safe locker in one of the wardrobe

Carpet floor

Sliding door to bathroom

---

### **Bathroom**

---

Washing counter with two basins and mirrors

Bathtub

Glass door to toilet and shower

Shower seat

Vacuum toilet

Bidet

Rail shower and head shower

All windows with roller blinds

Marble floor

Sanitary fitting

---

### **Main Lobby**

---

Elevator

Stairway to upper deck lobby and lower deck lobby

Sliding door to main saloon

Door to main deck day head

Hidden door to main deck crew area



---

### **Main Deck Day Head**

---

Wash basin with mixer tap  
Vanity mirror  
Vacuum toilet  
Sanitary accessories  
Electric roller blinds

### **Main Saloon**

---

Two single seat sofas  
Two 2-seater sofa  
Two armchairs  
Four side tables  
Coffee table  
Carpet under seating  
Lower height counter with pop up TV  
Dining table with twelve chairs  
Electric curtain at patio door  
Lower counter with storage  
Sliding doors to main deck crew lobby  
Wooden floor

### **Crew mess and pantry**

---

Serving counter with storage cabinets  
Overhead storage cabinets  
L-shaped sofa with dining table and four stools  
Coffee machine  
Wine bottle storage  
Ice maker  
Fire rated door to main galley  
Door to dry room and Cold room  
Stair way to crew lobby Fwd crew accommodation



Electric roller blinds  
Access to dumbwaiter  
Full height fridge and freezer  
Tiles / Wooden floor

---

### **Main deck Crew lobby**

---

Stair to upper deck crew lobby  
Tiles / Wooden floor  
Sliding door to pantry and crew mess

---

### **Main Galley**

---

Countertop with twin bowl sink and mixer tap  
Under counter drawers and storage cabinets  
Three fridge / freezer combination  
Oven  
Dishwasher  
Six burner induction hobs  
Extraction Hood  
Microwave combination oven  
Electric roller blinds  
Ceramic Tiles floor

---

### **Lower Deck**

---

#### **Crew Lobby**

---

Door to crew accommodation  
Door to guest lobby  
Stairway to crew mess  
Resilient tiles floor

---

### **Crew Cabins**

---

Bunk beds with side tables



Open shelf  
Wardrobes  
Door to bathroom  
Pleated blinds  
Resilient tiles floor

---

**Crew Bathrooms**

---

Wash basin with mixer tap  
Storage cabinet  
Overhead cabinet with mirror  
Vacuum toilet  
Glass door to shower  
Rail shower  
Sanitary accessories

---

**Guest / staff Lobby**

---

Door to guest / staff cabins on port and starboard side

---

**Guest / staff twin cabin port side**

---

Twin Bed with side table  
Wardrobes  
Door to bathroom  
Open shelves  
Electric roller blinds  
Carpet floor

---

**Guest / staff double cabin Starboard side**

---

Double Bed with side tables  
Wardrobe  
Door to bathroom



Open shelves  
Electric roller blinds  
Carpeted floor

#### **Guest / staff Bathrooms**

---

Washbasin with storage below  
Vanity mirror  
Vacuum toilet  
Bidet  
Sanitary accessories  
Electric roller blinds  
Glass door to shower room  
Marble floor

#### **Guest / staff Showers**

---

Head and handheld showers  
Shower seat  
Sanitary accessories  
Marble floor

#### **Guest Lobby**

---

Elevator  
Stairway up to main deck lobby  
Door to guest cabins and VIP cabins  
Sliding door to guest/ staff lobby  
Marble floor

#### **VIP Guest Cabins**

---

Double Bed with side tables  
Vanity desk with pouf  
Wardrobe  
Door to bathroom





Electric roller blinds

Carpet floor

#### **VIP Guest Bathrooms**

---

Washbasin with storage below

Vanity mirror

Sanitary accessories

Electric roller blinds

Glass door to shower room

Marble floor

#### **VIP Guest Showers**

---

Head and handheld showers

Vacuum toilet

Sanitary accessories

Marble floor

#### **Twin Guest Cabins**

---

Twin bed with side table

Wardrobe

Door to bathroom

Vanity desk with pouf

Electric roller blinds

Carpeted floor

#### **Twin Guest Bathrooms**

---

Washbasin with storage below

Vanity mirror

Open shelves

Glass door to shower

Vacuum toilet

Electric roller blinds



### **Guest Showers**

---

Head and handheld showers

Sanitary accessories

Marble floor

### **Beach Club**

---

L shaped sofas with side table

Coffee table

Watertight doors to control room

L shaped Bar counter

Three bar stools

Armchair with coffee table

Door to day head

Stairs and door to the swim platform

Self-draining



---

## MAIN MACHINERY AND EQUIPMENT

---

### Propulsion System

---

Twin MTU 16V 2000 M87 each of 1630KW @2450rpm complies with emissions standards IMO Tier III  
Propulsion is straight shaft drive  
Twin reverse reduction gearbox  
Twin five blade propellers

### Stabilization System

---

Two pairs of fin electrically actuated stabilizers, carbon fins 1.5m<sup>2</sup> each

### Exhaust and Ventilation System

---

Main Exhaust and ventilation reversible fans with silencer and automatic fire dampers in engine room  
Aluminum mist eliminator for the engine room  
Auxiliary Exhaust & ventilation in the engine room with reversible fans  
Automatic fire dampers for main galley  
Galley will have an extraction hood on the top of the cooking plan  
The galley will supplied with fresh air but always a negative pressure will be maintained

### Steering System & Thrusters

---

Twin rudders operated by electro-hydraulic servo assisted steering system  
An 1500KG force thrust capacity proportional controlled bow thruster with control joystick on main helm station and wing stations.  
Optional stern thruster of 950KG force proportional controlled thruster with control joystick on main helm station, wing stations,

### Control Stations

---

Main helm station  
Wing stations  
Sun deck station (Optional)  
Emergency steering station



---

### **Anchoring and Mooring Equipment**

---

Two electric 7.5kW vertical windlasses with deck handheld controls

Twin 300 Kg stud type TW SHHP anchors each with 150 m length and 18mm diameter U2 stud link chain

Pressure washing of anchor chain by sea water from fire lines

Two electric 5.5KW vertical capstans with flush mounted foot switches

Four mooring lines each with 85 m length, and eye at one end

---

### **Cathodic Protection**

---

Zinc anodes on the hull and on metallic parts

Copper plates for grounding

Cathelco system on the sea chests for sea water lines



---

## Yacht Systems

---

### Fuel System

---

Total 10,817 US gallons (40950 liters) on 5 FRP fuel tanks. Two forward storage of 9350 liters each, two mid storage port 11010 liters and starboard 8630 liters. One daily tank in the engine room of 2610 liters.

All fuel tanks ventilation lines are connected on an overflow tank located over main deck.

High level switch on the overflow tank.

Suction, discharge ,and filling manifolds.

Two filling lines and the line from fuel purifier and main transfer pump are connected on manifold and through a flow meter to the filling manifold.

Port side engine and Port generator are supplied through a single manifold connected to the daily tank through an emergency shut of valve. A double water trap/cartridge filter with water sensor will be installed before the manifold.

Starboard side engine and Starboard generator are supplied through a single manifold connected to the daily tank through an emergency shut of valve. A double water trap/cartridge filter with water sensor will be installed before the manifold.

Center generator and emergency DC fuel pump are supplied directly from daily tank through an emergency shut of valve. A double water trap/cartridge filter with water sensor will be installed before the manifold.

Safety valve on the discharge manifold

Deck fillers inside recessed lockers on the main deck on both sides with overflow drain

Centrifugal Fuel purifier system

Main Fuel transfer AC pump,

Emergency DC fuel pump, used also for the reel filling line and emergency generator fuel tank.

Manual pump.

Flexible hose on a reel for tenders filling on the emergency generator area

Separate fuel tank will be installed close to the emergency generator

Fuel distribution manifold and piping is AISI 304 stainless steel

### Urea System

---

Total 911 US gallons (3450 liters) on 2 FRP tanks equally port and starboard.

Manifold in the engine room to supply the two SCR systems.

---

### **Lube Oil System**

---

One 192 US gallons (730 liters) FRP tanks for Lube Oil.  
One 192 US gallons (730 liters) FRP tanks for Dirty Oil.  
Clean Lube oil AC pump, and a manual pump.  
Dirty oil AC pump and manual pump.  
Safety valve on the discharge output of the electric pumps.  
Sampling valve on the discharge of clean oil pump.  
Flexible hose on reel one for dirty and one for clean oil with Camlock to connect on Diesel engines carters .  
Deck fillers on main deck both sided for clean lube oil tank  
Deck out on main deck both side for the suction of dirty lube oil tanks  
AISI 304 stainless steel lube oil manifold

---

### **Oily Bilge Separator System**

---

Oily water separator 0,5m<sup>3</sup>/h capacity discharging dirty oil to the dirty oil tank, valve for sample on clean water discharge.  
One 300 US gallons (1,140 liters) FRP tanks for Bilge Tank  
Oily water separator will be installed complying with MARPOL regulations  
Deck outs for oily and bilge water tanks

---

### **Air-Conditioning System**

---

One chiller plant with 6 inverter-controlled compressors each with 136,480 BTU cooling capacity with a total capacity of 818,880 BTU will be installed.  
Two sea water pumps  
Two chilled water pumps inverter controlled  
Air handler units in cabins and public spaces with capacities ranging from 4500 to 24,000 BTU  
Air handler units will be connected with 6-way valves on the chilled water circuit and hot glycol circuit. So, any Air handler can independently adjust either on heat or cool mode. No need for all vessel to switch one heat or cool mode.

---

### **Fresh Air System**

---

Two fresh air make-up units of 100-3000m<sup>3</sup>/h each on the sun deck with heat recovery .

Centralized air extraction system heat recovery coil, to extract air from accommodation areas through toilets. Two units in the sun deck of max 3000m<sup>3</sup>/h each

---

### **Heat Recovery System**

---

Heat recovery system will be installed. The system will have a close network circuit with glycol solution that will circulate constantly in the same way as the chilled water system. The Glycol solution will be heated while passing through a buffer tank of 300 Liters. Recovered heat from chillers, generators or resistor elements, will be transferred inside the buffer tank through heat exchangers. Resistors will be activated in case that no chiller or generator is running or if the heat demand is increased.

The temperature of the closed glycol circuit will be around 73 degrees Celsius.

---

### **Fresh Water System**

---

4025 US gallons (15,240 liters) FRP Fresh Water Tank on three tanks.

One forward tank of 3090 liters, two aft starboard and port of 6070 liters each.

Two freshwater AC pumps with hydrophore, and a DC emergency pump.

One transfer pump with remote control valves for transferring water.

Deck filler with filter and strainer on the aft with pressure regulator pump and capability to supply directly the freshwater network.

One Water maker plant with two units of 5000 liters/hour each combined production capacity 1000ltrs/h.

UV and Lime filter on water maker output.

Silver Ion sterilizer system for freshwater tanks

Independent freshwater network for Ice makers with dedicated filtration located in the engine room.

Eight deck wash connections, One on the aft platform, four on the main deck, two on the upper deck ,one in sun deck.

Aft platform shower with hot and cold-water mixer

Hot water will provide by the heat recovery system.

Fresh Water will be heat up online on by a plate heat exchanger (one heat exchanger could supply more than one tap). The heat exchanger one side will have the fresh water supply and the other

side will be connected on the heat recovery system circuit of glycol. The online created fresh hot water temperature can be independent adjusted for every heat exchanger.

The hot water amount will not be limited to any boiler volume as it will be heat up in line.

---

### **Pool and Technical water**

---

1083 US gallons (4100 Liters) pool water tank.

1283 US gallons (4860 Liters) of technical water for Water Mist sprinkler fire suppression system.

---

### **Sewage Water System and toilet system**

---

Totally will be 4 FRP sewage tanks,

One for Grey 1289 US Gallons (4880 Liters)

One for Black 1289 US Gallons (4880 Liters)

One for Mixing before the STP of 412 US Gallons (1560 Liters)

One for remaining sludge from STP of 412 US Gallons (1560 Liters)

Sewage treatment plant (STP) with treating capacity of 3500 liters/day

Sewage treatment plant feed pump and sea water pump

Two sewage transfer pumps one for Grey and One for Black but could be in parallel or interchanged.

MARPOL International connection for overboard discharge to port/marina

Vacuum toilets system with twin vacuum pumps located in the engine room. Each time one pump will run to maintain the vacuum in the system and the other will be standby .

---

### **Bilge and Fire System**

---

Bilge tank of 301 US gallons (1140Ltrs)

Main Bilge pump connected to the Bilge manifold and interconnected to the main fire pump .

Main Fire pump connected to the fire network and interconnected to the main bilge pump.

Main bilge line outside the engine room with servo valves connected on the branches of every suction point.

Bilge pump can discharge either over board or to the shore through connections located on both sides filling stations in the main deck.

Bilge servo valves controlled by the Control and monitoring system but also hardwired control mimic panel in the engine room and on the main deck.



Injector supplied by the fire pump for pumping muddy waters from chain lockers.

Dedicated engine room bilge pump with dedicated engine room manifold connected on different suction positions of the engine room. Discharge to the bilge tank only

Oily water separator connected to the engine room bilge manifold.

Suction from the bilge tank or directly from the engine room bilges.

Discharge, of oils and sludge discharged on the dirty oil tank.

Discharge of water back to the bilge tank if over limits or overboard if under limits.

Sampling valve on clean water discharge output.

Electric Emergency bilge/fire pump driven by the emergency switch board. Suction from dedicated hull through connection and strainer in the rudder room.

Hydrants stations around the yacht as per Safety Drawings.

Fire lines connected on Black water tank, Sewage mixing and Sewage sludge tank for washing .

The fire network can be supplied by exterior pressurized line. Connection located on the aft filing station.

AISI 316L Mapress stainless steel piping for Bilge system.

Mapress CuNiFe piping for Fire lines.

---

### **Sea water System**

Two main sea chest inlets with strainers and butterfly valves.

The two sea chest are interconnected with a crossover pipes. On the crossover pipes will be connected through manually operated valves, all lines of sea water to the machinery.

Machinery supplied by the two main sea chest:

Main engines ,main generators ,Chiller plant, STP plant ,cold rooms compressors, Fire pump through remote controlled valve.

Inside the two sea chest strainers will be installed Cathelco system for antifouling and corrosion protection of the sea water lines.

Water maker will have its own through hull ,with strainer suction in order to avoid the ions that the Cathelco system will create.

---

### **Freezer and Cold Storage System**

One compressor plant sea water cooled for supplying the evaporators of the cold and freezer rooms. The plant will have two compressors always one running and one remain standby .



## ELECTRICAL SYSTEM

Line voltage: 230V-400V AC 3~phase, 50Hz

DC voltage: 24V

Two 100 kW, 230/400V AC, 50Hz, 3~phase generators with load distribution.

One 70Kw 230/400V AC, 50Hz, 3~phase generators

30 kW, 230/400V AC, 50Hz, 3~phase emergency generator with emergency switchboard

Power converter of 40Kw for converting the 3Ph 400V 50Hz to 3Ph 208V 60Hz, for supplying only the USA standard sockets.

Main switch board (400V, 3~phase, 50 Hz) installed in control room fully automated with power management system for load balancing but also for seamless transfers between the generators and the shore power. Divided on two sections with manual interconnect switch.

Emergency Switch Board

Shore power converter 150 kVA .

Two shore power cables on reels one 20 meters and another 30meters

Galvanic Isolators

### **Starters 24V circuits**

Four 12V, 220AH batteries for main engines starters (two banks of 24 volts)

Two chargers of 50amps for main engines starters batteries.

Six batteries of 130Ah for generators starters. (three banks of 24 volts)

Three chargers of 30amps for generators starters batteries.

### **Machinery 24V circuit**

Six 12V, 270AH batteries (one bank of 24V)

300A chargers in total

### **Service 24V circuit**

Two 12V, 270AH batteries (one bank of 24V)

One charger 100A

### **Emergency 24V circuit**

Two 12V, 270AH batteries (one bank of 24V)

One charger 100A

All accommodation and machinery spaces have 230V AC 50Hz power outlets and 120V 60Hz outlets .

Lightning arrester with dedicated grounding plate on the hull not in close proximity with fuel tanks.

Grounding system of all machinery, piping ,electric boards and exterior metallic parts to the hull anodes and the hull ground plates .Grounding lines on the tank top are of copper stripes .

## NAVIGATION SYSTEM, RADIO & INSTRUMENTATION

### Navigation & Radio System

---

#### Navigation

Three 27" Navigational Displays on main helm with processors in a network that will be able to display and operate as Radars ,ECDIS, Coning display .

Electronic Chart Display and Information System (ECDIS)

Two radar scanners X band

Two Global positioning system receiver connected on the network.

Gyro compass with repeaters on the main console and on the emergency steering station

Automatic Identification System (AIS) connected on the network.

Speed Log connected on the network.

Navigational Echo Sounder connected on the network.

Autopilot connected on the network

Instrument/data organizer display panel/digital indicator on main helm, and emergency steering

Digital Fish Finder

Bridge Navigational Watch & Alarm System (BNWAS) with main station in the wheelhouse console and panels on the crew mess ,engine room, captains cabin and one crew cabin.

Magnetic compass in emergency steering station

Barometer

Clinometer

#### Radios

---

Sea Area A3 GMDSS equipment

MF/HF Radiotelephone with built-in digital selective calling

Two VHF Radio with built-in digital selective calling

Inmarsat C terminal with printer

Navtex Receiver

24V 35A GMDSS Battery Charger

Emergency position indicating radio beacon (EPIRB)

Two search and rescue handheld VHF

### **Communication Systems**

---

Fleet Broadband or other satellite phone

IP based internal phone system with telephones in all cabins and public spaces and engine room.

Talk back system connected to the IP telephones and with main station on the wheel house console and other stations in:

- Forward rescue boat area
- Forward mooring area
- Aft main deck
- Engine room with special headset
- Emergency steering station

Public address system

### **Engines , Rudders , thrusters , stabilizers controls**

---

Main Engines: local operating panels in the engine room

Throttle controls on the wheelhouse console and wing stations.

Buttons panel on the wheelhouse console and wing stations along with analog instruments of engines speed (rpm).

Touch screen (or ball mouse) on the wheelhouse console indicating all engines parameters.

Rudders: Control panel in the wheelhouse console

Follow up wheel on the wheelhouse \

Non follow up joystick on the wheelhouse and wing stations

Angle indicators on the wheelhouse console and wing stations.

Thrusters: Main panel and joysticks on the wheelhouse console and joysticks on the wing stations.

Stabilizers: Control panel on wheelhouse console.

### **Sound Signaling**

---

Compressed air horn with five trumpets and chrome finish on hard top  
Horn switches on main helm station, wings stations, and docking station  
Whistle control integrated with general alarm system  
Main air compressors and air tank for the horn, the fuel oil purifier and service  
Secondary air compressor supplied by emergency generator for the horn

### **Search Lights**

---

Forward search light & Aft search light  
Control panels on main helm station

### **Alarm Display & Monitoring System**

---

IP based industrial standard with type approval Control and monitoring systems.  
Consisted of two or three acquisition units and three terminals with audible alarms beacons:  
Wheel house console, engine room (also light alarm beacon) ,crew mess ,one crew cabin.  
Alarms from most of machineries along with other inputs will be displayed on several pages  
Page for tanks sensors and switches with programable alarms  
Control of several pumps and servo valves  
Integrations with main switch board for power managements  
Integration with engines and generators data  
Integration with Fire detection system.

### **Camera Monitoring System**

---

CCTV camera monitoring system at the following locations:  
Engine room (Port and Starboard PTZ)  
Main deck gunwale (Port and Starboard)  
Aft cockpit (PTZ)  
Upper deck aft  
Radar mast (PTZ)  
Wheelhouse Deck  
Beach Club



IR camera on the mast (PTZ)

---

### **Navigation Lights**

---

Masthead light

Side light (Port)

Side light (Stbd)

Stern light

Towing light

Anchor light

Not under command lights

Navigation lights are controlled from AMS Displays

---

### **Emergency Lighting**

---

24V DC Emergency lights in all accommodation and machinery areas

---

### **Flood Lights**

---

Flood lights at following locations

On Sundeck hard top aft and forward

Upper deck aft

On the forward deck of the tender storage area

One on the anchor area

Two on mast

On main deck aft both sides

---

### **Underwater Lights**

---

RGB White underwater lights covering the hull from bow to stern – Qty TBC



---

## FIRE PREVENTION AND SAFETY EQUIPMENT

---

### Structural Fire Protection

---

Structural fire protection in the engine room A60 with A60 and A0 doors, main galley B15 with B15 doors. On the emergency generator room A60.

### Fire Sprinkler System

---

Water mist sprinkler system

Fog nozzles in all accommodation areas and technical areas (not in engine room) connected to the high-pressure water mist system comprising of high-pressure pumps and feeder pumps. System will run for at least 30 minutes with fresh water supplied from the technical water tank. After automatic transfer to sea water.

System supplied by the emergency generator.

### Fire Detection and Fire Alarm System

---

General alarm and fire detection panels on main helm station, integrated to Alarm and monitoring system.

Smoke detectors

Heat detectors

Call points

Fire bells

Bell with beacon light in the engine room

### Fire Appliances

---

FM-200 fixed fire extinguishing system for engine room

Main fire pump for fire-fighting supplying sea water to fire hydrants points

Emergency pump for fire-fighting and bilge discharge installed in the rudder room supplied from emergency generator.

Fire Axes

Fire blankets in galleys

Dry powder, CO<sub>2</sub>, and Foam fire extinguishers in machinery and accommodation areas



---

## Life Saving Appliances

---

Four life rafts SOLAS Pack A each with 16 persons capacity  
Immersion suits (30 adults + 8 child)  
Medical Stores Kit "Category C"  
Two first aid kits  
Four set of line throwing appliances  
Twelve sets of rocket parachute flares  
Inflatable life jackets with light and whistle (30 adults + 04 child)  
Three lifebuoys with light and smoke (MOB signals)  
Three lifebuoys with line  
Two lifebuoys with light  
Two plain lifebuoys  
Two Fireman's Outfit  
Two embarkation ladders  
Safety Plan poster

## SUPPLY ITEMS

Sixteen cylindrical and two spherical Fenders  
Fender ties  
Fender hooks  
Basic tool kit  
Deck wash connectors  
Telescopic ladder  
Exterior protection covers for sofas, tables, windows, spa, and windshield  
Owner's Manual with maintenance schedule  
Machinery and Equipment OEM Manuals





---

## ENTERTAINMENT SYSTEM

---

TV Satellite 40" stabilized antenna on the hard top.  
One VSAT for Satellite Internet on the hard top.  
Centrally controlled audio, video, lights, blinds, curtains with *RTI* or *Control 4* system.  
Terminal pads on every cabin, saloons, and wall switches with preprogrammed scenarios possibilities.  
Central Video distribution and Audio Distribution.  
Centrally driven speakers or Local audio amplifiers or TV speakers.  
In one area 7+2 home theater Av receiver.

### Wheelhouse Deck

---

#### Sun Deck Lounge Area

---

55" LED TV (this is indicative size, final after the finalizations of interior drawings)  
Satellite receiver  
Apple TV  
Four ceiling or side bulwark mounted water proof speakers (this indicative number, final after the finalizations of interior drawings)  
Button keypad

### Captain's Cabin

---

40" LED TV (this is indicative size ,final after the finalizations of interior drawings)  
Satellite receiver  
Two ceiling speakers  
Apple TV

### Wheelhouse

---

Two ceiling speakers  
10.1" Touch screen  
Air play

### Upper Deck Exterior

---



---

**Aft**

---

Four ceiling or side bulwark mounted waterproof speakers (this indicative number, final after the finalizations of interior drawings)

---

**Forward**

---

Four ceiling or side bulwark mounted waterproof speakers (this indicative number, final after the finalizations of interior drawings)

---

**Upper Deck Interior**

---

---

**Upper Deck Saloon**

---

55" LED TV (2 nos.) (this is indicative size, final after the finalizations of interior drawings)

Satellite receiver

Apple TV

Subwoofer

Eight speakers

---

**Owner's Stateroom**

---

55" LED TV (this is indicative size, final after the finalizations of interior drawings)

Satellite receiver

Apple TV

Four speakers

Subwoofer

10.1" Touch screen

---

**Main Deck Exterior**

---

---

**Aft Cockpit**

---

Four ceiling or side bulwark mounted water proof speakers (this indicative number, final after the finalizations of interior drawings)



---

**Main Deck Interior**

---

**Main Saloon and Dining**

---

75" LED TV (this is indicative size, final after the finalizations of interior drawings)

Satellite receiver

Apple TV

Eight speakers

Subwoofer

10.1" Touch screen

**Pantry**

---

Two ceiling speakers

**Main Galley**

---

Two ceiling speakers

**VIP Guest Cabins**

---

42" mirror TV (this is indicative size, final after the finalizations of interior drawings)

Satellite receiver

Apple TV

Two ceiling speakers or TV speakers

**Lower Deck**

---

**Double Guest Cabins**

---

40" LED TV (this is indicative size, final after the finalizations of interior drawings)

Satellite receiver

Apple TV

**Twin Guest Cabins**

---

40" LED TV (this is indicative size, final after the finalizations of interior drawings)



---

Satellite receiver

Apple TV

**Guest Lobby**

---

10.1" Touch screen

**Crew Mess**

---

32" LED TV

Satellite receiver

5" Touch screen

Two ceiling speakers

**Beach Club**

---

Four ceiling or side bulwark mounted water proof speakers (this indicative number, final after the finalizations of interior drawings)