



# 120 Raised Pilothouse Motor Yacht

2010 Standard Specifications (USA/Aussie/Asia)

Valid date: May, 2010

## 1.0 Principal dimensions:

L.O.A.	120'-0"	(36.58 m)
L.W.L.	98'-9"	(30.11m)
Beam	26'-2"	( 7.98 m)
Draft (to Propeller Tip)	7'-10"	(2.40 m)
Height (W.L. to top of arch)	38'-0"	(11.58 M)
Displacement (light approx.)	401,200 lbs.	(182 tons)
Fuel	8,000 US gal.	(30,000 litres)
Fresh Water	800 US gal.	(3,000 litres)

## A. Hull and Main Structure:

### General Description

1. Hull Strength & structural scantling design criterion : LCG impact acceleration force=1.0g, including all build-in tanks.
2. ABS/DNV Type approved Fibre / Resin & Sandwich Core Material applied.
3. 4 directional, evenly distributed fibre lamination through whole structure.
4. High-density DIVINYCELL foam cored construction bottom and topsides. Both under -29" Hg high vacuum pressure SCRIMP® process.
5. Window size according to wind & wave impact force at Max. speed, to be compliant with Classification standard.
6. Engine Girder, Windlass, Davit, Thrusters & local structure with Classification standard.

### Hull Construction

1. White Gelcoat finishes on exterior.
2. One piece hull SCRIMP® cored lamination w/deep skeg and longitudinal girders.
3. Deck / Superstructure & all sandwich core main structure with SCRIMP® method.
4. High-density DIVINYCELL foam cored construction throughout hull.
5. Stringers with high density foam coring.
6. Interior structural components properly bonded and tabbed to hull.
7. Strong collision bulkhead structure for extra safety.
8. INTERNATIONAL 2 anti-fouling bottom paint, w/ 2 anti-osmosis primer treatment.
9. Main Engine Girder with 300kg high density foam coring with S/S Engine Bed.
10. Tunnel Design to minimum draft; covered with sound damping materials.

## **B. Exterior Deck and Equipment:**

### **General Description**

1. Teak on aft main deck, swimming platform & stairs to fly bridge.
2. Solid teak cap rail without varnish.
3. High bulwark w/ flush mounted courtesy deck lights.
4. Accent stripes on hull & deck per design.
5. Fiberglass rub rail w/stainless steel cap along hull side.
6. Heavy-duty round S/S 2" handrail w/1-1/4" stanchions.
7. Stainless flag pole on bow.
8. Forward deck seat w/cushions
9. Sunbathing cushion w/ pillow shape on fwd deck w/drink holders.
10. Back deck FRP seats w/cushions.
11. Back deck high-low dining teak table w/Slider Function.
12. Select colours of Sunbrella fabric for exterior cushions & sun pad.
13. Exterior stainless all to be 316L grade.

### **Mooring system**

1. Two hydraulic anchor winches "Maxwell VWC6000" w/local plug in control and foot switches.
2. Chain counters located in pilothouse on both ground tackles.
3. Two electric rope winches "Maxwell VC3500" on aft. Deck w/rope roller.
4. Two stainless steel 330 lb. HHP (High Holding Power) pocket anchors.
5. Two high tensile 1/2" x 400 feet anchor chains w/chain stopper & Tensioned.
6. Freshwater /Sea Water anchor chain wash down system.
7. Heavy-duty 316L stainless steel cleats and fairlead w/rollers forward & aft.
8. P&S hawser holes on transom aft deck.

### **Doors, Hatches, Windows & Port Holes**

1. Four bulwark side doors on forward & aft deck for boarding.
2. Two side deck entrance doors at galley and foyer.
3. Stainless steel "TREND" manual sliding door w/screen for main salon.
4. Watertight door on the entrance to the utility room/garage from the swim platform.
5. Tinted tempered glass, including galley forward windshield for sun shield.
6. Frameless windows w/ 10 mm thick tempered safety glass.
7. Stainless steel port holes with storm Covers for bow cabin.
8. Forward wide opening hatch locker with gas shock for fender and lines.
9. Pilothouse windows tempered safety glass w/ 10mm thickness.
10. Flybridge windscreen is tempered safety glass.



### **Swimming Platform Area**

1. Large teak inlay swim platform with stairways to back main deck.
2. Built-in shower with hot/cold water above swim platform. W/ extra outlets on F/B & Fwd. deck area.
3. Swimming ladder in folding storage well.
4. Stainless steel handrails on sides of back deck stairs.
5. Hand rails around swim platform.
6. Built in pop-up cleats for tender tying.

### **Tender garage**

1. Hydraulic garage door.
2. Boat track system with electrical winch.
3. Escape hatch to crew cabin.
4. Ventilation system.

### **C. Flybridge and Boat deck:**

#### **Flybridge**

1. Non-skid on whole deck area.
2. FRP cabinet with BBQ & extra deck wash faucet.
3. Integral stainless steel handrails around bar unit.
4. Indirect lighting system under bar and seats.
5. Curved stairway from aft deck to main deck with teak steps.
6. Footrest around bar.
7. 3 round stools for bar counter per layout.
8. Oversize drains w/strainers on each corner of sundeck deck with internal overboard drains, all w/ check valves & vent holes.
9. Flag staff on back of sun deck.
10. FRP Settees & Tables per GA design.
11. 5 persons Jacuzzi w/ removable heat insulation cover.
12. Two flooding lights aft, flush-mount.
13. Hinged door for access to service bar.
14. Sunpad with hinged backrest.
15. Stainless steel sliding hatch on flybridge stair opening.
16. Hand rails aside of F/B wings for window wash.
17. Removable hand rails around F/B aft. deck.
18. 1-1/2" Helm station with MMC remote control, compass, steering wheel and clear access on both sides for docking.
19. Two flooding lights on radar arch.

### **D. Pilot house and instrument:**

1. Integrated instrument panel on helm stations, Customer choice Wood & leather.
2. General alarm panel monitoring system for important equipment (bilge pumps, blowers, Navigation



Lights.) per shipyard standard.

3. International navigation lights.
4. S/S 316 radar arch w/antenna bracket & well lighting. Hardtop for aft Flybridge deck is integrated
5. TOKAI SUNSHIN search lights on both sides of radar arch.
6. Buell triple air horn on top of radar arch.
7. Magnetic compass for each pilothouse and flybridge station.
8. Heavy-duty SPEICH Stainless steel wipers w/wiper washer system.
9. Variable speed control on each windshield wiper.
10. "C" shaped leather settee, teak sliding table w/nautical inlay on top.
11. Desk with storage inside and one chair.
12. Stidd Pilot chairs x 1
13. Small locker on port side.
14. Hardwood flooring.

#### **E. Engine propulsion and Steering system:**

1. Twin engines MTU 16V2000M92 2180HP.
2. Live SAE-C PTO on gear box (P&S) for thrusters / windlass & Stabilizer power.
3. Two extra SAE-B PTO on gear box for steering gear hydraulic.
4. MMC engine control system at Pilothouse, Flybridge & wing stations (totally 4) all with remote control plug in receptacles.
5. Stainless steel Aquamet 22# shafts.
6. High performance 5 blade propellers S-Class.
7. Main and intermediate bronze struts w/backing plates.
8. Shaft and rudder packing glands with TIDES Marine drip less seals or equivalent.
9. Underwater exhaust system for engines w/ bypass mufflers. Pipe with fire retardant resin reinforcement.
10. Kobelt or equivalent power steering system.
11. Custom steering wheels both helms.
12. Stainless steel emergency tiller.
13. Stainless steel rudder w/zinc plates.
14. American Bow Thrusters Hydraulic 16" variable speed bow thrusters of 65 HP.

#### **F. Engine room and equipment:**

1. Engine room clean design with lightweight floor.
2. Double sound & heat insulated material with foam & lead combination.
3. Water tight bulkheads forward and aft.
4. Full length stainless steel overhead grab rail on each side of engine.
5. Engine room AC florescent light x 6 and DC dome light x 6.
6. Two AC blowers w/Adjustable Control.
7. Two DC blowers, exhaust ventilation.
8. Two Engine room ventilation intake openings w/ Moisture Eliminators.
9. Engine load distributed through flexible mountings on S/S engine bed bonded to FRP Hull Girder.
10. Heavy-duty watertight engine room door.



11. Air Compressor.

## **G. Electrical systems:**

### **General Description**

1. Colour-coded wiring for easy identification.
2. Main electric panel w/circuit breakers inside the engine room.
3. Distribution Panels for each cabin areas.
4. Emergency Power Package & Lighting system.
5. AC volt duplex receptacles located throughout including engine room.
6. GFI protection for all AC outlets.
7. Indirect lighting under valance in saloon, staterooms, pilothouse and galley.
8. Independent 24 volt to 12 volt converters for necessary equipment.
9. Exterior connector for shore phone and cable TV.
10. Electrolysis bonding & grounding system.
11. VIMAR outlet & switch w/dimmer.
12. Two zinc anodes on transom.

### **AC/DC Main Power System**

1. 50Hz/60Hz 1PH AC power system.
2. Two "Onan e-QD" generators 65 kW (50/60 Hz) w/sound shield.
3. Ten 200 AH gel cell batteries for ship's service power.
4. Separate 200AH\*4 starting battery with battery charger for main engines.
5. Separate 120AH\*2 starting battery with battery charger for generators.
6. Emergency Battery Bank 200AH\*4 above main deck w/independent 50amp battery charger.
7. All batteries enclosed with boxes and cover.
8. GUEST battery switch (vapour proof).
9. Two Inverter Chargers.
10. Two extra Engine driven 120amp alternators (P&S).

### **Shore Power System**

1. Two Glendenning 100amp shore power Cablemasters with 100' power cable.
2. Shore power connection w/ Charles Iso-Boost isolation transformer & A-B Switch.

## **H. Mechanical systems:**

### **General Description**

1. Hiflex or Manuli Classification Certified pipes applied through boat.
2. Colour coded piping system for easy identification.

### **Fuel and Lube Oil System**

1. Aluminium H5083 Marine Grade Fuel Tank 5,500Gal w/Magnetism sight level gauge & Electrical level



- gauge & alarm.
2. Emergency Shut-off Valve w/remote control.
  3. ISO Grade Fuel Hose through entire system
  4. Dual RACOR 79/1000MA fuel filters/water separator, each engine.
  5. 2 RACOR 500 MA fuel filters. One on each generator.
  6. Vetus fuel inlet "Splash Capture" \*2 for P&S fuel fills.
  7. One DC Fuel Transfer pump and one manual hand pump.
  8. Engines and Generators equipped with fuel coolers.
  9. Oil change "heavy duty" pump system for engines & generators.

### **Fresh Water System**

1. FRP water tanks in 800Gal w/Electrical Level Gauge.
2. Ki-Tec Marine grade pipe lines for Cold & Hot fresh water lines.
3. Three Torrid 30-gallon water heaters w/circulation pump system.
4. High-volume AC fresh water pressure pump and one DC pump for back up.
5. SEA RECOVERY water maker 1400 gal/day w/fresh flush function & remote control panel.
6. Fresh-water outlet & hose for filling engine and generator expansion tank.
7. Fresh water hose bibbs at the foredeck, aft deck and the flybridge

### **Air Conditioning & Ventilation System**

1. Marine Air chilled water central A/C compressor units w/ soft start & reverse-cycle heat function.
2. Marine Air, air handler units with individual controller through boat.
3. Pilothouse window de-foggers.

### **Sanitary System**

1. 320 gallon Holding Tanks w
2. "Y" valve for holding tanks dockside pump out.
3. Collecting Sump tanks w/auto switch pumps for each showers & washer drainage area.
4. TECMA toilet system or equivalent.

### **Bilge System**

1. Electric RULE bilge pump w/floating switch & high level alarm in each water tight compartment.
2. Bilge Blower \*3 Air circulation for bilges
3. Two manual bilge pumps in engine room and forward cabin.

### **Fire safety System:**

1. International Classification standard manually activated FM 200 engineered fire extinguisher system in engine room w/remote control in pilot house.
2. Automatic Fire dampers for engine vents. Activates on extinguisher discharge.
3. Automatic engine and generator shutdown on extinguisher discharge.
4. Emergency stop Button for engines, generators & all blowers on wheel house



5. Hand held Fire extinguisher as required.
6. Integrated fire detecting system.

## **I. Interior design and equipments:**

### **General Interior Description**

1. Standard selection of wood for interior.
2. Standard selection of carpet (Local supply).
3. High-quality Italian entrance door lock and cabinet door locks per shipyard standard.
4. Italian halogen ceiling lighting both direct and indirect Cantaluppi or equal.
5. High density, hotel grade soft foam mattress Custom choice of fabric for bed sheet, covers & cushions.
6. Indirect lighting system under sofas, beds, valances & all stairways.
7. Wood counter top w/ custom design trim.
8. Master, V.I.P. and two Guest cabins, w/ en-suite head & shower.
9. Head board for all berths with fabric or mirror per customer's choice.
10. Hanging lockers in all staterooms w/necessary shelf or drawers.
11. All lockers & drawers w/push button locking hardware.
12. Doorway on aft interior stairwell.
13. Wood or Acrylic curved hand rails through boat.

### **Heads & Showers General:**

1. 6 heads & showers plus 2 \* day toilets, per GA design.
2. Seamless polyurethane finish in all heads.
3. "Grohe" or equivalent faucet, towel bars, towel rings, cup/brush/soap holders, head brush, for all heads.
4. Exhaust blower for each head.
5. Inlaid "HCG" sink with curve wood face on vanity cabinet.
6. Marble counter top and back splash in all heads.
7. Marble floors in all heads.
8. Jacuzzi in master head, per GA design

### **Salon**

1. Storage & TV cabinets in accordance to arrangement plan w/blower venting.
2. Custom Ceiling w/ wood trim style,
3. Sofa & Cushion shape per owner's w/ SBO fabric
4. Carpet floors from shipyard standard selection.

### **Dining Salon & Bar**

1. Ceiling style above dining table per owner's requirement.
2. Storage cabinets around in accordance to arrangement plan.
3. Wood dining table w/customer designed trim edge.(SBO Dinning chairs)
4. Carpet floors from shipyard standard selection.



5. Dinette bar style per owner's design with granite counter top & Side locker w/glass holder,
6. Wood bar foot rest w/ S/S supporter.

#### **Main Galley area**

1. Granite galley counter top from shipyard standard selection.
2. Cabinets & overhead locker per GA arrangement and interior design.
3. L-shape settee in leather per GA layout with table. Storage space behind & deep drawers under.
4. Storage and TV cabinets in accordance to arrangement plan w/blower venting.
5. Vinyl wood flooring, Activa or equal.

#### **Master Stateroom**

1. Bed size to be 80"\*76" Atlantic king size.
2. Smoke mirror over bed ceiling.
3. TV cabinet w/wood door.
4. Carpet floors from shipyard standard selection.

#### **Forward Guest Staterooms**

1. 2 x single-size beds with drawers under.
2. Open book shelf & hanging locker on outboard side.
3. Carpet floors from shipyard standard selection.

#### **Aft Guest Staterooms (2)**

1. Queen-size bed with drawers under.
2. Open book shelf & hanging locker on outboard side.
3. Carpet floors from shipyard standard selection.

#### **Lower Guest Foyer**

1. Marble flooring from shipyard standard selection.
2. Staircase with wood treads leading up to.

#### **Crew Quarters**

1. Shallow overhead cabinets over counter.
  2. L-shaped settee with table, storage under and behind.
  3. Vinyl flooring, Activa or equal.
  4. Captain's stateroom double bed size 54"\*80" w/drawers under
- (1) Full height hanging locker
  - (2) Shelf outboard of berth
  - (3) Carpet flooring from shipyard standard selection.



### **Crew Cabins**

- (1) Twin stacked berths
- (2) Twin full height hanging lockers
- (3) Drawers under lower berth.
- (4) Carpet flooring from shipyard standard selection

### **Utility Room**

1. S/S working counter top with drawers under.
2. Single deep S/S sink with pull-out faucet.
3. Drained and ventilated wet locker.
4. Storage lockers per arrangement plan.
5. Vinyl flooring, Activa or equal.

### **Home appliances**

#### **Galley**

1. Sub Zero 36" Galley Refrigerator/ Freezer with Stainless Steel Trim Kit
2. GE Profile Electric 30" drop-in range, w/vent hood above in S.S. Finish.
3. GE microwave in S.S. finish.
4. GE Dish washer with stainless steel Trim Kit.
5. Blanco S/S double sink.
6. Drinking water w/filter.
7. Trash compactor in S.S. finish.
8. Instant hot water supply unit.
9. Garbage Disposal.
10. GE washer and dryer.

#### **Saloon Bar**

1. Blanco Circular S/S sink w/ cold & hot tab & drinking water filter.
2. U-Line wine cooler under.
3. U-line fridge with icemaker under.

#### **Crew Quarters**

1. Broan narrow trash compactor.
2. Small GE freezer & refrigerator w/beech door panel.
3. Efficiency galley with Miele cook top & large S/S sink mounted under granite counter.
4. Drinking water w/filter.
5. Microwave mounted over the counter.
6. GE Washer and dryer.

#### **Telephone and Stereo System**

1. TV cabinet in all staterooms, saloon High-Low TV system.



2. 42" Plasma TV with separate DVD player in saloon
3. 19" TV with DC12V DVD car stereo for each cabin. Max. 5.
4. PANASONIC PBX Telephone with intercom feature, w/outlets in salon, pilothouse, master stateroom, VIP Stateroom.
5. Car stereo with two speakers in flybridge.
6. Exterior connector for shore phone and cable TV.
7. Ventilation for stereo systems.

## **J. Miscellaneous**

Navigation & Communication system (SBO)

A/V Entertainment system (SBO)

(LCD or Plasma TV / DVD / Stereo system through boats per GA design and Supplied by Owner.)

**\*\* All specifications subject to change without notice\*\***

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### Qualifications and Notice to Reader

Performance statistics, weight, draft, freeboard and height are estimated only and are not warranted, and actual figures will vary depending on tolerances achieved during the vessel's construction process and the equipment, supplies and stores on board, as well as operational and sea conditions. Horizon reserves the right to substitute equipment and materials stated herein to others which it believes to be of equal or superior quality and to make such design and dimensional changes as it believes are necessary to improve the vessel's performance and function.