

Rapier 550 - Standard Specification

Construction

The structure of the Rapier 550 is of a modern lightweight construction using the using the latest resin infusion processes and combines high strength Epoxy resin systems throughout the entire structure with a combination of E glass, Kevlar and carbon laminate stiffened by PVC cores to produce an exceptionally strong and light structure optimised for performance sailing.

The hull has an exterior gel coat finish with vinyl ester skin and choice of colours. Everything is female moulded in hi-quality production tooling. The deck and superstructure has an integrally moulded anti-slip surface in places where needed especially in all areas where crew or guests walk or require access to operate the vessel.

The Broadblue Rapier 550 is virtually unsinkable due to its watertight bulkheads, cored construction and buoyancy compartments fore and aft in each hull. Each compartment is separate and sealed off to control water ingress if damaged. All internal textures are a combination of painted, light weight linings, timber and textile trims.

The skeg keels of the R550 are separately moulded and bonded to the hull structure, maintaining the integrity of the hull even if the keels are damaged or detached. Other keel options are also available, including low aspect ratio fixed keels, dagger boards and steerable canards.

Outside

Deck areas

Side decks are moulded with non-slip integral to the construction (aft sections can have optional teak/teak-alike surface). All windows to saloon and coach-roof are constructed from appropriate thickness toughened glass. Clear toughened glass on all windows forward of the mast, tinted and heat rejecting glass for roof lights and side and rear windows to aft saloon area. The aluminium framed aft windows to the saloon area, together with the whole back door system can be opened to allow a huge area of ventilation and airiness but with the advantage that it can be fully closed for security on heavy weather or to allow the use of air-conditioning should the need arise.

Twin windscreen wiper system with screen wash on the centre front window allows a clear view to be maintained from the helm seats.

Foredeck allows access to roof area where up to 12 solar panels can be installed to give a true independence to the vessel.

Aft beam/deck area

- After deck is accessible from the pontoon through twin transom gates. The lower step incorporates a storage box. Additional storage is incorporated in lockers inside each hull side with dedicated space for LPG containers and a carbon passarelle.
- Full width drainage grill between saloon and aft deck
- External spinnaker sheet size 60 winches (electric option) mounted to aft deck
- Antal electric line driver controls the mainsheet traveller on the aft beam
- Integral moulded dinghy davits

- Alloy hull RIB and 10hp engine max 100kgs (with engine)
- Spinlock jammers Harken blocks and lines lead to external winches
- Purpose built life raft storage to aft beam
- Choice of flooring

Outside sail controls

- Main sail control buttons repeated at each outside helm stations for trimming including main traveller main and jib sheets.
- Removable wood/carbon tiller for aft deck helm positions.
- Autopilot engine control remote with storage holster
- 2 x 12 volt charging socket adjacent to each outside helm position
- Outside remote control point for engine controls

Rudders and Steering

- External tillers offer a secondary steering position on each hull with override button to move control from inside helm station.
- Rudders are semi-balanced high performance rudders with a 100 % composite blade and stock. Rudders are linked by a single rudder link bar.
- Self aligning Bearings for smooth operation
- Hypro hydraulic steering with feedback function to inside helm station
- Hydraulic autopilot system

Outside access stowage

- Foredeck lockers port and starboard bow, port is full depth for storage of larger items, starboard locker is only 450mm deep to allow storage of warps without them getting lost in a larger locker.
- 6 x aft deck lockers adjacent to rear helm stations in aft cockpits.
- Forward starboard hull with Lewmar hatch and aluminium ladder access this area can be converted into optional skippers cabin with single berth, en-suite heads and shower.

Deck features

- Full height, 6 part sliding glass aft doors produced using tinted, toughened glass.
- Half height sliding side windows produced using tinted toughened glass
- All sheets, halyards and sail control lines lead into mast base for easy shorthanded operation.
- Large electrical equipment, engine and plant room with separate deck access on starboard side.

Mooring

- Anchor locker with 2000W electric anchor windlass and deck mounted with remote control from helm station
- 35Kg high holding power anchor with 30m chain and 60m anchor plait warp
- Self launching bow/beam roller for anchor on centre line in clear view of helm position
- Integral bridle for secure anchoring.
- 4 x pop up mooring cleats
- 2 x pop up Spring cleats

- 4 x 10 metre mooring line
- 2 x 20 metre mooring line
- 8 x fenders with lines

Protection / safety

- Black powder coated Stainless Steel pulpits
- Black powder coated stanchion bases
- Black powder coated stanchions
- 1 x 19 Stainless Steel guard rail wires 4mm
- Black powder coated coach-roof grab handles
- Webbing jack stays fwd 1 inch
- Hot rubber dipped grey 1 inch webbing fwd net

Inside

Forward cockpit inside

- Two forward facing comfortable pilot seats, fully adjustable (fore and aft sliding, height and angle adjustment) on adjustable pedestal with foot rest
- Port and starboard settees outboard of helm station with storage underneath
- Centre console with electronic engine controls, sail/winch controls and storage
- Integrated storage solutions for drinks
- Twin overhead lewmar hatches for ventilation and foredeck communications
- Push button controls for reversing winches and aft deck line driver allowing full trim of main and jib sails from the helm seat.
- Overhead hatch blinds
- Hot air window demist and heating to front windows
- Comprehensive dash board with space for up to 2 x 20 plotters, and dedicated head units for depth/log/wind finished in black leather finish with carbon and wood trim
- 2 x engine control panels
- Anti glare surface forward
- Window blinds to all saloon and forward windows available
- Low level night passage lighting
- Built in storage
- Autopilot control head
- Weather information systems
- Communications including VHF, SSB, Sat Com as required
- Empire bus NXT electrical system and control touch screen
- Switch gear inc
- Wind screen wipers
- Demist
- Bilge pumps
- Nav lights
- Hob and oven
- interior lights

- external underbridgedeck lights
- deck lights
- Heating
- Engine start and stop
- engine alarms
- Manual rocker switching for line driver main traveller in and out
- Main sheet in and out
- Jib sheet in and out
- Electric winch for jib fuller and code 0 tack line in only
- Active monitoring system for all key sail data configured to ease re-winding sheets when over pressed without manual intervention. Once tuned to the vessels characteristics this tool can be used to warn or take action when condition deteriorate, further adding to the safety systems available on this boat.

Saloon winch station console

- 2 x Lewmar rewinding winches and one single action Lewmar two speed electric winch
- 17 spinlock clutches fitted to solid carbon mast compression post
- Fairlead blocks for jib furler and code 0 tack line
- Jib roller reefing line and code 0 tack line brought inside to electric winch
- 15 Antal tulip fair lead blocks for halyards and sheets
- Sail control switch repeated for jib, main traveller and main sheet
- Separate switches for each electric winch
- Winch station built in carbon with clear finish
- Rope storage bins with drainage
- Twin overhead Lewmar hatches for ventilation and sail vision
- Roller shutter type companion way hatches to hull accommodation
- Choice of floor styles and finish

Galley unit port

- Black metallic polystone surfaced galley work tops with moulded hob recess and small sink
- Mixer tap recessed into moulded surface
- Separate vertical freezer unit with remote 12v compressors and keel cooler unit drawer type freezer also available
- Multiple storage cupboards with shelves & drawers
- 4 x 240v AC sockets
- Led blue courtesy lighting
- Soft close cupboard doors with strong magnetic catching
- Wood faced cupboard doors and trim
- Hidden safe unit behind seat cushion
- Fire extinguisher and blanket fitted inside cupboard door
- Gas cut off valve adjacent to oven and hob

Galley unit starboard

- Black metallic polystone galley work tops with twin moulded sinks
- Fridge unit with remote 12v compressor and keel cooler unit

- Recessed hot and cold mixer-tap
- Multiple storage cupboards with shelves & drawers
- Counter top waste bin
- Over head locker
- 2 x 240v AC sockets
- Led blue courtesy lighting
- Soft close cupboard doors with strong magnetic catching
- Choice of wood faced cupboard doors and trim
- Space for integral built-in washing machine.

Saloon dining area

- Seating/ dining area for eight people with stowage under built in seating
- Wood finish dining table to match owners choice
- Motorised lift for integral entertainment system inc TV with DVD function
- Led blue courtesy lighting at floor level

Saloon lounge area

- Comfortable lounging sofa with storage underneath
- Coffee table made in carbon and wood finish to match saloon table
- Portable settee fills in to create a double berth or U shape seating
- Led blue floor level courtesy lighting
- Led lighting above

Saloon general

- Two permanent tinted toughened glass sky lights on saloon roof with carbon fibre centre mullion
- Saloon sliding doors toughened tinted glass framework finished in black.
- Side windows opening with toughened tinted glass framework finished in black
- Led blue floor level courtesy lighting
- Large electric sliding composite sun roof
- Gas detector with alarm and shut off solenoid valve
- Head lining panels and trim
- Choice of floor finishes
- All windows tinted, tint level can be increased if required

Port Hull (Owners)

Port cabin

- King Size double berth 2.00m x 1.50m with 125mm thick high quality foam mattress
- Storage underneath bunk
- Large hanging lockers
- Berth side storage unit
- Reading lights
- LED overhead lighting
- Escape hatch under steps

- Steps to saloon
- Soles face in low maintenance finish
- Wooden finish office / vanity desk area amidships to match owners choice of woodwork
- Toughened glass fixed port lights to outboard hull side with blinds
- Over head Lewmar flush hatch with blinds

Owners heads and shower room

- Moulded sink units with hot and cold mixer tap
- Shelving unit with shelves and mirror door
- Electric Jabsco silent flush light marine WC. With holding tank pump out to sea (75litres) and monitoring.
- Fixed glass port light to outboard hull side
- Over head Lewmar ventilation hatch and blind

Shower compartment

- Mixer tap with luxury shower head and electric sump pump
- Overhead flush Lewmar deck hatch and blind
- Lighting
- Shower screen door
- Low maintenance flooring with access to sump pump

Starboard Hull

Starboard Aft Cabin

- Opening Lewmar rear hatch and blind rear of berth
- Large double berth with 10cm thick high quality mattress
- Removable access panel to systems space
- Double door hanging locker with additional locker space below
- Reading lights
- Seat with shoe locker
- Additional storage lockers and liners
- Steps to saloon
- Roller shutter door to saloon

Shared Starboard hull heads and shower (twin heads option available)

- Moulded basin area c/w hot and cold mixer tap with pull-out faucet / shower head
- stone effect moulded shower base with sump and pump
- Shelving unit with mirrored door
- Electric jabco light flush Marine W.C.
- Holding tank c/w electric pump out to sea (50litres)
- Tank monitoring alarm
- Towel ring and wet room accessories
- Fixed glass Port light to outboard hull side
- Flush over head hatches and blinds

- Shower screen door
- Starboard Forward
- 2m x 1.4m Queen sized double bed with high quality mattress
- Double door hanging locker
- Overhead hatch with blind
- Port light to outboard hull side
- Chrome berth spot/reading lights
- Seat with shoe locker
- storage lockers and liners
- Steps to saloon
- Roller shutter companionway door to saloon
- Escape hatch

Engines

- Twin 40hp multi cylinder engines on shafts with high output, advanced charging alternators (optional Twin 55hp)
- High quality folding propellers
- Fuel /water separator, filters and stopcocks
- 2 x Fuel tanks (150litres each) with fuel level sensors
- Engine ventilation with air intake on transom
- Raw water filter to each engine
- Automatic Bilge Pump in each Engine Room
- Engine bays painted in fire retardant gel coat
- Engine access from aft step hatch
- Twin single-lever electronic throttle and gear controls inside cockpit area.
- Aft deck mounted remote control for engines.
- Anti-siphon breaks fitted to raw water lines to engines
- Engine panels with tachometers, warning lights, alarm and engine-hour meter mounted at inside helm console
- Hot water calorifier connected to engine cooling circuit
- Deep Sea shaft seals to each prop shaft

Electrics

- 2 x 85 amp/hr engine start batteries
- 4 x 200 amp/hr sealed high quality domestic batteries
- 12 v sockets at helm station and hull cabins
- 12 v waterproof socket to outside helm stations
- DC distribution Empire bus NXT via node and spur electronic management system
- Volt and amp displays along with all other management functions via dedicated console at helm station with suitable alarms and alerts.
- Volt meters and amp meters to AC systems displayed via management console.
- Galvanic protection
- AC electrical outlets to all cabins, galley and saloon area
- Hot water element heater
- 32 amp Shore power connection cable and socket

- Fuel and water tank levels displayed at helm console
- Recessed LED lighting throughout
- Over-bed reading lights
- LED navigation lights - Steaming, deck floodlight, tri-colour and all-round white fitted to mast
- Further LED navigation lights to meet international standards at deck level
- Isolators for each engine and house supply, conveniently located.
- Breakers for electric windlass and electric winch
- 70amp AC Battery charger and distributed charging system for all batteries
- Optional AC inverter 3kw
- Optional air con to saloon and or cabins (details on request)

Black water system

- Black water tanks to each head
- Deck pump out points
- Under water pump out skin fittings, together with associated pumps and piping

Bilge system

- 2 x high quality manual bilge pumps to bilge sump
- 4 x automatic electric bilge pumps 2 x in engine bays
- 2 x in hulls
- Bilge alarm connected to main NXT system
- Fresh water Services
- Water Tanks (550 litres total) c/w inspection hatch, filler & vent
- Pressurised hot and cold water system throughout
- 40 litre hot water calorifier heated by engine or 240v AC system
- Hot water expansion tanks as necessary
- Colour coded pipe work throughout
- Low power Schenke Water Maker system, installed in service compartment
- Water catchment provision incorporated into canopy moulding

Heating system

- Twin diesel fired hot air heating system*
- Towel radiators to heads/shower compartment
- Hot air blowers for demist and saloon heating

Gas system

- Bulkhead mounted gas changeover switch butane/propane compatible
- Galley mounted gas isolation valve
- Gas bottle holder x 2
- Gas bottle and spanner
- Gas alarm

Solar Power

- 4 x 100 watt semi flexible solar panels fitted to canopy and connected to house battery system

Spars

- Mast in Carbon Composite from Future Fibres, Clear coat UV protected.
- Deck stepped
- No spreader tube type mast with forward lowers.
- Mast base with leadthroughs for all lines and halyards.
- Mast mounted Led Navigation lights inc tri colour bi colour stern and steaming light
- Twin Deck flood lights
- VHF areal Windex
- TV antenna
- AIS antenna
- Optional radar & bracket

Boom

- Black anodised powder coated Boom with 3 reefing positions out haul and main sheet leads includes stack pack with external control lazy jacks

Standing rigging

- All synthetic standing rigging connected to large diameter rigging screws and solid stainless steel chain plates
- Forestay solid rod with rigging adjusters
- Furlex roller reefing fuller

Running rigging

- 1 x 2:1 Mainsail halyard in Dyneema
- 1 x Jib halyard Dyneema
- 1 x 2-1 code 0 / spinnaker halyard
- 1 topping lift
- fixed lazy jacks

Reefing

- 1-3 with tack and clew lines lead to winch station inside

Sheets & control lines

- 1 x jib sheet 14mm Dyneema
- 1 x Jib 12mm control line for control of traveller
- Endless loop main sheet traveller line controlled by electric Line Driver
- Multi part main sheet lead to cockpit helm station
- Code 0/spinnaker sheets
- Code 0/spinnaker tack line
- Fuller line

- Optional 8 series Carver code 0 fuller and line

Deck gear & hatches

- Harken and Antal Blocks and tracks for all deck gear
- Lewmar flush hatches on hull
- Lewmar low profile hatches on canopy roof
- Concealed pop up cleats on hull toe rail

Sails

- Built using high performance UV stable laminate construction, square top main design
- Fully battened with roller cars.
- Carbon furling to jib.
- Mainsail,
- Self tacking jib
- Roller furling

Misc

- 1 week familiarisation course for hand over
- Operation manuals for all fitted equipment
- 1 x RCD Owner's manual
- Bill of sale

TECHNICAL SPECIFICATION

Engine :	2 x 40hp on shafts diesel electric hybrid option is also available.
Rig :	Fractional sloop coachroof stepped carbon mast and bow sprit self tacking headsail. Square topped, fully battened mainsail. Bowsprit with fitting for large asymmetric sail/reacher
Layout :	3 double cabins all en-suite
Category :	Category A (Ocean)
Interior :	Hand built quality furniture and fittings in light Oak. Lightweight wood laminate flooring throughout
LOA	16.76m
BOA	8m
Displacement (light)	9800kg
Draft	1.3m
Fuel	300ltrs
Water	550ltrs
Mainsail (STD)	110sq.m
Jib	50sq.m
Gennaker	120sq.m
Spinnaker	200sq.m

MOCRA rating @ 10T =1.228

MOCRA rating @ 12T =1.162

Please note that all specification may be subject to change without prior notice due to product development.