Professionally built Wharram catamarans

www.wharram.com

Greenbank Road Devoran Truro Cornwall TR3 6PJ

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Mana 24 kit - Price list - Nov 2021

Cost of complete kit £12,750 (if bought complete, separate costs below) All prices excluding VAT, and excluding shipping costs (shipped FOD, Freight on Delivery)

1. Boatbuilding Kit, total cost £9,975

- Complete set of plywood parts to build two hulls, crossbeams and motorbox, CNC precision cut. All plywood Robbins Elite BS1088 Marine Plywood, guaranteed for 15 years, manufactured from selected Gaboon (Okoume) veneers throughout.
- Platform panels, 2 large, 2 small, prefabricated from 40mm plastic honeycomb, glassed top and bottom.
- Small hardwood timber parts, CNC cut to size, ready for final shaping, sanding and fitting.
- Perspex windows and washboards, CNC precision cut.
- WEST Epoxy kit, includes all resins*, pumps, fillers and glass cloth, mixing sticks, 1 box vinyl gloves, 1 rubber squeegee.
- Sikaflex 295 for fitting windows.
 Sikaflex 221 for bedding fittings etc.

Neoprene rubber for sealing hatches.

Rubber for padding beam mounts.

Gripfast nails, stainless steel machine screws, cable-ties and roller-sleeves (to be cut into paint/epoxy-pads), 2 paint-pad handles.

 Douglas Fir timber for stringers, framing etc. and hardwood for hatch coamings (mahogany) and keel strips (iroko), all in long lengths to be cut to size by builder.*

*N.B. For overseas customers **Boatbuilding Kit** should be bought excluding the long lengths of Douglas Fir and hardwood timber for easier transport. Cost deducted by £1100. We can also not include the epoxy resin and hardener as these are hazardous products with freight restrictions. You will need to buy these through your local dealer. Cost for these deducted by £900. (i.e. Cost of Boatbuilding kit excl. long timber and epoxy £7,975).

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Mana 24 kit

Price list of individual packages, continued

2. Blocks, fittings and rope kit, total cost £1,200

- All blocks, cleats, shackles and other fittings to rig the Mana
- All ropes for sheets, halyards, lanyards and standing rigging (Dyneema).
- Stainless steel buckles and webbing straps for crossbeams.
- Shock-cord for tillers and hatches.
- Aluminium boathook/mizzen boom.
- Set of fittings for both mastheads and hinging unit for base of main mast, fabricated from aluminium and stainless steel.

3. Sails, made by Jeckells of Wroxham, total cost £1,530 - specify colour

- Mainsail with two reefs
- Mizzen with 1 reef

4. Masts*, total cost £ 510

Aluminium mast tubes.
 4 ½" OD x 10swg for main mast, 2 pieces @ 5m and 2.30 long, plus sleeve.
 3" OD x 10swg for mizzen, 4m long.

*N.B. For overseas customers we suggest you source your mast tubes locally as shipping long lengths will be costly.

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Mana 24

Building time estimate:

We kept precise building hours while building the prototype. We built to a high quality standard with excellent finish, i.e. a lot of time spent on precision sanding, fairing etc. Building time in the early stages of building is greatly reduced by the CNC cut plywood parts, which takes away all the worry of measuring and cutting and lets the builder assemble the hulls very quickly.

We supply the ply parts pre-coated with epoxy on the inner surfaces, which cuts down on a lot of coating and sanding time before one is able to assemble. The single epoxy coat is very flat and needs only a light sanding to prepare it for a second coat, which is applied later after the parts are joined together.

Summing up of the times we took:

All construction work; hulls, beams, gaffs, tillers, hatches, including epoxy coating all interior surfaces: approx. 500 hours

All exterior glassing work; hulls and crossbeams: 90 hours

All sanding of glassed surfaces: 45 hours

Painting, two coats epoxy primer, two coats 2-pack topcoat incl. non-slip decks and antifouling: approx. 80 hours.

N.B. What should be noted is how many hours it takes to do sanding and painting compared to the building time. Glassing, sanding, fairing and painting add up to 30% of the total building time. On our basic building time estimates in our Design Book, final finishing and painting are not taken into account. Working from a kit does save many hours.

Transport sizes and weights:

- The plywood kit, including made-up platform panels will be in labeled bagged bundles measuring in total approx. 2.5m x 1.20m x 0.3m and weighs around 300kg.
- Fastenings, blocks, fittings and ropes, 1 box, approx. 60 x 40 x 30cm. Weight 25kg.
- The WEST epoxy kit measures approx. 1.3m x 0.6m x 0.45m and weighs around 100kg.

(For overseas transport the above items have to be packaged in one special wooden pallet crate $-2.62 \text{m} \times 1.29 \text{m} \times 0.77 \text{m}$ - at additional cost of £250).

- Timber will be a long parcel (around 3.5m 4m long) and will weigh around 50-60kg.
- Aluminium masts, in max. 5m long sections, weight incl. fittings 40kg (For overseas customers we advise them to source the timber and masts locally).

You will be able to collect the complete kit from Cornwall yourself on a trailer or in a van saving on a lot of shipping costs and paperwork.

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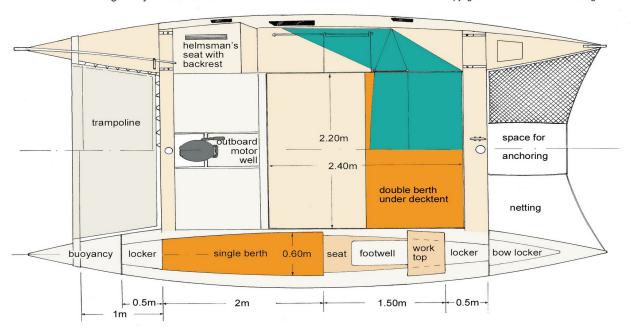
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Mana 24 design data

Overall length	23'6"	7.16m
Overall beam	12'8"	3.85m
Beam of each hull	3'2"	0.97m
Maximum draft	1'7"	0.48m
Headroom over bunk	3'	0.90m
Sleeping capacity	2 single bunks in hulls +	
	double berth under decktent	
Dry weight (approx.)	1191lbs	540kg
Maximum displacement	2510lbs	1140kg
Sail area	216ft²	19.6m ²
Deck sleeping area	7'2" x 8'	2.20 x 2.45m
Full deck area	7'2" x 11'6"	2.20 x 3.50m



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MANA's 23'6" hull length has a special significance for James Wharram. In 1956 he made the first successful catamaran voyage across the Atlantic in his first catamaran, the 'Tangaroa', also 23'6" long. The new chine shape gives extra width for bunks placed aft, increasing space and comfort.

With the main mast of the MANA placed well forward the platform gives ample flat space for a low-cost standard dome tent or a custom-made pram hood tent, which can double as spray hood when sailing. Adapting camping habits to a sailing lifestyle gives wider sailing opportunities at minimum cost and lots more family fun!