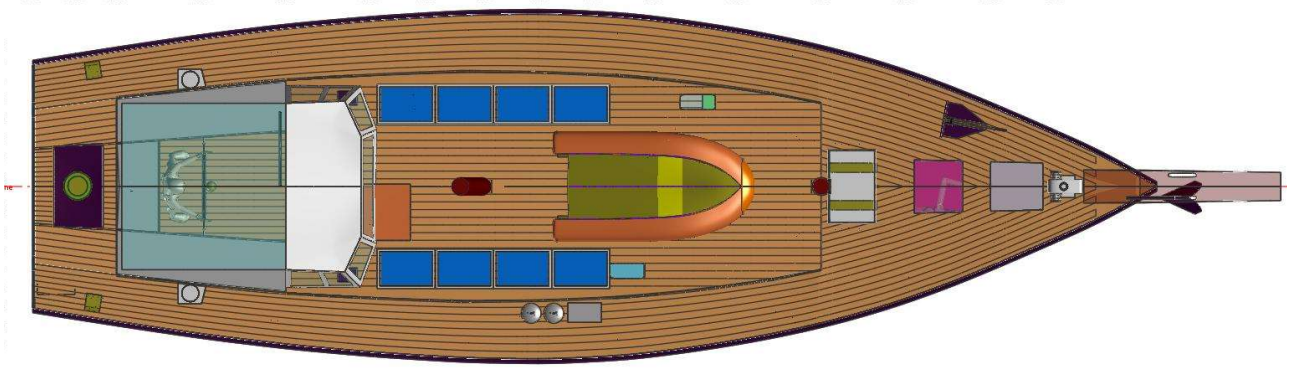
BARBAROY Boats, Engineering and All

SCHOONER JACK EVERYMAN



Schooner JACK EVERYMAN

Background

This schooner yacht was designed for Mr Alfred Bulltop S__, a discriminating gentle(?)man who specified his requirements in priority order as:

#1 Gaff schooner rig;
#2 Twin Keel;
#3 Accommodation for 2 persons with double bed (or larger);
#4 A “comfortable” saloon for living and entertaining;
#5 “Austerity” accommodation for 2 persons additional to those of #3;
#6 Range ~ 1500 nautical miles under power;
#7 Robust construction, moderate displacement, length ~ 12m / 40 ft;
#8 All inboard and self tacking rig, and
#9 “Green”.

#1 - #3 were specified mandatory, the remainder negotiable.

Principal Particulars

Length OA	12.0	m (excludes bowsprit)
Length WL	11.5	m
Beam	3.78	m
Draught	1.45	m
Displacement	14.7	tonnes normal deep
	15.4	tonnes overload

Installed Power	30 kw (40 hp)
Maximum Speed	7 knots @100% (30kw)
Cruise	6.5 knots @85% (25 kw)
Economical	6 knots @35% (11 kw)

Fuel	280 L + 580 L in Extended Range tanks
Range	370 nautical miles at 6.5 knots (280 L)
	1700 nautical miles at 6 knots (860 L)

Fresh Water	~ 200 L & Desalinator
Holding Tank	~ 200 L

Solar Panels	8 x 150 Watt
DG Set	3 kVA
Battery	8 x12 V 150 Ah

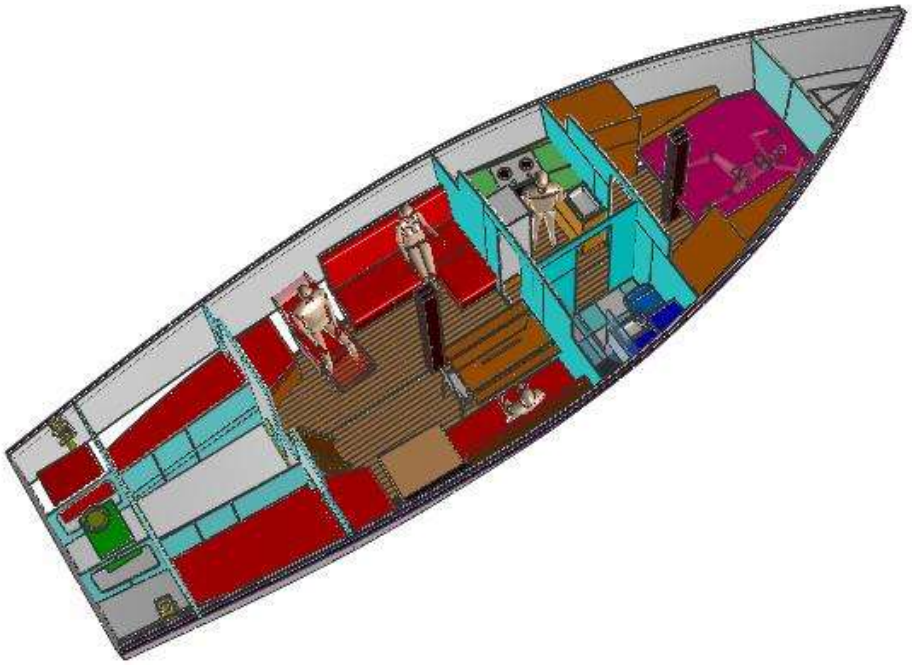
Arrangement

JACK E. is a stern cockpit, schooner rigged, twin keel cruising yacht with an engine room for a diesel outboard style engine and a generator located abaft the cockpit.

The cockpit is small to minimize the pooping risk but adequate for 4 persons when under way. It does not really provide an outside entertaining area for larger parties. Water access could be provided via a hinged swim platform mounted on the stern and ladder fixed to the transom. A conventional steering station with pedestal binnacle and wheel is proposed, but a wheel could be located on the port side of the cockpit bulkhead.

Forward of the cockpit is a spray dodger / doghouse which houses the navigation essentials – radios, radar, GPS, echo sounder etc. and controllers for the solar panels. Sheets for the foresail and stays'l could terminate in the dodger, as could the halyards for all sails, subject to space being available around the navigation equipment.

The companionway leads to the saloon, a comfortable space almost 3.4 metres square containing separate lounge and dining areas, two generous quarter berths, and a desk/chart table. With portable chairs seating for up to 6 persons around the dining table is possible, though 4 would be more comfortable. A settee and rocker-recliner chair both facing the TV screen behind/above the dining area is shewn, but alternative configurations are possible: eg., two ample arm chairs.



Forward of the saloon to port is the galley with benches, stowages, fridge, stove and sink. A 240vAC outlet permits the use of electric jugs, coffee makers, microwaves etc., while hot water is available "on tap" from the hot water system located outside the head.

The head is located to starboard opposite the galley, and contains a macerator toilet, vanity/washbasin and a usable shower – ie., one that a human can stand in while bathing ....

Forward of the galley and head is the cabin, having wardrobes and drawers as well as a 1.8 x 1.5m bed. This is a little shorter than desired by Mr S__ but could be lengthened by extending it further aft and wrapped about the foremast post ~ a bit of athleticism never hurt sex!

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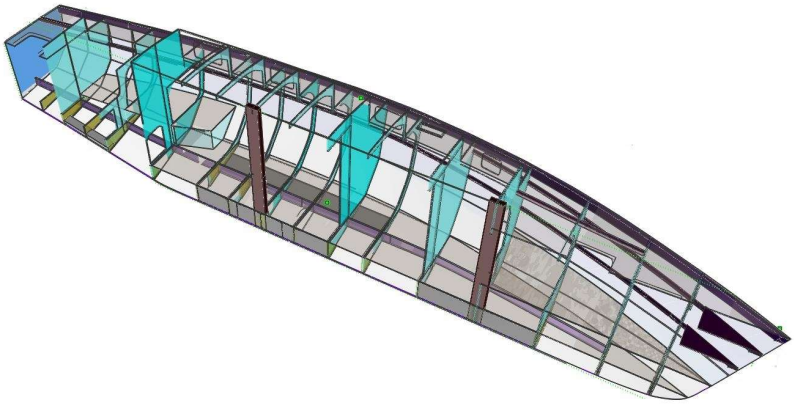
Construction

The Jack E construction is composite: fiberglass over marine ply and hardwood.



The hull is constructed on the "Stitch-n-Glue" principle, the hull being 18mm (12 mm + 6m) Marine Ply sheathed on both sides with fiberglass, and supported by more bulkheads and frames than normally used in such construction.
The shell and main deck are conically developed with bulkheads, floors and frames cut from Marine Ply sheets, as were British patrol boats in the 2nd World War.
Stringers and cabin deck beams may be cut from marine ply or laminated from epoxy-glued hardwood. The keel and skeg supporting logs are laminated from epoxy-glued hardwood.

Engineering

Propulsion is by a single "outboard motor" style air cooled diesel engine of 30 kW (40HP) driving a 3 bladed propeller, available from divers Chinese suppliers. The propulsion unit is located in the aftpeak with only the propeller and lower part of the leg projecting into the water. A stainless steel plate welded to the leg and bolted to the hull maintains the watertight integrity. The predicted speed is 7 knots at full power giving a cruising speed of 6.5 knots at 85% full power.

To meet the "Green" requirement, the prime electrical generating plant is solar, comprising 8 x 150 Watt panels backed up by a 3 kVA air cooled diesel generator in the aftpeak. Eight 12Volt 150Watt batteries are located in the bilge below the saloon, with two 2200kw inverters are located in the saloon itself. The 12VDC switchboard is in the saloon while the 240VAC switchboard is located in the galley.

Rig

The rig is a conventional bald headed gaff schooner with all sails on booms to enable self tacking, but it proved impossible to provide adequate sail area and balance without a short bowsprit. Even with the bowsprit, the sail area is low (64 m^2). The addition of a fisherman's topsail raises this to 76 m^2, still not exceptional and not self tacking, but JACK EVERYMAN could support a bigger rig ....

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Schooner JACK EVERYMAN with 100m^2 Rig

This ship is ready to build. ***LOFTING REQUIRED !***

Plans Package

The plans package comprises 37 documents (I think) totaling 70 A4 pages (I think) of specifications, drawings, notes, sketches and etc. These are to be read together to build the ship.

Design prepared using DELFTship Maritime Software & 50 years experience in Naval Architecture …..