

Cruising Sailboat Background & Requirements

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Background: We are both experienced, self-reliant world travelers, having recently explored a variety of developing countries via motorcycle (see www.hackneys.com/travel for more info). Our goal is to continue our world exploration, but this time bring along our accommodations via a sailboat as a means of transportation. As such, we are not under the romantic spell of sailing for sailing's sake.

My wife and I are both novice sailors. We both grew up around small power boats, but did not learn to sail at a young age. My first sailing experience was earlier this year. I am currently ASA certified through advanced cruising and advanced coastal navigation levels. I currently have about 1,600 offshore passage miles, my wife has zero. We plan to do two to three charters in different worldwide locations before we purchase a boat.

I have good to excellent mechanical, electrical, and plumbing troubleshooting, repair and maintenance skills. I am capable of electronic troubleshooting, but am not circuit level qualified. I have no experience with fiberglass construction or repair. I am very experienced with gasoline engine troubleshooting, rebuilding and repair. I have diesel engine operational experience, but minimal diesel troubleshooting and maintenance. I have no marine diesel experience, i.e. impeller, cooling elbow, etc. I have no rigging or sail repair/rebuilding experience.

My wife is extremely organized, disciplined and efficient. She is very intelligent and intuitive. While possessing a high degree of style and elegance, she is capable of extreme levels of perseverance and endurance in tough conditions. She is very creative and a tremendous innovator in the area of problem solving. She is very respectful and appreciative of a sense of style and extremely receptive to designs that utilize available space in innovative and practical ways.

For additional details see <http://www.hackneys.com/travel/index-AboutUs.htm>

Goal: Obtain, outfit and utilize a blue water cruiser for the purposes of world exploration.

Timeline:

August-December 2005: Bareboat charters at various locations – proof of concept, sail lessons for Stephanie

October 2005: Annapolis Sailboat Show – evaluate design types & manufacturers

November 2005 – June 2006: Evaluate and select an appropriate sailboat

December 2005 - July 2006: Outfit/refit & delivery, emergency medical training

July – October 2006: Test weekend – week cruises to Catalina & Mexico

November – December 2006: Cruise to Sea of Cortez & return

January – February 2007: Final outfit/refit

March – May 2007: Sea trials & refit cycle until 100%

June – October 2007: Move aboard, final provisioning

November 2007: Departure

Utilization Period: 3 to 5 years

Boat purchase window: November 2005 – June 2006

Budget: We have looked at boats between \$350 and \$650k. We would require extraordinary residual value at the upper end of this scale.

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Residual value requirements: We plan to spend three to five years cruising then sell the boat. In order for our economic model to work, we must be able to maximize the resale value of the boat. Thus, a boat with a steep depreciation curve will not fit our needs. Conversely, a boat with a high residual value works well for our financial requirements.

Boat requirements summary: Our boat priorities are seaworthiness, safety, solid design, seakindliness, forgiveness, excellent materials and flawless assembly and workmanship (as such, we are not considering the low end manufacturers). We require a seakindly motion, good downwind performance, a flexible rig capable of maintaining balance in a variety of conditions, a hull & keel design that enables heaving to, decent windward performance, reasonable pointing ability and the absolute and total confidence that the boat can withstand any blow and sea state short of the extreme high latitudes.

As is typical, we will be sailing as a couple most of the time, so the boat must be outfitted, or be capable of being modified to be easily sailed single-handed. Features such as a bow thruster, lines led to the cockpit, helm controlled windlasses, etc. would be viewed as favorable in this regard.

Boat design summary: My wife is particularly enamored of the sunlight and airiness of the raised saloon design, such as the Tartan 4400. The only other designs we've been on that approximate this design feature are the mid cockpit Island Packets and a couple of other mid-cockpit boats.

In general, my tastes lean toward the pragmatic, my wife's more towards style. Neither of us are wedded to a "yachty" design, i.e. rear cockpit. Given reasonable visibility to sail trim, I'd just as soon have a pilot house that would keep me out of the weather as be drenched and pummeled by wind and sea at a traditional helm. On the other hand, neither of us is likely to go exploring the world in a fundamentally ugly boat.

Planned Destinations

Some of the places we would like to visit "for sure" are:

- Galapagos
- New Zealand North Island
- SE Asia
- Thailand / Burma
- Greek Islands
- Aegean and Med. Coast of Turkey
- Egypt (while we're in the area, can fly over from Turkey if we need to)
- Portugal
- Spain
- Pacific NW (Vancouver Island & surrounding area)

The logical route for us is to go down the west coast to Ecuador and then head over to the Galapagos. We'd probably do the usual central Pacific islands and spend the off season on the North Island. Then perhaps SE Asia & over to Thailand. We enjoyed sub-Saharan Africa, so we might spend a few months on Safari there to get more time out with the wildlife. S. Africa has some nice regions, so we may choose to go via Cape of Good Hope vs. the Suez, even though it would be a direct route to the E. Med. We'd hit Spain & Portugal, then drop over to the Caribbean. Both of us would like to explore South America, so we may drop down to Brazil and Argentina. I'd very much like to check out Columbia as well while we're in the area. I doubt Steph would want to ride around Cape Horn, but I'd probably be up for it. We very much enjoyed Japan, so we may swing over there on the way back and make a Pacific circle and come home via the Pacific Northwest.

Our idea is NOT "circumnavigation or bust," but one of "let's explore the world by boat for a chapter of our lives and see where we end up."

In general, we do not like tourist spots or places overrun with Americans or Europeans. We much prefer to seek out the quiet places that are non-tourist oriented. We will stop to see truly spectacular tourist spots, since we're in the neighborhood anyway, but don't prefer to participate in mass tours or excursions.

This implies that we'd be less inclined to participate in a mass rally for cruisers or spend our time in marinas or yacht clubs. We're much more likely, once we get comfortable with our skills and the boat, to gunkhole our way around, seeking out the less trampled spots.

Boat material & engineering

Steel: We would only buy steel if the boat was new or nearly new. We do not want any steel boat that will be older than 5-7 years at the end of our planned cruising time.

Aluminum: Same age range and requirements as steel. We would require an extensive engineering and survey analysis of the materials used and the construction techniques.

Wood: We will not buy a wood boat.

Fiberglass: We would prefer a solid hull, at least below the waterline, using modern blister-free materials. We would only buy a balsa cored deck if the boat was new or was under warranty for leaks and delamination for the entire time we planned to own it. If we buy a cored hull or deck, it needs to be of Airex or similar material construction. In layup, we prefer modern gelcoat and resin materials that eliminate the possibility of osmosis problems. We would greatly prefer a fully fiberglassed and through bolted, mechanically reinforced, flange based hull to deck joint.

Seaworthy Design

We highly prize seaworthy design, such as bow and aft watertight bulkheads. We require fully tabbed bulkheads and furniture. We would greatly prefer as much access to the hull as possible, so extensive molded pans are less attractive. Robust scantlings are highly respected and desired. Watertight compartments and doorways are strong positive features. Batteries, engine mounts, hatches, drawers, etc. that are designed and constructed to easily survive a knockdown or rollover are highly desired features.

Keel/Rudder

I started out only considering full keels with fully protected rudders. I have gotten as far as considering fin keels with skeg hung rudders. I don't know if I'm ready to take the full plunge for a blade rudder on a cruising boat that is destined to gunkhole in some pretty remote places.

We do not want to take on the complexity and mechanical maintenance aspects of a centerboard.

I prefer a fully encapsulated keel, using lead balast. I am not excited about heading out with a bolted on keel, especially on an older boat.

We like the responsiveness of a separate, blade rudder, high aspect deep fin boat, but recognize that tacks are few on passage and with our plans, tight marina maneuvering is not at the top of our requirements list.

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Draft

At this point, I don't anticipate we will be spending much time in the shallow waters of the Bahamas, Florida or the Chesapeake. Although we do anticipate doing exploration, I am reticent to give up the leeway and windward capabilities of a standard keel depth. I think something in the 6' (two meter) range would be reasonable.

Hull shape

We are not in a race, so I do not see the need for a flat bottom, race inspired hull. We do not want to sacrifice seakindly motion, fine entry and a reasonable transition from bow to bilge. I do not see the need for a canoe stern. We do appreciate the additional room a wide beam provides, but do not want to sacrifice seaworthiness for this.

Sailing performance

We respect the argument for speed under passage, but we also recognize that a 7 knot sailboat is not going to outrun a 300 mile wide storm moving at 40-50 knots. If that ever happens, we want a boat that we can control in a blow and we know will survive. As such, we desire a boat that will come as close as possible to these capabilities:

- Point to 30 degrees
- Relatively stiff
- Very high limit of positive stability
- Good downwind performance in light to moderate air sailing wing and wing (poled out headsail) or with a cruising/asymmetrical chute (with sock)
- Ability to heave to
- Reliable tracking and control in large following seas
- Seakindly motion going to weather
- Easy to establish and maintain balance
- Comfortable under a variety of reef configurations
- Ability to keep sailing under control when others are forced to run or heave to
- Reliable 150-170+ mile days

Cockpit

It is likely that a center cockpit design will deliver the additional space and engine access that we desire. We would accept a rear cockpit design if it provided plenty of airiness & light to the cabin, i.e. raised saloon. We have not been on enough different designs to know if we would find a pilot house acceptable or not.

We will require a cockpit that is comfortable and conducive to a dodger/bimini. We will depart with a full dodger/bimini enclosure capability including screens and "window" panels.

We require the ability to fully lie down on the cockpit seats.

We require a helm position that will allow good visibility for Stephanie.

Bulwarks / Toerail / Lifelines / Jacklines / Padeyes / Granny Bars / Handholds

We would prefer a substantial bulwark / toerail to provide additional safety on deck. We will replace any plastic coated lifelines with bare stainless steel prior to departure. We require robust lifeline stantion design and installation. We require appropriate bow and stern attachment points for jacklines, padeyes at the helm and cockpit and suitable tether points at the mast(s) and foredeck. We will add granny bars around the mast(s) before departure if not so equipped. We require an interior design that is safe for sailing in a seaway, i.e. profuse handholds in areas that are readily accesible that facilitate movement throughout the boat.

Rig

We would prefer a cutter rig for its flexibility under a variety of sailing conditions. A removeable forestay and running backstays would be fine. We would consider a Ketch, depending on the deck layout, rig complexity, sheet winch location, etc. Whatever the design, we require a rig that is simple for a single person to manage, and is easily balanced.

If a dedicated cutter rig, then we would use a high cut yankee and a self tacking staysail. If primarily a sloop, then we'd plan to use a 150 or 135 Genoa with a foam luff that we can partially furl when using the staysail.

Standing rigging: We do not require rod rigging. Prior to departure we would replace any used rigging that would exceed its potential service life during our usage. We would carry spares for the longest length of cable and all required fittings to replace any diameter or fitting on the boat.

Running rigging: We will replace all running rigging for any used boat we purchase and take the old lines as spares.

Winches: We will convert or upgrade at least one main winch to electric to enable my wife to hoist me up the mast or pull me onboard via a halyard if I go overboard. If we buy an older boat with out of date (no longer being manufactured) winches, then we will replace them with Lewmar or Harkin.

Headsail furling: We will utilize existing or upgrade to roller furling for all headsails.

Mailsail furling: We will trade maximum effeciency for ease of reefing. We will use either in-mast or in-boom furling. I prefer in-boom, as it will be down where I can work on it if it breaks, and would have less weight aloft when furled. If in-boom, then we'd probably use a Schaefer or equivalent that had a mast track system that allows the guides to swivel/skew into the feeder as the main is furled.

Ground tackle:

We will use twin one-size-larger anchors, probably one CQR and one Bruce. We would carry a Danforth at the stern and for use as a kedge anchor. We will use 300' of all chain rode on the CQR and either all chain or 50' chain and nylon on the Bruce. We may carry a disassembled fisherman's. We will almost certainly carry a spare CQR.

We will require a bifurcated chain locker with a dedicated drain and a helm controlled wash down. The boat must have a heavily constructed, dedicated anchor roller/deployment structure.

Windlass:

We will require a helm and locally controlled electric windlass that has both chain and rode capability.

Motoring and Range

Given that cruisers report up to 50% of miles under power, I would prefer to have as close to 1,000 miles of range under power as possible, with the required fuel in multiple tanks.

Engine

We will only purchase and operate a diesel powered boat. We would like a modern motor, preferably Yanmar. We require solid performance under power, with plenty of horsepower to drive us out off a lee shore against heavy weather and seas. We will fit an oil change pump if not so equipped. We will fit dual, "hot selectable" secondary fuel filters if not so equipped. We will fit an engine room fire extinguisher system if not so equipped.

Propeller

If not included, we will fit a folding, reversing propeller before we depart. We will carry a fixed prop as a spare.

Bow Thruster

We would prefer to have one and would probably retrofit one if absent. 24V with smaller cables would be preferred.

Davits/Arch

We will probably utilize a radar arch as a davit, solar panel, GPS, Radar, etc. mounting point.

Electrical Power

I would prefer to have a boat that is designed and equipped for world travel rather than oriented to the U.S. 120 VAC. It would be my preference to be as 12/24V oriented on the boat as possible, with solar and possibly wind generating capability. This implies 12/24V AC and watermakers. I would like to avoid the requirement of running a 240/120V generator as much as possible. We would plan to carry redundant power/charging systems, i.e. dual alternators, three stage charging controllers, inverter/charger, solar panels, wind generator, etc. We will plan to install or supplement existing installation(s) to obtain a high amp hour capacity battery bank before departure. We will have one to two dedicated engine start batteries, fully isolated from the house bank.

Water

We will depart with a self-flushing, low-noise, reasonable capacity watermaker. Our goal is to have as much fresh water as we need for any and all purposes, i.e. boat washdown, showers, clothes washing, toilets, etc.

We will require fresh water tankage in the range of 200 gallons in multiple tanks.

Heads/Showers

We would prefer two heads and will require a dedicated shower stall. We would probably fit one vacuflush head and leave the other manual.

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Cabins

We require two cabins. The master needs an island double (minimum). We will require at least one sea berth. Some kind of office space, or a small stateroom that could be modified to contain a work area would be a very desirable feature. The ability to sleep two couples in separate private cabins and two children (in the saloon and settee if required) is adequate.

Workroom

A small workroom with a workbench capable of handling the loads of a vise would be in the range of required to highly desirable.

Saloon

We require lots of light and airiness in the saloon area. A raised saloon, center cockpit or perhaps a pilot house design may be required. Dark and ornate finishes are a negative. We would re-upholster most older interiors to update the color(s) and fabric(s).

Galley

We will probably retrofit any galley to have corian or similar counter tops and a non-stainless steel sink. We prefer refrigerators that have both top and side access. Separate freezers are a plus. A dishwasher is not required. Excellent light and ventilation and an opening portlight above the stove area is required. A crash bar and the ability to safely cook underway are required.

Navigation Station

I use and update paper charts, so a navigation station of reasonable size is required. Forward facing is preferred. Adequate room for mounting our anticipated electronics is required. I would prefer to have all electrical system controls at the navigation station.

Lazarettes

We require good to excellent lazarette capability and capacity. In general, large amounts of storage is a strong positive feature.

Engine access

We require excellent engine / engineering spaces access.

Teak

We would prefer a deck with NO teak. The less teak there is to maintain, the more attractive the boat is for our purposes.

Sailing & Navigation Electronics

For older boats, the existing electronics are meaningless given the rate of advancement in that area. We would be very likely to tear out the existing installation and put in whatever was current prior to our final test cruise. I am a recovering gadget-aholic, so it remains to be seen how many electronic systems we will install. Wind, depth, etc. are givens. VHF, Radar, Iridium, and integrated Chartplotter with helm repeater are probably the minimum. Forward looking sonar is on the list of potentials, along with SSB, etc.

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Entertainment Electronics

We don't watch TV, so gaudy entertainment systems are meaningless. We would probably have a small TV and DVD player for guests and grandchildren. We'll probably use an iPod based system for music.

Appliances

My wife would very much like a clothes washer. We will require a modern, efficient 12V refrigerator & freezer. A separate freezer would be a positive. We will require a pivoting propane stove. We will require the ability to mount a propane grill in the cockpit.

HVAC

Reverse cycle AC and forced air heat would probably be welcome in some of the climates we are planning to visit. At a minimum, we require excellent ventilation and fans throughout the boat.

Hatches, Portlights & Ports

We require replacement and new bedding of all plastic framed or crazed existing hatches, portlights and/or ports on any used boat. For new boats, we require high quality, brand name products with proven sealing ability and designed to withstand heavy weather.

Steering

We require wheel steering, preferably non-hydraulic. We require a solid mounting platform for the autopilot ram. Good access to the entire steering linkage and mechanism is a strong positive feature. We require a well engineered and practical emergency tiller design and implementation.

Lighting

We will probably convert all interior and navigation lighting to LED prior to departure. We require reading lights at all bunks, including the sea berth. We require red or blue night vision lighting at the helm, companionway steps, galley, aft head and navigation station.

Other

Intelligently designed and innovative storage space is a big positive. Flawless craftsmanship is expected. Design and engineering forethought, such as pre-runs of conduit for future wiring, is appreciated and desired.