Best systems for the boat we’re building Posted by Amelia - 2006/01/21 19:09 _____________________________________ Hello! Newbie here. My husband is building a one-of-a-kind houseboat, plans designed and fully drawn-up somewhere in his bac Thanks much for any advice! Amelia (here's the progress report:) http://reiheld.home.mchsi.com/boat.htm/ == Best systems for the boat we’re building Posted by peghall - 2006/01/22 05:28 _____________________________________ HI Amelia...welcome aboard! I moved your post to start a new thread (see the posting guidelines). You're planning to take 56' boat that has only one outboard engine into the ICW and tidal coastal bays??? What's the beam to be (how wide)? The link to your progress report doesn't work...maybe as a result of my moving your post To try to answer your questions... Composting and incinerating toilets Composting is a terrific concept, but IMHO, it's not quite there for onboard use yet (if it ever will be). A true composter is quite large and requires a considerable amount of maintenance. The only self-contained composter that actually works as advertised is the Sun-Mar unit...and it needs a space 29" high x 20" deep x 25" wide (includes enough room for the handle on the side thatrotates the drum and enough space to pull out the drawer), which is too big to fit in 99% of heads. The specs are the Sun-Mar website at: http://www.sun-mar.com Composting is a wonderful solution in on-land situations where there's no sewer and septic is impossible, but in addition to the size problem, there are also other issues onboard that don't exist in land situation: 1. what to do with excess liquids. 90% of human waste IS liquid...mostly urine, but even solids are mostly liquid. Excess liquids have to be drained off, or you have wet soggy organic material...and wet soggy material doesn't compost. Adding dry material--peat moss is the recommended material 'cuz it breaks down quickly--to each flush helps some, but not enough, and there's usually more liquids than the evaporator--which, btw, requires power--in the self-contained units can handle either. You can't legally drain 'em overboard (unless you're at sea), so they have to go into a holding tank...and there goes any advantage to installing a composter even if you have room in the head for it. 2. Enough peat moss to keep the thing working during an extended cruise can take up more storage space than a holding tank. 3. It needs a 3" vent stack...where are you gonna run THAT to??? 4. It needs power to run the evaporator. The AirHead Airhead Toilet, which is not a true composter, but a dessicator, is considerably smaller, but also has many of the same issues--it also needs power 24/7/365...and urine must be stored in jugs that must carried ashore or in a tank to be pumped out. IMO, your best bet is a macerating electric toilet (the Raritan SeaEra Raritan Engineering | Sea Era Electric Toilet is an excellent choice), a Lectra/San or PuraSan (CG certified devices that treat and discharge each flush overboard legally in all waters except those specifically designated "no discharge"), Raritan Engineering | Waste Treatment and a small holding tank for use only when you do find yourself in a "no discharge" harbo Yes, gray water can legally be discharged directly overboard in all US waters except for a few inland lakes. As for hot water, the best way to go depends on what kind of power is available....all electric marine water heaters require either 115v/ac--which means you'd need a generator--or a heat exchanger from an inboard engine. There are propane water heaters...just be aware of CG requirements for storage of propane tanks aboard. Speaking of power requirements...what about stove and refrigerator--how do you plan to power those? There's quite a bit more to spec'ing out the interior of a boat than you may realize...it's not like designing a house on land... You need to become very familiar with all USCG, ABYC, UL and other standards for fuel and electrical systems, battery and any propane storage, etc...the correct hoses to use for various systems...in fact, every system on the boat. And if I were you, I'd start following the weather and tide patterns for all the waters you plan to cruise before committing to just a single outboard...'cuz maneuvering a 56' boat that's essentially a "house" on a floating dock in close quarters against a current in any kind of wind is like trying park a billboard...you need all the power you can get, and maybe even bow and stern thrusters too. == Best systems for the boat we’re building Posted by Amelia - 2006/01/22 09:33 _____________________________________ Peggie, thanks so much for the great reply. So much good information to mull over. And thanks for moving the topic...oops. Here's the link again; I've dropped the /boat.htm-- maybe going through the home page will work better. http://reiheld.home.mchsi.com This thing's going to be 56x18-- unless hisself gets tired of building pontoon 'barrels,' and decides that 48' is plenty. As for power, I fumble-fingered, and dropped the 's'. We're planning to have a pair of 4-stroke outboards, probably 75hp or so eac We have such gorgeous quiet backwaters around here for anchoring out, so I'd love to be as energy-self-sufficient as possible. S My rapidly fading hope for quiet energy independence is why the dessicator heads concerned me- seemed like they'd need a lot Again, thank you for the great advice. I'll look forward to learning much more-- I hope BEFORE we screw things up, rather than a Amelia == Best systems for the boat we’re building Posted by peghall - 2006/01/22 11:07 _____________________________________ It's gonna be a pretty boat...but the fact that your RC model didn't have any problems in a crosswind is not a good indication that the full sized boat will. And I have serious doubts that even a pair of 75 hp engines are enough to keep you out of trouble...that's a LOT of windage to try to move with very little differential power! I think that either Duke or UNC has a test tank in which they can create conditions using models that replicate full size boats in real conditions. You might want to talk their engineering school about the minimum power needed for your boat in worst case conditions. That said, the Honda 4-strokes are SWEET engines! Just make sure you put a big enough pair of 'em on your boat. Spring for a diesel genator...the CO emissions from gas generator exhaust make it WAY too dangerous to run 'em overnight while you're sleeping, which is when you'd prob'ly want it most. For more information on the dangers of CO from gas engines and gensets Google "CO deaths boats." A properly installed and exhausted diesel, otoh, is safe enough to run overnight. Some 8" oscillating 12v fans can often be enough, even on a hot night, to make sleeping comfortable. A properly installed and maintained marine toilet doesn't have to stink...they've come a long way since you were a sailor. :) Do a little homework on what's available now, and then I'll be glad to answer your questions and even help you spec out the system. == Best systems for the boat we’re building Posted by Amelia - 2006/01/24 22:09 _____________________________________ Thanks a million, Peg. I'll get to doing the homework. I do appreciate and plan to take you up on your kind offer of help with the sp Now, following up on your thoughts re: outboard power, and other off-sanitation-topics, should I continue the discussion here, or s Thanks Amelia == Best systems for the boat we’re building Posted by peghall - 2006/01/25 00:02 _____________________________________ This forum is "reserved" for sanitation and plumbing issues. I suggest you post most of your questions about every other system in the "building and restoration" forum. Start new threads for each subject, and also each time you change the subject. ==

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