

Dave Mancini: Cruising Ideas, S/V Swan Outfitting Ideas, Pacific Seacraft 34 Technical Information

Why a Tiller Instead of a Wheel?

- Fewer things to break. No sheaves, wires, chain, clutches, brakes, gears etc. A broken wire or sheave at sea will ruin your voyage. I know several boats this has happened to.
- Better rudder feel. I can feel the weigh on the boat with my eyes closed.
- Quicker rudder response. I can move the rudder full starboard to full port in one second.
- I know what the rudder position is at a glance, no rudder indicator needed.
- The monitor self-steering works better (has more leverage) and is easier to adjust with a tiller. The monitor does 99% of the steering at sea, so it does the long tricks. The tiller is long enough to be easy to wield. Adjustable tiller lines keep the tiller movement within a small range (like on tiller steered sailing ships).
- Way more room in the cockpit at anchor (lash the tiller in a vertical position to the backstay).
- We can steer from the forward end of the cockpit (under the dodger) instead of behind the wheel where it's wet and windy.
- We can steer from practically any position in the cockpit, in fact: sitting down, standing up, forward, aft, etc., just by lifting the tiller.
- Easier to singlehand. I can steer no hands, standing up with the tiller between my legs, leaving my hands for sheets, winches, traveler, or my pockets. No pedestal in my way.
- Easier to lash the tiller for heaving to or adjusting out weather helm. Wheel brakes WILL fail and are not trustworthy unattended when they are set.
- Instruments can be mounted out of the weather at eye height when sitting. Compass is always in front of you.
- Cheaper to repair, replace, maintain.
- NOTE: If you are physically unable to climb underneath the cockpit floor to adjust steering cable tension or replace broken wires, sheaves, etc. and you intend to make long ocean passages, then you had better switch to a tiller. I have had to make repairs at sea down there. If you think you will be able to hand steer with that short-armed aluminum emergency tiller on a shorthanded boat for days at a time, think again.

Why No Outboard on the Dinghy?

- Cheaper, less weight, less storage space, less noise.
- No hassles starting, maintaining, storing, lowering and lifting or cleaning up after.
- No gasoline to buy, fill or store on the boat.
- We use an Avon Redcrest with 6.5 ft. wooden oars. I can row faster than I can walk and if one considers all the time it takes for all the hassles associated with an outboard, I think oars are faster!

Insurance

- We don't carry boat insurance, except for liability, but only when required by marinas (US) or in Mexico (we haven't been required to carry it anywhere else).

- We don't carry health insurance. Health care is so cheap outside of the US that we've been able to afford it out of pocket so far. For example, a doctor's office visit in Fiji was \$10. A visit to a doctor, including labs and a prescription for antibiotics at the hospital in the Marshall Islands was \$17. None of the pharmacies in the countries we've visited required prescriptions for non-narcotic drugs and the meds were much, much cheaper than in the US. For example, 30 tabs of amoxicillan 500mg cost us \$3 in Fiji. Note: Mexico now requires a prescription for antibiotics, but this is easy to get at pharmacies that have consulting doctors.

Medical On Board

- We use Peter Eastman MD's Advanced First Aid Afloat as our authority for first aid on board. In the book, he has a suggested list of supplies and drugs which we use as a guide to stock our first aid kit. The antibiotics, especially, have proved useful on a number of occasions in the Tropics.

Mail

- We have a close relative receive the small amount of mail we get. We arrange to have all bank statements and other documents that can be posted online, handled that way. Our relative informs us of anything important via email. Anything that requires our seeing, like income tax documents (1099's etc.), he scans and emails to us. We handle tax returns the same way, via scanned documents to our tax person.

Money

- We bank online. We use direct deposit to put money in the bank. We use ATM's to withdraw it. ATM's are available almost everywhere (e.g. Tonga!). For larger purchases, we use a credit card (NEVER a debit card) and pay off the card online through the bank. It's easy. We can send checks, transfer money and perform other banking functions online. It is really convenient.

- Internet access is available in most towns and cities. We use a Radiolabs WiFi antenna to reach providers anywhere within a mile or two of the boat.

Water

- In the tropics, we are typically able to catch all the water we need. The tall gunnels of Pacific Seacrafts make it easy. When it rains, it usually rains hard enough to rinse the deck in a few minutes. Then we plug the scuppers with rubber stoppers (clean rags will also work) and collect water from the deck just forward of the sheet winches by kneeling on the cockpit seats and scooping with a tall narrow Tupperware container that has a handle on it. Each scoop gleans two quarts or more (many times it rains so hard the decks fill to the caprail and we have to loosen the plugs). Using a large funnel, each scoop is emptied into a five gallon jerry jug. We have four jugs. Then we treat the water with bleach and empty the jugs into the boat's tanks using a funnel lined with a clean cloth to

catch particulate. It is possible to fill the stern tank by simply opening the fill cap and letting the rain flow in, but we've found it hard to know how much bleach to add if we do that. Also, it is harder to filter what goes into the tank.

- We rarely try to catch water at sea unless we are becalmed.
- In dry climates, like the Sea of Cortez, we jerry jug water from shore. Water is typically available for a nominal charge, even in small fishing villages.
- Chlorox water treatment: 1/2 teaspoon per 5 gallons.**
- We run the water through a portable water filter to remove the chlorine taste before drinking.

Reading List (our favorite cruising books)

- Cruising Under Sail (combines the old Cruising Under Sail and Voyaging Under Sail) by Eric Hiscock. If you can't find the combined edition, get the separate editions.
- How to Sail Around the World by Hal Roth
- Sailmaker's Apprentice by Emiliano Marino
- The Complete Rigger's Apprentice by Brion Toss
- Advanced First Aid Afloat by Peter Eastman MD
- Sail Power by Wallace Ross
- Practical Navigation for the Yachtsman by Frederick Devereux (includes celestial navigation)
- Meteorology by William L. Donn
- Royce's Sailing Illustrated by Patrick M. Royce

Pacific Seacraft 34 General Specifications and Info on s/v Swan hull number 305, (1996)

- LOA: 34' 1'
- LWL: 26' 2.5"
- Beam: 10'
- Mast Height above WL: 44' 3" (no appendages)
- Draft: 4' 11"
- Ballast: 4800 lbs. (standard keel)
- Hull speed: 7 knots
- Blocking height to pull rudder (wheel): 13 inches
- Blocking height to pull rudder (tiller): 31 inches
- Rudder length: 68-1/2" (shaft length with wheel steering)
- Rudder shaft diameter: 2-3/8"
- Rudder flax packing: 5/16"
- Hull Identification Number (HIN) Example: PSC34146K789
(PSC=Builders Code, 34= Model, 146=Hull Number, K7=Month, 89=Year)
Month Codes: Jan=A, Feb=B, Mar=C, Apr=D, May=E, Jun=F, Jul=G, Aug=H, Sep=I, Oct=J, Nov=K, Dec=L
- Bootstripe Color: Tartan Green by Sterling Paints.
- Gelcoat: Champagne by Spectrum Color.

- Mast & Boom: LeFiell Manufacturing (Santa Fe Springs, CA).
- Year vinylester resin was first used in PSC hulls (osmosis protection): sometime in 1988.
- Cockpit Winch Sizes (Lewmar): Sheet = 50's, Halyard and Stays'l = 44's (3)
- Galley foot pumps: one fresh water and one salt water (we never use the pressure system).

Pacific Seacraft 34 Engine and Drive Line Related Data

- Engine mounts (3JH2E) Yanmar p/n's: 124772-08341 (tension 100 starboard), 121370-08351 (tension 150 port).
- Oil Filter: Wix 51568, Fram PH5046 or Yanmar 119305-35151.
- Fuel Filter: Dual Racor 220 series. Filter #R24S (2 micron).
- Impeller: Yanmar 129470-42532
- O-Ring for Impeller: Yanmar 24341-000600
- V-Belt: Yanmar 171087-42280 or Goodyear 17456.
- Propellor: 3-blade 17" x 10"
- Propellor shaft: 1" x 36"
- Cutless Bearing: 1 x 1-3/8" x 4" (Morse "Bloater").
- Shaft Coupling: Buck Algonquin 50-MCY00410.
- Coupling bolts torque: 22 ft./lbs. but only if 304 s/s 3/8" fine thread used.
- Shaft Packing: 3/16"
- Hose between packing gland and shaft log: Buck Algonquin: 80ho175
- Prop anode (zinc) complete with nut: Electroguard PN-2006-R (3/4" - 10 RH nut)
- Prop anode (zinc) only: propeller nut anode Camp "C" (1" - 1-1/2" shaft)

Anchors and Gear

- 45 pound Manson Supreme with 240 feet 3/8" HDG high test chain (G4).
- FX-16 (10 pound) Fortress with 20 feet 5/16" HDG chain and 200 feet 3-strand nylon line.
- Muir VM-500 manual windlass.

Electronics and Navigation

- Icom M802 HF marine radio (SSB and Ham: we highly recommend getting a general class, or higher, Ham license (KGØZC).
- Icom M304 VHF
- Icom M72 submersible handheld VHF (in ditch bag).
- Furuno GP5 GPS and paper charts, supplemented by cruising guides (Two old Lowrance handhelds for backup). We have a sextant and tables for backup. I navigated with a sextant while cruising in the 1970's and 1980's. I use H.O. 229.
- ACR GlobalFix EPIRB
- Simrad AI50 Class B AIS, transmit and receive (stand alone).
- Sony Stereo

Batteries and Charging

•Three fused (150A) group 27 Lifeline AGM's with two house and one start, but we have always had enough power to always keep the switch on "Both" for better battery balance and life. We have never drawn the bank of three deeper than 12.6 volts in seven years of cruising.

•Two 85 watt Kyocera solar panels wired to a Blue Sky 2512i with an IPN remote display.

Safety Gear

- All Coast Guard required items.
- Plastimo four man liferaft in valise stowed in port cockpit locker.
- Avon Redcrest dinghy which is also our tender, no engine (6.5 ft. oars).
- Ditch bag with flares, watermaker, food, signal mirror, UW flashlight, handheld VHF, horn.
- Bolt cutters for cutting rigging (24").
- Jordan Series Drogue.

Running Rigging (Singlehander's Package)

- Main Halyard: 96' (7/16")
- Jib Halyard: 97' (7/16")
- Main Sheet: 63' (1/2")
- Jib Sheet: 52' (1/2)
- Traveller: 14" (5/16")
- Staysail Halyard: 68' (7/16")
- Staysail Sheet: 36' (3/8")
- Reef Line1: 61' (3/8")
- Reef Line2: 66' (3/8")
- Running Backstays: each is 50' T-900 rope with a spliced in solid thimble at the tang and led to a sheet winch.
- All shackles are Wichard (you get what you pay for).
- Whisker pole: Forespar 402200 (West Marine 285157). 148.5" collapsed X 265.25" extended. Forespar UXP fitting inboard, UTR fitting outboard. Forespar deck mount pole chocks (cleaner air for mainsail and if you lose your rig, you don't lose your jury rig).
- Tides Marine SailTrack (StrongTrack) sail track system.

Standing Rigging dimensions (pin to pin)

- All rigging is 1 x 19, 316 stainless steel with Hayn Hi-MOD terminals (no swages).
- Jibstay: 41' 1.25" (Swan's is 41' 3.5" due to mast rake).
- Backstay: 43' 5"
- Uppers: 39' 5"

- Forward Lowers: 20' 1.75"
- After Lowers: 20' 3"
- Forestay: 27' 10"

Standing Rigging (how the Swan is tuned)

- The overall goal is to be able to feel, but not see, a little slackening in the leeward shrouds when close reaching at about 20° of heel, or about where it is time to reef. We also want to keep the jibstay from sagging too far to leeward.
 - The mast is raked about as much as the fore and aft width of the mast.
 - Swan's rigging is 9/32" 316 stainless steel (9250# breaking strength), except for the jibstay, which is 5/16" (10,600# breaking strength).
 - We tune with the forestay (staysail stay) slack. Then we tension it lightly (about 300 pounds) after the rest of the rigging is tuned.
 - The uppers are tensioned to about 650 pounds tension (Loos gauge).
 - The forward lowers are tensioned to about 700 pounds.
 - The after lowers are set to about 350 pounds.
 - The backstay is set to about 650 pounds.
 - The jibstay turnbuckle is set so that when the backstay is tensioned to about 650 pounds, the jibstay will be about 870–900 pounds (5/16" wire) and there is about 2" of aftward bend at the tip of the mast.
 - When the forestay is finally tensioned, it will cause the forward lowers to ease to about 600 pounds and the after lowers to tighten to about 450 pounds. The bend at the mast tip will also increase slightly.
 - When sailing with the staysail, the running backstay tensions the forestay and helps straighten its luff.