

SAN JUAN SAILING

ANNUAL PREVENTIVE MAINTENANCE SCHEDULE FOR 2015 SEASON

Responsibilities:

The Maintenance Pro (MP) will contact the Boat Owner (O) so the O can decide who does what, after which the MP will circle the "M" or the "O" by each task AND deliver the PMS to Fleet Manager (Jon Van Dyken) who will stamp the ORIGINAL of this checklist with "Official Working Copy" (in red). Then the MP will place it in the Charter Guest Reference Notebook (at the back end of the 3-ring binder). As each task is completed, the person completing the task will initial & date the "Official Working Copy" onboard the vessel.

OPTIONAL (but not recommended, so consult with your maintenance pro):

- *Owners may opt for haulout once each 18 months or 24 months. For 24 month haulouts, the criteria listed on the top of the Haulout Checklist must be met. This is an experiment to determine if we can reduce costs while still maintaining quality and safety. As such, this procedure is subject to immediate revocation.*

IMPORTANT:

Boat Owners and their MPs are responsible to keep this "Official Working Copy" (onboard the vessel) up to date with initials & dates as they accomplish tasks.

For Charter-Ready Certification:

Vessels are eligible for charter only when 100% of the "essential" Spring tasks are completed, initialed & dated. Items with a "+" are required but not "essential" and may be "pushed" beyond Charter Fest, but must be accomplished prior to June 1.

When all "essential" tasks are complete the MP will bring this schedule to General Manager Rick Sale for review and certification. Once certified by Rick's initials here _____, the MP will place it back on the boat.

Boat Name: _____ Maintenance Pro: _____

FALL 2014 Complete no later than December 31, 2014 (or earlier for freeze damage control) all required tasks below:

1. **or SJS** Date & Initial: _____ Add green (always on), yellow ("on" only when needed) and red (never touch) "dot" labels by all circuit breaker switches.
2. **M** Date & Initials: _____ Apply two coats varnish/Cetol/polyurethane to exterior teak. Renew areas as necessary. (Starting in September, look for first good weather window and schedule break.)
3. **M** Date & Initial: _____ Check with owner regarding fall/winter use of vessel before removing sails. Remove sails and deliver to sail maker/loft for annual inspection and repair, and ask sail maker to ensure minimum three tell tales on both main (leach) and two on jib (luff). Pick up sails and store onboard in v-berth, making sure sails are not touching the overhead or ceilings for good ventilation.
4. **M** Date & Initial: _____ Inspect dodger for signs of deteriorating stitching, pulled-out grommets, loose or missing snaps (male and female), strap and buckle failures. If any issues are detected, remove dodger and deliver to canvas specialist for detailed inspection and repair. Pick up dodger and store onboard below decks, making sure dodger is not touching the overhead or ceilings for good ventilation. (Recommend removing and storing all dodgers below decks.)

5. **M** **Date & Initials:** _____ Lift all floorboards and thoroughly clean bilge of dirt, hair, crumbs, odors and mildew (all compartments). Consider using enzyme-action cleaners. (Vinegar/water solution is inadequate to reduce odors that build up in bilge.)
6. **M** **Date & Initials:** _____ After thoroughly cleaning center bilge area with fresh water and keel bolts with fresh water, soap and bronze brush, dry and coat all “naked metal” keel bolts/nuts (those without paint or fiberglass coatings) with *LANOCOTE* as a moisture barrier to inhibit “pink” pigment electrolysis corrosion and rust.
7. **M** **Date & Initials:** _____ Check smooth operation of the Y-valve(s). If any are stiff, notify Maintenance Pro to lubricate or replace.
8. **M** **Date & Initial:** _____ Check ports and hatches for leaks. Reseal where necessary. Clean and coat opening port and hatch gaskets with talcum powder.
9. **M** **Date & Initial:** _____ Ensure cabin is properly vented, heater(s) set properly, cushions lifted or removed, drawers/doors open for ventilation to prevent mildew.
10. **M** **Date & Initial:** _____ Before first predicted freeze, drain fresh water tanks, scrub interior (if accessible) to remove algae, rinse, treat with bleach solution to prevent algae build-up. Next day, drain to prevent freezing.
11. **M** **Date & Initial:** _____ Before first predicted freeze, check antifreeze level and freezing point in engine, genset (if applicable) and diesel furnace hot water cabin heat system (if applicable). Add protection if necessary. Test with PH test strips (bought in bulk from Owners Consumables Fund), and add corrosion inhibitor to heating system and/or engine(s) as necessary.
12. **M** **Date & Initial:** _____ Before first predicted freeze, close all seacocks below waterline except engine and genset (if applicable) for winter months to minimize danger of seacock, pipe and hose freezing.
13. **M** **Date & Initial:** _____ Before first predicted freeze, open all compartments, cupboard doors, below-deck entry doors and secure open or “tape open” (with painters tape) to assure good ventilation and distribution of heat (from space heater and ventilators).
14. **M** **Date & Initial:** _____ Before first predicted freeze, drain water from all faucets **INCLUDING** swim step shower’s faucet.
15. **M** **Date & Initial:** _____ After flushing holding tank(s) thoroughly, add prescribed amount of “No Flex Digester” (follow directions on container) into toilet and pump 20 times on wet-bowl setting so solution reaches holding tank. This will foster bacterial growth to eliminate “fecal lard” build up in the bottom of the holding tank(s). Then pump on dry-bowl setting to clear toilet of all standing water. Add RV antifreeze and flush on dry-bowl setting to flush solution into toilet fixture(s).
16. **M** **Date & Initial:** _____ Test the electric and manual bilge pumps to ensure they pump water. (Rebuild/replace if necessary.) Protect manual pump(s) from freezing. (Check to make sure there is one independent bilge pump on a float switch and “hot wired” to the house bank. If not, install.)
17. **M** **Date & Initial:** _____ Before first predicted freeze, “pickle” watermaker (if applicable).
18. **M** **Date & Initial:** _____ Check battery voltages (with charger “off”) and, on unsealed batteries, the water level. Load test all batteries, replace if necessary. Assure all connections are tight and coated with silicone grease. Turn charger back “on”.

19. **M** **Date & Initial:** _____ Put hand on shorepower/boat connection. If warm, find source of heat buildup. Check shorepower cord connection (male end, at dock box) for signs of black electrical arcing on prongs or prong holes. If present, cord has a short inside...replace! If okay, lubricate prongs at vessel's electrical receptacle and at end of cord with dielectric silicon grease and re-plug into boat and dock box. (Turn dock box power breaker "on" and vessel's charger breaker "on".)
20. **M** **Date & Initial:** _____ Check seals / O-rings on deck filler caps. If deteriorated, repair to prevent leaks (especially water into diesel tank and contamination into fresh water tanks). Make sure safety chains are attached to caps. Lubricate with NSF-approved SUPER LUBE.
21. **M** **Date & Initials:** _____ Replace raw water impeller in engine, and generator (if applicable). NOTE: For Volvo and Perkins diesels, replace every 200 hours.
22. **M** **Date & Initials:** _____ Replace primary fuel filters (2 micron) on engine and genset (if applicable), bleed fuel system and assure no air locks, test for proper operation and no leaks.
23. **M** **Date & Initials:** _____ Check belts for tension (1/2 inch deflection) and wear (look for black powder and cracks in belts). Adjust or replace.
24. **HIGHLY RECOMMENDED (BUT OPTIONAL):** **M** **Date & Initial:** _____ **No one** Pick up oil sample kit from NAPA (best price). Take oil samples (old oil, before change) from main engine, transmission, and genset (if applicable) and submit to testing service for analysis and recording in oil sample log. Report any problems to owner and SJS.
25. **M** **Date & Initial:** _____ / **engine hours:** _____ If not changed for past 12 months, change oil (recommend Delo 400 15/40) in engine and in genset (if applicable).
26. **M** **Date & Initial:** _____ / **engine hours:** _____ Change transmission oil. IMPORTANT NOTE: Check with engine manual to be sure the proper transmission oil is used for individual makes/models.
27. **M** **Date & Initial:** _____ Check all bolts, screws, hose clamps, engine fittings for tightness.
28. **M** **Date & Initial:** _____ Check hoses for wear (i.e., chafe, cracking, swelling and general deterioration). Replace as necessary. Add chafe guards as necessary.
29. **M** **Date & Initial:** _____ Wipe engine and mechanical components in engine compartment with oily cloth to remove dirt and grease (use degreaser if necessary). Remove any rust, spot paint engine and other components if necessary for "like new" appearance. Coat engine with *WD-40* or *BOE SHIELD* anti-corrosion spray.
30. **M** **Date & Initial:** _____ At end of season, make sure fuel tanks are full. Add STANADYNE (1 oz per 4 gallons) and Racor Biocide (1 oz per 40 gallons "shock", per 80 gallons maintenance).
31. **M** **Date & Initial:** _____ 1) Remove floorboards or inflatable floor from inflatable dinghy, if applicable. Thoroughly wash sand/rocks from inside hull. If wood floorboards/transom, check condition and, if needed, re-varnish or repaint each with *PETTIT EZ-POXY* paint (gray recommended). 2) If inflatable, re-insert floorboards and re-inflate dinghy, verify leak-free. (If dinghy leaks air, spray bottle of soapy water to find leak and repair.) 3) Clean with *SUPER CLEAN* (NOT acetone) or *SEA POWER* cleaner/wax. Protect with *303 AEROSPACE PROTECTANT* or *ISLAND GIRL* protectant or *FLEET WAX*. 4) Store in dry storage, or upside-down on dinghy cables at slip or on dinghy rack, secure for winter.
32. **SJS** **ONLY** **Date & Initial:** _____ Take outboard to West Coast for service (at group rate).
33. **M** **Date & Initial:** _____ Inspect BBQ and replace any worn parts, remove from rail and stow in cockpit locker for winter protection.

34. **M** **Date & Initial:** _____ Affix nylon string or wire tie to dorade vents (if applicable) to prevent loss.
35. **M** **Date & Initials:** _____ Remove and check exterior ignition control panel for water intrusion, loose wires and corrosion, spray with *WD-40* or *BOE SHIELD* anti-corrosion spray to prevent corrosion/rust.
36. **M** **Date & Initials:** _____ Remove electrical control panel. Test all electrical connections for corrosion and tightness. Check all electrical connections for tightness/corrosion in bilge and in engine compartment and any other areas that may be close to water.
37. **M** **Date & Initial:** _____ Confirm all stanchions secure. If stanchions have tension bolts for uprights, check bolt tension. (If loose, apply *LOCTITE* and retighten.) Confirm lifeline gates and latches operate smoothly, lubricate. Tension any cables between stanchions as required for tightness and safety. Check for rust at life line fittings (replace when necessary). Inspect (and replace if needed) ring cotter pins.
38. **M** **ONLY** **Date & Initial:** _____ Lubricate steering chain and shaft(s) with PTFE grease. Grease pedestal shaft(s) bearings with suitable lubricant. Inspect and lubricate steering quadrant sheaves (if applicable) with PTFE grease. Below decks, check cables for tension and wear. Replace cables if worn. To prevent slacking, tighten all bolts/nuts and (if re-tensioning is indicated) apply medium-hold *LOCTITE* to threads of double nuts, then tighten.
39. **M** **Date & Initial:** _____ Check throttle and shift controls and cables. Lubricate, adjust or replace, as needed. **RECOMMENDED:** Pre-run spare cable(s) to engine and transmission.
40. **M** **Date & Initial:** _____ Lubricate and inspect anchor windlass. Check electrical connections and ground wire attachment bolt for tightness.
41. **M** **Date & Initial:** _____ Assure that there is a shackle between anchor and swivel connector to chain. Tighten shackle pin and secure with seizing wire, including on shackle at chain's bitter end. Check that pin is secure on SS swivels that cannot be seized; if in doubt, re-bed with blue Loctite.
42. **M** **Date & Initial:** _____ Inspect bulkheads, tables, galley fiddles, doors, companionway stairs and cabin sole. (Expect to re-varnish sole annually.) Renew to "like new" varnished and/or oiled finish.
43. **M** **Date & Initial:** _____ Assure "stop knots" at end of all halyard and all sheets are secured with zip ties or needle and thread. (Exception: Sheet that must be removed for spinnaker.)
44. **M** **Date & Initial:** _____ **Every 5 years**, replace non-PVC head system waste hoses. Use PVC pipe wherever possible, and top-quality thick-wall hose where necessary. If "premium" hose (e.g. Trident) is used, please change hose replacement interval to every 10 years. (Also, any lengths of PVC pipe can follow the every-10-year replacement interval.) Use two stainless hose clamps on all hose connections. Note: Write on hose (inside a compartment, but visible when compartment is opened) with indelible marker both "hose installed (00/00)" AND "change on (00/00)" (5 or 10 years hence).
45. **M** **ONLY** **Date & Initials:** _____ **Every 5 years**, thoroughly service the diesel cabin heater. (Follow service manual.) Or subcontract task to authorized service technician or company.

WEBASTO (use certified Webasto technician only):

- **Forced Air System: Annually**, inspect/replace filter, check lint/dust around cowling, check ducting, check exhaust and exhaust blanket. Test run for 1-2 hours. (In addition **on odd numbered years**, open unit, clean and inspect, evaluate seals.)
- **Hydronic System: Annually**, inspect/replace filter, check pH balance, check fans, check exhaust, quick air bleed, blow coils out, quick check combustion tube (clean as necessary). Test run for 2-4 hour. (In addition **on odd numbered years**, change fuel nozzle, change water conditioner filter, wipe photo eye clean, clean electrodes, pull

combustion tube our and wire brush clean.)

46. **M** **O** Date & Initial: _____ On all holding tanks, use 1" air vent hoses (replace fitting to larger 1" if necessary) to prevent overflow clogs (debris) in the vent hoses leading to "vacuum lock" which prevents/hinders holding tank discharge, and for odor abatement (microbes in tank need lots of oxygen). For through-hull, use stainless steel (Mfg# THMB1.000S by Marine Hardware). In most cases, leave the "clam shell" off. OPTIONAL: For better aeration for microbial action and odor reduction, install TWO 1" vent hoses per tank.
47. **M** **O** Date & Initial: _____ Replace any non-skid on stairs if worn. Clear tape coated with varnish or brown non-skid tape recommended.
48. **M** **ONLY** Date & Initials: _____ Inventory tools in onboard toolbox against SJS's required Tool List. Purchase and/or replace tools as necessary. Wipe down all metal tools and parts with WD-40. NOTE: Maintenance professional is required to confirm to SJS that all required tools are aboard.
49. **M** **ONLY** Date & Initials: _____ Inventory spare engine parts against SJS required "Engine Spares" (see and check off list below). Purchase and/or replace engine spares as necessary. Place items in plastic (e.g., Sterilite) box labeled "Engine Spares". NOTE: Maintenance professional is required to confirm to SJS that all required engine spares are aboard.
50. **M** **ONLY** Date & Initials: _____ Inventory general spare parts against SJS required "General Spares" (see and check off list below). Purchase and/or replace general spares as necessary. Place items in plastic (e.g., Sterilite) box labeled "General Spares". NOTE: Maintenance professional is required to confirm to SJS that all required general spares are aboard. OWNERS: Location of general spares must be clearly indicated in Notes from Owner, under "S" for "Spares Parts".

(See next page for required tools and spares – check off that all are aboard)

Assembled in BOX with clear plastic cover labeled: “Engine Spares”

Spare fuel filters for engine, generator (if applicable)
Spare filters for watermaker (if applicable)
Spare belts for engine, and generator (if applicable)
Spare impellers for engine, and generator (if applicable)
Impeller “puller” tool (needed on all boats)
Spare impeller plate gaskets
Minimum of a half dozen 12” zip ties

In a compartment (with location noted in you Owners Notes):

1 quart each spare oil for engine, and for generator (if applicable)
1 gallon of appropriate engine coolant (NOTE: Not automotive engine coolant.)
Battery water (distilled) – write “for batteries” on container

Replacement head pump (for manual pump toilets only) / plus a dozen pairs of surgical gloves

OR

If you have a VacuFlush head, 4 duckbill valves per toilet plus on bowl seal and one ball valve assembly.

Assembled in BOX with clear plastic cover labeled: “General Spares”

Minimum of 2 spare light bulbs for each type of navigation and cabin lights
To consume less power, recommend replacing halogen bulbs with L.E.D: Imtra – IMT ILBPG4-10c (“bright white” light for heads) and Imtra – IMT ILBPG4-10w (“warm white” light for all other areas)
Minimum of a dozen 12-inch zip ties
2 hose clamps for each size fitting
6 cotter rings, various sizes
Various screws, nuts, bolts
2 spare lifeline pins – clevis pins
Spare stanchion tensioning screws (if applicable)
Whipping twine for end of sheets
Stainless seizing wire
Sail repair needles and thread, sail repair tape

If applicable, assembled in BOX with clear plastic cover labeled: “Hydronic Heater Spares”

Coolant conditioner filter
Fuel Nozzle
Photo eye

Maintenance Professional (only) Date & Initials: _____

“WINTER WATCH” & STORM CHECK

October - April DURING AND AFTER STORMS: Complete 1-6 below.

| | | | |
|------------------------|------------------------|------------------------|------------------------|
| Date & Initials: _____ | Date & Initials: _____ | Date & Initials: _____ | Date & Initials: _____ |
| Date & Initials: _____ | Date & Initials: _____ | Date & Initials: _____ | Date & Initials: _____ |
| Date & Initials: _____ | Date & Initials: _____ | Date & Initials: _____ | Date & Initials: _____ |
| Date & Initials: _____ | Date & Initials: _____ | Date & Initials: _____ | Date & Initials: _____ |

1. **M** Check bow, stern and spring lines for wear, alter/replace (add chafe guards) as needed. Recommend double bow lines to the finger pier cleat for added holding in storms.
2. **M** Check fenders for placement, pressure, wear. Reposition, inflate or replace as needed.
3. **M** Assure dinghy remains secure.
4. **M** Check power cord (make sure it’s out of the water). Place hand on shorepower/boat connection to feel for warmth/potential fire hazard. Check power is “on” and charger is “on” in the boat.
5. **M** Check canvas (dodger, bimini, exterior window coverings, binnacle cover, winch covers, rail protective covers, dinghy and/or outboard covers, etc.) and secure as necessary. These items tend to “unzip” or “unsnap” in high winds, then flog or rip and even blow overboard!

If severe freeze is predicted:

6. **M** Confirm anti-mildew heater(s) “on”. While below, inspect for mildew, clean if necessary. Adjust temperature setting to higher-heat setting. IMPORTANT: Following freeze, lower temperature!

MONTHLY OFF-SEASON: Complete 1-7 below.

| | | |
|------------------------|------------------------|------------------------|
| Date & Initials: _____ | Date & Initials: _____ | Date & Initials: _____ |
| Date & Initials: _____ | Date & Initials: _____ | Date & Initials: _____ |
| Date & Initials: _____ | Date & Initials: _____ | Date & Initials: _____ |

1. **M** Start main engine and genset (if applicable), run under load (in gear, forward and reverse) up to operating temperature to prevent corrosion of cylinder walls and on transmission gears.
2. **M** Run diesel cabin heater (on highest setting) for a minimum of 30 minutes.
3. **M** Run refrigerator and freezer (if applicable) for a minimum of 30 minutes.
4. **M** If necessary (varies by vessel...check with maintenance pro), inspect and replace engine and genset zincs. (If monthly checks reveal a slow rate of deterioration, then less frequent checks okay.) List comments below:

5. **M** Check bilges. Operate bilge pumps and float switches. (Repair/replace if necessary.)
6. **M** Rotate rudder post to lubricate shaft and reduce exacerbated passive electrolysis.
7. **M** Conduct security check for entry, damaged or missing equipment. (Notify SJS if problems.)
8. **M** Put hand on shorepower/boat connection. If warm, find source of heat buildup. Check shorepower cord connection (male end, at dock box) for signs of black electrical arcing on prongs or prong holes.

ANNUAL HAUL-OUT

Note: Owners may opt for haulout every 18 months or every second year to reduce costs, provided that, if the 24 month option is chosen, it is subject to these conditions:

- during prior year haulout the boat has two coats of ablative paint and three coats at the leading edges and extending two foot below the waterline.
- all inspection items below are performed by a diver
- clean and wax hull at waterline by hand; optionally wax upper hull with electric buffer at dock, using extreme care to avoid electrical accident (cost is higher due to risks, consult with maintenance pro)

Complete all required tasks, plus Spring Checklist, Deep Clean and Shakedown Cruise no later than one week prior to Annual Spring Launch Celebration and/or Charter Fest

NOTE: If you would like your vessel eligible for pre-Charter Fest charters (those prior to mid-April), please be sure your annual haulout is completed before December 31, 2014. (Consult your maintenance pro.)

1. **M** Date & Initials: _____ Schedule boat for haulout with yard and deliver to yard.
2. **M** Date & Initials: _____ Pressure wash bottom (normally done by yard).
3. **M** Date & Initials: _____ Check hull and keel for damage. Check running gear for damage: shaft(s), strut(s), prop(s), rudder(s). Report any damage to SJS. Arrange for any necessary repairs after consulting with SJS. (SJS expense if could be detected by diver, unless caused by owner.)
4. **M** **ONLY** Date & Initials: _____ Evaluate condition of bottom paint. Complete 5 and 6 below, or comment below. Note: ablative paints recommended; after years or coats of ablative, occasionally repainting may not be necessary. Some owners opt for the initial base coat in a different color than subsequent coats. This allows easy identification of when additional coats are needed.

Maintenance Professional's Paint Condition Evaluation/Comments:

5. **M** Date & Initials: _____ Sand or rough up existing paint surface (where needed) to prepare for fresh coat of bottom paint. Wipe surface with Acetone prior to painting.
6. **M** Date & Initials: _____ Obtain and mix paint (ablative recommended), tape waterline with special painter's tape, then paint bottom. Add a second coat from the water line down 2 feet and on all leading edges.
7. **M** Date & Initials: _____ Sand propeller shaft(s) and propeller(s) with #400 sandpaper. Service folding prop (if applicable).
8. **M** Date & Initials: _____ Replace all zincs.
9. **M** Date & Initials: _____ Inspect fiberglass on hull and deck for any blisters.
10. **M** Date & Initials: _____ Rub out hull gelcoat scratches with rubbing compound and power buffer. Inspect for chips and scratches through the gelcoat. (Report any chips/scratches to SJS. Arrange for any necessary gelcoat repairs after consulting with SJS -- SJS expense, unless caused by gelcoat voids or by owner.)
11. **M** Date & Initials: _____ For non-painted hulls: Wash, if any minor gelcoat scratches, buff

(lightly with buffing compound) and wax hull. Polish until a sheen. For painted hulls: Wash and (optional) apply paint brand's recommended restorative/protectant. If owner does work, MP must inspect for quality control -- Maintenance Pro Initials: _____ (NOTE: Wait until late March to buff / wax of smooth surfaces on deck and coach roof. Do NOT wax non-skid areas!)

12. **M** Date & Initials: _____ Operate all seacock valves. If stiff and do not open/close easily, disassemble, clean, emery cloth any scratches, grease and reassemble OR replace. On the interior, yank on seacock to check integrity (not to exceed 50 lbs force). On exterior, tap seacocks with screwdriver and hammer—if pink pigment, replace seacock.
13. **M** Date & Initials: _____ Check condition of cutlass bearing for excessive or uneven wear, replace if necessary.
14. **M** Date & Initials: _____ Evaluate rudder play. If excessive, find cause and correct.
15. **M** Date & Initials: _____ If needed, repack rudder packing gland.
16. **M** Date & Initials: _____ Service thruster(s)...if applicable. (Follow service manual.)
17. **M** Date & Initial: _____ **Every 5 years**, have the fuel tanks professionally checked (recommend Petro-Clean) and, if sediment is found, polish the fuel in every tank to remove sediments and bacterial growth. Note: Write on the tank with indelible marker “fuel polished 00/00”. (If no “fuel polished” date on tank, and if the boat is more than 5 years old, arrange for inspection by Petro-Clean.)
18. **M** Date & Initials: _____ **Refloat boat, deliver boat to slip and secure.**
19. **M** Date & Initials: _____ After back in slip for 48 hours, check alignment of shaft with a feeler gauge, re-align engine if necessary. During realignment, check tightness of the nut that secures the coupling to the transmission.
20. **M** Date & Initial: _____ With flashlight and mirror, check all motor mounts for signs of “general wear” (crack in a bolt, weakening of rubber sometimes coming off mount, u-shaped bracket settling down onto base). If no obvious signs of wear, look for sagging/sinking of the engine toward any of the mounts. Replace if signs of wear or if engine is tilting forward, aft or to one side. (If realigning engine, tilt becomes more apparent.) Expect to replace motor mounts after 5-10 years.
21. **M** + Date & Initials: _____ Tighten all engine, transmission and generator (if applicable) fittings and motor mounting bolts.
22. **M** + Date & Initials: _____ Check (and tighten if needed) the set screws on the dry seal on shaft(s) and assure that a hose clamp is installed close to and forward of the dry seal. For Volvo-type shaft seals, check manufacturer “replace date”. If replacement is due, replace with a P.Y.I. dripless shaft seal (using double-stacked neoprene set screws, and consider *LOCTITE*) and place a hose clamp, forward of seal, to secure it in place.
23. **M** Date & Initials: _____ Clean and lube sail slides for main with *McLUBE* dry lubricant or equivalent. Bend on main (if haulout is in spring versus fall). Inspect any lazy jacks.

SPRING 2015: Complete no later than Spring Launch Celebration/Charter Fest all tasks below.

(NOTE: Bellingham “CharterFest” Boat Show is typically mid-April each year.)

1. **M** **O** **ONLY** Date & Initials: _____ Read and edit for accuracy and completeness (need to cover all systems on your vessel). If not sure about accuracy of the operations procedure for a system, check with your maintenance pro or SJS. (NOTE: Inaccurate operations procedures in Owners Notes for a system on the vessel will make it difficult/impossible to hold a charter guest responsible for damage to that system.) **IMPORTANT:** Location of your “Engine Spares” box plus the extra oil and coolant, your “General Spares” box, and your tool box (or bag) must be clearly indicated in your Owners Notes under **E** for “Engine Spares, Oil & Coolant”, under **S** for “Spare Parts (general)” and **T** for “Tools”. **At end of Notes, list up to 10 “review questions” that highlight specific unique aspects of your boat...10 “must know” items.**
2. **M** **O** + Date & Initials: _____ Inspect and if necessary, apply two coats varnish/Cetol/polyurethane to exterior teak trim. Renew areas as necessary. Note: no treatment for teak decks; optional for teak rails; mandatory for grab rails/trim. **Cetol recommended. If raw teak, apply 3 coats Cetol Natural, then 3 coats Cetol Gloss. If varnished, sand with 600-1000 grit, then apply 3 coats Cetol Gloss. Thereafter, apply two coats Cetol Gloss annually or one coat in spring, one coat in fall.**
3. **M** **O** + Date & Initials: _____ Inspect canvas for mildew or dirt and if present, clean canvas (e.g., dodger, bimini, sail cover) with “Oxy Clean” **or other recommended mildew remover**, replace tension bungees and snaps as necessary. Apply Vaseline to all snaps. (Machine wash boom cover on gentle cycle with Woolite or Oxy Clean, line dry.)
4. **M** **O** + Date & Initials: _____ If Bimini, check that zippers are operational (with no teeth missing) and fasteners are tight and complete.
5. **M** **O** Date & Initial: _____ Check battery voltages (with charger “off”) and, on unsealed batteries, the water level. Load test all batteries, replace if necessary. Turn charger back “on”.
6. **M** **O** Date & Initials: _____ Turn on all interior lights. Replace bulbs if in-op.
7. **M** **O** Date & Initials: _____ Replace batteries in CO detector(s).
8. **M** **O** Date & Initials: _____ Turn on running, steaming, deck flood, anchor and other exterior lights, check connections for corrosion if not working and replace if necessary.
9. **M** **O** Date & Initials: _____ Check all non-engine hoses and pumps to assure they are operational.
10. **M** **O** Date & Initials: _____ Open all seacocks. Assure that there are wooden plugs (appropriate size) attached with nylon string to each seacock.
11. **M** **O** Date & Initials: _____ Start engines and genset (if applicable) and warm up, verify proper operation.
12. **M** **O** + Date & Initials: _____ Spray engine and electrical components with WD-40 to prevent corrosion/rust.
13. **M** **O** + Date & Initials: _____ Grease rudder shaft(s) (if zerk fitting available), check adjustment of rudder packing gland (if applicable).

- 14. M ○** + Date & Initials: _____ Check P.Y.I. dripless shaft seal (if this type is on vessel). Examine for signs of rubber deterioration/cracking. Assure that double-stacked neoprene set screws (two pairs) are tight...and assure second set screws are actually being used. Consider using *LOCTITE* if compatible with neoprene set screws.
- OR**
- If the vessel has the “Volvo” type black rubber shaft seal, grease the inside lip of rubber seal with waterproof grease.
- 15. M ONLY** + Date & Initials: _____ Remove drum and inspect all winches. If necessary, clean parts in kerosene, lubricate bearings with winch grease and light lubricant on pawls, reassemble.
- 16. M ONLY** + Date & Initials: _____ Service all Jabsco toilets: Replace flapper and duckbill valves. If necessary, rebuild pump or replace pump OR replace entire toilet (fairly inexpensive). All other toilets, inspect and service as recommended by manufacturer. RECOMMENDED: Replace Jabsco toilet(s) with MasterFlush electric toilet(s). Reliable with sea water or fresh water option. (Consult maintenance pro.)
- 17. M ○** + Date & Initials: _____ Check accuracy of holding tank “full” lights and gauges. If floating sensor mechanism, clean and lubricate. If in-tank sensors, clean off film. (SJS recommends the in-tank single-stage “red light full” type of holding tank gauge.)
- 18. M ○** + Date & Initials: _____ Inspect (and operate) stovetop burners and oven burner(s) for scale and rust. Clean if indicated to assure proper flow and operation.
- 19. M ○** + Date & Initials: _____ Aloft inspection: Remove spreader boots, inspect for corrosion and spreader shroud retention (and repair as necessary). Inspect masthead (VHF antenna, coaxial connections, masthead roller and masthead fly alignment). Remove light bulbs (steaming, deck/spreader, anchor, running) clean contacts on bulb and socket and spray with electrical anti-corrosion lubricant; re-insert bulbs and ensure that lights are operative. Check jib furler ease of operation and luff stretch (how high top roller sits on forestay). Wash upper roller furling bearings with fresh water. Descend along forestay and inspect extrusion pins on forestay for failure or “backing out”.
- 20. M ○** + Date & Initials: _____ Inspect roller furling gear turning blocks and line for wear. Wash lower unit bearings with fresh water.
- 21. M ○** + Date & Initials: _____ Inspect all blocks (and attachments) for stressed/bent parts. Replace as needed.
- 22. M ○** Date & Initials: _____ Inspect running rigging for wear or faded lines. Replace as needed.
- 23. M ○** Date & Initials: _____ Check all standing rigging for broken wires.
- 24. M ○** + Date & Initials: _____ Lubricate all threads on standing rigging with *PERMATEX* or *KROIL* penetrating oil, unless coated with *LANOCOTE*.
- 25. M ○** + Date & Initials: _____ Replace all cotter pins (if removed).
- 26. M ○** + Date & Initials: _____ Check tune of rig, and retune if necessary.
- 27.** If boat remained in service throughout winter: **M ○** Date & Initials: _____ Remove sails, deliver to sail maker/loft for inspection/reconditioning, and ask sail maker to ensure minimum three tell tales on both main (leach) and jib (luff). Pick up sails. If boat was decommissioned in Fall, this should already have been done.
- 28. M ○** Date & Initials: _____ Bend on sails.

- 29. M ○** Date & Initial: _____ Mark chain. (Paint recommendation: *Hammerite Rust Cap*, *Rust-Oleum*, or *Krylon Rust-Tough* gloss enamel.)
- SJS requires a single 10' mark of yellow paint at 100 feet. Mark with one 5' mark of yellow paint at every 50' thereafter. If chain comes out of a house pipe, the last 20 feet of chain should be marked in solid red paint. (Recommend yellow Amsteel string or a single strand of yellow polypro woven through links as backup for when paint chips away.)
- 30. M ○** Date & Initial: _____ Assure hard plastic label from SJS office is affixed in vicinity of anchor lid (preferably under lid) giving above chain marking info.
- 31. M ○** Date & Initials: _____ Assure proper air pressure in dinghy. Confirm that there are no air leaks. Check painter and bridle (if applicable) for wear. Replace if necessary with a multi-filament soft polypropylene line (available from SJS, Owners Consumables Inventory)...minimum length 30', recommend 50'. Check bottom for wear. Recondition as needed. NOTE: For AquaPro brand, use rubber washer in front of stop knot.
- 32. M ○** Date & Initials: _____ Fill water tank(s) and assure domestic water pump and all faucets INCLUDING swim step shower are working.

TURNAROUND SERVICE (During Season)

AFTER EVERY CHARTER: Log engine and genset (if applicable) hours, complete 1-8 below:

| | | | |
|-------------|---------------------------------------|-------------|---------------------------------------|
| Date: _____ | Initials: _____ Eng: _____ Gen: _____ | Date: _____ | Initials: _____ Eng: _____ Gen: _____ |
| Date: _____ | Initials: _____ Eng: _____ Gen: _____ | Date: _____ | Initials: _____ Eng: _____ Gen: _____ |
| Date: _____ | Initials: _____ Eng: _____ Gen: _____ | Date: _____ | Initials: _____ Eng: _____ Gen: _____ |
| Date: _____ | Initials: _____ Eng: _____ Gen: _____ | Date: _____ | Initials: _____ Eng: _____ Gen: _____ |
| Date: _____ | Initials: _____ Eng: _____ Gen: _____ | Date: _____ | Initials: _____ Eng: _____ Gen: _____ |
| Date: _____ | Initials: _____ Eng: _____ Gen: _____ | Date: _____ | Initials: _____ Eng: _____ Gen: _____ |
| Date: _____ | Initials: _____ Eng: _____ Gen: _____ | Date: _____ | Initials: _____ Eng: _____ Gen: _____ |
| Date: _____ | Initials: _____ Eng: _____ Gen: _____ | Date: _____ | Initials: _____ Eng: _____ Gen: _____ |

1. **M** Place hand on shorepower/boat connector to assure no heat. If warm, notify Maintenance Pro. Assure batteries are being charged.
2. **M** Check oil (use oil recommended by engine manufacturer) and coolant levels in engine and genset (if applicable), add fluids as needed.
3. **M** Check belts for tension (1/2 inch deflection), wear (look for black powder and cracks in belts). Adjust or replace.
4. **M** Check sea strainers on engine and genset (if applicable), and showers and bilge pump, clean as necessary. (Check center bilge for water, empty if wet.)
5. **M** Check oil pads, clean engine bilge and replace pad if dirty. Follow up any fluid leaks!
6. **M** Check extra oil (quart-size only) and coolant supply (wherever supplies are kept).
IMPORTANT NOTE: Leave no transmission oil onboard.
7. **M** Check shower and potable water strainers. Clean if needed.
8. **M** Quick visual check of standing and running rigging and stanchions and life lines.

MONTHLY DURING SEASON (April 15 –October 15): Complete 1-5 below.

| | | |
|------------------------|------------------------|------------------------|
| Date & Initials: _____ | Date & Initials: _____ | Date & Initials: _____ |
| Date & Initials: _____ | Date & Initials: _____ | Date & Initials: _____ |

1. **M** Check rate of raw water lubrication of prop shaft. Adjust if necessary (applies only to adjustable shaft logs). Check for water leakage at shaft log seal.
OR
On dripless shaft seals, hand-check seal. Make sure the set screws are tight. (Does it spin on shaft?) Make sure hose clamp is close to seal and the screw adjustment is tight. (Does it spin?)
2. **M** Check absorbent pad under transmission for signs of leakage. If soiled, replace and date. Follow up any leaking!
3. **M** If unsealed batteries, check battery water levels, top off if needed.
4. **M** Check vacuum gauges on fuel filters (if present).
5. **M** Inspect and, if necessary, replace engine and genset (if applicable) zincs. (If monthly checks reveal a slow rate of deterioration, then less frequent checks okay.)

MEMORIAL DAY:

- M** **Date & Initials:** _____ * Add *STANADYNE* to fuel (1oz per 40 gallons of fuel). Available from San Juan Sailing.

AT LEAST EVERY 200 HOURS OF OPERATION:

- M** Change oil and oil filter in engine and genset (if applicable).

Date & Initials: _____/engine hrs: _____ Date & Initials: _____/engine hrs: _____