

CHAPTER XXI

INSPECTION CHECK LIST USED BY ROD STEPHENS, JR.

This list includes many of the individually small, but collectively bothersome, items that come up on the majority of boats in the course of final inspection and trials.

It is obviously more economical to avoid the problem areas in the course of planning and construction, rather than adding to the burden of last-minute corrections at the time of delivery.

PROBLEM AREAS TO BE CORRECTED

A—CABIN

1. Unsatisfactory friction catches on doors. Elbow catches with finger holes best.
2. Floor boards tight, and not beveled, and absence of margins at vertical surfaces.
3. Bilge access poor, and poor floor lifts.
4. Quarter berth ventilation (inadequate).
5. Bunkboards—weak and/or low.
6. Dangerous location and inadequate marking of stove fuel master valve.
7. Inadequate marking of individual stove burner valves.
8. Inadequate insulation over stove area.
9. Alcohol stove pressure system that fails to hold pressure—poor pump, poor valve, poor gauge.
10. Inadequate fiddles on tables and dressers and counters.
11. Inadequate dresser area in toilet rooms.
12. Inadequate dresser area in galley.
13. Inadequate clearance in drop-sash drawers.
14. Inadequate clearance in doors.
15. Galley slop pail inadequate or missing.
16. Lack of fixtures in head for soap, towels, toilet paper.
17. Fire extinguishers not stowed near stove and engine.
18. Not enough hanging knees in trunk cabin.
19. No through bolts fore and aft of ports in trunk cabin.
20. No long hooks to hold head door 2" open for ventilation.
21. Extension berths hard to extend. No locking, in or out position.
22. No drain for icebox.
23. Inadequate dish and glass racks in galley.

B—DECK

1. Leaky hatches. No holding down fittings. No groove for cover.
2. Dorade vents weak, small, low and badly scuppered (should never be screened).
3. Spongy life lines—inadequate diagonal braces at pulpits and gangways. Closed center turnbuckles without toggles.
4. Dangerous gangways.
5. Tillers with heavy grip but weak hinge fittings with lost motion.
6. Inadequate winch handle holders.
7. Incorrect angling and/or spacing of cleats.
8. Bow chocks—weak and/or small and/or sharp, which will chafe rope.
9. Inadequate hatch cover provision.
10. Genoa sheet track holes not numbered, and slides not free.
11. Poor compass installation for visibility, bearings, deviation.
12. Avoid built-in compass correction.

13. Leaking mast coats.
14. Missing boat hook chocks.
15. Running lights wiring not water tight, not parallel to center line.
16. Mooring cleats not large enough, not thru-bolted.
17. Life line stanchion bases not thru-bolted, no eyes.
18. Anchor windlass. Chain doesn't fit. No chain stopper.
19. Spinnaker pole chocks missing. No chafing strips on pole.
20. Anchor chocks missing.
21. Dinghy chocks missing.
22. Smoke head and stove pipe not tight. No water deck iron.
23. Midship chock missing. No eye on it for boom tackle.
24. Foot or turning blocks not thru-bolted.
25. Fiberglass deck too slippery.
26. Companion ladder too steep. Steps too far apart and slippery. No hand holds in sides.

C—PLUMBING

1. Restrictive or missing scupper guards.
2. Inadequate drainage of coaming lockers.
3. Inadequate drainage of cockpit seats.
4. Bilge pump intakes—incorrect screening and/or poor location.
5. Bilge pump piping that may allow sea water to enter.
6. Deck pumps located so they may admit water when in use.
7. Sinks (and basins) that can admit sea water thru drains when heeled.
8. Top of W.C. bowl below flotation line. Can sink boat.
9. W.C. intakes too high and/or too near outlets.
10. W.C. discharge loop too far outboard (can admit sea water when heeled).
11. Inadequate tank sounding provision.
12. No way to clean out tanks, especially sump tank. Never gasoline tank—dangerous.
13. Poorly located tank vents (may admit rain or spray).
14. Poor location of, and marking of, seacocks. Not on all thru hull fittings.
15. Omission of effective check valves in F.W. supply lines.
16. Tanks don't have individual shut-off valves (packless type valve needed on fuel tank).
17. Marked sounding stick for each tank missing.

D—RIGGING AND RIG FITTINGS

1. Cotter pins, too long, too sharp, excessively opened.
2. Omission of toggles.
3. Incorrectly beveled mast tangs (all bevel in outer plate).
4. Closed barrel turnbuckles and/or lock nuts (dangerous).
5. Blind terminals on rod rigging and/or lock nuts (dangerous).
6. Turnbuckles upside down (right-hand thread should be down).
7. Internal wire outhauls (impractical to repair).
8. Gooseneck interference when boom all the way out.
9. Slides that are rough and inadequately belled.
10. Slides on roller reefing goosenecks not long enough.
11. Luff tracks that do not come right down to lowest possible boom position.
12. Poor track gates, badly located and badly retained.
13. Poor track switches, badly located and badly retained.
14. Incorrect mast wedging (use tight rubber).
15. Poor provision for mast wiring at partners.
16. Incorrect mast heel position and poor provision for moving and for stepping. Bevel surfaces to help mast heel enter easily.
17. Bad rope and wire splices.
18. Incorrect serving of wire halyard eye splices.
19. Careless control of length of wire halyards.
20. Careless control of length of all running rigging.
21. Inadequate provision for bitter-end attachment.
22. Inadequate provision for wire attachment to all reel winches.
23. Omission of halyard marking.
24. Careless arrangement of internal halyards.
25. Mast (track) must be straight before stepping.
26. Bosun's chair—no varnish—short synthetic straps with ring.
27. Absence of necessary small lines and sail stops.
28. Inadequate lubrication and covering of turnbuckles (anhydrous lanolin best).
29. Inadequate screw-in blocks for heavy weather headsail sheet leads.
30. Unnecessary splicing running rigging, and excessive serving on rope splices.
31. Standing rigging not tuned up.
32. Poor winch layout on mast for handle clearance, halyard leads.
33. Poor cleat location for sheet leads.
34. No bitter-end fittings for halyards.
35. No winch handle stowage.
36. Halyards won't reach rail or stem head fitting.
37. No halyard fair leads.
38. Mast track not bolted at sail head when fully hoisted, or when reefed, or at storm trysail head.
39. Halyard sheaves don't turn freely.
40. Spinnaker crane not strong enough.
41. Mainsheet lead poor. Sheet too short.
42. No boom crutch. No stowage for it.
43. Boom doesn't clear backstay when raised in a jibe (can capsize a boat).

E—SAILS

1. Battens (top one tapered fiberglass to allow top of mainsail to curve).
2. Leach Lines.
3. Sail bags (size), and sail folding.
4. Correct head and tack pennants on smaller headsails. Always shackle on.



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F—HULL

1. Stiff steering, rudder tight, steering gear and sheaves not lubricated. Sheaves out of line, too small and too many of them. (Little finger on spoke should be able to turn wheel easily).
2. Poor limbers and bilge drainage.
3. Omission of reference marks necessary to control trim (flotation).
4. Unguarded sheaves in cable steering gear.
5. Poor access to steering gear for adjustment and cable replacement.
6. Sharp corners on quadrants and inadequate stops.
7. Omission of complete lightning grounding.
8. Omission of propeller shaft marking (2-bladed props—solid in vertical position, folding in horizontal).
9. Omission of shaft locking, when generating may be required.
10. Presence of sharp corners—both wood and metal.
11. Dirty bilges—rough finish impossible to clean.
12. Fiberglass cabin liners that prevent access to fastening of deck fittings, and inspection of interior of hull (to be removable).
13. Inadequate exhaust system.
Consider:
 - a) Resistance to flooding (as high and as near center line as possible).
 - b) Unnecessary heat in cabin.
 - c) Noise suppression.
 - d) Ease of repair and replacement.
 - e) Above-water outlet at full speed (keep high above stern wave).
 - f) Side exhaust better.
14. Exposed electric switches.
15. Avoidance of magnetic items near compass. (Must be outside 6 ft. radius.)
16. Strong non-magnetic emergency tillers with convenient stowage, missing.
17. Incorrect chainplate bevels (to align with shrouds).
18. Need of elkhide on destroyer-type steering wheel rims.
19. No center kingspoke on wheel, inadequately marked, and no center line mark on quadrants.
20. No generous access to engine.
21. Not large enough, or any, pan under engine.
22. No carburetor drip pan on gasoline engine.
23. No sound insulation around engine.
24. No exhaust blower taking suction from low point in gasoline engine compartment.
25. Not good enough fairing ahead of propeller.
26. Rudder not sharp enough at trailing edge.
27. No worm shoe at bottom of keel.
28. No drip lip on exhaust thru hull fittings.
29. Centerboard leading and trailing edges not tapered properly.
30. Centerboard pin does not have cover plates to prevent working loose.