



Marine Surveys UK

"Pragmatic Surveys in Plain English"

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[Yacht surveyor](#), Affiliate member

YDSA, Full member BMSE, MECAL

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Survey Report no: [REDACTED]

Name of Vessel: "[REDACTED]"

Type of Vessel: Stated 1985 Colvic Watson 296, FRP (Fibre reinforced plastic), long keel, Bermudian sloop rig motor Sailor

At the request of:

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

This survey was carried out on the [REDACTED] March 2011 at Fountain Lake Marina, Portsmouth, Hampshire UK. The above named being the owner of the vessel.

PLEASE NOTE THIS IS A BASIC INSURANCE SURVEY only and contains considerably less information than a Pre- Purchase Survey. Therefore no liability is accepted to any party who may rely on information herein when deciding whether or not to purchase the vessel.



Limitations:

- ✚ Where access is restricted by fixed panels, linings etc. it was not possible to examine and I cannot say those areas are free from defects.
- ✚ This Report has been prepared for the use of Commissioning Client and no liability is extended to others who may see it.
- ✚ In some cases it is not possible to detect latent and hidden defects without destructive testing which is not possible without the Owner's consent.

Scope of Survey:

- ✚ This is an Insurance Survey and its purpose is to establish the structural condition and safety of the vessel. Where items of equipment have been tested this will be stated in the text.
- ✚ Camera equipment was used in places to view normally inaccessible areas and the pictures analysed to identify any issues.
- ✚ A general inspection of the engine and installation will be made, but this is a visual inspection only without running the engine. It should be appreciated that some components may appear serviceable but found to be defective when the engine is run.
- ✚ The vessel was surveyed out of the water and tests carried out as described to ascertain any possible sources of water ingress, however, the vessel was not surveyed in the water and when launched, best practice is to thoroughly check for any leaks.
- ✚ Hatches and Port lights were not tested for leaks with a hose.

Recommendations:

- ✚ These will not be made concerning cosmetic or other minor defects, although relevant advice may be made in the text normally at the end of each section.
- ✚ Recommendations will be restricted to those defects which should be rectified before vessel is used, (or within a given time span if specified), and items which may affect Insurability
- ✚ ***Recommendations will be printed in bold italics for quick reference.***
- ✚ The recommendations are contained in the body of report in order that they may be read in context, and are also listed as part of the Conclusions at the beginning of this report.

Conditions of Survey:

Vessel was examined on hard standing, sitting on wooden blocks, supported in a metal cradle at the premises of Fountain Lake Marina, having been ashore since January 2011.

No special conditions affected the survey other than as described in the text. The owner was with the boat for the survey.



Information is reported in the Sections below, followed by summary and recommendations. A separate valuation is supplied.

Hull, Deck and Structure.

1. Details of Subject Vessel, (General Description, Dimensions, Registration etc.).
2. Keel.
3. Hull below Waterline.
4. Topsides above Waterline including Rubbing Strake etc.
5. Deck Moulding.
6. Coach roof.
7. Cockpit.
8. Hull/Deck Join.
9. Bulkheads and Structural Stiffening including Internal Mouldings.

Steering, Stern Gear, and Skin Fittings etc.

10. Rudder and Steering.
11. Stern Gear.
12. Cathodic Protection.
13. Skin Fittings and other through Hull Apertures.

On Deck.

14. Main Companionway and other Accesses to Accommodation.
15. Ports Windows etc.
16. Pulpit, Stanchions, Pushpit, Lifelines and Jackstays.
17. Rigging Attachment Points.
18. Ground Tackle and Mooring Arrangements.
19. Other Deck Gear and Fittings.
20. Davits and Boarding Ladders.

Rig.

21. Spars.
22. Standing Rigging.
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31. Accommodation General.
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33. Fresh Water Tanks and Delivery.
34. Heads.
35. Electrical Installation.
36. Electronic and Navigation Equipment.
37. Heating & Refrigeration



1.Details of subject vessel:

1985 Colvic Watson 296 Motor Sailor.

Manufacturers' information from website (not verified by measurement)

Length Overall: 8.99m / 29'6"

Beam: Unfound

Draft: Unfound

Boat specific information

Registration SSR [REDACTED]

Serial Number Hull number [REDACTED] – from hull

Year of Build 1985 – owner advised

RCD Not applicable

2. Keel

- a) The vessel was sitting on her keel on wooden blocks.
- b) The keel is an encapsulated long keel with two bilge keel plates of Galvanised iron. The bilge plates are bolted with stainless steel bolts and nuts, seen inboard.
- c) Light hammer sounding (not heavy enough to damage anti-foul) did not suggest any delaminating or voids and there are no visible signs of significant damage or repairs.
- d) The bilge plates are fair to the hull.

3. Hull below Waterline:

- a) The hull below the waterline is of solid FRP construction. The gel coat is not visible and has tar epoxy covering. There are two layers of antifouling.
- b) The vessel is supported by her cradle and no distortion was noted.
- c) The Antifouling covering was removed back to the epoxy in 9 areas. While scraping I was looking for evidence of wicking or blistering and once removed all patches were checked with 10x magnification.
- d) There are no visible signs of significant damage or repairs to the hull below water line.
- e) Moisture readings were taken where the antifouling was removed using a capacitance type moisture meter of Sovereign Quantum type, operating in both shallow and deep reading modes. The meter was first checked for correct calibration.

The readings recorded below are from the meter operating in the shallow and also deep mode on the relative scale 0-100.



The readings are relative and **do not** express moisture content as a percentage of dry weight. High moisture content is not generally a structural defect, and is to be expected in older boats. However where some moisture has been absorbed the likelihood of moisture related problems occurring is higher, and the actual state of the laminate cannot be completely guaranteed without destructive testing followed by chemical analysis. The opinion given in this survey is based on all the evidence available at the time but without destructive testing.

The conditions prevailing when the readings were taken were as follows:

Air Temperature:	9.2°C
Relative Humidity:	68%
Time ashore	2 months
In summary the weather conditions for obtaining moisture readings were good	

Readings were as follows:

Meter	Range below waterline.	Range above waterline.
Sovereign Quantum, Scale A, 0-100 Shallow mode	20 - 26	13 - 17
Deep Mode	18 - 28	11 - 16

The interpretation of the readings in shallow mode range;

- 0 – 15 : For all practical purposes may be considered dry.
- 16 - 20: Some moisture present at low levels but of no great concern.
- 21 - 30: Considered medium, but those at the top of the range i.e 30 are at the point where the risk of moisture related defects developing is significant.
- 31- 45 Considered high and at a level where the risk of moisture related defects being present but not yet physically detectable is significant.
- 46 – 60 Very High and will usually be accompanied by physically detectable signs. Likely to be accompanied by a significant increase when switching to deep mode.
- 61 – 100 extremely high and indicative of possible laminate damage in addition to osmotic blistering. Likely to be accompanied by a significant increase when switching to deep mode.

These readings need to be considered in conjunction with the period the vessel has been ashore and the weather conditions when obtained. As a rule of thumb you can expect the levels to drop by one range after a few weeks ashore.



Always storing the boat ashore out of season to allow some natural drying out to occur will contribute significantly to maintaining condition.

4. Topsides above Waterline including Rubbing Strake:

- a) Constructed of solid FRP. Top side moulding found fair and finished in the white gel coat or possibly paint. Very shiny.
- b) There are some minor star cracks on port aft probably caused by minor impact.
- c) No stress crazing or cracking noted in way of bulkheads or other re-enforcing members.

5. Deck moulding:

- a) The deck is of solid FRP. Access to the underside was greatly restricted by inner lining and only accessible from lazarette locker and anchor locker. The deck is white gel coat with Treadmaster nonslip stuck on.
- b) The whole deck was carefully tested underfoot, lightly hammer sounded and moisture tested. The moisture readings were not significantly different to the hull.
- c) The bulwarks drain through large drains with hoses feeding through topsides.

6. Coachroof:

- a) Integral with deck moulding and constructed in the same way. There are large patches of Treadmaster. The whole area was carefully tested underfoot. As above there is no access to the underside due to inner moulding.
- b) There is slight indentation aft of the mast plate and moisture readings indicate water ingress into the ply pad below.

Recommendation:- Due to the lack of king post directly below the mast the plywood pad should be dried out and strengthened to support the mast in the next 12 months possibly with a steel plate.

7. Cockpit

- a) Integral with the deck moulding and drains at forward end through bronze gate valve and yellow metal skin fitting. Double clip on hose connections. These were aggressively tested and found secure.
- b) The cockpit sole has access to stern gear through a water tight hatch in sole.
- c) At the stern, access to the steering gear through lift out hatch with secure fixing.

8. Hull/Deck Join:

- a) This is screwed and fully laminated. Access is restricted to aft locker and bow locker.
- b) A wooden cap rail runs around the outside of the deck hull joint.
- c) There are no gaps to the joint when viewed externally, No evidence of any leaks seen.
- d) There is filler missing from the port side forward underside of the wooden rail to hull joint. I believe this is just fairing filler and not structural.

9. Bulkheads and Structural Stiffening including Internal Mouldings:

- a) This is a Monocoque construction and a number of components contribute to the overall structure.



- b) All lockers were accessed and structures checked where accessible.
- c) No signs of water at the edges of bulkheads.
- d) The mast loading is transferred through the plywood pad to one wooden and one steel king post either side of it.
- e) No faults noted.

10. Rudder and Steering:

- a) Galvanised iron rudder blade bolted top and bottom with 4 Stainless steel bolts and nuts. The base is supported by a galvanised iron bracket bolted to the aft of the keel with stainless steel bolts.
- b) There is no excessive play in either bush and no damage noted to the blade.
- c) The main steering is Hydraulic wheel steering with secondary tiller steering directly onto the rudder stock. An autopilot is also fitted.
- d) No signs of water ingress around the top of the gland.

11. Stern Gear:

- a) 3 Blade bronze propeller with rope cutter mounted on stainless steel shaft, supported at the aft end by a bronze bearing holder, bolted to the hull via a teak pad.
- b) Inboard the bronze stern tube has a rope packed grease gland with remote greaser. And a flexicoupling mounted to a floor behind the engine.
- c) All bolts and fixings tested with hammer and checked for dezincification, none found.

12. Cathodic Protection:

- a) One hull anode, each bilge plate has anode bolted to it. The rudder has one either side and the support bracket has one bolted to it.
- b) All are partially wasted. Owner advises they were new two years ago and monitors condition and will replace as required.
- c) Except bilge plate anodes, all are interconnected and protect propeller, nut, shaft, rudder tube, bearing holder.

13. Skin Fittings and other through Hull Apertures:

No skin fittings or valves were dismantled as part of this survey but the following routine tests were carried out:

- ✚ Examination from outside and inside the boat. Checked for de-zincification
- ✚ All valves open and closed to their full extent where possible.
- ✚ Any fixing bolts hammer tested where accessible.
- ✚ Bodies of metal valves or sea cocks tested with a hammer inside the boat and external parts hammer tested outside the boat.
- ✚ Fittings aggressively tested inside the boat for security in the hull.
- ✚ Hose clips inspected and hoses aggressively tested for security. 2 clips correctly fitted unless noted.
- ✚ Lying fair to hull unless noted

Below Waterline:

- a) Port aft cockpit drain noted in section above
- b) Plastic log fitting. Log no longer used, transducer taped in place.



- c) Bow thruster tube, no signs cracks or splits.
- d) Toilet inlet, Yellow metal skin fitting with Silver coloured lever valve, possibly DZR. Spigot for toilet pipe is green. Owner advised he replaced this a few years ago.
- e) Toilet outlet, Blakes seacock and skin fitting with bronze fixing bolts and nuts.
- f) Depth sounder mounted on fairing block. Bolts secure.
- g) Engine seawater intake – Yellow metal skin fitting with lever valve. 2 clips on hose.

Above Waterline:

- h) Heads sink drain, yellow metal skin fitting at water line. 1 clip only.
- i) Galley sink drain, yellow metal skin fitting, 1 clip only.
- j) Manual Bilge pump outlet plastic skin fitting, 1 clip only
- k) Electric bilge pump outlet, plastic skin fitting 1 clip only
- l) Electric bilge pump automatic, Yellow metal skin fitting, 1 clip only
- m) Gas locker drain, yellow metal skin fitting , 1 clip only
- n) Deck drains x 2 plastic skin fitting either topside, 1 clip only
- o) Heater exhaust, Eberspacher type chrome.
- p) Exhaust, chrome bronze through transom.

Advisory note:- Owner advised to monitor any degradation of green spigot fitting as it is possible it is brass.

14. Main Companionway and other Access to Accommodation:

- a) Main companionway access door securely hinged and has deadlock to secure.
- b) Glass is marked toughened .
- c) Fore hatch glazed acrylic aft hinged, has secure means of closure, gaskets intact. Size means can be used as secondary escape.

15. Ports, Windows etc.:

- a) All windows above weather deck, alloy frames, toughened glass.

16. Pulpit, Stanchions, Pushpit, Lifelines and Jackstays:

- a) Pushpit and pulpit, stainless steel, solidly attached. Twin guard rails supported by stainless posts.
- b) Wires and swages checked, all stanchions and fitting took my weight when leant against.

17. Rigging Attachment Points:

- ✚ Main cap and lower shrouds attachment points. All attach to stainless steel plates which bolt through side rail. Inboard not accessible.
- ✚ Forestay attaches to stem head with stainless steel bar which runs down outside of stem and is through bolted. Two bolts in sheer missing from deck but remaining bolts are adequate to hold.
- ✚ Backstay attaches to stainless fitting on aft rail, through bolted with large nut under side. Seen from locker.
- ✚ All fittings levered with crowbar and wood and found secure. No access to inside except where stated.



18. Ground Tackle and Mooring Arrangements:

- a) Main bow anchor. Delta Anchor with 8mm chain, new swivel shackle, runs over electric windlass, securely mounted to deck. Warp is attached to chain although neither attachment nor bitter end seen.
- b) Second anchor plough anchor was seen.

19. Other Deck Gear and Fittings:

- a) All found of adequate size and securely through bolted, although inspection from under limited by linings.

20. Davits and Boarding Ladders:

- a) Two stainless steel dinghy davits and hang over side boarding ladder with 2 steps extending below water line.
- b) Starboard davit was able to be moved due to fixings loose or worn. It is strapped to pulpit.

Advisory note:- check security of davits before attaching dinghy weight.

21. Spars:

Mast

- a) Single spreader masthead, deck stepped rig. The mast was stepped so inspection is restricted to fittings and area to head height. It is SSS Spars Ltd mast, gold anodised with no corrosion around fittings noted. Anodising is nearly all worn off. No damage or distortion to the extrusion was noted.

Boom

- a) Gold anodised in similar condition to mast.
- b) Main sheet and kicking strap attachment points secure.
- c) Goose neck no signs of wear noted.

22. Standing Rigging:

- a) As mast was stepped rigging could only be checked at deck level. These were examined where the wire enters the terminal under 10x magnification, no broken strands visible nor excess corrosion seen.
- b) The shrouds rigging screws are chrome plated bronze open bodied type All were found free from distortion or visible stress cracks, when examined under 10x magnification.
- c) Rigging all 1x19. Spreader bases are stainless steel and riveted to mast.
- d) Some bottle screws were taped and I could not check all split pins.
- e) Age of rigging unknown but there was no signs to suggest it should be changed.

Advisory Note The main and forward shrouds have plastic covers. These are holding dirt and moisture and will accelerate corrosion of wire and terminals. Suggest these covers are removed.

23. Running Rigging:

- a) Ok for age of vessel



24. Sails and Covers etc:

- a) Not checked as not part of insurance survey spec.

25. Navigation Lights:

Vessel fitted with

- a) Bi colour fitted to bow seen working. Lens crazed restricting light.
- b) Stern light – seen working.
- c) Steaming light seen working
- d) Anchor light. Could not see in sunlight to check.
- e) Two led port and starboard lights fitted to wheel house did not work.
- f) Compass light

Recommendation:- Bow light lens to be replaced before required.

26. Bilge Pumping Arrangements:

- a) Boat is fitted with three bilge pumps.
- b) Manual Chimp pump fitted in cockpit and pick up from aft of bilge. No strum box fitted. Could not access back of pump to check fittings.
- c) Electric pump with air switch mounted in lazarette locker. No strum box, clips secure where seen.
- d) Second electric pump, submersible type mounted in saloon bilge below steps, operates from control panel, no float switch.

27. Fire-fighting Equipment:

- a) There were the following fire-fighting appliances found onboard.
 - a. Fire blanket in galley
 - b. 2 x 1KG Powder 34b fire extinguishers in cabin, No expiry dates, green on gauges and powder can be felt moving when shaken.
 - c. Automatic 2KG GTF200 in engine compartment. New in 2010

There are no regulations covering this vessel in private use however what is fitted along with buckets and lanyards is considered adequate.

28. Lifesaving and Emergency Equipment:

The following was found aboard –

- a) 1 x horseshoe life buoy and light fitted with throwing line
- b) 4 Person XM Yachting life raft service due May 2011
- c) Coastal flare pack expires December 2012
- d) Personal life jackets

The RNLI operate an excellent free inspection and advice service concerning levels of safety equipment (SEA Check) and can be contacted on 08003280600 or via the RNLI website, www.rnli.org.uk.

The RYA also publish a booklet, G16, "The Boat Safety Handbook" and this specifies levels of Safety Equipment for different categories of use and it is ***Recommended this vessel be equipped to the level appropriate to proposed use.***



Booklet is obtainable from nautical bookshops or direct from the RYA, www.rya.org.uk.

29. Engine and Installation:

- a) Engine is reported fitted new 2010. It is a Beta Marine 50hp
- b) Engine number is 9W0853. Owner advises has 50 hours it at time of survey.
- c) Engine looks brand new, flexible mounts bolted to steel frame. No signs water , oil or diesel leaks.

30. Fuel System:

- a) Two Polycarbonate Diesel tanks, well fitted copper pipes with isolation valves at each tank, 2 CAV water separators..
- b) Hose is marine ISO 7840. Fittings secure, hose new.
- c) The whole system is well fitted, no signs of leaks.

31. Accommodation General:

- a) Appears dry, fitted headling and teak faced ply floor. Adequate ventilation.

32. Gas Installation:

This vessel has not been MCA coded nor been required to be RCD compliant. Irrespective of the above **ALL** gas systems are subject to the checks listed below as part of this survey. Recommendations will be made where there is an obvious serious safety issue and these must be carried out before use. Suggestions will also be made where appropriate to enhance safety criteria, particularly with systems where there is no mandatory requirement to conform to a standard. It must be understood however that some Insurance companies require a declaration from the assured that the gas system conforms to **current** standards and if that is the case here upgrading may be required as a condition of the insurance policy.

Sources of further information:

www.calormarineshop.co.uk/rules-regs-answer.htm Comprehensive information on standards and best practice. www.boatsafetyscheme.com Even if your boat is not required to comply with this standard it contains much sensible advice and the manual can be downloaded.



Gas Observation and action table

Item	Result	Action required.
Condition and efficiency of self draining bottle storage	Bottles is stowed in sealed locker in cockpit with Drains through drain on bottom and through hull.	
Age and condition of flexible hose at bottle.	BS3212 Marked 1997	<i>Replace hose as over 5 years old.</i>
Age and condition of regulator	Fair	
Connection to copper pipe	Correct gland	
Condition of copper pipe where accessible	Good	
Is pipework adequately supported and not under stress where accessible?	Well clipped	
Connections and Flexible pipe to cooker and other appliances	BS3212 braided. No date seen. No signs perishing.	
Is cooker gimballed?	Cooker is gimballed, crash bar fitted.	
Are all appliances fitted with flame failure devices on all burners, and did these work properly under test?	Early Flavel, no FFDs	<i>Do not leave cooker unattended when using hob as no FFD's fitted.</i>
Are any appliances requiring flues properly fitted with same?	N/A	
Is a gas alarm fitted?	No	Consider fitting gas sensor
Is each appliance fitted with an isolating tap	Yes	
If fitted did leak bubble tester function?	N/a	Consider fitting bubble tester.

Additional Observations:

Please note this survey is not a gas safety certificate, that is only obtainable after comprehensive pressure testing and assessment by a qualified person listed on the Gas safe register (formally CORGI) www.gassaferegister.co.uk

33. Fresh Water Tanks and Delivery.

a) Two plastic tanks in engine compartment. System check not part of insurance survey.

34. Heads:



- a) Hoses well clipped to fittings, 2 clips on each

35. Electrical Installation:

DC circuits

- a) Battery for Bow Thruster mounted forward with isolation switch.
- b) Two batteries under steps.
- c) All circuits have fuses or switches doubling as Circuit breakers on panel.
- d) All 12V electrical appears correct size writing, well fitted.
- e) Only issues found, forward battery is not strapped down, No battery terminals are insulated nor are isolator switch terminals.

Advisory Notes:- suggest items in e) above attended to.

240v Circuits

- a) 240V connection in cockpit wired directly to RCD breaker in locker in front.
- b) Circuits are 240V domestic sockets with plug in water heater and battery charger, not hard wired.

36. Electronic and Navigation Equipment:

- a) Simrad RD68 VHF radio, not DSC
- b) Binnacle compass
- c) Chart Plotter GPS
- d) Clipper depth, log and wind instruments.

37. Heating and refrigeration

- a) Eberspacher – recently fitted, not operated.



SURVEY SUMMARY AND RECOMMENDATIONS

Survey Summary

Conditions for carrying out the survey were good, good access all around the boat. It was a pleasure to survey [REDACTED], she has been very well maintained and improved by the current owner with all work professionally carried out. The hull is not showing any excess moisture ingress, the only area of concern that will require attention over next year or so is the softening of the coachroof around the mast.

Maintenance Overview:

Cosmetic Maintenance: Generally well maintained

Technical Maintenance: Excellent maintenance and replacement program, new engine, diesel system, electrical items.

List of Recommendations:

The Recommendations made in the Report are listed below with their respective section numbers. **All Recommendations should be carried out before use of vessel or as stated.**

6. Coachroof:

Due to the lack of king post directly below the mast the plywood pad should be dried out and strengthened to support the mast in the next 12 months possibly with a steel plate.

25. Navigation Lights:

Bow light lens to be replaced before required.

28. Lifesaving and Emergency Equipment:

Recommended this vessel be equipped to the level appropriate to proposed use.

32. Gas Installation: Replace hose as over 5 years old. Do not leave cooker unattended when using hob as no FFD's fitted.

END