



Marine Surveys UK

"Pragmatic Surveys in Plain English"

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[Yacht surveyor](#), Affiliate member

YDSA, Full member BMSE, MECAL

MCA coding surveyor

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Survey Report no: [REDACTED]

Name of Vessel: "[REDACTED]"

Type of Vessel: Moody 31 MK11

At the request of:

[REDACTED]

[REDACTED]

[REDACTED]



This survey was carried out on the [REDACTED] at Elephant Boat yard, Lands End Road, Old Bursledon, Hampshire SO31 8DN, UK. The above named being a prospective purchaser of 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 a Pre-Purchase Survey and its purpose is to establish the structural and general condition 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.

Recommendations:

- ✚ These will not be made concerning cosmetic or other minor defects, although relevant suggestions may be made in the text. *These will be in blue italics for quick reference.*
- ✚ 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 red 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 end of this Report.*

Conditions of Survey:

Vessel was examined on hard standing, standing on its keel, hull supported with wooden chocks at the premises of Elephant Boat Yard, having been ashore for over 6 weeks according to the yard owner.

No special conditions affected the survey other than as described in the text. The prospective purchaser was present for some of the survey.



Information is reported in the Sections below, followed by recommendations and conclusions and valuation

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.
23. Running Rigging.
24. Sails and Covers etc.

Safety.

25. Navigation Lights.
26. Bilge Pumping Arrangements.
27. Fire fighting Equipment.
28. Lifesaving and Emergency Equipment.

Engine.

29. Engine and Installation.
30. Fuel System.

Accommodation and onboard Systems.

31. Accommodation General.
32. Gas Installation.
33. Fresh Water Tanks and Delivery.
34. Heads.
35. Electrical Installation.
36. Electronic and Navigation Equipment.
37. Heating & Refrigeration



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1.Details of subject vessel:

The Moody 31 was designed by Bill Dixon and first introduced in 1985. The MK11 was introduced in 1987 and differed in that it had a sugar scoop transom. Built by Marine Projects, (Plymouth) Ltd, Devon UK, it is a well regarded, solidly built yacht, seen cruising all around the world though more suited to comfortable coastal cruising. Snowfox was originally called Cillann with a full British Registry number 701435, registered in Belfast. There is a letter in the chart table dated 2004 from Marine Projects stating that the yacht was sold VAT paid. (This is a really important document to keep).

Manufacturers’ information (not verified by measurement)

Length Overall:	9.37m / 30’8”
Length waterline	7.75m / 25’5
Beam:	3.2m / 10’6”
Draft:	1.52m / 5’
Displacement:	4530kgs / 9966lbs
CE Marked	No



Boat specific information

Registration	SSR [REDACTED]
Moody number	E2 [REDACTED]
Hull Number	LR FAL [REDACTED]
Year of Build	1987
RCD	Not required.



2. Keel

- a) The fin keel is of cast iron, through bolted to the hull moulding with studs. The surface of the iron is freshly anti-fouled, and notes in the chart table suggest it was cleaned back to bare metal and primed in 2004. There are no rust stains showing.
- b) There is no evidence of grounding and was tested all over with a magnet for filler of which there is no evidence either. The keel was hammer tested for voids and the joint spike tested for gaps.
- c) Port side 30cm from aft, I could insert spike 2mm and the same 45cm forward of this. The joint has been filled as is normal and the filler not set. *When the vessel is lifted, check to see if a gap opens at aft end of keel. If there is no gap then there should be no reason to suspect the filler will not do its job to keep moisture away from keel studs. If this is not possible then next time boat is hauled check again.*
- d) The keel studs and nuts have been coated in white flow coat or paint. I was able to view all except one which is below the forward cabin sole which is screwed down. The studs and nuts are non magnetic indicating good stainless steel. They were all struck with a hammer and found sound. The aft nut in second bilge has signs of corrosion stains coming from under the paint. If stainless steel is starved of oxygen it can corrode or this could be the mild steel plate rusting. *Suggestion – when convenient, clean off the paint, check the condition of the studs and nuts and keep clean. The mild steel plate should be painted with red oxide primer but keep nuts and studs clean with no paint.*



Fig 1 Keel studs and nuts in painted bilge



Fig 2 Keel stud and corrosion stain

3. Hull below Waterline:

- a) The hull below the waterline is of solid FRP construction utilising chopped strand matt, woven roving and cloth composite.
- b) The vessel is sitting on its keel on 2 blocks and supported by wooden chocks. There are no signs of distortion in the hull.
- c) The hull has blue antifouling applied over primer and gel shield. The next part of the point is stated by the boat yard. *The Boatyard said that a previous survey had reported the hull being wet. The owner had the antifouling removed back to bare gel coat, dried out on the hard for 1 month, the yard said that they would not let the owner apply epoxy until the hull was below 5 on the Sovereign MK1 meter scale. 2 coats of epoxy were then applied and 4 coats of gel shield followed by primer and 2 coats antifouling. **Please note this is a different model to the meter I used and cannot be directly compared.***
- d) 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.
- e) At the request of the boatyard, the antifouling and primer covering was removed back to the green gel shield only in 22 patches, chosen at random. Each area was checked under 10x magnification and no signs of wicking or Osmotic blistering was evident where the surface was exposed or through the antifouling.
- f) 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:	17.2°C
Surface temperature:	16.5°C
Relative Humidity:	72.7%
Time ashore	6 weeks
In summary the weather conditions for obtaining moisture readings were fair.	

Readings were as follows:

Meter	Range below waterline.	Range above waterline.
Sovereign Quantum, Scale A, 0-100 Shallow mode	14 - 23	11 – 18
Deep Mode	14 - 26	11 – 25

As mentioned above the values cannot be directly compared to the earlier Sovereign Mk1 meter used by the boat yard or the survey report in the chart table. It should also be noted that Gel Shield and Epoxy give higher readings than bare gel coat.

Values 16 – 20 indicate some moisture present but of no great concern

Values 21 - 30 considered medium and taking into account the readings being through Gel Shield and epoxy, for practical purposes this hull can be considered dry where checked. Always storing the boat ashore out of season to allow some natural drying out to occur will contribute significantly to maintaining its condition.

There was one exception to the above readings. In the bilge area aft of the sounder thru hulls, the paint inside is coming off and the fibreglass is deteriorating slightly. Readings on the inside here are high. The corresponding point under the hull is in line with the majority readings. This indicates to me that water has sat in this area of the bilge for some time and is permeating the grp from the inside. *This area should be thoroughly cleaned with acetone, any non-resin impregnated laminates ground out and depending on how much is ground away, grp mat and / or epoxy applied to same thickness.*



Fig 3 area aft of logs

4. Topsides above Waterline including Rubbing Strake:

- a) Similar composition to below waterline but less layup of FRP will have been used.
- b) Top side moulding found fair and finished in the original white gel coat. The gel coat surface is in generally good condition with little UV degrading. There are a number of gel coat repairs visible on sides, bow and stern. There are also a number of scuffs and marks around the hull, none except noted expose any laminates.
- c) Gel coat crazing was noted port side below forward stanchion which is slightly bent. The toe rail is not damaged at this point. Approximately 150mm long.

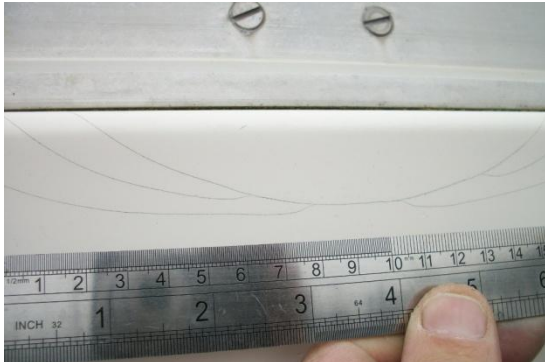


Fig 4 Stress crazing starboard side.

This area could not be depressed with hammer handle and body weight. Because of its location it would indicate these have been caused by minor impact to the stanchion or directly to the hull. There will be damage to the laminate but there are no major loadings at this place. i.e rigging attachments. Moisture readings taken around the area do not indicate any water ingress yet. *I suggest they should be sealed to stop water ingress, either by waxing or a better repair would be to Vee out each crack and expertly flow coat and polish however I would recommend a professional to get the correct match and finish.*

- d) No stress crazing or cracking noted in way of bulkheads or other re-enforcing members.

5. Deck moulding:

- a) The deck is of solid GRP with plywood laminated in for extra rigidity in places. Access to the underside was greatly restricted by headlining and only accessible from cockpit locker and in anchor locker.



Fig 5 Deck moulding showing plywood strengthening and plates under fittings

- b) The gel coat is white with moulded grey / blue non slip, there are no signs of pitting caused by UV or aggressive cleaning agents.
- c) There were marks in the non slip noted around all fittings that appear to be “Stanley” knife cuts. They are not stress marks as they overlap at the corners. These may have been on the boat from new or someone has cut something out on deck like a pattern for a teak deck. *These are unsightly and will be difficult to repair invisibly.*



Fig 6 Deck “cut” around vent



Fig 6 Deck “cut” around chainplate.

- d) The whole deck was carefully tested underfoot for signs of delaminating or other structural defect. Port side forward side deck slight sounds of creaking indicating bonding to plywood is coming away. If left unrepaired and used heavily this area will get worse. Moisture readings taken around the area do not indicate any water ingress yet. *The repair for this is to drill holes, approximately 5mm into the deck through the gel and into the plywood but not all the way through, clean with acetone then inject with epoxy making good the non slip.*
- e) Starboard side deck forward where deck joins cabin roof there are stress cracks in the gel coat. Moisture readings taken around the area do not indicate any water ingress yet. *I suggest they should be sealed to stop water ingress, either by waxing or a better repair would be to vee out each crack and expertly flow coat and polish however I would recommend a professional to get the correct match and finish.*



Fig 7 Stress crack starboard side deck



- f) The deck was lightly hammer sounded and moisture tested with no significant defects found except noted.
- g) Anchor locker lid is badly stress cracked probably due to anchor being dropped on it. *Suggest repair as e) above*

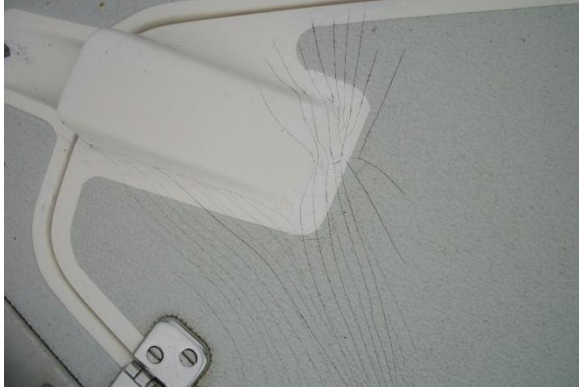


Fig 8 Stress crack anchor locker lid

6. Coachroof:

- a) Integral with deck moulding and constructed in the same way. The whole area was carefully tested underfoot and no sign of delaminating or other structural defect.
- b) The teak handrails were tested with a lever and while secure I felt that if I applied full body weight they would break. *Recommendation – Do not use teak hand rails for security unless replaced.*
- c) Two screws protruding from galley area paper towel holder. Water will enter laminate from here. *Remove towel holder and fill holes with gel filler.*

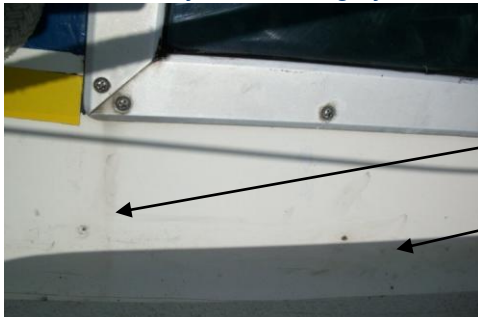


Fig 9 screws protruding through coachroof.

7. Cockpit:

- a) Integral with the deck moulding and constructed in the same way. Two port lights into cabin and heads, removable transom seat with teak slates securely fastened.
- b) Deep locker to port has securely hinged lids and positive method of closure. Deep lip type.
- c) Gas locker to starboard aft.
- d) Cockpit table socket is lifting at aft end. This is cut into the floor and there maybe exposed laminate and wood edges which will suffer water ingress. *This should be removed and refitted with Sikaflex 291 marine sealant*
- e) Cockpit drains. At aft end of cockpit, they are GRP tubes bonded from inside. The edge in the cockpit has a sealant around under the gel coat which has caused the gelcoat to break up. *This should be cleaned out and either sealed with Sikflex 291 or flow coat gel repair to prevent water ingress into GRP laminates.*



Fig 10 Cockpit drain gel coat breakdown.

Those areas of the above mouldings comprising deck, coach-roof and cockpit were tested with deep reading moisture meter to identify any moisture ingress to the core material and except where noted readings were 11 across the deck which is good low level.

8. Hull/Deck Join:

- a) This is mechanical type. The hull is moulded with an internal flange, the deck moulding sits on top of the hull moulding. The joint is filled with a hard bonding paste. This is through bolted with stainless steel screws, nuts and washers. The aluminium toe rail sits on the deck and stainless steel bolts go through the joint and secured with stainless steel nuts and washers. Occasionally a mild steel washer has been used which will corrode. *While individually no longer a structural item, where seen they should be replaced.*



Fig 11 Hull and deck joint



Fig 12 Hull and deck joint mild steel washer

- b) Access is limited to the cockpit locker, in the anchor locker and transom area. Inside the vessel the joint is inaccessible behind the material linings.
c) Internally no signs or evidence of any leaks on linings.

9. Bulkheads and Structural Stiffening including Internal Mouldings:

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

- a) The shell mouldings are robust in the first place.
b) There are a number of large floors bonded to the hull throughout the length of the hull. These are foam or balsa core laminated to the hull. (Floors in this case are transverse frames (grp mouldings filled with foam/ balsa) across the centreline but not continuing full height to deck level).
c) A longitudinal stringer runs full length of the hull either side and is well bonded.



- d) The furniture is plywood and grp laminated to the hull and to each other and forms an integral part of the strength. All bonding is very good.



Fig 13 & 14 Evidence of good bonding and strength

- e) The mast compression loadings are transferred onto a plywood block laminated into the deck, then through a stainless steel king post and then onto the keel. There are no signs of movement in any area. I am not able to access neither top nor bottom of king post due to linings and cabin sole board. There are no signs of rust or distortion of the hull or deck. The previous survey mentions depression of the deck, suggests this is normal and recommended the post is cleaned off. It is noted in hand writing this has been done. I did not find evidence of this depression. Nor any obvious sign the post has been touched.

10. Rudder and Steering:

- a) Semi balanced, skeg supported rudder of GRP construction made in two halves and bonded around stainless steel frames with stainless steel 316 rudder stocks. (Checked with magnet)
- b) The bronze shoe is held in place with 4 bronze rivets.
- c) Blade was hammer sounded and some delaminating was found. Moisture readings of 31 – 39 shallow and 35 – 32 deep indicate some water ingress in rudder blade. No splits or cracks were found, the underside was checked by mirror and spike tried to be inserted in joint. No faults found. *The de-lamination is not an issue at present but should be rectified. This can be done by isolating the delaminated areas, drill into core and release any water. Flush with acetone and inject resin into holes.*
- d) The wooded tiller movement is a bit stiff. This is caused by the knuckle rubbing on the bronze top plate. Lifting it slightly stops this. When in the water it is possible the rudder buoyancy counters this. The same fault is noted in the 2004 survey. *If it does not the knuckle will need loosening and raising.*
- e) Rudder tube is GRP and bonded to hull with substantial webs. They come just above the water line and have nylon seals top. There are no signs of leaks or cracks.



Fig 15 rudder tube

11. Stern Gear:

- a) Two blade yellow metal propeller on stainless steel shaft. Dome lock nut with split pin through. No signs of dezincification. Hammer tested, no fault found.



- b) Test with magnet confirms shaft to be of low grade stainless steel. Shaft rotated by hand, appears true with no binding of bearings present although chocks prevented clean movement. No signs of corrosion on shaft, suggest check for crevice corrosion under propeller if propeller removed.
- c) Shaft is supported outboard end by offset metal P bracket. Found secure, hammer tested and scraped.
- d) Stern tube has rubber bellows attached securely; clips checked underside with mirror, hammer tested. No fault found.
- e) Stern gland is rope type with external greaser.

2004 survey hand written notes state that shaft and bellows were replaced in 2004.

12. Cathodic Protection:

- a) One hull anode partially worn. One shaft anode fitted, partially worn. Multimeter shows good connection with engine intake, p bracket, shaft and propeller. Wires inside in good condition. Wire missing from rudder shaft – evidence it was there by clip on shaft and empty connection on top of p bracket where it connected to.

Again, this was noted in the 2004 survey and hand note said it was replaced. It is missing again.

Suggest wire is replaced as per manufacturer specification.

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) Toilet outlet under saloon port berth. Yellow metal thru hull with yellow metal DZR ball valve. 1 clip, pipe spilt and kinked. Handle extended with sockets, still unable to turn. *Recommendation – DZR must be serviced, pipe correctly attached with 2 clips, and easy to operate before launch.*

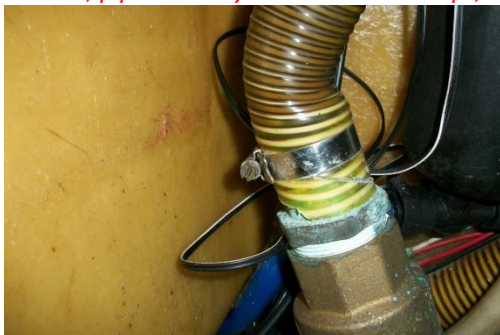


Fig 16 Toilet outlet note kink in pipe, cut in pipe and single clip.

- b) Heads water inlet in saloon locker: Yellow metal thru hull, with DZR ball valve.
- c) Engine seawater inlet behind engine: Yellow metal thru hull and strainer with DZR ball valve.
- d) Galley sink drain in starboard aft cabin cupboard: Yellow metal thru hull, with DZR ball valve.
- e) Heads sink drain in heads cupboard: Yellow metal thru hull, with DZR ball valve.
- f) 5th skin fitting seen underwater around galley area but seacock not seen. It could be under water tank. *Recommendation – inside skin fitting should be located and checked before launch.*
- g) Log and depth thru hulls. Plastic, lying fair to hull. Log has correct bung in place. Depth has sounded in place partially raised and disconnected.



Above Waterline:

- h) Exhaust, bilge pump, cockpit drains and tank breathers all secure and not vulnerable to breaking in lockers.

14. Main Companionway and other Access to Accommodation:

- a) Main companionway access hatch is of sliding GRP, in good condition and secure in its runner.
- b) Two wooden washboards in good condition, with vent. Slides in place in stainless steel runner and remain in position without companionway hatch being closed except in inversion condition.
- c) Saloon hatch Lewmar 250 x 500, hinged forward, secure means of closure and gasket intact. Worn Hinges will not allow hatch to remain open. *Hinge repair kits can be purchased through Lewmar.*
- d) Forepeak hatch hinged aft, gasket intact. Port catch clip missing. *Recommendation – hatch clip to be fitted before use in heavy sea. Hatch should be kept shut at sea due to hinge aft.*



Fig 17 hatch clip missing clip.

15. Ports, Windows etc.:

- a) 2 opening port lights in starboard aft cabin. Vetus make. Gaskets intact, secure method closure.
- b) Saloon portlights, original aluminium frames, stainless steel screws, evidence of leaks both sides due to gasket breakdown. *You can try and seal the leak with Sikaflex 291 but this is often unsightly. There is a good article here showing how to replace them with plastic windows.*
http://www.moodyowners.net/Technical_Library/documents/Moody_31_MkII_windows.pdf



Fig 18 leak port cabin window, starboard same.

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

- a) Pulpit. Stainless steel, legs go into aluminium bases bolted to and through toes rail. Full body tested with no movement found.
- b) Pushpit. Two separate. Legs have same fixing as pulpit, one leg each has stud through deck to nut underside. All tested with full body weight and visually checked, no faults found.
- c) Stanchions. Aluminium in aluminium bases. Steel bolts through deck. All took my weight.
- d) Port side forward stanchion is bent slightly. *To replace, the bases tend to corroded to the posts and difficult to remove, often needing cutting out. Access to underside of base is restricted and involves stripping out parts of cabin.*
- e) Double life lines of stainless steel wire, tested with magnet, terminals good.
- f) 2 jackstays on deck shackled fore and aft to toe rail with stainless steel shackles. Tested with lever and secure. No signs fraying.

17. Rigging Attachment Points:



- + Main cap and lower shrouds attachment points. All attach to stainless steel chain plates that go through deck. No access to underside as behind teak ply wood panels with no access holes. They were tested with a substantial crowbar on wood block and no movement found. No sign of seepage via deck fittings.
- + Forestay attaches to stainless steel stem head with 3 bolts in sheer down stem and 5 in tension on deck. Large plate under deck. Hammer tested and levered where possible and no fault found.



Fig 18 Underside stem head fitting.

- + Backstay attachment through transom, stainless steel bolts and washers behind. All hammer tested and no fault found.

18. Ground Tackle and Mooring Arrangements:

- a) Main bower anchor. This is 25lb plough anchor with chain. Chain not laid out and examined link by link nor bitter end attachment seen. Chain slight rust marks on it. Markings on lid suggest 50m of chain. Anchor shackle no signs corrosion and securely fastened.
- b) Stemhead fitting is stainless steel with single bow roller and pin to stop chain jumping in place. Hammer tested and no sign of major damage.
- c) Second anchor, Bruce type under forepeak with warp, no chain.
- d) Vessel has aluminium cleats fore and aft of adequate size through bolted the laminate. All hammer tested, levered and found secure. 2 cleats amidships bolted to toes rail also tested.
- e) Numerous mooring lines in cockpit lockers in fair condition.

19. Other Deck Gear and Fittings:

- a) All found of adequate size and securely through bolted, although inspection from under limited by linings.
- b) The following winches fitted were all tested as far as possible but not under load.
 - a. Coachroof, Lemar 8
 - b. 2 Lewmar 30ST – note self tailing plastic parts not fitted under stainless feeds. *Remove top of winches and locate correctly.*
- c) Starboard genoa car pulley edge broken off.



Fig 19 Genoa car broken

- d) Deck hardware all of good quality and specification, and all are serviceable except above.

20. Davits and Boarding Ladders:



- a) Removable boarding ladder located in cockpit locker.

21. Spars:

Mast

- a) Single spreader mast head rig. The mast was stepped so inspection is restricted to fittings and area to head height. It is Kemp mast, silver anodised no signs of corrosion around base or fitting. No damage or distortion to the extrusion was noted.
- b) Plastic cleat broken on port side.



Fig 20 Mast cleat broken

Boom

- a) Silver anodised in similar condition to mast.
- b) Main sheet and kicking strap attachment points secure as is the boom strut.
- c) Goose neck showing signs of wear at the base. *Suggest nylon bush fitted to take wear.*



Fig 21 Gooseneck wearing at base. Fit bush

Booming out spar

- a) Similar to mast, parrot beaks intact and pistons operating.

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 rigging screws are chrome plated bronze open bodied type and all had split pins securing them and had good articulation. All were found free from distortion or visible stress cracks, when examined under 10x magnification.
- c) Rigging all 1x19.
- d) Starboard lower shroud the outer wires are loose. The wire is under tension but the wires are loose, indicating that the wire has been over tightened. *Recommendation – starboard lower shroud must be checked by rig shop before sails are used.*



Fig 22 Starboard shroud unwound.

- e) Furling systems free to turn. No signs of damage.

23. Running Rigging:

- a) Running rigging appears in good condition although a bit green with damp. Most ends burnt closed or whipped.
b) Port genoa sheet frayed around shrouds but intact.

24. Sails and Covers etc:

- a) Main sail. Viewed furled on boom. Stitching and material checked with edge of 50p coin, stitching and material appears good. Material affected by damp with mildew spots on it. Head good. Sliders good.
b) Genoa is white, UV Protection very dirty and mildew spots, Sail partially unrolled. No broken stitches or signs of chafe. Not much resin left in sail.
c) Spray hood sound and fixings secure.
d) Sail cover appears sound, zipper tested and worked although green dirty and mildew.
e) Lazy jack lines in place.

25. Navigation Lights:

- a) White stern light secure and working
b) Bi colour on bow secure not working
Recommendation – bow light must work before using vessel at night.
c) Steaming light working
d) Deck light not working
e) No mast head light seen.
f) Compass light working

26. Bilge Pumping Arrangements:

- a) Manual Bilge pump mounted in cockpit. Tested and works, strum box in bilge. Clips all sound and tested. Discharge is through plastic fitting just below toe rail.

27. Fire-fighting Equipment:

- a) There were the following fire-fighting appliances found onboard.
a. 1 kg dry powder at base of engine steps. No date marking and tight in bracket. Not easy to get out to use.
b. 1 Kg in saloon out of date.

There are no regulations covering this vessel in private use.

Recommendation. At least 2 new fire extinguishers to BS5423 fire rating 5A34B (most 1kg dry powder type meet these criteria) should be carried and fitted near cabin entrance points. Suggest 1 in forepeak and one in cockpit locker. Hole and bung fitted in engine steps for easy discharge of fire extinguisher into engine compartment. Reposition fire extinguisher by steps. Fire blanket in galley



28. Lifesaving and Emergency Equipment:

The following was found aboard –

- a) Coastal flare pack expires 2012 –
- b) 4 person liferaft next service Feb 2012 padlocked and inflation strap not connected. *When launched must be correctly stowed.*
- c) Harness and throw line on pushpit.
- d) Life jackets and harnesses seen in forepeak, do not know if these will go with boat.

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:

Engine is a Volvo Penta 2003 raw water cooled. Number 868100 – 200328927

- a) Engine is generally clean and dry.
- b) Oil level in engine and gearbox correct although quite black and thick in engine.
- c) Engine is mounted on rubber mounts, tested with crow bar, good condition. No signs of corrosion and these bolted to grp engine beds, bolts all hammer tested and found secure.
- d) Starter motor, relays, lift pump and injectors all replaced evidenced by clean metal, not painted.



Fig 23 replaced injectors, painted head

- e) New washers on diesel system
- f) Underside of engine original paint, no signs rust.
- g) Front bearer and top of cylinder head painted green Hammerite and evidence of rust in bearer where not painted.
- h) No evidence that cylinder block anode has been removed at anytime recently. *Check engine anode.*
- i) Exhaust pipes all securely clipped and water trap in locker clean and not rusty.
- j) No diesel leaks seen.
- k) Engine not seized, can turn over.
- l) TX control in cockpit, rear side is not protected and has been damaged. *Gear cable will need to be replaced and back of TX should be protected with grp cover.*



Fig 24 TX control not protected and cable broken.



Suggestion: Engine should be run in water and checked under load.

30. Fuel System:

- a) Rubber hoses correct SAE100 fitted with swaged ends, all tested and found secure.
- b) Fuel tank of mild steel in cockpit locker. Surface rust on outside. Underside checked with mirror and similar to sides. Tank sits on bearers that keep it above any standing water. *Suggest tank is cleaned off and painted with red oxide primer or similar.*



Fig 25 fuel tank. Note mirror view underside

- c) Fuel shut of valve on fuel line easily accessible.
- d) Fuel level site pipe has valve at bottom which is currently open and difficult to access due to hot water calorifier. *These should be kept closed except when checking fuel level.*
- e) Glass filter mounted in cockpit locker above tank.
- f) Filler cap secure and bonded to tank.

31. Accommodation General:

- a) Lot of teak faced ply, nicely varnished , some signs condensation
- b) Cushions in good condition
- c) Interior woodwork good except around base of heads door

32. Gas Installation:

This vessel has not been MCA coded but nor 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. <i>Recommendation to be carried out before use.</i> <i>Suggestion only</i>



Condition and efficiency of self draining bottle storage	Separate locker with drain into cockpit and down cockpit drains. Hinge and lid secure.	
Age and condition of flexible hose	Dated 2003 no signs perishing. Swages rusty but sound.	
Age and condition of regulator	Butane regulator with on/ off on bottle	
Condition of copper pipe where accessible	Good	
Is pipework adequately supported and not under stress where accessible?	Not in gas locker, unsupported and strained everytime bottle is removed.	<i>Gas pipe should be clipped in bottle locker</i>
Are all appliances fitted with flame failure devices on all burners, and did these work properly under test?	Neptune 2500 Cooker fitted with flame failure devices on burners, grill and oven	
Are any appliances requiring flues properly fitted with same?	n/a	
Is a gas alarm fitted?	no	<i>Consider fitting gas alarm..</i>
Is each appliance fitted with an isolating tap	Could not see one	<i>Isolating tap in galley should be fitted if not already.</i>
If fitted did leak bubble tester function?	N/a	<i>Consider fitting bubble tester in line.</i>

Additional Observations:

Neptune cooker appears new with correct braided hose. Could not locate isolating tap but there may be one.

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) Fibreglass tank in saloon under berth, No signs of leaks. Electric pressure system hot and cold.
- b) Back up foot pumps.
- c) Hot water system off engine and 240V system. Insulation around calorifier damaged due to location. *Suggest protect by floor board above*
- d) No sign of leaks. Not operated.

34. Heads:

- a) Toilet is a Par Jabsco ITT , pump operates but tested without water.
- b) Outlet goes to diverter, currently set to overboard discharge. Second option is to holding tank with pump out on deck. Pipe to tank is disconnected and fitted with wooden bung. Inlet to tank is open. *Suggest reason determined and pipe removed or refitted.*
- c) No signs of leaks. Swan necks correctly fitted in inlet and outlet pipes.

35. Electrical Installation:

12v circuits



- a) 2 batteries, 12V 74 amp mounted in GRP boxes. Wedged in place, no straps. In inversion situation batteries would come out. *Suggest straps fitted for emergency.*
- b) 3 way isolator switch.
- c) 12V Moody electric panel, no access behind. RCD switches.
- d) 3 extra switches, no sign of fuses on Water, Nav and unmarked.
Suggestion - Get 12V system checked by marine electrician.

240v Circuits

- e) 240V socket in cockpit wired to domestic water heater switch and 240V domestic sockets, No RCD fitted.
Recommendation – Shore power must not be used until electrician has installed RCD and checked circuit.

36. Electronic and Navigation Equipment:

- a) Radio is MTEC FX35 DSC seen working
- b) Radio Teletext Weatherman seen working
- c) Battery monitor in cockpit
- d) Clipper duet Depth and Log – Log has not been fitted. This is a 40mm thru hull and the one currently in place is a 50mm thru hull. *An adapter will need to be purchased to use the log.*
- e) B&G GPS no signal found when I was there
- f) Navico Corus Nav station seen working
- g) Garmin GPS 128 seen working
- h) Phillips AP navigator – not seen working
- i) Autohelp Tiller pilot – not seen working
- j) Contest compass, appears good with no bubble inside

37. Heating and refrigeration

- a) No heating or refrigeration system seen fitted



RECOMMENDATIONS and CONCLUSIONS:

Maintenance Overview:

Cosmetic maintenance: The vessel is clean and tidy for a vessel of this age. The hull cosmetics could do with improved repairs.

Technical Maintenance: Technical maintenance has been kept on top of with the owner rectifying faults as and when they are found generally. There are no signs of owner bodes with the exception of the paper towel holder which is not typical. The engine appears to have been kept up together. She has had an epoxy coating and gel shield which add to her value.

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:

Recommendation – Do not use teak hand rails for security unless replaced.

13. Skin Fittings and other through Hull Apertures:

Recommendation – Toilet outlet DZR must be serviced, pipe correctly attached with 2 clips, and easy to operate before launch.

Recommendation – 5th inside skin fitting should be located and checked before launch.

14. Main Companionway and other Access to Accommodation:

Recommendation – hatch clip to be fitted before use in heavy sea. Hatch should be kept shut at sea due to hinge aft.

22. Standing Rigging:

Recommendation – starboard lower shroud must be checked by rig shop before sails are used.

25. Navigation Lights:

Recommendation – bow light must work before using vessel at night.

27. Fire-fighting Equipment:

Recommendation. At least 2 new fire extinguishers to BS5423 fire rating 5A34B (most 1kg dry powder type meet these criteria) should be carried and fitted near cabin entrance points. Suggest 1 in forepeak and one in cockpit locker. Hole and bung fitted in engine steps for easy discharge of fire extinguisher into engine compartment. Reposition fire extinguisher by steps. Fire blanket in galley

28. Lifesaving and Emergency Equipment:

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

32. Gas Installation:

Gas pipe should be clipped in bottle locker

35. Electrical Installation:

Recommendation – Shore power must not be used until electrician has installed RCD and checked circuit.

Conclusions:

There is a high level of electronics fitted with this boat, all in apparent good order and once the recommendations and suggestions are carried out, the hull polished, this vessel will be a good example, well equipped and suitable for coastal cruising.



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