



## Marine Surveys UK

*"Pragmatic Surveys in Plain English"*

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Survey Report no: [REDACTED]

Name of Vessel: "[REDACTED]"

Type of Vessel: Moody 35, FRP (Fibre reinforced plastic), Bermudian sloop rigged (Triangular main sail with single fore sail) sailing boat.

Type of survey: Pre-purchase

### At the request of:

[REDACTED]

This survey was carried out on [REDACTED] July, 2011 at [REDACTED] Marina [REDACTED] Kent. 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 the 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.
- ✚ This is not a full inventory check.
- ✚ 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; this is a visual inspection. The engine was run and seen operating under load while being moved. It should be appreciated that some components may appear serviceable but found to be defective when the engine is run for a long period of time.
- ✚ The vessel was surveyed in and out of the water and tests carried out as described to ascertain any possible sources of water ingress.
- ✚ The hatches and port lights were not leak tested with a hose.

**Recommendations and advisory notes:**

- ✚ 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. These will not be made concerning cosmetic or other minor defects, although relevant suggestions may be made in the text.
- ✚ ***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 end of this Report.
- ✚ **Advisory notes** are suggestions to prevent a problem getting worse or general advice and do not have to be carried out before the vessel is used nor should affect the boats current insurability.

**Conditions of Survey:**

Vessel was examined in the water and in the slings of a crane resting on its keel. The weather was fine and dry. The boat was very well prepared for survey.

No special conditions affected the survey other than as described in the text.



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

**Hull, Deck and Structure.**

1. Details of Subject Vessel, (General Description, Dimensions, Registration etc.).
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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. and Structural Stiffening including Internal Mouldings.

**Steering, Stern Gear, anodes and Skin Fittings**

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.**

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

**Safety.**

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34. Heads.
35. Electrical Installation.
36. Electronic and Navigation Equipment.
37. Heating & Refrigeration



**1. Details of subject vessel:**

The Moody 35 was designed by Bill Dixon and built by Marine Projects (Plymouth) Ltd between 1990 and 1996. [REDACTED] is a centre cockpit, fin keel, Bermudian sloop rig.

**Manufacturers' information from website (not verified by measurement)**

Length Overall	10.52m / 34'6"
Length of waterline	8.78m / 28'10"
Beam:	3.62m / 11'10.5"
Draft:	1.60m / 5'3"
Displacement	5811 kg / 12800 lbs
Ballast	2157 kg / 4750 lbs
CE Specification	n/a

**Boat specific information**

Name	[REDACTED]
Registration	Currently on small ships
Hin Number	MPP – GB0 [REDACTED] D393
Yard number	G52 [REDACTED]
Year of Build	April 1993

**2. Keel**

- a) This is an iron fin keel attached to the hull with studs and nuts. Under the nuts are steel plates.
- b) The keel is coated in grey primer and grey anti-fouling as per the hull.
- c) I was able to access all of the keel nuts in the bilges of the boat.
- d) All of the keel nuts and backing plates have surface corrosion and the front bilge sections under the table had a brown deposit in the bottom of the bilge, looking like salt water and corrosion.
- e) All of the nuts and backing plates were scraped and struck with a hammer and metal bar. Some minor surface corrosion came off the metal plates but they were found to be found.
- f) When the boat was lifted the keel joint was carefully examined both sides with the boat being lifted and lowered onto wooden blocks. Although the keel joint is visible in parts with some corrosion stains, I was not able to insert a metal spike or feeler gauges at any point around the joint.



**Advisory note:** I suggest at the next opportunity, probably this winter, two keel studs are removed and checked for corrosion where they pass through the hull. If there is any corrosion then they should be replaced that along with the rest of the studs however if there is no corrosion then they can be re- inserted and sealed.

**3. Hull below Waterline:**

- a) Construction of the hull below the waterline is solid FRP finished in white gelcoat. The hull is coated in what appears to be an epoxy covering below two layers of grey antifouling. The owner advised that he believed the boat had had an epoxy Primer applied before he bought it.
- b) There was no distortion noted in the hull around the keel, and there are no signs of any major damage or repair.
- c) Light hammer sounding was carried out (not heavy enough to damage the anti-fouling) of the hull at regular intervals approximately 500mm spacing all over.
- d) The antifouling was removed in patches approximately 50mm x 50mm at random around the hull below the water line. I did not remove the epoxy coating. While scraping I was looking for evidence of wicking or blistering and once removed all patches were checked with 10x magnification.
- 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:	<b>31.6°C</b>
Relative Humidity:	<b>26.9%</b>
Time ashore	<b>20 minutes</b>
In summary the weather conditions for obtaining moisture readings were <b>very good</b>	



Readings were as follows:

Meter	Range below waterline.	Range above waterline.
Sovereign Quantum, Scale A, 0-100 Shallow mode	18 - 19	14
Deep Mode	16 -17	14

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.

The difference between readings above the water line (normally dry) and below should be noted.

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.

**Advisory note:-** 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 and finished in white gelcoat.
- b) Top side moulding found to be generally without distortion.
- c) The topsides were lightly hammer sounded and no indication of voids found. Moisture readings were taken and recorded as above.
- d) There are no signs of any major damage or repair.
- e) There are some minor stress cracks around the FRP anchor locker drain and, and there are some minor chips on the lower transom H which have been filled.

**Advisory note:** any stress cracks should be either heavily waxed or cut out and repaired to prevent water entering the laminate below.



**5. Deck moulding:**

- a) The deck moulding is of FRP. Access to the underside was restricted by headlining panels. Plywood pads are normally laminated into the deck for strength under the fittings, and some sections of the deck may be cored.
- b) The deck is finished in white gelcoat with blue non slip moulded in to most of the areas.
- c) The whole deck was carefully tested underfoot for signs of delaminating or other structural defects while the boat was resting on its keel.
- d) Moisture readings were taken and these were similar to the top sides.
- e) There is some stress cracking in the lid of the gas locker which is not structural.

**6. Coachroof:**

- a) This is constructed as part of the same deck moulding and finished in the same way.
- b) The whole area was carefully tested underfoot for signs of delaminating or other structural defects.
- c) There are no signs of flexing under the mast when the shrouds were leaned on.
- d) Hand rails were tested. The port forward handrail the split and not secure.

**Advisory note:** The port forward handrail should not be relied upon until it has been replaced.

**7. Cockpit:**

- a) This is constructed as part of the deck moulding, finished in white gelcoat with Teak faced plywood attached to the seats, sole and upper coaming area.
- b) Drainage is via two drains at the aft end which join together in the engine compartment and exit through a single skin fitting and ball valve which is reported in section 13
- c) The bilge pump is mounted in the cockpit sole. There are no signs of leaks around this or the steering pedestal in the engine compartment.

**Advisory note:** The teak on the coaming has worn through to the ply below. Some of the teak and rubber joints is worn on the seats.

**8. Hull/Deck Join:**

- a) This is a mechanical joint there is screwed to the hull which has a flange at the top. This is through the aluminium toerail. There is bonding paste between the joint.
- b) This was visible in the ankle after some areas of the saloon and in the aft locker.
- c) There were no signs of leaks whether joint was seen. There are no signs of any damage externally to joint.



### **9. Bulkheads and Structural Stiffening including Internal Mouldings:**

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

- a) The hull and deck mouldings are robust in the first place. The bulkheads are bonded to the hull and deck with FRP laminates. There are a number of supporting frames longitudinally and transversely laminated to the hull.
- b) Mast loadings are transferred down a steel tube which sits on top of an FRP floor.
- c) Bulkheads were carefully hammer sounded near the deck, hull and floors for signs of debonding
- d) All possible access was checked, lockers, under berths and the floors and inner mouldings for signs of delamination and cracks.
- e) No structural issues were noted.

### **10. Rudder and Steering:**

- a) The rudder is FRP laminated around a stainless steel stock and frame. That is skeg supported with a bronze shoe attached to skeg.
- b) The short rudder tube is supported by FRP webs. The Stock is connected to the Whitlock wheel steering via a quadrant and cables.
- c) An emergency tiller was noted in the saloon and fits directly onto the stock through the deck.
- d) A Robertson Hydraulic auto pilot mounts onto the quadrant.
- e) The rudder was leant on with full body weight in either direction and did not give or any split open up.
- f) The rudder was vigorously shaken and there are no sign of playing in the Bearings.
- g) The moisture readings for the rudder were 27 shallow 31 deep, there were no visual signs of any issues and when hammer tested do not sound delaminated. The higher readings are not unusual for this type of construction and for boats that have just been lifted.
- h) Connections internally were checked with a hammer and visually and no faults noted.
- i) There are no signs of water ingress around the rubber tube.
- j) The auto pilot was not tested as the owner advised it had not yet been fixed and there was an engineer coming to fix it.
- k) There was no significant play noted in the wheel.

### **11. Stern Gear:**

- a) This is a shaft drive with the stainless steel shaft passing through a remotely greased stern gland which is attached to these FRP stern tube by a marine hose with jubilee clips, the shaft exits the boat and is supported by a bronze P bracket with a rubber cutlass bearing. There is a two blade propeller attached.
- b) The hose and clips with checked above and below with a mirror and a hammer for security. No faults were found.
- c) There is a very small amount of play in the cutlass bearing.



- d) The P bracket and propeller was scraped and no signs of easing certification were noted. There is no sign of damage to the propeller.
- e) The nut holding the propeller to the shaft is castellated stainless steel, however there is no split pin nor hole for it to secure it or a tab washer. The owner advised this was replaced 10 months in September.

***Recommendation: The propeller needs to be secured to the shaft with a nut that will not work loose with the rotation. A Nyloc nut is not suitable for underwater use. It is likely the shaft will need to be drilled between the castellation for a split pin.***

### **12. Cathodic Protection:**

- a) There is a hull anode correctly mounted on a single bolt there's also a shaft anode. Both anodes are partially wasted but should be OK for the rest of the season.
- b) The anodes were tested for continuity to the propeller, shaft and stern gland.
- c) There are no signs of corrosion around the wires connecting to the anode bolt.

**Advisory note:** The boats were originally fitted with a pear shaped anode on the hull with two fixing bolts. Internally it was noted that the aft fixing bolt hole had been filled with a bonding paste. There were no signs of leaks around this area although was not laminated over with fibreglass which I would advise.

### **13. Skin Fittings and other through Hull Apertures:**

Some thru hulls may not be reported below but will be with relevant systems sections. 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 below water line on outlet spigot unless noted.
- ✚ Lying fair to hull unless noted

### **Below Waterline:**

All are bronze skin fittings with DZR ball valves unless noted.

- a) Exhaust outlet - Starboard aft quarter – FRP tube, no valve.
- b) Waste tank outlet – Starboard aft quarter -ball valve would not turn, it is currently open.
- c) Cockpit drain-starboard amidships.
- d) Toilet direct outlet- starboard amidships.
- e) Engines seawater intake - starboard amidships – bronze ball valve and strainer.



- f) Toilets sea water inlet- starboard amidships.

**Above waterline**

- g) Galley sink drain starboard amidships  
h) Head sink drain – Port amidships  
i) Manual build from – Starboard aft quarter - plastic - no valve  
j) Peter exhaust – stainless steel – no valve- transom  
k) Engine vents-top edge of transom – Open.  
l) Diesel and water breathers-loops below deck.

***Recommendation: the waste tank discharge valve should be freed off and until then a wooden bung kept in the location of the valve.***

**14. Main Companionway and other Access to Accommodation:**

These were all checked;

- ✚ to be lying fair to the deck
- ✚ fixings were randomly tested with screw driver for tightness
- ✚ frames checked for damage
- ✚ a secure method of closure
- ✚ correctly fitted hinges
- ✚ glazing checked for damage
- ✚ gaskets checked

All found ok unless noted. The hatches were not hose tested for leaks.

- a) Companion way he's a sliding Plexiglas hatch, with a single washboard.  
b) Forward of the mast are two Lewmar aluminium framed Plexiglas hatches, with two catches to secure and hinged half.  
c) Aft cabin - Lewmar aluminium framed Plexiglas hatch, with two catches to secure and hinged half.

***Recommendation: Aft hinged hatches forward of the mast should be kept closed when Sea.***

**15. Ports, Windows etc.:**

The same checks as section 14. above were carried out. All found ok unless noted. The ports and windows were not hose tested for leaks.

- a) Lewmar *Plexiglass* hatch in Transom below deck level.  
b) Coach roof side - opening Lewmar *Plexiglass* hatches.  
c) Main saloon – aluminium framed fixed *Plexiglass* windows. The seals on these are being pushed out by corrosion of the frame and there are signs they have all leaked a little.

**Advisory Note:** Although not a structural issue, the saloon windows will probably drip and consideration should be given to replacing the seals.



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

These are tested under full body weight where practical, terminal ends checked, type of wire tested. Life line attachment points are tested with a crow bar levered against a wooden block.

- a) Pulpits and push pits are stainless steel tubes bolted through the deck. They washers below where seen were stainless steel and no signs of corrosion. All secure.
- b) Twin guard wires, 1x19 wire in stainless steel. Secured with rope.
- c) Stainless steel stanchion posts in aluminium bases. No signs of splits or cracks. Port forward base is loose but secure.
- d) No life line attachment points or jackstays noted.

### **17. Rigging Attachment Points:**

- ✚ All attachment points were tested visually with 10 x magnification
- ✚ Nuts and bolts struck with hammer against sheer where possible
- ✚ Checked with magnet for quality of steel where possible
- ✚ Fittings tested with a substantial crowbar on wood block

Unless noted below, no movement found. No sign of seepage via deck fittings.

- a) Forestay attaches to stainless steel chainplate and stemhead bolted through stem with 3 bolts.
- b) Backstay attaches to stainless steel chainplate bolted through top of transom with 4 bolts.
- c) Shroud chainplates go through deck. Internally the fixings could not be checked as all are boxed in with wood panels.

### **18. Ground Tackle and Mooring Arrangements:**

- a) Main Anchor is a 35lb Steel Plough by Harbour fast running over a bronze roller. Pin in place to stop chain jumping. 8 mm chain over manual windlass. 4 mooring cleats bolted through deck.
- b) The chain was not removed and examined link by link, what seen was not corroded. The bitter end was not seen.
- c) Windlass operated. Nuts checked below where seen.
- d) No other anchors noted.

**Advisory note:** Check bitter end of chain (the inboard end) is secured to a strong point with a rope that can be cut in emergency. Further anchors maybe required depending on teh area of operation.

### **19. Other Deck Gear and Fittings:**

- a) Turning blocks and jammers all found of adequate size and securely through bolted, although inspection from under limited by linings.
- b) The genoa winches fitted were all tested as far as possible (but not under load) and found no play on base and were free to turn.
- c) Genoa and main sheet tracks and cars operated correctly. No faults found.
- d) Spray hood on stainless steel frame. No faults noted.



**20. Davits and Boarding Ladders:**

- a) Vessel has permanently attached stainless steel boarding ladder which extends below the waterline and is securely attached.
- b) A pair of dinghy davits are bolted through the top of the transom and deck joint. The inboard bolts on the starboard davits were checked. The others were not accessible. The Davits were leant on and did not give excessively.

**Advisory note:** the recommended loading for the Davits should be noted and not exceed.

**21. Spars:**

- a) The mast is a deck stepped, silver anodised, single extrusion, Kemp mast with two sets of spreaders.
- b) The mast could only be examined from the deck.
- c) There were no signs of significant corrosion around any of the rivets or fixing points.
- d) No distortion was noted in the mast.
- e) The boom is also by Kemp and finished in the same way.
- f) The spinnaker pole attaches runs on a track up the front of the mast. This was lowered and checked.
- g) All extrusions were carefully examined where possible and no significant faults were found.

**22. Standing Rigging:**

- a) The mast is rigged with an adjustable backstage, a forestay with *Furlex* furling system, two lower shrouds and 1 outer shroud each side.
- b) The rigging is 1x19 stainless steel with roll pressed terminals.
- c) The rigging was examined where the wire enters the terminals under 10x magnification, no broken strands visible nor excess corrosion seen. The angles they enter the mast appears in line with rigging.
- d) The rigging screws are stainless examined under 10 x magnifications. All locking pins were noted in place.
- e) No significance faults were found.

**23. Running Rigging:**

- a) The running rigging was not always individually checked, however what was seen appeared in good condition for the age of the boat.



**24. Sails and Covers etc:**

- a) The mainsail was seen furled on the boom, it was examined while lowered, the stitching was checked with a 50 pence (blunt) coin. There is plenty of resin left in the cloth. There is some mildew and weather staining.
- b) The sail on the forestay (No.3 Genoa?) was unfurled and checked from deck level. There is less resin in this cloth, the sacrificial strip has been replaced in the past and there is some staining however no tears were seen.
- c) A second genoa was examined in its bag, where seen no faults noted however it is an old sail.
- d) Two spinnakers or cruising chutes were checked in their bags they appear to have had little use and no faults were found.
- e) The boom has a fixed bag lazy jack system, the cover is dirty from weather.

**25. Navigation Lights:**

Vessel fitted with lights of correct size, securely mounted and seen working unless noted.

- a) White on stern – not working
- b) Bicolour on pulpit
- c) Steaming light on mast – not working
- d) Mooring light at mast head – not working
- e) Compass light

**26. Bilge Pumping Arrangements:**

- a) There is a Manual bilge pump mounted in the engine compartment and operated from the cockpit. There is a strum box fitted to the pickup in the bilge and the hose exits on the starboard aft quarter.
- b) This was operated dry as there was no water in the bilge. All clips were secure.

**27. Fire-fighting Equipment:**

All fire extinguishers were out of date. These were;

- a) 1 KG automatic Fire extinguisher Halon replacement HFC in the engine compartment
- b) 1KG powder Fire extinguisher in the aft cabin
- c) 1KG powder Fire extinguisher in the saloon

***Recommendation: there are no regulations relating to sailing vessel used privately at sea however I recommend that the extinguishers above are serviced or replaced, and a fire blanker is fitted at the galley.***



### **28. Lifesaving and Emergency Equipment:**

The following was noted aboard

- a) Horseshoe life buoy
- b) Life raft – 6 people coastal – service expired.
- c) Out of date flares

#### **Advisory notes**

- 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](http://www.rnli.org.uk).
- The RYA also publishes a booklet, G16, "The Boat Safety Handbook" and this specifies levels of Safety Equipment for different categories of use. Booklet is obtainable from nautical bookshops or direct from the RYA, [www.rya.org.uk](http://www.rya.org.uk).

***Recommendation - this vessel be equipped with safety equipment to the level appropriate to proposed use.***

### **29. Engine and Installation:**

- a) Engine is a Perkins KE30303J Number 261■■■W, marine diesel engine, Fresh water cooled. It is recorded as 2519 hours.
- b) The engine was very clean and no signs of significant corrosion noted. It was checked all around with mirrors.
- c) It is rubber mounted, the mounts bolt to the FRP bearers. They were tested with a crow bar and the bolts with hammer and found ok. The washers on the top fixings of port side front engine mount is a little small.
- d) The sea water system was checked and no leaks found.
- e) The exhaust was checked and securely fitted.
- f) The oil was checked and found reasonably clean and contamination free.
- g) The fluid in the header tank is a bit low.
- h) Engine started with glow plugs with some smoke with cleared after a couple of minutes.
- i) Started from warm, no smoke seen. Engine ran smoothly and controls operated smoothly.

**Advisory note:** Suggest replace washers on port front engine mounts with larger washer.

### **30. Fuel System:**

- a) A mild steel tank is located forward of the engine. I was only able to access the top which was painted.
- b) There are isolation valves on both flow and return.
- c) The tubing from the tank is copper and no signs of corrosion noted where seen.
- d) The flexible pipes to the engine are braided.
- e) A metal primary filter and water trap is mounted in the engine compartment.
- f) The diesel heater feed is secure.
- g) No signs or indication of any leaks.



**31. Accommodation General:**

a) The wood and materials appear good, there are no smells of damp or signs of mildew.

**32. Gas Installation:**

This vessel has not been MCA coded. It was not built RCD/CE compliant as too old.

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](http://www.calormarineshop.co.uk/rules-regs-answer.htm) Comprehensive information on standards and best practice. [www.boatsafety.com](http://www.boatsafety.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	The locker is self contained under the deck, there is no low down vent	
Age and condition of flexible hose at bottle.	Condition is ok but dated 2005	<i>Replace hose at bottle as over 5 years old</i>
Age and condition of regulator	good	
Connection to copper pipe	good	
Condition of copper pipe where accessible	Where seen very good.	
Is pipework adequately supported and not under stress where accessible?	Where seen yes.	
Connections and Flexible pipe to cooker and other appliances	Connections ok. Date 2001	<i>Replace hose at cooker as over 5 years old</i>
Is cooker gimballed?	Yes and locks	
Are all appliances fitted with flame failure devices on all burners, and did these work properly under test?	yes	



Are any appliances requiring flues properly fitted with same?	n/a	
Is a gas alarm fitted?	Not seen	
Is each appliance fitted with an isolating tap	Yes in cooker under cooker but handle missing	<i>Fit handle to tap or new tap for cooker.</i>
If fitted did leak bubble tester function?	no	

**Additional Observations: None**

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](http://www.gassaferegister.co.uk)

**33. Fresh Water Tanks and Delivery.**

- a) Two plastic water tanks in saloon under berths. Securely fitted. Push fit plumbing used. Pressurised system. *Isotemp* hot water calorifier operating off engine water and 240 V mounted in aft cabin.
- b) No signs of leaks noted. All taps operated including stern shower. Tap on stern shower corroding.

**34. Heads:**

- a) Toilet is manual sea water flush connected to 3 way valve. Alloy holding tank in bilge and macerator pump in engine compartment. Owner advises tank disconnected but I cannot see where. Pump worked. Outlet valve noted in section 13 above and seized. Direct flush to sea.
- b) All clips tight and no significant corrosion.

**35. Electrical Installation:**

DC circuits

- a) 2 batteries mounted in aft cabin. Secured in place, no insulating covers on terminals. Terminals tight and greased.
- b) Checked and charging at 13.7V off engine alternator.
- c) 3 way isolation switch on control panel.
- d) All circuits have breakers and All wiring is has appearance of professional installation.

240v Circuits

- e) Shore power lead in aft locker.
- f) RCD 10ma on control panel plus double pole breaker.
- g) Breakers for sockets, battery charger and hot water.
- h) Battery charger mounted in engine compartment.
- i) Shore power not plugged in during survey.
- j) All wiring is has appearance of professional installation.



**36. Electronic and Navigation Equipment:**

The following was seen aboard operating

- a) Compass – Binnacle mounted Plastimo
- b) VHF – *Navman* DSC VHF 7100
- c) GPS – MLR
- d) Speed and Depth sounder – Bidata
- e) Wind speed and Direction – *Dataline*
- f) Weather – *Navtex*

**37. Heating and refrigeration**

- a) *Eberspacher* hot air diesel fired heater – correctly mounted – owner advises not operating.
- b) *Frigoboat* 12V fridge with evaporator plate – seen working and getting cold.



## **RECOMMENDATIONS and CONCLUSIONS:**

### **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.*

#### **11. Stern Gear:**

Recommendation: The propeller needs to be secured to the shaft with a nut that will not work loose with the rotation. A *Nylloc* nut is not suitable for underwater use. It is likely the shaft will need to be drilled between the castellation for a split pin.

#### **13. Skin Fittings and other through Hull Apertures:**

Recommendation: the waste tank discharge valve should be freed off and until then a wooden bung kept in the location of the valve.

#### **14. Main Companionway and other Access to Accommodation:**

Recommendation: Aft hinged hatches forward of the mast should be kept closed when Sea.

#### **27. Fire-fighting Equipment:**

Recommendation: there are no regulations relating to sailing vessel used privately at sea however I recommend that the extinguishers above are serviced or replaced, and a fire blanker fitted at the galley.

#### **28. Lifesaving and Emergency Equipment:**

Recommendation - this vessel be equipped with safety equipment to the level appropriate to proposed use.

#### **32. Gas Installation:**

Replace hose at bottle as over 5 years old Replace hose at cooker as over 5 years old Fit handle to tap or new tap for cooker.

### **Conclusions:**

A very clean example in excellent condition for her age and hours. The hull and mouldings are in very good condition. There are a few cosmetic issues as well as the recommendations above but nothing more than you would expect.



**Marine Surveys UK**

*"Pragmatic Surveys in Plain English"*

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