John Cherry Yacht Surveys

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"MISS MOODY"

Yacht Type: **Moody 27**

Client: **Mr Tony Cortazzi**
14 Appledram Lane South
Chichester
PO20 7PE

Carried out on 10th April 2019
at Emsworth Yacht Harbour

Principal Dimensions

Name of Vessel	**: "MISS MOODY"**
Type of Vessel	**:** Moody 27
Designed by	**:** Bill Dixon
Built by	**:** Marine Projects (Plymouth) Limited
Hull Moulding Nr	**:** 156
Lloyd's HCC Nr	**:** PLY - 0357 - 84 (moulded into the transom) PLY 480357 (plaque on the main bulkhead)
Part III Ships Reg'n Nr	**:** SSR12145 (expiry date unknown)
Year of Build	**:** 1984/1985?
Engine Type / Serial Nr	: Volvo Penta MD2002, 18hp diesel / FL10109

Length overall	8.43m	27' 8"
Length waterline	6.67m	21' 10½"
Beam	2.95m	9' 8"
Draft bilge keel	1.04m	3' 5"
Displacement (light)	2.608 Tonnes	5750lbs
Ballast	1.147 Tonnes	2530bs

Tankage

Fresh water	82 Ltrs	18 IMP gals
Fuel	73 Ltrs	16 IMP gals

Sail Area

Mainsail	12.78m²	137½ft²
Genoa	23.16m²	250ft²

I have not checked the exactness of any of the above particulars and cannot guarantee their accuracy. All data and information has been given by others, obtained from outside sources or publications.

Recommendations

If the Small Ships Registration is in or out of date you should be able to apply to renew this using the same SSR number, if this is not to be renewed and if this is in date then the current owner will need to inform the registrar that the boat has been sold so that they can take it off the register. You will need to discuss this with the broker as in my experience this is something which they will normally arrange for you in their efforts to make sure you have clear title to the boat. Please click on the following link for a copy of this application form https://www.gov.uk/register-a-boat/the-uk-ship-register

Limitations of Survey

a) This survey is a visual inspection only, it reports on the structural integrity of the vessel and only those items specifically detailed.
b) The vessel was inspected whilst being blocked off ashore and the areas of the hull covered by the supports and the base of the keel could not be inspected.
c) Whilst every effort has been made to establish the hulls condition with respect to osmosis, **it is impossible to guarantee the absence of osmosis. This may occur in the common form of wicking or blistering, at any time in the future.**
d) None of the deck fittings, hatches or windows was subjected to a hose test therefore no guarantee can be given for any undetected leaks
e) The mast was stepped and only viewed at deck level. **It is therefore advisable to employ the services of a qualified rigger to go aloft to fully establish the condition of the mast together with that of standing and running rigging.**
f) None of the internal linings, panelling or cabin sole panels (other than those normally portable) were removed during this inspection, therefore no guarantee can be given to the condition regarding defects to any parts or areas of the underlying structure not seen.
g) None of the through hull fastenings, seacocks, propeller shaft, rudder or bearings were dismantled for inspection and therefore no guarantee can be given as to their condition
h) The tanks, toilets and plumbing were inspected visually as seen and the tanks were not filled or pressure tested. No access panels were removed from the tanks; these therefore were not checked for contamination.
i) The gas system was inspected visually without pressure testing and it is in the absence of an in date certificate, **it is therefore advised that a qualified LPG Gas Safe registered marine engineer is commissioned to check this.**
j) The engine installation and major items of equipment were inspected externally and only tested as noted in this report. These were not dismantled for internal inspection, so no guarantee can be given as to their condition and ongoing performance. **A qualified marine engineer should be commissioned to inspect further and carry out sea trials.**
k) The electrical system and electronics were inspected visually as seen and switch tested. **It is therefore recommended that a qualified electrical marine engineer check out all of the electrical systems and check the calibration of the electronics before being relied upon for navigation purposes.**
l) Please note that the term "Serviceable" and "In Serviceable Condition" as used in this report mean that the items remain useable despite possible deterioration or wear. The item may nevertheless require maintenance and replacement in due course.
m) It was a mainly cloudy day with some sunny spells; the temperature was 10˚C and the humidity 64%.

Text in the recommendations after each section shown in:

1. **Bold text indicate recommendations to be investigated/dealt with now, as they are considered to be a structural or a safety issue.**
2. *Italic text indicate points which will need attention at some point in the near future however they are not considered to be a structural or a safety issue.*
3. Normal text indicates points that are considered to be normal maintenance.

1. Hull

The hull is finished in white polyester Orthopthalic gelcoat and it is laid up by hand using uni directional mat (CSM) and polyester resin in the first layer. The hull is then further laid up by hand using a combination of CSM with woven rovings and polyester resin.

The hull is strengthened by longitudinal stiffeners and transverse floors which are formed using foam and then over bonded using CSM and polyester resin. All the bulkheads including the intercostal bulkheads are also bonded in to add further stiffening as required.

There is also a GRP interior tray moulding which is bonded onto the hull.

The bonding in of the floors, the longitudinal stiffeners, the bulkheads and engine beds etc. were sounded where accessible and there were no signs of delamination detected.

The hull was laid up in accordance with the requirements for Lloyds Hull Construction Certificate Standard.

Topsides:

1.1 There have been a number of minor repairs carried out to the topsides over the years, there is a deep mark in the gelcoat on the port side below the blue tape in photo a and a small area of stress cracks with a small repair just aft of these that is becoming detached on the starboard side in photo b below

a

b

The topsides are in a serviceable end of season condition

1.2 The hull was acoustically sounded at random with a small 4oz pin hammer paying particular attention to the area of the repairs and stress cracks found and there were no signs of any serious voids or delamination detected.

1.3 Moisture meter readings were taken using a Sovereign Quantum Marine moisture meter (software version 3-9); a calibration check was carried out prior to taking the readings and it was found to be in the middle of the acceptable range. At the time of taking these readings the temperature was 10˚C and the humidity was 64%. Using the relative scale setting on shallow mode there were numerous readings taken at random on each side of the hull these averaged 16

1.4 The dark blue and pale blue cove/style lines are serviceable

1.5 The blue painted boot top lines are serviceable

1.6 The signwriting on the transom and on either sides of the bows is serviceable

1.7 There is a stainless steel boarding ladder fitted to the transom, this is well installed and in a serviceable condition

Underwater:

1.8 The hull was acoustically sounded at random with a small 4oz pin hammer and there were no signs of any serious voids or delamination detected.

1.9 Moisture meter readings were taken using a Sovereign Quantum Marine moisture meter (software version 3-9); a calibration check was carried out prior to taking the readings and it was found to be in the middle of the acceptable range. At the time of taking these readings the temperature was 10˚C and the humidity was 64%. Using the relative scale setting on shallow mode there were numerous readings taken at random on each side of the hull these were in the range of 19 – 30. There were deep readings taken in the same position as the shallow readings and these were in the range of 16 – 28.

The difference between the moisture meter readings below the water line when compared with those taken on the topsides is 3 – 14 on the shallow setting and 0 – 12 on the deep setting. With this meter and on the scale used (0 – 100) figures of 16 – 20 are considered to be acceptable for a yacht that is in service (following an appropriate drying interval), these readings therefore give no reason for any concerns.

1.10 The hull has been painted with Coppercoat epoxy antifouling and this is found to be securely attached to the underlying substrate.

Recommendations

1.1 The next time you have a laminator doing any work on the vessel you should consider getting the stress cracks chased out and the failing repair hooked out, these areas will then need to be cleaned out with acetone before the repairs are carried out.

1.10 Before the vessel is launched the surface of the Coppercoat antifouling needs to be abraded with a green scouring pad to reactivate it.

Note - It is recommended that vessels constructed using GRP should be lifted out of the water and laid up ashore for at least 2 to 4 months every year in order to dry out (even when a hull has been epoxy treated). An annual inspection of the hull for any signs of damage to the surface of the gelcoat/epoxy should be carried out and any such damage should be repaired by a competent specialist. It is also advisable for the underwater sections of the hull be inspected for any signs of defects relating to osmosis.

2. Deck

This deck is moulded in white gelcoat on the smooth areas and grey gelcoat in the areas of the non-slip; the deck is then laid up by hand as a sandwich construction using a combination of CSM with woven rovings and polyester resin either side of the core material. End grain balsa is used as the core material and this is replaced by plywood pads in way of the original fitted deck fittings.

The deck is laid up in accordance with the requirements for Lloyds Hull Construction Certificate Standard.

The coachroof, foredeck, side decks and the cockpit seats have a random moulded in non-slip finish

The cockpit sole has been modified with a wooden hinged up access lid covered with teak laid decking, this provides access to the aft end of the engine and the bilges aft of this. There is a fabricated stainless steel support framework/upstand around the aperture in the cockpit sole, this and the access lid are serviceable and well installed.

2.1 The deck to hull joint is formed by landing the deck onto a turned in hull flange which is laid up as part of the hull moulding, sealant is used between the two mouldings and it is provisionally secured in position before being through fastened using the same fastenings that secure the aluminium alloy toerail which is serviceable. Where accessible there was no evidence of any leaks seen on the deck to hull joint.

2.2 The deck moulding is in a serviceable end of season condition

2.3 The deck was acoustically sounded at random with a small 4oz pin hammer and there were no signs of any serious voids or delamination detected.

2.4 The deck is found to be lifting slightly in the way of the chainplates and it is found to be sagging at the base of the mast.

2.5 The cockpit drains are located at the aft end of the cockpit and these drain out through the transom.

2.6 The cockpit locker lid, gas locker lid and anchor locker lid are found to be in a serviceable condition and they are found to be securely installed.

2.7 The glazing in the fixed windows in the in the coachroof sides are found to be starting to suffer with UV crazing and the aft end of the port window in the coachroof is showing evidence of leakage on the seal between the window frame and the glazing in the toilet compartment

Apart from this they remain to be in a serviceable condition and they are well installed

2.8 The deck hatch is found to be in a good serviceable condition and it is well installed.

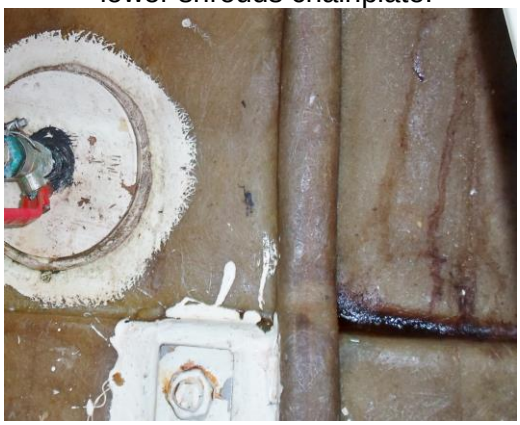
2.9 The wooden washboards are in a serviceable condition and they are secured to the companionway hatch by a cam lock type washboard lock.

2.10 The GRP companionway hatch is found to be well installed and it is in a serviceable condition

2.11 The deck fittings are in a serviceable condition and they are securely installed.

2.12 The stainless steel cap shroud and aft lower shroud chainplates are a through deck type, these are attached to vertically laminated partial bulkheads below the deck and the condition of these could not be inspected as they are boxed in by the joinery. The babystay is attached to a stainless steel through deck type chainplate; this is believed to be attached to the underside of the deck. There are cover plates fitted to the deck surrounding the through deck chainplates to seal up the hole cut through the deck. The forestay is attached to the stemhead fitting which has a tang welded to it running down the stem, this is bolted through the deck and the stem. The stainless steel backstay chainplate is bolted through the transom. The backstay chainplate looks like it has moved up the transom because the bolt heads are no lomger sitting flat onto the surface of the stainless plate


There are dark coloured water stains running down the inside of the hull under the port settee in the saloon and some dark coloured water on the top of the recess in the hull for the keel stub and this is in the area below aft lower shrouds chainplate.



Apart from this the chainplates where seen are found to be well installed and in a serviceable condition.

2.13 A Quantum Marine moisture meter was used on to the deck to compare the deep moisture meter readings in the area of the chainplates with the readings elsewhere on the deck that were known to be dry and in the areas of the chainplates these are found to be raised indicating the ingress of water into the core material. On the port side of the deck the readings are raised starting forward of the cap shroud to just aft of the aft lower shroud and on the starboard side of the deck the readings are raised but not over the same area

2.14 The wooden handrails fitted to the coachroof are serviceable and well installed
2.15 There are stainless steel handrails either side of the companionway which are serviceable and secure.
2.16 The pulpit and the pushpits are found to be in a serviceable condition and the inboard legs on the pushpits are loose, other than this they are found to be securely attached to the deck and the toerail
2.17 The aft stanchions both port and starboard are bent aft slightly, apart from this the 24″ aluminium alloy stanchions are serviceable and the stanchion bases are securely installed.
2.18 The guardwires are found to be in a serviceable condition and they are securely attached
2.19 The sprayhood is in a good serviceable condition, the cover and its stainless steel framework are well installed
2.20 There is a full cockpit cover stowed on the forward cabin bunk and the framework is stowed on the ¼ berth in its stowage cover
2.21 There is a pair of spray dodgers for the guardwires in the way of the cockpit and these are stowed in the forward cabin
2.22 The plastic outboard bracket on the port pushpit is secure and in a serviceable condition.

Recommendations

2.4 It is more than likely that the deck will have settled to this shape some time ago now and I would suggest that templates are made of the of the deck shape in these areas and the deck monitored for any further changes in the shape of the deck. In the unlikely event the deck does continue to change in shape it will be necessary to take remedial action to stop this progressing further.
2.7 You should hose test the port aft fixed window in the side of the coachroof and if it is confirmed to be leaking between the frame and the glazing you might want to consider removing this and sending away to be resealed and either of the following companies could help you with this:
a) Eagle Windows – sales@eagleboatwindows.co.uk
b) Sea Clear Windows – sales@seaclear.co.uk
These companies could also help you if you wanted to get them reglazed at some point in the future
2.12 You will need to make sure the backstay chainplate bolts are done up tightly. You will need to hose test the port cap shroud chainplate and if confirmed to be leaking when the mast is out to replace the standing rigging you will need to lift the cover plate and reseal the hole cut through the deck. I suggest you remove the old sealant around the chainplate and pack the bottom of the gap around the chainplate with caulking cotton before putting sealant around this and the deck cover plate should be bedded down onto fresh sealant (you might want to consider doing this to all of the chainplates).
2.13 The joinery below deck will need to be removed so that the underside of the deck and the chainplates are exposed. Core samples in the wet areas should be taken from the underside of the deck in the areas of the high moisture meter readings and if the core material is wet or dark this will confirm the ingress of water. The vessel will then need to be revisited so that a further inspection can take place and following this inspection a recommendation on the course of remedial action required will be made.
2.16 Resecure the inboard pushpit legs to the deck

2.20 You will need to fit the full cockpit cover so that you are familiar with the way this is fitted and to check on the condition of the cover.

3. Keel

3.1 The vessel is fitted with grey cast iron bilge keels; the keels are in a good serviceable condition and there is no evidence of the boat having been grounded heavily. There are no signs of cracks in the surface at the corners of recesses in the hull for the keels.

3.2 The keels appear to be well installed, however I am unable to comment on signs of movement at the keel to hull joint interface as the boat was already ashore and sat on its keels.

3.3 The keel bolts are from high tensile steel, the bolts and their backing plates where accessible are found to be suffering from surface rust and the worst affected are those under the galley and the keel bolts under the water tank are not accessible for inspection.

Keel bolts and nuts under the galley

3.4 The floors where accessible which are those under the port settees, the aft end of the starboard settee and under the galley sink were acoustically sounded, they are found to be in good order and with no signs of delamination. There are however some fractured laminates on the tabbing in of the plywood fillet under the aft end of the starboard settee in the saloon and there are no problems found on the bonding in of the same fillet under the galley and this does not affect the structural integrity of the hull

Recommendations

3.2 When the vessel is lifted the keel to hull joints should be checked for any signs of movement.

3.3 During your next winter layup ashore you should remove the water tank from the starboard settee in the saloon to check the condition of the keel bolts etc. You should also check on the stiffening in the way of this keel. All of the keel bolts nuts and backing plates will need to be cleaned up and if they are still in a serviceable condition they will need to be treated with a rust inhibitor before they are repainted. Any nuts and backing plates that are not found to be serviceable will need to be replaced (this should be carried out 1 at a time so as not to disturb the sealant between the keels and the hull).

3.4 The next time you have a laminator doing any work on the vessel you might want to consider getting them to cut out the fractured laminates under the aft end of the starboard settee and bond this back using 2 layers of 600g/m² CSM and vinylester resin.

4. Rudder and Steering Gear

4.1 The vessel is fitted with a GRP transom hung rudder and this is constructed by manufacturing it in two halves and then joined in the normal manner by sandwiching a layer of CSM soaked in resin between the 2 halves. This was acoustically sounded at random and there were no signs of delamination detected.

4.2 Moisture meter readings were taken and these are found to be a little higher than those on the hull but not high enough to give rise for any concerns.

4.3 The transom fittings and rudder straps are found to be in a serviceable condition. These fittings have been installed using A4 grade (type 316) stainless steel fastenings and the bolts on the rudder straps and the stainless steel fitting below the lower rudder strap are all found to be loose and move about when tapped with a 4oz pin hammer.

4.4 The vessel is tiller steered, the tiller and tiller hood have been removed and it is stowed in the toilet compartment and they are in a serviceable condition

4.5 There is a Autohelm 800 tiller pilot

4.6 The vessel is fitted with a Plastimo Contest compass fitted to the starboard companionway bulkhead and this has a small air bubble in it. This remains to be in a serviceable condition and there were no signs of a deviation card seen.

4.7 There is no emergency tiller onboard

Recommendations

4.3 The bolts securing the rudder straps all need to be removed 1 at a time to inspect on their condition and if found to be serviceable they will need to be replaced with sealant and done up tightly. Any bolts that are not serviceable will need to be replaced

4.4 You should seriously consider carrying an emergency tiller onboard the vessel at all times.

Note – The steering system should be routinely checked and serviced annually.

5. Stern Gear

5.1 The vessel is fitted with a shaft driven 16" X 11" 2 bladed fixed propeller, this is made from a yellow metal and it is found to be in a serviceable condition.

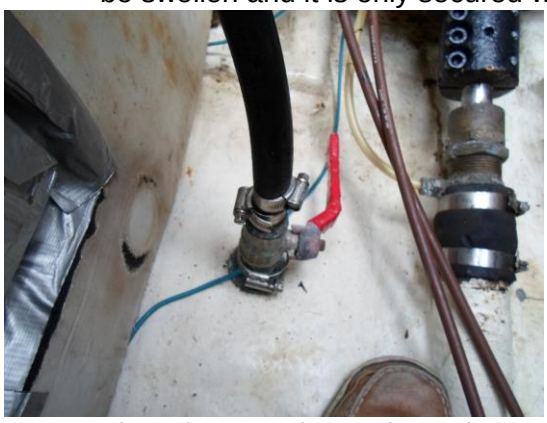
5.2 The 1" diameter stainless steel propeller shaft runs inside a spun glass stern tube which is bonded into the hull and this is found to be well installed.

5.3 The shaft is supported at the aft end by a 'P' bracket which is well installed and this is quite coppery in its presentation, this does however scrape back to bright yellow metal. The cutlass bearing in the 'P' bracket has a no play in it and it is in a serviceable condition.

5.4 The shaft is connected to the engine with a clamp type coupling which is fitted with a scroll pin and a solid spacer is sandwiched between the shaft and engine coupling faces.

5.5 The stern tube is fitted with a conventional packing gland and this has been repacked in the recent past as there is plenty of adjustment in this. This is fitted with a greaser which is located at the aft end of the port engine bed and there is plenty of adjustment left in this.

5.6 The stern gland is attached to the stern tube by a rubber hose which looks to be swollen and it is only secured with a single hose clip at either end



5.7 There is an Ambassador Stripper rope cutter fitted, this is found to be well installed and in a serviceable condition.

Recommendations

5.6 The age of the rubber hose connecting the stern gland to the stern tube needs to be established and if this is over 10 years old it will need to be replaced. Double up on the hose clips at either end of the rubber hose or replace the hose clips with hose clamps

6. Cathodic Protection

6.1 The hull is fitted with a pear shaped anode which has been replaced.

6.2 There is a new shaft anode fitted.

6.3 A multi-meter was used to check the connection between the hull anode to the propeller, propeller shaft and the 'P' bracket, there is slight resistance to the propeller and propeller shaft and there is no connection showing to the 'P' bracket.

Recommendations

6.3 The wires from the anode to the engine and to the 'P' bracket need to be replaced

7. Through Hulls

7.1 The underwater skinfittings are from yellow metal and plastic; these are found to be in a serviceable condition and they are securely installed. Sample areas of antifouling were scraped off and there were signs of some surface discoloration but no serious dezinctification found.

7.2 The topside skinfittings are secure where seen and serviceable

7.3 The sea valves were all found as follows:

Use	Size/Type	Location	Nr of clips	Operational
Galley sink	¾″ ball valve	Behind the cooker	1	Yes
Engine inlet	¾″ ball valve	Aft of the engine to port	2	Yes
Toilet inlet	¾″ ball valve	Under the port saloon settee/berth	2	Yes
Toilet outlet	1½″ ball valve	In the cockpit locker	2	Yes
Toilet sink	¾″ ball valve	Under the sink	2	Yes

All the ball valves were left as found.

7.4 The echo sounder transducer was not seen

7.5 The log transducer c/w its blanking plug are both located under the cockpit sole this is found to be securely installed.

Recommendations

7.1 & 7.4 When the vessel is back in the water all of the underwater though hull fittings need to be checked for leaks.

Note – 1. When it comes to replacing any of the ball valves in the future you should consider upgrading these with a corrosion resistant type valves.
2. Ball valves should be operated regularly to prevent seizure.

8. Anchoring & Mooring Arrangements

8.1 The stainless steel stemhead fitting is well installed and serviceable. The single yellow metal roller rotates freely and there has been an additional nylon roller added to the starboard side of the stemhead fitting which also rotates freely

8.2 The vessel is fitted with a 5kg claw anchor anchor which is connected to the 8mm chain by a chain swivel and there is a warp attached to the end of the chain. The bitter end is secured to a strong point in the anchor locker and where seen all is found to be in a serviceable condition. The broker's specification states there is a 25lb plough anchor?

8.3 There is a 4kg Kobra kedge anchor and chain located in the anchor locker

8.4 The 200mm aluminium alloy mooring cleats forward and aft are well installed and in a serviceable condition

8.5 There are 200mm aluminium alloy spring cleats fitted amidships, these are well attached to the toerail and serviceable

8.6 There were no mooring warps seen

8.7 There are 7 new looking fenders with lines and a fender step stowed in the cockpit locker and they are found to be in a serviceable condition.

Recommendations

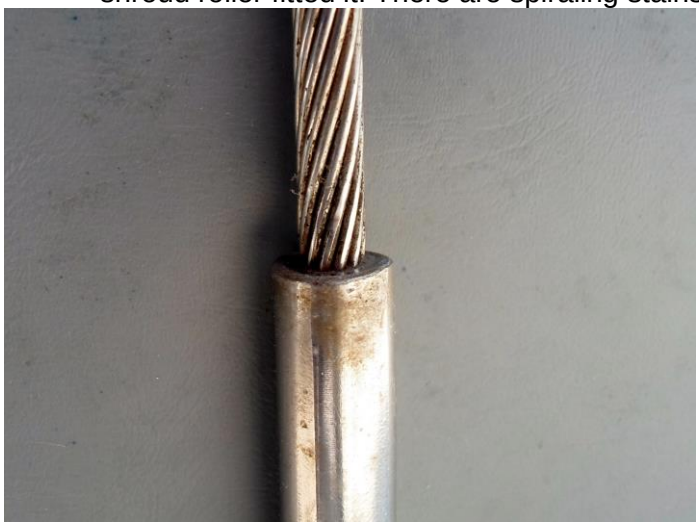
8.2 The 5kg claw anchor in not considered to be big enough as the main anchor and this should be replaced with a 10kg Delta plough anchor or similar

8.6 If there are no mooring warps onboard you will need to put some onboard and they should be 12mm diameter 3 strand rope and be at least 1.5 times the length of the vessel.

9. Mast & Rigging

9.1 The spars are manufactured by Kemp/Selden Masts, it is a silver anodized aluminum mast fitted with single in-line spreaders and it is fitted with a retro fit in-mast reefing system. It is a deck stepped masthead rig. The mast was inspected at deck level only as it was stepped and at deck level it is found to be in a serviceable condition. There is a compression post fitted below to transfer the loads into the boats structure, which is found to be secure and in a serviceable condition.

9.2 The standing rigging is 1 X 19 stainless steel wire and fitted with swaged on type rigging screws (new in 2004). The condition of the wire where it enters the swages at the bottom was checked with a 7X magnifying eyeglass and whilst there are no apparent signs of any broken wires or splits in the swage terminals there are signs of wear on the surface of the wire strands because there have plastic parell balls fitted to them. The babystay also has a nylon shroud roller fitted it. There are spiraling stains running down the cap shrouds



9.3 The clevis pins and their split pins were all in place and in a serviceable condition.

9.4 The mast is fitted with a retrofit Easyreef in-mast reefing system and at deck level this is found to be well installed, the furling systems foil inside this is quite slack and you can make this knock the inside of the aluminium alloy extrusion it has been installed in.

9.5 The forestay is fitted with a Hood Pro Furl B29S furling system, this is found to be in a serviceable condition

9.6 The mast is fitted with all rope halyards, all of the halyards are at the mast and the reefing lines for the in-mast furling system are believed to be run aft to the cockpit. Where seen the running rigging is found to be in a serviceable condition.

9.7 The gooseneck fitting is serviceable and securely attached to the mast

9.8 There is a track and slider fitted to the top of the boom for the in-mast furling mainsail and the boom is found to be in a serviceable condition.

9.9 There is a telescopic spinnaker pole stowed in the ¼ berth, I could not get this to slide out to extend its length

Recommendations

9.1 When the mast is un-stepped to replace the rigging a full inspection of the mast should be carried out, paying particular attention to all structural parts for: cracks, deformation, wear/play, fastening, corrosion and if plastic ageing. That moving parts are moving freely. The wire where it enters any swage fittings and the swage terminals themselves and the running rigging for unusual wear on the cordage and whippings. With the mast down it is recommended that the all the moving parts are serviced as required.

9.2 The standing rigging needs to be replaced and do not refit the parell balls or the nylon shroud roller

9.4 You will need to get a rigger to adjust the tension on the foil in the Easyreef in-mast reefing system

9.9 The telescopic spinnaker pole needs to be serviced

10. Sails

10.1 The Maxi-Roach vertical battened in-mast furling mainsail is fitted with a blue UV clew patch and this is stowed in a bag on the forward cabin berth. The battens are stowed on the port guardwires

10.2 The Kemp Sails furling genoa is fitted with a blue UV cloth and this is stowed in a bag on the forward cabin berth

10.3 There is a Lucas Sails furling working jib fitted with a blue UV cloth and this is stowed in a bag on the forward cabin berth

10.4 There is believed to be a Lucas mainsail stowed in a bag on the forward cabin berth

10.5 There is an old spinnaker stowed in a bag on the forward cabin berth

Recommendations

As there is not enough room below on a boat to lay the sails out for a proper inspection, it is recommended you send the sails to a reputable sail maker to have them serviced and valeted as required.

11. Engine Installation, and Engine Compartment

11.1 The vessel is fitted with a salt water cooled Volvo Penta MD2002 18hp diesel engine (Serial Nr FL10109) and it is fitted with an MS2B 2.37:1 ratio gearbox (Serial Nr 10243). The engine is a bit oily in its presentation and a bit rusty in places. The general condition is commensurate with its age

11.2 The engine can be accessed from saloon and the cockpit

11.3 The engine oil is clean and the level is OK (new oil)

11.4 The gearbox oil is clean and the level OK

11.5 The engine is flexibly mounted, the mounts are/not in a serviceable condition and they are securely attached to the engine beds.

11.6 The alternator and starter motor looked to be in a serviceable condition and the cables are securely attached.

11.7 The engine is fitted with a wet exhaust system with the exhaust running aft to a muffler/water trap and it is fitted with a swan neck before the connection to the through hull fitting. The exhaust hoses outwardly are in a serviceable condition.
11.8 The engine compartment is lined with sound insulation.
11.9 The engine controls are not working because the disengaging button on the engine control lever is stuck in the disengaging position and I soaked this with WD40 and could not get it to spring out.
11.10 The engine control panel was turned on and the warning lights came on and the alarm sounded when it was tested.
11.11 The engine was serviced 3rd April 2019 (taken from the invoice).

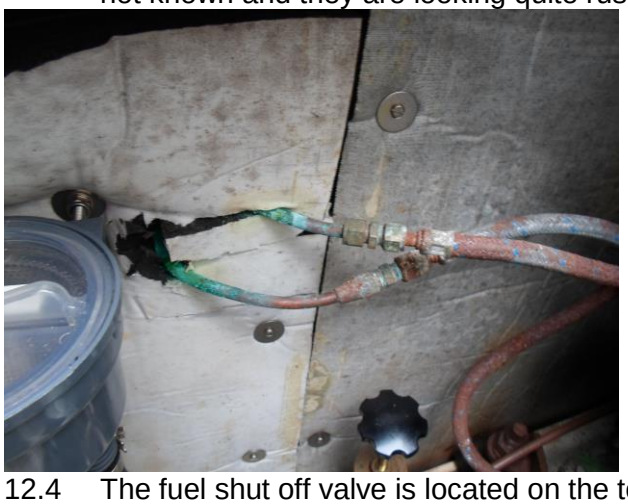
Recommendations

11.9 The engine control lever needs to be serviced

I have to point out that I am not a marine engineer and that there may well be issues that I have not identified, it is therefore recommended that a qualified marine engineer should be commissioned to carry out a more detailed inspection.

12. Fuel System

12.1 The mild steel fuel tank is located at the forward end of the cockpit locker, this has been painted green and the exposed surfaces do have some surface rust and it is found to be secured in position. A photo was taken of the bottom of the tank and this shows that the tank has been removed at some point because it has also been painted green and appears to be in good condition
12.2 The filler/vent connections are in a good condition and the filler is located in the port cockpit seat above the tank
12.3 Both the fuel supply and return lines from and to the tank are seamless copper tubing. The supply is connected to a water separator and on towards the engine where it is connected to an armoured flexible rubber fuel hose and the armoured flexible rubber fuel hose from the leak off rail is connected to the copper pipework going back to the tank. The age of the flexible hoses is not known and they are looking quite rusty in their appearance.



12.4 The fuel shut off valve is located on the top of the tank

12.5 The water separator is located on the forward bulkhead in the cockpit locker above the tank and this contains clean red diesel
12.6 The fuel system could not be checked for leaks
12.7 The fuel gauge is a sight tube which is attached to the aft end of the tank and this shows the tank to be full

Recommendations

12.3 Flexible rubber fuel hoses are considered to have a service life of 10 years, due to the fact these are rusty in their appearance and no longer as flexible as they used to be these will need to be replaced. The replacement rubber fuel hoses should be in accordance with the requirements of ISO 10888 and be type A1 or A2 hoses in accordance with ISO 7840.

Note - It is recommended that the fuel tanks are kept topped up at all times to prevent condensation, especially during the winter.

13. Gas Installation

13.1 The gas bottle locker is located at the aft end of the starboard cockpit seat, this drains into the cockpit and overboard via the cockpit drains. The locker in the event the drain became blocked would vent to vessels interior via the hole in the end of the plastic hose the copper pipework has been run in and the hole in the back of gas bottle locker that the hose passes through.


The gas bottles are secured in place
13.2 There are 2 10lb Calor Gas bottles fitted, one of which is connected to the regulator/gas pipework by a flexible rubber gas hose which is dated Feb 2007 and the regulator is dated 04/07.
13.3 The gas supply pipework is seamless copper tubing and this has been run inside nylon protective hose. There is a gas test point on the back of the cooker
13.4 The galley is fitted with a gimbaled Plastimo Neptune 2500 2 burner cooker fitted with an oven and grill. The cooker is fitted with flame failure on all burners, it is visually in a good condition and it is secured in its gimbals.
13.5 The cooker is connected to copper supply pipework via an armoured flexible rubber gas hose which is dated 02/08.
13.6 There was no gas shut off valve seen
13.7 Ventilation is provided by the companionway hatch
13.8 There is no gas alarm fitted
13.9 There is not and in date gas test certificate

Recommendations

13.1 The hole in the end of the nylon hose the pipework runs in needs to be sealed as does the hole in the back of the locker this passes through.

13.2 & 13.5 Please note that flexible rubber gas hoses have a service life of 5 years and regulators 10 years, both from date of manufacture and not the date they were installed. Replace the regulator, together with the flexible rubber gas hose in the gas bottle locker and the flexible rubber gas hose on the cooker, the replacement gas hoses need to be in accordance with ISO 10239 and meet the requirements of EN 1763.

13.6 If there is no gas shut off valve fitted you will need to install 1 close to the cooker and this will need to be in a position that does not involve having to lean across the cooker to turn it off.

13.7 You should always ensure you have adequate ventilation when using the cooker as this will consume the oxygen in the boat.

13.8 You should consider installing a gas alarm the only alarm I know of that uses waterproof sensors is a Nereus Gas Alarm

13.9 The gas system was inspected visually without pressure testing and it is in the absence of an in date test certificate. I do need to point out that I am not a Gas Safe registered engineer and there may well be other issues that I have not identified, it is therefore advised that you commission a qualified Marine LPG Gas Safe registered engineer to check this installation and to carry out a gas leak test then issue a certificate.

The following 2 companies specialise in Marine LPG installations and they are Gas Safe registered:

a) A&R Marine Plumbing and Gas Services – Rob Akhurst 07761 512991

b) Apollo Gas – Dave Waugh 07921 509917

Note – Any work carried out on the gas system should be carried out by a qualified Marine LPG Gas Safe Registered engineer, then retested and issued with a Certificate

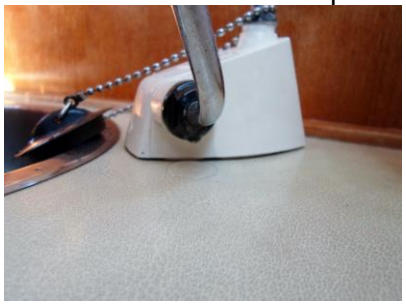
14. Fresh Water System

14.1 The GRP water tank is fitted to the starboard saloon settee/berth, the filler and vent connections on the tank looked to be OK and the tank has been drained down for the winter

14.2 The water filler cap is located starboard side of the deck.

14.3 There is no contents gauge fitted

14.4 There is a Whale flipper hand pump in the galley and in the toilet compartment, the pump in the galley is leaking on the pumps handle and the 1 in the toilet compartment is leaking at the base of the faucet



Recommendations

14.4 The Whale flipper hand lift pumps need to be serviced, the water tank will then need to be filled and the air bled out of the system. The pumps will then need to be checked for leaks.

Due to the age of the GRP tank and I do not know if the inside of the tank treated so I suggest that the water in the tank is only used for washing up and that you should carry bottled water onboard for drinking and cooking.

15. Toilet Installation

15.1 There is a manually operated Plastimo toilet fitted, this could not be checked for operation and leaks as the vessel was out of the water
15.2 The toilet is installed with reinforced nylon hoses, which are well secured to the toilet and they are fitted with swan necks.
15.3 There are no siphon breaks fitted on the inlet and outlet hoses.
15.4 There are no hose clips on the ends of the hose between the toilet pump and the toilet bowl.
15.5 There is a Purytec inline toilet cleaner/deoderiser fitted to the hose between the toilet pump and the toilet bowl and this is secured with hose clips.

Recommendations

15.1 When the vessel is back in the water the toilet should be checked for operation and leaks.
15.3 Always ensure that the toilet inlet and outlet seacocks are turned off when the toilet is not in use, this is to prevent the toilet bowl from back flooding.
15.4 You should consider fitting hose clips to the ends of the hose between the toilet pump and toilet bowl.
15.5 Because the toilet is fitted with a Purytec inline toilet cleaner/deoderiser the water coming into the bowl should be coloured blue and if this is clear it means it has run out and it will need to be replaced

Note - Toilet pumps should be serviced annually

16. Bilge pumps

16.1 There is a manual bilge pump fitted on the portside of the cockpit, this was checked for operation and found not to be working.
16.2 There is no electric bilge pump fitted

Recommendations

16.2 You should seriously consider installing an electric bilge pump; this should be installed with a float switch and a manual override switch

Note – It is recommended that bilge pumps should be checked on a regular basis.

17. Fire Fighting Equipment

17.1 There are 2 fire extinguishers fitted, the type of these and locations are as follows: a) Screwfix 1kg ABC at the forward end of the port settee in the saloon and this was manufactured 05/00

b) Screwfix 1kg ABC at the aft end of the port settee in the saloon and this was manufactured 05/00

There were no service records seen for the extinguishers

17.2 There is no fire extinguisher in the engine compartment which is commensurate with the time of build.

17.3 There is a fire blanket fitted to the inboard side of the galley.

17.4 There is a bucket fitted with a lanyard in the cockpit locker.

17.5 There is a Fire Angel smoke alarm fitted to the saloon coachroof and this is found to be working

17.6 There is a First Alert carbon monoxide alarm in the ¼ berth above the 12v distribution panel and this worked when the test button was pressed

Recommendations

17.1 You will need to fit an additional fire extinguisher that you can reach from the cockpit so that you do not have to go below a boat that is on fire to get a fire extinguisher

17.1a & 17.1b All fire extinguishers have an annual service requirement and this type are considered to have a service life of 5 years when used in a marine environment, all of these fire extinguishers need to be replaced and the old ones should be disposed of in accordance with the local authority regulations in force at the time of disposal.

17.2 You should at the very least fit a fire extinguisher portal in the front of the engine access panel in the saloon or you might want to consider fitting an automatic fire extinguisher in the engine compartment, either an FM200 or FE36 (these are a Halon replacement type). This will need to be big enough for the volume of the compartment

Note - The crew should be familiar with the location and operation of all the manual fire extinguishers.

18. 12v D.C Electrical Installations

18.1 There are 2 off Lucas LX31MF 12v 113ah sealed lead acid batteries located under the ¼ berth, 1 for the engine starting and 1 for the domestic/service supply and the cables have been removed for the winter. These are secured into position. The batteries were connected up to test the systems/electronics and then disconnected again afterwards

18.2 There is a changeover type battery isolator switch fitted in the ¼ berth for the domestic supply and a battery isolator switch for the engine battery, this is located on the front of the ¼ berth and the wiring to these was not seen

18.3 The wiring is found to be commensurate with the time of build and where seen it is serviceable

18.4 The Newmar main distribution panel is in the ¼ berth and this is fitted with 9 toggle switch type circuit breakers. All of these were switched and the corresponding equipment worked as follows
18.5 The cabin lights were all tested and found to be working and serviceable (the light fitted to the saloon coachroof is a red/white light)
18.6 The chart table light works off the VHF/RT switch.
18.7 The 12v cigar lighter socket at the chart table is working

Navigation Lights

18.8 The bow port and starboard light works
18.9 The stern light works
18.10 The deck and steaming lights are both working
18.11 The masthead tri colour light and anchor light are working
18.12 I could not see if the compass light was working

Navigation Equipment

The following electronics are fitted; these were all switch tested and found as follows

At the chart table:

18.13 Standard Horizon Matrix AIS/GPS DSC VHF/RT, a radio check was carried out by calling up the Solent Coastguard and the signal was reported to be good and readable, the MMSI number has been programmed in and this is 235086721. The GPS working and the call sign is unknown.
18.14 Philips Mk8 GPS and this is found to be working

In the cockpit:

18.15 Standard Horizon Ram 3 remote DSC VHF/RT handset, this was plugged in and it is found to be working
18.16 Garmin GPSmap 556 Colour Chart plotter/GPS/AIS, this was connected up and the chart plotter is found to be working. The GPS and the AIS are also found to be working.
18.17 Silva Star GPS repeater in the port companionway bulkhead and this is found to be working.
18.18 Autohelm ST50 Tridata display on the starboard companionway bulkhead, the display is working and the accumulated log reads 2865.8nm
18.19 Autohelm ST50 Wind display on the starboard companionway bulkhead, both the windspeed and wind direction are found to be working

Recommendations

18.12 You will need to check the compass light in more favorable light conditions
18.13 You will need to try and establish the ships radio call sign and if you are unable to do this then you can apply for 1 when you apply to Ofcom for your ships radio license
18.18 When the vessel is back in the water you will need to check that the depth and boat speed are working

Note – It is recommended that the electronic equipment should be checked calibrated by an experienced marine electrician, before being relied upon for navigation

20. 240v AC Electrical Installations

20.1 The shore power inlet socket is located in the port cave locker in the port cockpit seats backrest.
20.2 The Residual Current Device/2 way consumer unit is located in the toilet compartment, this was trip tested and found to be working.
20.3 The ring main is fitted with the following double 3 pin UK style sockets, 1 on the inboard side of the galley and 1 under the aft end of the port settee/berth. A socket tester was put into these, they are found to be working and they have been wired up correctly

Recommendations

Note - Do not try access the back of the 240v AC distribution panel or equipment without first disconnecting the 240v power supply.

21. Internal Cosmetics

21.1 The joinery and cabin sole boards are in a serviceable condition.
21.2 The headlinings and side linings are serviceable
21.3 The upholstery is in a serviceable condition
21.4 The curtains are serviceable and well installed

Recommendations

22. Life Saving Equipment

22.1 Horseshoe lifebuoy c/w light
22.2 Webbing jackstays for the side decks
22.3 Octahedral radar reflector in a bag
22.4 2 red parachute rocket flares, 2 red hand flares and 2 orange hand smoke flares in a dry canister and their expiry date is 12/2019
22.5 Standard Horizon HX270EV handheld VHF/RT and this is working
22.6 Garmin GPSmap 76CS handheld colour chart plotter and this is found to be working

There is other safety equipment onboard the vessel and because it is not listed in the broker's specification or fitted to the vessel it is not shown here as it may not be onboard at the time of handover

Recommendations

Note – 1. There is some safety equipment onboard and whilst there are no statutory requirements for safety equipment for pleasure craft of less than 13.7 metres in length. The RYA do make recommendations on the type of safety equipment that you should carry, please click on the following link for more details,
http://www.rya.org.uk/infoadvice/safteytips/Equipment/Pages/default.aspx

2. Safety equipment must be properly serviced and maintained, with service records kept.
3. The crew should be familiar with the location and operation of all safety equipment.

24. General Summing Up

On **"MISS MOODY"** the issue with the deck in the way of the chainplates needs further investigation and following the removal of the joinery either side of the saloon it will be necessary for a follow up visit to carry out a further inspection on the condition of the chainplate bulkheads and the condition of the core samples taken.

There are a number of other points raised in this report that need further investigation and that need to be attended to. With all of these points addressed together with the normal servicing etc it is felt that the vessel should continue to offer many years of sound and reliable service.

The details given in this report are as accurate as could be ascertained at the time of the inspection and subject to the limitations noted on page 3 of this report.

The craft has not been examined for compliance with any code, rule, regulation or directive and consequently no opinion as to such compliance is expressed or implied.

This report is provided for the sole use of the client named at the beginning of this report and no liability of any nature will be accepted by the Surveyor to any third party.

Should you wish to discuss any of the points raised in this report in greater detail, then please do not hesitate to contact me.

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