MAGELLAN YACHT
Surveys

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British Marine Surveyors Europe.

Name of Vessel:

Type of Vessel:	Moody 36
Lying:	
Purchaser:	
Address of Purchaser:	
Date of Survey:	
Purpose:	**Pre-Purchase Survey**
Carried out by:	Mandy Bruce

(Vessel picture removed from here)

17 Rope Walk, North Quay, Conver, Kent ME9 9HL

Limitations:

- Where access is restricted by fixed panels, linings etc. It was not possible to examine these areas and I cannot say they are free from defects.
- Areas of antifouling are cleared for visual examination and moisture readings. Areas of the hull not examined beneath the antifouling or hull coating cannot be commented upon.
- 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.
- This report does not address stability, vessel performance, or overall design.
- It carries no warranty regarding ownership of the vessel or any warranty regarding outstanding mortgage, VAT, or any charges or other debt there may be on the vessel.
- No inspection was made for compliance with any regulations, local bylaws etc. with which the vessel may need to comply in a particular use or location.
- The mast was stepped on the day of the survey and therefore viewed from deck level only.
- Those parts of the hull and topsides obscured by the lifting slings could not be inspected.

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.
- 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 be found defective when the engine is run.

Recommendations:

These will not be made concerning cosmetic or other minor defects, although relevant suggestions may be made in the text. Recommendations will be restricted to those defects which should be rectified before vessel is used, (or within a given time span if specified), and items which may affect Insurability.

Recommendations will be printed in bold 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 her keels ashore. No special conditions affected survey other than as mentioned in text.

Air Temperature:	**19 Degrees C**
Weather:	**Sunny**
Time ashore prior to Survey:	**1 week**
Conditions for taking moisture readings	**Good**

Information is reported in the Sections below, followed by Conclusions

1. Vessel Specifications and Description,
2. Keels.
3. Hull below Waterline.
4. Topsides above Waterline
5. Deck Moulding, Coachroof and Cockpit.
6. Hull/Deck Join.
7. Bulkheads and Structural Stiffening including Internal Mouldings.
8. Rudder and Steering.
9. Skin Fittings and other through Hull Apertures.
10. Main Companionway and other Accesses to Accommodation.
11. Ports and Windows
12. Pulpit, Stanchions, Pushpit, Lifelines and Jackstays.
13. Rigging Attachment Points.
14. Ground Tackle and Mooring Arrangements.
15. Other Deck Gear and Fittings.
16. Boarding Ladders.
17. Spars.
18. Standing Rigging.
19. Running Rigging.
20. Sails and Covers etc.
21. Navigation Lights.
22. Bilge Pumping Arrangements.
23. Firefighting Equipment.
24. Lifesaving and Emergency Equipment.
25. Engine and Stern Gear.
26. Fuel System
27. Cathodic Protection
28. Accommodation General.
29. Gas Installation.
30. Fresh Water System.
31. Heads.
32. Electrical Installation.
33. Electronic and Navigation Equipment.
34. Heating and Refrigeration.

1. Vessel Specification and Description

Length Overall	36’ 9”
Beam	12’ 3”
Draft	3’ 11”
Displacement	18,543 lbs
Ballast	5843 lbs
Manufacturer	Moody Yachts/Marine Projects
Model or Type	Moody 36
Year of Build	2000
HIN no.	
Designer	Bill Dixon
Construction	GRP

Engine: Volvo Penta MD2040

(Note: All measurements and year of build have been taken from the owner's advertisement and have not been authenticated during this survey.)

The Moody 36 was built until the year 2000 and xxxx is one of the later ones. This model replaced the Moody 35 offering a slightly more performance – orientated design. 118 were built in total. The vessel is a bilge keel version with monolithic GRP hull, a centre cockpit and a large aft cabin.

The owner's details state the build year is 2000 but the vessel's HIN no. indicates that she was built in 1999 to a 2000 model. This was after RCD regulations came into force, but a CE mark was not seen on the hull, cockpit, or elsewhere on the vessel. Paperwork should be obtained from the owner to provide evidence of the actual launch date bearing in mind she is advertised as a 2000 boat, and also that the boat was RCD compliant when she was built.

2. Keels

- Exterior

The keels are of cast iron, bolted to the hull with mild steel bolts. There is significant corrosion at various places along the hull/keel joint and on this surveyor's advice it was arranged that the vessel would be lifted in slings later during the day to enable the keel studs to be examined in tension. When this was undertaken at the conclusion of the survey, the aft end of the port keel was seen to move away from the hull moulding very slightly but to a visible extent. When the keels were moved from side to side by hand, water was noted to exit the joint on both sides of both keels. The vessel was then lowered onto her keels and the end of the port keel closed up tight to the hull, and water was squeezed out of the joints and ran down the keels at various points. Otherwise, the surface of the keels are in good condition with no significant pitting or corrosion noted.

- Interior

Keel studs and backing plates were tested with a magnet and found to be magnetic. Some low grade stainless is often used here which would be magnetic, but in this case it is known that these boats use mild steel. Saloon sole boards (floorboards) were removed to gain access to some of them, but further dismantling would be required to see them all. Eight were seen on the starboard side and six on the port side. All are showing visible corrosion and various staining was noted in the adjacent bilges. Given the movement noted to keels there is a strong possibility that seepage is occurring via the keel studs. This may not be noticeable with the vessel on her mooring but could become serious when the keels are under pressure in a seaway.

Recommendation Immediate:

- **In the first instance, the keel studs should be tightened to see if this remedies the problem, although this gives no indication of the condition of the studs. If this does not remedy the problem, then both keels should be dropped, any corrosion on the keel root cleaned off, and the keels rebedded. At the same time the studs should be inspected for any corrosion.**

3. Hull below Waterline

Hull construction is GRP. It is finished in a light coat of anti-fouling which was adhering well. The underbody was inspected for damage, blisters and hammer tested (not hard enough to damage the gelcoat or any coatings) over the entire wetted area. The purpose of this hammer testing is to identify potential delamination or voids in the lay up of the laminate. No blisters were seen and no delamination or voids found. However there are some small cracks around the aft corners of the keel flanges on both keels. Lines of filler emanate out from these corners and are about 4 cm long. The filler should be removed and the underlying laminate examined and repaired if necessary.

It was understood from the owner that the boat had an osmosis peel treatment 3 years ago, and the antifouling was scraped back carefully in 30 places to reveal what appears to be an epoxy coating. To identify this coating precisely would involve some destructive testing, which wasn't conducted today.

Readings were taken in these areas using a Sovereign Moisture Meter for shallow readings up to around 3mm deep, and a Tramex Skipper for deeper readings up to about 10mm deep. The meters were tested first for correct calibration.

Readings were as follows:

Meter	*Below Waterline*	*Above Waterline*
Sovereign , Scale A, 0-25, Shallow Readings	10 - 15	3 - 5
Tramex, Scale 1, 0-100, Deep Readings.	0 - 40	0 - 5

*(The readings above are relative and do not express moisture content as a percentage of dry weight.***)**

The high Tramex readings were found between the keels which wouldn't have had enough time to dry out properly, and these readings would be expected to drop if the vessel were to be left on the hard for a few weeks. Epoxy coatings are not as smooth as gelcoat and therefore will hold water for longer. So, excluding these high readings, the rest are acceptable and indicate that the Epoxy treatment has been successful in protecting the hull from water ingress. Always storing the boat ashore out of season allows some natural drying out which will help to control rising moisture levels.

The moulded skeg is in good condition, and free of any cracks or crazing particularly around the root which was carefully inspected.

Recommendation immediate

- **The filler around the aft ends of both keels should be ground out and the laminate repaired as found necessary.**

4. Topsides above Waterline

The topsides are of monolithic GRP construction with white pigmented gelcoat. There are no signs of impact or repair in the topsides and generally in satisfactory cosmetic condition, although there is quite a high degree of general scratching and scuffing. There is a small (diameter 10mm) repair in the bottom lip of the sugarscoop stern, which can be seen but is cosmetic.

5. Deck Moulding, Coachroof and Cockpit

- The Deck

The deck is GRP with sandwich core construction to add stiffening to the larger unsupported horizontal areas. Entire deck was hammer tested to identify any areas of delamination or voids. None were found. The deck was also moisture tested with a Tramex moisture meter and no evidence of ingress to the core material was noted particularly around load bearing fittings. Thirdly, it was tested by walking over the area and found to be firm underfoot with no signs of damage or defect. Areas around stanchions have some stress crazing and there is a small shallow crack adjacent to the amidships cleat on the starboard side. There are also some small cracks either side of the anchor roller fitting. This is installed in a recess within the GRP moulding and where there has been minimal movement it has cracked the edges of the GRP. Cosmetic at this time but should be inspected regularly for any change.
The toe rail consists of a teak strake sitting on a raised bulwark. All secure and in good condition.

- Coachroof

The coachroof is integral with the deck moulding and all found firm underfoot. Readings from Tramex moisture meter are very low, and no delamination or voids found when hammer tested.
No distortion, compression or crazing seen around the mast step and no movement noted in the deck when cap shrouds were deflected.

- Cockpit

Cockpit is integral with the deck moulding. Teak is fitted to cockpit seats and cockpit sole. This was hammer sounded all over to identify if any areas have debonded from the GRP. All satisfactory except for the teak around the forward side of the helm pedestal which is wet over an area approx. 30 cm x 10 cm and the panels are lifting. A coating has been applied in the past to try and seal the wood. Fresh (rain) water appears to be collecting at this point and has seeped under the ends of the teak strakes. Whilst these areas are discoloured the teak is still in good condition. Being teak, rot is very unlikely but the bond to the underlying GRP surface is breaking down. There are no mechanical fastenings piercing the GRP so the possibility of ingress to the core material of the sandwich construction (which can be serious) is not an issue here. There is quite a high degree of wear to the teak and it would be prudent to budget for a replacement in the next 1-3 years depending on usage.

It is suggested the caulking be carefully removed and the ends of the loose strakes gently lifted with wooden wedges to allow complete drying out and re-bonding with an epoxy adhesive, this can be undertaken as convenient. In the meantime anything which can be done to keep the area dry, such as a cockpit cover, will help to prevent further de-bonding. It is however possible this is associated with diesel spillage when filling the tank from the adjacent filler. If that is the case it will also be necessary to

thoroughly clean both the timber and underlying GRP with a good quality degreasing agent prior to re-bonding. If, after cleaning with a normal teak restorer, the timber remains discoloured and with a greasy feel, this second cause is more likely.

Cockpit locker lids in good condition. Rubber gaskets intact and both lockers can be fully secured by padlocks. Cockpit drains exit at the aft corners. They run through FRP tubes through the engine compartment and are then bonded into the hull. All in good condition.

6. Hull/Deck Join:

A mechanical joint bolted through the teak toe rail. Access very limited from inside the boat, but examination of the joint was made wherever possible, and where seen in the anchor locker and aft lockers, the joint was found in good condition with no signs of water ingress or movement. Elsewhere, in areas where access was obstructed by linings those linings were found clean and dry with no staining evident.

7. Bulkheads and Structural Stiffening including Internal Mouldings

A number of components contribute to the integrity of the overall structure. These include the robustness of the moulding in the first place with heavy longitudinals, stringers and an inner shell moulding, bulkheads and partitions. The keel areas are heavily reinforced and these areas were carefully examined where accessible for any deterioration given the condition of keels as reported above. No cracks or movement was noted. All of the lockers and sole boards were lifted where accessible and all bulkheads and bonding examined. The bonding has become detached from the half bulkhead in the most aft locker under the berth on the port side. This is not of major significance structurally but should be reinstated at a convenient time to ensure the integrity of the original design is retained. No other damage was noted and no movement in any of the other bonding.
The mast compression loadings are transferred from the coachroof to hull via a timber clad steel compression post. This lands on the inner moulding which is supported by a GRP transverse frame, being part of a moulded matrix bonded into the shell moulding. Flange of the base seen bolted to the matrix moulding and no significant corrosion noted. No movement or cracks in the adjacent areas.

8. Rudder and Steering

- **External:**

The GRP rudder is moulded around a stainless steel stock and is skeg supported to half its depth, and semi balanced below this. It is supported on a yellow metal shoe, which was free of visual corrosion and secure. Bronze components were used in this design and there is nothing to suggest that these are not the originals.

Readings were taken on the blade with the Tramex moisture meter and found to be acceptable. Hammer soundings didn't indicate any delamination or voids. The rudder was supported by a yard block and it wasn't possible to turn the blade from side to side or identify any wear in the bearings, however the owner advises that the latter

were replaced since they had owned the boat and invoices to this effect were seen. No splits or weeps noted at edges of blade.

Wheel pedestal is secure in the cockpit sole and in good condition.There is provision through the deck for an emergency tiller to be fitted. This seen in aft locker.

- **Internal:**

Whitlock type mechanical steering gear via robust cables is all in good order where accessible. Autohelm unit and helm indicator securely mounted. Cable ends secure. Rudder tube seen well bonded into hull with substantial web reinforcement.

9. 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:

a) Examination from outside and inside the boat.
b) All thru hull fittings scraped back to examine their colour for visual dezincification (where zinc has leached out leaving a weak copper structure).
c) All valves open and closed to their full extent where possible.
d) Any fixing bolts hammer tested where accessible.
e) Bodies of the valves or seacocks tested with a hammer inside the boat and external parts hammer tested outside the boat.
f) Fittings aggressively tested inside the boat for security in the hull.
g) Hose clips inspected and hoses aggressively tested for security.
h) All hoses and inboard fittings checked for condition and security where accessible.

Whilst these checks have been carried out, it is not possible to guarantee complete water tightness to these items and upon launching they should be checked for any seepage in accordance with good boatyard practice.

Below waterline:

- Heads inlet: Yellow metal thru hull fitting with strainer and ball valve. This is seized and in very poor condition. Owner advised he didn't know it was there, and never closed it. It should be replaced. Hoseclips are corroded and should be replaced at the same time. Access under companionway steps.
- Heads discharge: Yellow metal thru hull fitting with ball valve, this too is seized. Similar to the inlet, this should be replaced. Hoseclips are corroded and should be replaced at the same time. Access under companionway steps.

Heads discharge under saloon sole

- Heads Basin outlet: Yellow metal thru hull fitting with ball valve in working order and in satisfactory condition. Access in cupboard in heads compartment.
- Shower outlet: Yellow metal thru hull fitting with ball valve in working order and in good condition. Access in cupboard in heads compartment.
- Galley sink outlet: Yellow metal thru hull fitting with ball valve. This seized and in poor condition. Access is limited and another seacock that the owner claims he never turned off. The pad onto which the valve is mounted is disintegrating, and is believed to have electrochemical decay possibly from a disconnected bonding wire lying nearby. Both the valve and the pad should be replaced. There is much divided opinion on Cathodic protection and the latest view is to leave seacocks out of the bonded circuit. More information can be obtained from www.mcduffs.co.uk Hoseclips are corroded and should be replaced at the same time. Access in cupboard under sink on the starboard side of the fridge unit.
- Fridge intake for water cooled fridge compressor: Valve located in the single cabin, the ball valve is very stiff and should be serviced or replaced.
- Fitting on aft port quarter: There is another fitting seen close to the waterline here externally. It was not possible to identify this internally and access should be obtained to examine the fitting.
- Log impeller Housing and echo sounder transducer secure. Access under saloon sole forward of companionway steps.
- Cockpit Drains: As detailed in cockpit section
- Saildrive engine intake: Ball valve in good condition

Above the waterline:

- Bilge pump: Exits via a nylon thru hull fitting well above sea level and secure.
- Eberspacher: Stainless steel fitting secure and in good condition.
- Engine Exhaust: Stainless steel fitting in good condition and secure

The skin fittings/valves/tailpipes on this vessel are all yellow metal (except log and transducer) but the actual materials could not be identified. Their condition should be monitored and valves operated frequently. If any deterioration, corrosion or leakage is noted the fitting should be replaced.

Important note: *The ball valves, through hulls and tail pipes found for sale in chandlers today are often made from brass to the European standard CW617N unless stated otherwise. Whilst this material is in very common use, ordinary brass such as this is subject to* dezincification (*where zinc has leached out leaving a weak copper structure) in seawater.*

The ISO standard relating to metallic valves and skin fittings below the waterline, ISO 9093-1, only requires the valves and associated fittings to have a service life of 5 years in terms of corrosion resistance. If replacing any valves in the future, they should be replaced with dezincification resistant brass or corrosion resistant fittings marked with CR, DZR, CW607N, or CZ132 which have a much longer potential life.

Recommendation immediate

- **All seacocks other than the heads basin outlet, should be dismantled. The heads inlet, heads discharge and the galley sink outlet should all be replaced and the rest should be dismantled, serviced or renewed if**

necessary. Hoseclips to the three replacement valves mentioned here should also be replaced.

- **The hardwood pad under the galley sink outlet should also be renewed.**

10. Main Companionway and other Access to Accommodation

- The companionway is closed by a sliding hatch and washboards. The hatch is a single piece of acrylic, in good condition and secure in runners. Acrylic washboards in similar condition. The two are locked by a sash lock fitted to the top of the washboard which engages in a slot in the hatch. All secure.
- Three overhead hatches in total and all are in satisfactory condition. They are aluminium framed acrylic type and some crazing is present, but not at a level that seriously compromises strength. The forward one in the forepeak is hinged on the leading edge offering protection from a breaking wave flooding the forepeak if the hatch is inadvertently left open. All hatches have outside covers and mosquito screens internally.
- It is understood that a high tech alarm system is fitted which sends messages to mobile phone via text etc. This system wasn't seen working.

11. Ports, and Windows

- Fixed aluminium framed acrylic windows (Lewmar) in saloon and opening ones in the single cabin and aft cabin. The 2 middle fixed windows in the saloon are much UV degraded and it would be prudent to budget for a renewal in the next 12 months. The rest are in serviceable condition.
- No signs of water or tracking stains on the inside.

There are Mosquito net panels for all opening ports. These are stored away and appear to be in unused condition.

12. Pulpit, Stanchions, Pushpit, Lifelines and Jackstays

- Stainless steel stanchions, pulpit and pushpit in good condition. There is some movement between the stanchions and the bases, but the bases are well seated and secure.

- There are 4 harness strong points fitted. 2 in the cockpit and 2 on the coachroof. These are pad eye type and in good condition. Access is not possible to the fixings below but there is no sign of stress crazing around them from the exterior.

- The lifelines are stainless steel with swaged fittings and rigging screws at the aft end. All in good condition.

- Jackstays are installed along the side decks. They are of webbing type tensioned by rope lanyards. They are much UV degraded and should be renewed.

Recommendation immediate

- **Renew Jackstays or remove them from the vessel.**

13. Rigging Attachment Points

Vessel has swept back double spreaders, with intermediaries, cap shrouds, aft and forward lowers, forestay as well as bridled backstay.

- Main Forestay: This consists of a substantial stemhead fitting securely through bolted.

- Main caps, intermediaries and lowers: These shrouds come down to one deck fitting that passes through the deck to substantial tie rods, which run down behind accommodation and bolted to a longitudinal GRP moulding that is bonded to the hull. Some dismantling was required to examine these fixings, and the owner who was on board at the time, was able to open up these areas for examination. All bolt fastenings hammer tested and free of corrosion staining.

- Forward lowers: The shrouds affix to stainless steel plates that are bolted through the deck. Access limited internally but no stress crazing or distortion to the fitting noted externally.

- Backstays: These consist of stainless steel chain plates through the top of the sugarscoop stern. No distortion or stress crazing noted externally and fittings seen in good condition internally.

14. Ground Tackle and Mooring Arrangements

- 35 lb CQR anchor on roller with securing pin to prevent it jumping in seas. Chain and very long nylon warp seen in the anchor locker in satisfactory condition. The anchor chain was not measured during this survey or examined link by link and the bitter end not established**.**
- Kedge anchor of Bruce type of 10kg with chain and very long warp, all in good condition but as above not laid out.

- Electric winch secure with foot controls on deck. This wasn't working on the day of the survey but some anchor winches are wired so they only work when the engine is running.

- Aluminium cleats and fairleads secure on deck and of adequate size.

Recommendation immediate

- **Check that anchor winch is in working order when engine is running. (during the suggested sea trial, see section 25)**

15. Other Deck Gear and Fittings

- Alloy sheet tracks are mounted on the side decks. Each carries sheet blocks with rollers all in good condition. These include spring loaded pins locking into holes in the track for adjustment. They slide easily and are in good functional condition.

- Winches consist of:
  2 x 2 speed Lewmar self tailing Genoa
  2 x single speed Lewmar spinnaker sheet winches
  1 x single speed Lewmar Halyard Winch
  Ratchets sound clean and the winches are secure.

- 2 banks of Spinlock clutches under the sprayhood. They were examined for wear on the teeth and found in good condition.

16. Boarding Ladders

Stainless Steel boarding ladder secure on transom and extends well below the water level to aid in MOB recovery.

17. Spars

The mast was stepped on the day of the survey and therefore viewed from deck level only.

- The anodised mast was of in mast furling type and seen in serviceable condition. Rivets are free of significant corrosion and the goose neck fitting secure.
- Boom in serviceable condition and fitted with a gas rod kicker system. This was tested and found to be in working order, but not under full load.
- Attached to the forward side of the mast is a spinnaker pole, in good condition.

18. Standing Rigging

Standing rigging was inspected from deck level only and is made up of 1 x 19 stainless steel wires. They were examined where they exit the swaged terminals with a 1 x 10 magnifying glass for corrosion, breaks, loose strands, kinks or lay separation of the wire. None were found. Because the mast was stepped, it was not possible to examine the upper terminals but seen from deck level, it was noted that wires exit the upper T ball type terminals in straight, fair lines.

- Caps, Lowers and Backstays:

Terminals end in open bodied chrome plated bronze rigging screws with locking system. All secure. The caps and lowers have plastic shroud covers in place. Under these covers the wires (where they enter the swaged fittings) have attracted dirt. An ideal environment for corrosion to take place. These wires should be left uncovered, or fitted with large diameter covers to allow full drainage.

- Forestay:

No access was possible to the forestay with the roller reefing gear in place. Fore and aft articulation was good.

- Lazy Forestay for storm jib:

In good condition. This attaches to an extension wire from the stemhead fitting

Advisory Note

Whilst there is no visual evidence to suggest that the rigging is fatigued, its age, use and historical load levels are unknown and consideration should be given to renewing it at the next convenient maintenance period.

19. Running Rigging

Much of this is in good condition with some replacements made recently. Control sheets for traveller are old, and UV degraded and it would be prudent for to budget for renewal in the next 12 months.

20. Sails and Covers etc

Sails were inspected on board but not laid out fully due to space restrictions below:

- Cruising Chute with snuffer. Material in very good condition.
- Hank on Storm Jib. In satisfactory condition.
- 'Hood' in-mast furling mainsail in very well used but serviceable condition. Now replaced with Maxi roach in mast detailed below.
- Furling genoa. The UV strip has been replaced and the old one, which was white, has been cut away and the edge of this is ragged and fraying. But the stitching and material seen to be in serviceable condition.
- Boat rigged with Maxi roach in-mast furling mainsail with vertical battens. Due to the fact that the boat was on the hard, this wasn't unfurled and the condition cannot be gauged.

Please see Advisory Note in Section 29 which suggests the vessel should be launched and a full Seatrial undertaken to test the mainsail in mast furling system etc.

There are 3 cockpit covers with the boat.

- Full cockpit tent. Seen in bag in very good condition.
- Boom cover tent. Seen in bag in good condition.
- Winter vinyl cover. Not seen but listed on Broker's inventory

21. Navigation Lights

Vessel is fitted with:

- Port and Starboard on pulpit
- Steaming
- Deck
- Tricolour
- Stern
- Anchor

Lights fitted are in accordance with International Collision Regulations. Mast head 360 ° white light could not be confirmed as working due to sunlight overhead. Other lights other than the stern light seen in working order. The stern light and steaming

lights are actually redundant on this vessel being under 12 metres where the regulations allow for the tricolour only to be used for sailing, and the pulpit port and starboard with the 360 degree white, under power.

Recommendation immediate

- **360 degree white light should be checked to ensure in working order**

22. Bilge Pumping Arrangements

- A manual diaphragm – type bilge pump is mounted in the cockpit and handle is stored in the saloon. This should be stored near to the pump on a lanyard so that it can be easily accessed in an emergency. The pump is in working condition, and discharges through the starboard topsides. The pump takes from the bilges under the fuel tank. There is no access to this area and when using the pump, it pumped water out and water is also lying in the bilge area adjacent. Access should be made to this area to ensure that the hose end has a strum box fitted and is secure.

- A Rule 1100 GPM electric, automatic bilge pump takes from under the saloon sole. In working order and wired directly to the battery (via an inline fuse) so that it is still operational when the isolators are switched off.

Recommendation Immediate

- **Access made to the underside of the fuel tank to ensure the bilge pump has a strum box fitted, is secure, and can be cleared if blocked in an emergency.**

23. Firefighting Equipment

1x 6kg 34A 23B and 3x 1kg 5A 34B powder extinguishers were seen on board and one fire blanket. All extinguishers are time expired and require replacement.

Recommendation:

- **As a minimum it is suggested 3x new extinguishers to 5A 34B be carried.**

An automatic powder extinguisher is fitted in the engine compartment with the gauge in the green.

Advisory note

Whilst it is an excellent idea to have an automatic extinguisher in the engine compartment, powder will render the engine useless once activated. Consideration should be given to fitting a fire suppression system such as FM200

24. Lifesaving and Emergency Equipment

The inventory includes:

- Horseshoe lifebuoy with light in working order
- GPS Epirb
- RFD 6 man Seafly liferaft – Servicing date 2012

- XM Oscar Rescue Sling
- Raymarine Life tag personal lifesaving system

- The liferaft is behind on its servicing programme and should be serviced if anything other than local passage making is planned.

The RNLI operate an excellent free inspection and advice service concerning levels of safety equipment for coastal use (SEA Check) and can be contacted on 08003280600 or via the RNLI website, www.rnli.org.uk.The RYA also publish a booklet, "The Safety of Cruising Yachts - Sail and Power". This specifies levels of Safety Equipment for different categories of use and it is suggested 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

25. Engine and Stern Gear

- Engine

Vessel is fitted with a Volvo Penta 40hp MD2040, 3 x cylinder diesel engine, which is fresh water-cooled with wet exhaust external. It is flexibly mounted on GRP moulded beds. Mountings intact and no stress marks or cracks noted on the adjacent mouldings. Paint coatings are in satisfactory condition but engine seen in somewhat dirty condition with some minor oil leaks in evidence.
Single lever controls operate freely and considered in serviceable condition.

There is evidence of a historic leak from raw water pump, and the associated hose clips here are very corroded and should be changed. When the engine is next run, this area should be checked for leaks.

- Exhaust System

Exhaust elbow seen in satisfactory condition although there is some external corrosion visible. The system incorporates a stainless steel waterlock to prevent water syphoning back into the engine and a gooseneck to prevent following seas entering the system. The welds on the stainless steel waterlock are very corroded and it would be prudent to budget for a replacement in the next year. (To be checked during sea trial if this is carried out, see advisory note below).

- Saildrive

A sail drive unit is installed and fitted with a 3 bladed Kiwi feathering propeller in good condition. The propeller turns freely, and is secure on spline. Vertical upward pressure was applied to the stern leg to check for movement. None was found. Rope cutter fitted and in good condition. The rectangular rubber fairing piece that sits around the leg along the exterior of the hull is intact and secure.

The saildrive diaphragm is in satisfactory visual condition where accessible. Volvo recommend this is changed every 7 years, and it would be prudent to obtain any paperwork to that effect. Some corrosion noted on the steel flange that holds the seal in place. The area should be cleaned off and protected with an appropriate paint covering. (also to be checked for any seepage if seatrial carried out)

Recommendation Immediate

- **Hose clips on hose to raw water pump should be renewed**

Advisory Note
Due to unknown mechanical condition of engine it is suggested that a Seatrial is undertaken. This would mean that the mainsail rig could also be thoroughly tested out and the engine would be put under load. It would also be beneficial if an engineer's services were commissioned to assess the engine, bearing in mind it does appear to have had a lot of use and that no service records or history were available.

26. Fuel System

- Stainless steel fuel tank secure in locker forward of engine. The tank is filled by a flush stainless steel fitting in the deck. Access was very limited and it was not possible to examine the underside or any of the faces other than the top of the tank, which is in good condition. A breather hose from the tank exits the hull via a nylon skin fitting. All satisfactory. The system includes a shut off cock in the event of a fire.

- Hoses to the fuel filter/separator and to engine are covered in plastic tubing and it wasn't possible to identify them. However, the hoses should be of fire resistant material conforming to ISO7840 and the plastic tubing should be removed to confirm identify of such, and renewed if necessary.

Recommendation Immediate

- **Fuel hose covers to be removed to identify hoses underneath and replace with those conforming to ISO7840 if necessary**

27. Cathodic Protection

- The saildrive is protected by an anode fitted behind the propeller which is only minimally wasted. This anode should be monitored annually and changed when it is 50% wasted.
- A hull mounted anode was also noted, this little wasted. Only the engine is bonded to this but other bonding wires were noted adjacent, these now disconnected. It is most likely these are for the various skin fittings and have been disconnected.

28. Accommodation General

The interior is all in sound and immediately useable condition. However the cosmetic condition is not to the standard one would normally expect to find on a vessel of this age and type which has had average use. There is considerable wear to the companionway and chart table, with a considerable amount of unsightly water staining to the adjacent bulkheads and furniture. The teak and holly sole in the saloon requires stripping and re-varnishing to restore a good cosmetic appearance.

29. Gas Installation

This boat is not in use on the inland waterways or in commercial use so is not required to comply with any specific standard, such as the Boat Safety Scheme or the MCA Code of Practice.

However, some Insurance companies require a declaration from the assured that the gas system conforms to ***current*** *standards and if that is the case, then upgrading will be required as a condition of the insurance policy. If this is the case, the upgrade should be carried out by a qualified LPG fitter on the Gas safe register (formally CORGI)* www.gassaferegister.co.uk

- There are 2 x gas bottles stored in a bespoke gas locker. The hoses and regulator are old and should be renewed. Copper pipework, where seen in satisfactory condition. Locker has a drain and hose that exits the boat out of the topsides.

- It is not possible to tell the age or wear of the armoured hose behind the oven and this should be renewed with a hose conforming to BS3212, and it should be exposed for full assessment. There are 2 x gas shut off taps, one is in a small locker above the cooker, and the second is behind the saloon seating at the aft end on the starboard side. Access is limited to establish whether this latter gas tap is included in the current installation or it may be that it is obsolete.

- A gas alarm is fitted. This was tested and is in working order

Recommendation Immediate

- **The hoses should be renewed with a high pressure hose type conforming to BS3212 or equivalent European standards. The regulator should also be renewed. This should be carried out by a qualified LPG fitter.**

30. Fresh Water System

- Two x linked aluminium water tanks are located under the saloon seats. Access is limited but where seen they are in good condition externally and no indication of any leaks. The system is pressurised but the tanks were empty at the time and it wasn't possible to test the system. Hoses in satisfactory condition.
- Shower pump in working order.
- Hot water calorifier is secured under aft cabin berth. This is heated via the engine's freshwater circuit and also via shore power. No leaks noted.

31. Heads

The Jabsco sea toilet is secure and the inlet hose includes a gooseneck and an anti-syphon valve in the system to ensure that water doesn't syphon into the bowl. It wasn't possible to establish if there is a gooseneck in the waste hose, but this hose runs to a large rigid plastic holding tank located under the saloon sole. There is a 2

way valve and a diaphragm pump incorporated into the holding tank installation. Pipework and hoses secure and no evidence of any leaking. Paperwork should be sought as to the operation of the system.

32. Electrical Installation

- 12v:Three large batteries are securely fitted under the aft cabin berth. Two of the batteries are 160 ah and the third has a starting up power of 850 amps. All batteries showed between 12.5 and 13.0 on test (no load). Isolators are located nearby and there is a well labelled, circuit board above the navigation table. As far as could be ascertained all the auxiliary circuits are protected by circuit breakers or fuses. All were tested and found working.

- Battery charging is via the engine's alternator, a modern 240v battery charger and a wind generator, the latter seen working. Wiring is professional and satisfactory.

- 240v: Shorepower is fitted throughout and an RCD incorporated into the fuse panel. The wiring is tidy but it would be prudent to get the Shorepower system checked by a qualified electrician.

33. Electronic and Navigation Equipment

Vessel fitted with:

- Raymarine Radar/Chartplotter with display on binnacle and at navigation table.
- Raymarine VHF DSC Ray 55e with microphone at binnacle.
- Raymarine ST60 Log/Depth/Wind
- McMurdo Nav 6 weather

All started up under power.

34. Heating and Refrigeration

- An Eberspacher air heating system is fitted in the port aft locker. There is no access to the equipment, which is behind a fitted partition. This started up under power.

- The fridge works off a salt water cooler exchanger system which incorporates a thru hull fitting. Through hull fitting in satisfactory condition. The cooler box is in good condition, but would benefit from a clean. The fridge was not tested during the survey.

RECOMMENDATIONS AND CONCLUSIONS

Recommendations to be carried out before the vessel is used

- **All seacocks other than the heads basin outlet, should be dismantled. The heads inlet, heads discharge and the galley sink outlet should all be replaced and the rest should be dismantled, serviced or renewed if necessary. Hoseclips to the three replacement valves mentioned here should also be replaced.**
- **The hardwood pad under the galley sink outlet should also be renewed.**
- **Renew Jackstays or remove them from the vessel.**
- **Check that anchor winch is in working order when engine is running.**
- **360 degree white light should be checked to ensure in working order**
- **Access made to the underside of the fuel tank to ensure the bilge pump has a strum box fitted, is secure, and can be cleared if blocked in an emergency.**
- **As a minimum it is suggested 3x new extinguishers to 5A 34B be carried.**
- **Hose clips on hose to raw water pump should be renewed**
- **Fuel hose covers to be removed to identify hoses underneath and replace with those conforming to ISO7840 if necessary**
- **The gas hoses should be renewed with a high pressure hose type conforming to BS3212 or equivalent European standards. The regulator should also be renewed. This should be carried out by a qualified LPG fitter.**

Recommendation within the next 6 months

- **Access should be made to the inaccessible keel studs to examine their condition.**

Conclusions:

The Moody 36 has a good reputation for build quality and general sailing performance within her class as an efficient family cruiser. However xxxxxx has a number of significant defects, which require immediate rectification at some expense. It is also noted that the boat appears to have had higher than average usage so replacement of equipment may be required at a faster rate than is normally the case. Her cosmetic condition is also below average and it should be noted that whilst much can be done to improve this it is rarely possible to return a well used boat to the cosmetic condition of a lightly used one.

There are various indications around the boat (keep closed signs at hatches, her complement of fire extinguishers and provision of ground tackle etc) which suggest she was once coded and in commercial use, which may explain the general well used condition. No details of this were forthcoming from the Owner or Broker however.
Having said all the above the boat is well built and basically in sound condition. But the above should all be taken into account in terms of the purchase price paid.

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