



Marine Surveys UK

"Pragmatic Surveys in Plain English"

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[Yacht surveyor](#), Affiliate member

YDSA, Full member BMSE, MECAL

MCA coding surveyor

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Survey Report no: [REDACTED]

Name of Vessel: "[REDACTED]"

Type of Vessel: Carver Montego 27, FRP (Fibre reinforced plastic) constructed, twin petrol engine, fast semi displacement hull, motor vessel.

At the request of:

[REDACTED]

This survey was carried out ashore on the [REDACTED] June 2011 in a workshop at Portland marina, Dorset. The above named being the owner of the vessel.

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



Limitations:

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

Scope of Survey:

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

Recommendations and advisory notes:

- ✚ Recommendations will be restricted to those defects which should be rectified before vessel is used, (or within a given time span if specified), and items which may affect insurability. These will not be made concerning cosmetic or other minor defects, although relevant suggestions may be made in the text.
- ✚ ***Recommendations will be printed in bold italics for quick reference.***
- ✚ The recommendations are contained in the body of report in order that they may be read in context, and are also listed as part of the conclusions at the end of this Report.
- ✚ **Advisory notes** are suggestions to prevent a problem getting worse or general advice and do not have to be carried out before the vessel is used nor should affect the boats current insurability.

Conditions of Survey:

Vessel was examined out of the water, in a boat shed, supported on wooden blocks with cradle stands. The outside of the hull was being polished by the workshop staff. No special conditions affected the survey other than as described in the text.



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

Hull, Deck and Structure.

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

Steering, Stern Gear, and Skin Fittings etc.

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

On Deck.

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

Safety.

20. Navigation Lights.
21. Bilge Pumping Arrangements.
22. Fire fighting Equipment.
23. Lifesaving and Emergency Equipment.

Engine.

24. Engine and Installation.
25. Fuel System.

Accommodation and onboard Systems.

26. Gas Installation.
27. Electrical Installation.
28. Electronic and Navigation Equipment.



1. Details of subject vessel:

In the 1980’s Carver Yachts were built in Pulaski, Wisconsin, USA but have since been acquired by Genmar Holdings and the Marquis Group of companies. “██████████” is a 1988 model, she is reported to have been sat for a couple of years unused.

Manufacturers’ information from websites (not verified by measurement)

Length Overall	29’2” / 8.889m
Length of Hull	27’3” / 8.3m
Beam	10’ / 3.048m
Draft	2’10” / 0.863m
Weight	6,900lbs
CE Specification	Model pre-dates CE and RCD



Boat specific information

Registration	British waterways 114069
Number	CDRH5██████K788
Year of Build	November 1987, 1988 model

2. Hull below Waterline including keel:

- a) Construction of the hull below the waterline is solid FRP in a modified V shape hull. There is a single chine (hard angle from sides to base) with a single spray rail either side.
- b) The hull is coated in blue antifouling over what appears to be Blakes epoxy or thick primers. The antifouling is well adhered.
- c) Light hammer sounding was carried out (not heavy enough to damage the anti-fouling) of the hull at regular intervals approximately 500mm spacing all over.
- d) The antifouling was removed at random around the hull below the water line. While scraping I was looking for evidence of wicking, blistering, cracking or any damage and once removed all patches were checked with 10x magnification.
- e) Moisture readings were taken where the antifouling was removed and in other spots using a capacitance type moisture meter of Sovereign Quantum type, operating in both shallow and deep reading modes. The meter was first checked for correct calibration. The readings recorded below are from the meter operating in the shallow and also deep mode on the relative scale 0-100.

The readings are relative and **do not** express moisture content as a percentage of dry weight. High moisture content is not generally a structural defect, and is to be expected in older boats. However where some moisture has been absorbed the likelihood of moisture



related problems occurring is higher, and the actual state of the laminate cannot be completely guaranteed without destructive testing followed by chemical analysis. The opinion given in this survey is based on all the evidence available at the time but without destructive testing.

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

Air Temperature:	16°C
Relative Humidity:	58.8%
Time ashore	1 week
In summary the weather conditions for obtaining moisture readings were good	

Readings were as follows:

Meter	Range below waterline.	Range above waterline.
Sovereign Quantum, Scale A, 0-100 Shallow mode	36 - 88	11 - 12
Deep Mode	42 - 80	8 - 17

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

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

The interpretation of the readings in shallow mode range;

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



- f) One area scraped showed a patch of smooth, polished laminate (laminate is the layers under the gel coat) approximately 25mm Ø. I could not push a spike into this and it would not flex. I hammered the spike into the area, and after 2mm it penetrated a blister which leaked out brown vinegary smelling liquid. Other areas showed isolated raised blisters through the antifouling. From what I can ascertain, raised blisters have been sanded down in the past and either epoxy painted or directly antifouled and new blisters have appeared.
- g) Without removing all the antifouling, it is not possible to determine the extent of the past work and what other damage or faults have been covered over.
- h) No cracks were noted in the spray rails.

Advisory note:- The hull has a high moisture content and the raised and sanded blisters confirm that osmosis blisters have and are forming. Currently this is not a serious structural problem and is not uncommon for a boat of this age. The cost of completely curing this problem (option c below) would be between £5,000 and £7,000.

The options available are – a) to do nothing, in which case the boat is usable for a few years but the condition should be checked annually to ensure no serious laminate damage is being done. b) strip all antifouling and coatings off, check the hull, cut or drill out any visible blisters and fill with epoxy or combination of epoxy and glass if large or c) Gel peel the hull, dry out with Hot Vacuum pads, coat with epoxy and possibly laminate cloth ensuring the original strength is returned. Always storing the boat ashore out of season to allow some natural drying out to occur will contribute significantly to maintaining and improving condition.

3. Topsides above Waterline including Rubbing Strake:

- a) Constructed of solid FRP.
- b) There has been damage to the starboard aft quarter (back right corner looking forwards) which has caused cracking in the gel coat and probably first laminates above and below the rubbing strip and damage to the rubbing strip both on topsides and on swimming platform.
- c) There are some spider cracks (very thin cracks in gel coat) on the port side, middle of the vessel side.
- d) The topsides were lightly hammer sounded and no indication of voids found. Moisture readings were taken and recorded as above.
- e) The rubbing strip has some damage to forward starboard and port aft.

Advisory note:- Spider cracks should be sealed with wax polish to prevent water getting to the laminate below. The cracking at the damaged areas should be cut and filled to prevent water entering the laminates and restoring strength, although where they are is not a stress area.



Recommendation: Where the rubbing strip is exposing sharp edges, these should be repaired and made safe to prevent injury being caused.

4. Deck moulding:

- a) The deck is of FRP in white gel coat with white non slip moulded in.
- b) The whole deck was carefully tested underfoot for signs of delaminating or other structural defects.
- c) No significant issues noted.

5. Coachroof and wheel house mouldings:

- a) Constructed as part of the deck moulding and finished in the same way.
- b) The whole area was carefully tested underfoot for signs of delaminating or other structural defects.
- c) The seats are firmly mounted.
- d) No significant issues noted

6. Cockpit:

- a) Constructed as part of the deck moulding and finished in the same way.
- b) There is one drain in the gully around the engine cover hatch which exits starboard aft..
- c) Holes have been cut for speakers or access in the stowage lockers around the cockpit which are open. These lead to the engine compartment and in the event of a fire will make the automatic Fire extinguishers work less efficient.

Recommendation: Close off holes in stowage areas cut for speakers or access to prevent air feeding a fire in the engine compartment.

7. Hull/Deck Join:

- a) This is mechanical with the deck screwed to the hull with bonding paste between.
- b) Access was restricted.
- c) No signs of damage or leaks from the joint noticed where accessible.

8. Bulkheads and Structural Stiffening including Internal Mouldings:

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

- a) The hull and deck mouldings are robust in the first place and have strengthening bearers laminated to them. The inner mouldings are bonded with bonding paste.
- b) All possible access was checked, lockers, under berths and the floors and inner mouldings for signs of delamination and cracks
- c) No signs of de-bonding or movement was noted.



9. Rudder and Steering:

- a) Steering is by turning the two stern drives. Cable operation from the wheel to a power assisted pump.
- b) The steering is stiff without the pump operating as would be expected. Full lock to lock operation was achieved.
- c) The linking connecting rod between the stern drives has surface corrosion; the arms on the stern drives also have surface corrosion.
- d) Stainless steel trim tabs were able to operate fully up and down.

Advisory note: Clean off all surface corrosion and repaint to prevent further corrosion.

10. Stern Gear:

- a) Twin Volvo Penta Stern drives with single propellers.
- b) There was no signs of corrosion/ dezincification on the legs.
- c) The bellows are well clipped and appear recently changed. They are still supple. Clips were struck and found secure. Fixing bolts were checked inside the boat and struck with hammer and found secure.
- d) The aft cover plate of the starboard leg has a missing lower screw and the cover is open. The linkage has marine growth on it.
- e) Propellers are OK.
- f) The port sterndrive does not lift up via the controls, it does operate down. Starboard operated up and down without creeping down and fully up in beaching position. (i.e no signs of hydraulic leaks)
- g) Starboard gear shift is stiff and would not engage astern. (The engines were not running at the time).

Recommendation: full operation of both stern drives should be ensured before the boat is launched.

11. Cathodic Protection:

- a) There is Cathodic protection on the stern drives and a *Zinc Saver* Galvanic isolator fitted for protection against loss of zinc to other boats.
- b) Toilet skin fitting is in the circuit of protection.
- c) The ring anodes in front of the propellers are wasted (used up). The quarter anodes are intact. The base anodes are partially wasted but have more use left.

Recommendation: Replace ring anodes to protect stern drives. Ensure correct material is used. Zinc for seawater use, magnesium for fresh water use.



12. Skin Fittings and other through Hull Apertures:

Some thru hulls may not be reported below but will be with relevant systems sections. No skin fittings or valves were dismantled as part of this survey but the following routine tests were carried out:

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

Below Waterline:

- a) Bronze skin fitting blanked off – port side of centre line aft.
- b) Stainless steel grounding bolt for the Galvanic protection.
- c) Toilet macerator outlet – Yellow metal –probably bronze skin fitting with ball valve and yellow metal hose spigot. Slight surface corrosion on skin fitting and spigot. In a difficult to access location and handle too tight to turn. Located starboard chine by fuel tank.
- d) Bilge drain fitting - Yellow metal skin fitting with winged handles screwed in. Centreline.



Toilet skin fitting and valve for reference.

Above waterline

- e) Engine bilge pump outlet – plastic skin fitting – port aft. Single clip.
- f) Engine vents port & starboard – FRP cases, vents enter above.
- g) Water filler, alloy cap, port topsides.
- h) Petrol filler, alloy cap, port topsides
- i) Fuel tank vent – chrome bronze faces aft.
- j) Galley drain. Port topsides
- k) Forward bilge pump outlet, Port topsides, signs that it is leaking and single clip.
- l) Anchor locker drain, FRP with chrome cover
- m) Heads vanity tray - Plastic skin fitting could not access internally.
- n) Toilet ventilation – open hole with grill. Has fan inline, could not access internally to see if hose loops upwards without unscrewing covers
- o) Heads sink drain – Plastic skin fitting, could not access internally.



- p) Shower tray pump out – Plastic skin fitting
- q) Cockpit drain – plastic skin fitting.
- r) Waste pump out – Alloy cap



Forward bilge pump outlet leaking.

Recommendation: Ensure toilet outlet valve is free to close and fix leak on forward bilge pump outlet hose.

13. Main Companionway and other Access to Accommodation:

These were all checked;

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

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

- a) Companion way lift up hinged cover over side hinged doors with large bolt to secure. Cill is 160mm above cockpit floor and well removed.
- b) Plastic hatch to saloon area x 2 , aft hinged, secure means of closure.

14. Ports, Windows etc.:

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

- a) No windows below rubbing strake.
- b) Saloon below weather deck, above rubbing strake, Perspex in alloy frames, fixed. Possible leak starboard forward as silicon applied internally.

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

These are tested under full body weight where practical, terminal ends checked, type of wire tested.

- a) Single rail in stainless steel tubing screwed to deck, access to underside not possible except forward in anchor locker.



16. Ground Tackle and Mooring Arrangements:

- a) Main Anchor is 5KG Bruce anchor attached to 8mm stainless steel chain over Lewmar electric windlass.
- b) Bitter end of chain not seen if attached.
- c) Windlass operated from helm station.
- d) Large Samson mooring post aft of windlass bolted through deck.

17. Other Deck Gear and Fittings:

- a) Stainless steel radar arch and cockpit canopy frames, vigorously tested and secure.
- b) Wipers operate.
- c) Main screens securely attached, rubbers starting to shrink in places.
- d) Transom platform bolted on with stainless bolts and nyloc nuts. Secure where tested.

18. Davits and Boarding Ladders:

- a) Vessel has permanently attached stainless steel boarding ladder which extends below the waterline and is securely attached.
- b) No davits fitted although holes where some have been. No support below.

19. Navigation Lights:

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

- a) White on stern
- b) Port and starboard on side deck
- c) Steaming light on mast.
- d) No anchoring light fitted. (all around white).

Recommendation: Vessel must be able to display all around white light if mooring at night.

20. Bilge Pumping Arrangements:

- a) 1500GPH Electric bilge pump with auto float switch in engine compartment, and manual operation at helm station - works and exits port aft as noted above.
- b) 1500GPH Electric bilge pump with auto float switch in forward saloon area and manual operation at helm station - works and exits port midships as noted above – see recommendation.

21. Fire-fighting Equipment:

The following was noted aboard

- a) 3 x 1KG Powder fire extinguishers with automatic discharge expires 2013.
- b) Saloon – 1KG Powder fire extinguisher rated 34B 8A expires 5 years from 6/2007
- c) Fire blanket in Galley
- d) 2 out of date 1KG powder extinguishers.



Advisory note: There are no regulations for vessels of this size in private use on the sea, on the inland waters, the above is adequate.

22. Lifesaving and Emergency Equipment:

The following was noted aboard

Nothing

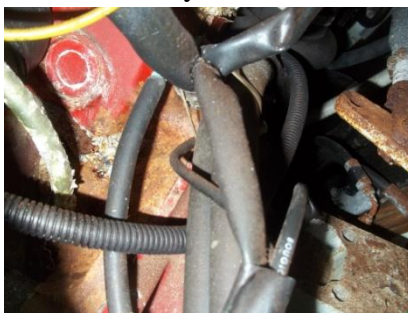
Advisory notes

- The RNLI operate an excellent free inspection and advice service concerning levels of safety equipment (SEA Check) and can be contacted on 08003280600 or via the RNLI website, www.rnli.org.uk.
- The RYA also publishes a booklet, G16, "The Boat Safety Handbook" and this specifies levels of Safety Equipment for different categories of use. Booklet is obtainable from nautical bookshops or direct from the RYA, www.rya.org.uk.

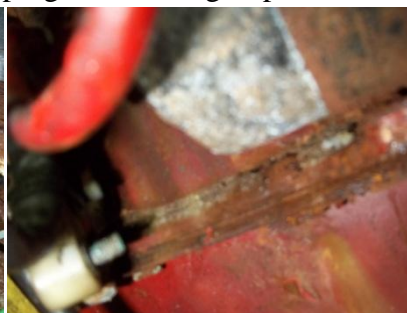
Recommendation - this vessel be equipped with safety equipment to the level appropriate to proposed use.

23. Engine and Installation:

- a) The boat is fitted with twin Volvo Penta AQ171C 4 Cylinder petrol engines.
- b) Numbers were not easily visible. Engine hours stated 646 on gauge.
- c) The engine room is vented naturally with fan blowers in the extraction side.
- d) The engines are rubber mounted, bolted to the FRP bearers. These were struck and solid.
- e) The port engine has a lot of corrosion on the port side. This has caused the alternator to seize and the belt is snapped. On close inspection with mirrors and camera, as far as I can ascertain the cylinder head core plugs are leaking in particular the aft one port.



Leaking core plug



Corrosion on block and alternator



- f) On the centre picture there appears to be a nut missing from a bracket on the port engine.
- g) In the starboard engine water intake from the stern drive, there is a copper fitting which has two pipes leaving it. This is dezincifying and going soft.



Sea water take off.

- h) Starboard engine – the header tank cap is leaking and causing corrosion in this area.
- i) The starboard belts require adjustment.
- j) Volvo Penta engineers had already been aboard and had identified and removed a cracked distributor cap on the port engine.
- k) Engineers report advises the engines both run, port one for a short time.

Recommendation: Free up alternator and fit new belt. Replace core plugs on port engine - it is possible to change with out removing cylinder heads I believe. Replace copper pipe in water inlet starboard engine. Replace port distributor cap. Replace starboard header tank cap.

Advisory note: The above recommendations are to get the engines going and fix faults identified at this time. Once work has been carried out, I suggest cleaning the engines down and the engine bilges, run the engines off a water supply and check for any oil or water leaks. Once this done, then invest in a service unless invoices show it is not due and finally repaint engines and all corrosion areas to prevent further corrosion.

24. Fuel System:

- a) An alloy tank is mounted forward of the engine. All pipes and clips were checked. Both filters have surface corrosion probably caused by the water leaks from the engines. The starboard engine fuel pipe braid has broken at the filter.
- b) There are no signs or smells of petrol leaks.

Recommendation: Replace or repair starboard engine feed hose or end fitting.

25. Accommodation General:

Interior does not smell damp, cushions and wood work in good condition for the age of the boat.

26. Gas Installation:

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

Irrespective of the above all gas systems are subject to the checks listed below as part of this survey. Recommendations will be made where there is an obvious serious safety issue and these must be carried out before use. Suggestions will also be made where appropriate to



enhance safety criteria, particularly with systems where there is no mandatory requirement to conform to a standard. It must be understood however that some Insurance companies require a declaration from the assured that the gas system conforms to **current** standards and if that is the case here upgrading may be required as a condition of the insurance policy.

Sources of further information:

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

Gas Observation and action table

Item	Result	Action required.
Condition and efficiency of self draining bottle storage	Satisfactory but unusual storage on the transom with drain.	
Age and condition of flexible hose at bottle.	Hose dated 07/07 so is ok until July 2012	
Age and condition of regulator	Fair	
Connection to copper pipe	Fair	
Condition of copper pipe where accessible	Good	
Is pipework adequately supported and not under stress where accessible?	Copper pipe is inside rubber hose through boat. Not many clips but does not seem to vibrate and stress.	
Connections and Flexible pipe to cooker and other appliances	Not accessible	
Is cooker gimballed?	No	
Are all appliances fitted with flame failure devices on all burners, and did these work properly under test?	None fitted.	<i>Consider fitting cooker with FFDs</i>
Are any appliances requiring flues properly fitted with same?	N/A	
Is a gas alarm fitted?	None seen	
Is each appliance fitted with an isolating tap	Yes BUT it is in the aft cabin locker	<i>Fit isolating tap in galley.</i>
If fitted did leak bubble tester function?	No fitted	

Additional Observations:



The owner advised he wanted to relocate the gas stowage into the cockpit with an overboard drain. Consider replacing cooker with one with Flame failure devices.

Recommendation: Get gas safe engineer to approve modifications before used.

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

27. Electrical Installation:

DC circuits

- a) 2 x 110AH batteries mounted with plastic lids and straps to secure in place although neither were fitted.
- b) Isolator switch in cockpit allows either battery, or both to be isolated.
- c) Port Alternator seized and charge rate not tested on either.
- d) Wiring is well clipped and original as far as I can ascertain and all go through switch panel with breaker and fuses.

240v Circuits

- e) Shore power socket in cockpit. Main RCD panel in saloon with Main switch and 4 RCD's
- f) Switch panel is marked 115V as an American boat but 240V 13amp sockets are now mounted.
- g) I was not able to test the 240V system.

Advisory note: I strongly advise that the 240V system and set up is checked and tested by qualified electrician. It may require the correct size RCCB fitting in the line..

28. Electronic and Navigation Equipment:

The following was seen aboard operating

- a) Chart plotter and GPS – Raymarine C70 – Backlight is faulty.
- b) Depth sounder –fish finder – Hummingbird 200DX
- c) VHF Nexus NX2000 with DSC
- d) Horn
- e) Binnacle compass



RECOMMENDATIONS and CONCLUSIONS:

List of Recommendations:

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

3. Topsides above Waterline including Rubbing Strake:

Recommendation: Where the rubbing strip is exposing sharp edges, these should be repaired and made safe to prevent injury being caused.

6. Cockpit:

Recommendation: Close off holes in stowage areas cut for speakers or access to prevent air feeding a fire in the engine compartment.

10. Stern Gear:

Recommendation: full operation of both stern drives should be ensured before the boat is launched.

11. Cathodic Protection:

Recommendation: Replace ring anodes to protect stern drives. Ensure correct material is used. Zinc for seawater use, magnesium for fresh water use.

12. Skin Fittings and other through Hull Apertures:

Recommendation: Ensure toilet outlet valve is free to close and fix leak on forward bilge pump outlet hose.

19. Navigation Lights:

Recommendation: Vessel must be able to display all around white light if mooring at night.

22. Lifesaving and Emergency Equipment:

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

23. Engine and Installation:

Recommendation: Free up alternator and fit new belt. Replace core plugs on port engine - it is possible to change with out removing cylinder heads I believe. Replace copper pipe in water inlet starboard engine. Replace port distributor cap. Replace starboard header tank cap.

24. Fuel System:

Recommendation: Replace or repair starboard engine feed hose or end fitting.

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Recommendation: Get gas safe engineer to approve modifications before used.