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**Pre Purchase Survey Report
50' Traditional Stern
Steel Narrowboat**

'Boat 1'

Prepared for:

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Sent by email:

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Additional information enclosed; copy of standard Terms of Business

1 Introduction

- 1.1 Acting on instruction from Mr John Smith, a pre purchase survey was carried out 25 January 2017 at Whilton Marina Limited, Whilton Locks, near Daventry, Northamptonshire NN11 2NH on the narrowboat 'Boat 1', subject to the limitations below:
- 1.2 The report is issued on the understanding that Ovation Boat Surveys Ltd is legally bound to Mr John Smith only and not to any subsequent holder of this report.
- 1.3 This survey report has been prepared for the named client and shall not be sold, transferred or gifted to any third party without the express permission of the undersigned surveyor.
- 1.4 This survey report may be shared with the broker, Whilton Marina, to aid the purchase by Mr John Smith only, and may be used by Mr John Smith for the purpose of vessel insurance or the arrangement of vessel finance, if required.
- 1.5 Copyright and intellectual rights of this report remain the property of the undersigned surveyor.
- 1.6 The vessel was seen on the small open slipway at the above address for examination of the hull.
- 1.7 No other person was present during the survey.

2 Limitations and Condition of Survey

- 2.1 Your attention is drawn to terms of business as used by Ovation Boat Surveys Limited being standard terms of business as issued by the YDSA (March 2010 edition). Copy issued to Mr John Smith on receipt of instruction to survey. Further copy enclosed.
- 2.2 The vessel was positioned on the slipway trolley which restricted access to the base plate from approximately 4 – 10 metres back from the forend. Distance outside the profile of the trolley to the concrete floor of the slipway was approximately 400mm.
- 2.3 Good access was provided to the vessel's hull side.
- 2.4 The hull had not been pressure washed prior to the survey which can hamper the identification of possible faults.
- 2.5 Linings and floor coverings were all fixed in place and not removable. Covered, unexposed or inaccessible parts of the structure have not been inspected. No dismantling has been carried out except for the removal of normally removable panels and hatches. It therefore has to be appreciated that significant areas of the internal structure of the vessel remained unavailable for close examination due to fastened down cabin floors, bulkheads, linings, lockers and other fixed elements of construction.
- 2.6 Based on the inspection, total water integrity of the vessel cannot be confirmed.
- 2.7 Holding tanks have not been filled or pressure tested nor have contents been tested.
- 2.8 Observations are as made on the day of survey and unless stated, are made following visual / audible / light manual force and functional testing. Functional testing does not encompass full cycle testing. No ongoing guarantee or warranty is given or implied.
- 2.9 This survey does not cover planning for a service / maintenance programme although guidance maybe given in some areas.
- 2.10 Compliance with the Boat Safety Scheme does form part of this survey.

- 2.11 Compliance with the Recreational Craft Directive does not form part of this survey.
- 2.12 This is a survey on the vessel concerned. In general terms the vessel is to be used on the inland waterways of the United Kingdom. Suitability for any particular inland waterway is not confirmed within this survey.
- 2.13 Highlighted points are the express opinion of the undersigned surveyor against facts gathered during the survey.
- 2.14 **Hull Integrity Requirement:** Should be rectified immediately as hull integrity is compromised.
Hull Integrity Recommendation: Indicates hull integrity could be compromised in the event of an unforeseen circumstance.
Hull Integrity Advisory: Items that if not rectified may accelerate hull deterioration.
Recommendation: Items not related to the hull that you may wish to investigate further.
Boat Safety Scheme (BSS): Points that should be rectified for the vessel to meet compliance with the BSS.

3 General Description

- 3.1 'Boat 1', a traditional stern narrowboat, reported by the broker as first registered in 1993 with shell manufacture and fit out by Ward Marine.
- 3.2 Canal River Trust (CRT) index number 12345; painted on the upper rear cabin side.
- 3.3 The vessel is a conventional flat bottom plate, all welded, steel narrowboat.
- 3.4 The swept bow includes a fabricated stem post, and stern with rounded counter.
- 3.5 The cabin sides (3mm) and cabin top (3mm) are of conventional welded steel plate construction with tubular steel handrail inset to the cabin top.
- 3.6 Measured nominal principal dimensions:

| | |
|---------------|---|
| Length: | 15.20 metres (50') |
| Turn of Bow | 450mm (17 ³ / ₄ " |
| Start of Swim | 495mm (19 ¹ / ₂ " |
| Skeg | 685mm (27" |

4 External - Hull, Deck and Cabin

4.1 General

Cabin

- 4.1.1 Exterior cabin top and sides are seen as generally painted to a good standard on visual inspection.
~ Corrosive activity is present under some areas of paintwork, particularly around the windows apertures.
- 4.1.2 The gunnels are narrow in width; they should not, as a matter of course, be walked along.
- 4.1.3 Rear cabin side step; working correctly and found secure when applying a force.

Hull

- 4.1.4 The hull above the waterline is painted; scuff marks are consistent with normal boating activity. No major dints are observed. Blacking above the waterline is brittle and easily chipped.
- 4.1.5 The hull, at and below the waterline, was sample thickness tested using a Tritex multigauge 5600 ultrasonic thickness gauge. Any defects found are noted below along with suggestions and recommendations.

4.2 Base plate

- 4.2.1 Found with a covering of detritus, and light presence of rust blisters.
- 4.2.2 Sample thickness ranged 7.5 - 7.8mm.
- 4.2.3 Selection of rust blisters cleared finds minimal deterioration to the steel surface.
- 4.2.4 A good all round sacrificial edge is provided.
- 4.2.5 As with most narrowboats the base plate is provided with no protective paint. For the best protection the maintenance programme should include providing the base plate with the protective paint system which will help longevity.

4.3 Uxter

- 4.3.1 Found painted, with a covering of weed growth and a few active rust blisters.
- 4.3.2 Sample thickness readings ranged 8.1 – 8.2mm.
- 4.3.3 Deterioration under selected rust blisters is seen as minimal and non-concerning.
- 4.3.4 A satisfactory sacrificial edge is provided.
~ The rudder nib has worn into the sacrificial edge, both sides, at the full extent of the rudder swing but is currently not making contact with the weld line.

4.4 Hull sides

- 4.4.1 Found with a thick covering of weed growth & detritus and protective paint under including a primer coating. Widespread active rust blisters are also present.
- 4.4.2 Thickness readings, taken at metre intervals along the waterline and chine, ranged 4.5 – 5.3mm.
- 4.4.3 Sample areas cleared finds non concerning material loss under the rust blisters.
- 4.4.4 Guards, on, above and below the waterline, are fully welded to the top edge; the lower edge is without weld; underlying corrosion is present, being spike tested without concern raised. The routine maintenance programme should include de-scaling, best as possible, and applying a well worked in covering of the protective paint system.
- 4.4.5 The hull requires, after good preparation, a correctly applied application of a good quality protective paint. Thick, easily chipped material should be first removed.
- 4.4.6 **Hull Integrity Recommendation:**
 - *After good preparation correctly apply a good quality protective paint system to the vessel's hull. A two pack epoxy system is preferred.*

4.5 Cathodic protection

- 4.5.1 Provided anodes have wasted away with a new set required.
- 4.5.2 **Hull Integrity Recommendation:**
 - *Provide the hull with a new set of four main anodes.*

4.6 **Hull Apertures**

- 4.6.1 Distance above the waterline has been recorded as seen on the day of survey. Measurements should be reassessed with tanks and storage spaces full.
- 4.6.2 Any internal pipework and fittings to apertures below 250mm to the waterline should be routinely checked for sound, good condition. Any push fit pipework should be replaced with screwed, glued or clamped fittings. Required weedhatch height is no less than 150mm.
- 4.6.3 The plastic skin fitting to the shower waste has some damage and should be replaced with a brass fitting.
- 4.6.4 The unused skin fitting to port approximately 12.3 metres back should be replaced with a fully plate.
- 4.6.5 A bilge pump is not provided.
- 4.6.6 **Hull Integrity Requirement:**
- *Replace with brass the shower waste plastic skin fitting.*
 - *Remove by fully welded plate the skin fittings to port approximately 12.3 metres back.*
 - *Provide a working bilge pump.*
- 4.6.7 Within the vessel the weedhatch turret is found painted and considered sound on hammer testing. Height above the waterline is over 150mm.
~ Access to use the weedhatch is comparatively restrictive.
~ Some painting maintenance is required to the sealing flange and a new seal should be fitted.
- 4.6.8 **Hull Integrity Advisory:**
- *Maintain the weedhatch sealing flange and provided a new seal.*

4.7 **Rudder and steering**

- 4.7.1 Channel section skeg with good leading edge, welded to the base plate.
- 4.7.2 Thick walled bottom bearing found with play.
- 4.7.3 **Recommendation:**
- *Restrict the play found to the bottom bearing supporting the rudder.*
- 4.7.4 Rudder blade (10mm) welded to the rudder post.
- 4.7.5 The rudder tube is welded to the counter. With the rudder post in place, access for viewing the rudder tube is restricted.
~ With the rudder tube passing through the diesel tank it is not directly connecting with the vessel's interior.
~ The routine maintenance programme should include the rudder tube receiving good preparation and an application of the protective paint system.
- 4.7.6 Top bearing found with no concerning movement.
- 4.7.7 Traditional style swan's neck with chrome tiller bar forced into position. No tiller pin is sighted or required. No wood tiller handle is provided.
~ The arrangement is seen as serviceable but could be repaired to provide a removable tiller bar with tiller pin and wood tiller handle.

4.8 **Propeller and stern gear**

- 4.8.1 Three bladed, yellow metal propeller with retaining nut.
~ The split pin is missing.

- ~ Weight testing the stern tube bearing found no concerning wear movement.
- ~ The propeller shaft rotated freely by hand and is considered straight and true.
- ~ The propshaft was not withdrawn for inspection.

4.8.2 **Recommendation:**

- *Replace the split pin to the propeller retaining nut.*
- 4.8.3 With the vessel in water the stern tube was not seen dripping water. With unknown history consideration to repack the stern tube packing gland could be made.

4.9 **Internal access to hull**

- 4.9.1 No access to the base plate was located from within the main cabin area. An access point should be provided, in at least the rear main cabin space, to allow assessment and the removal of collected water.
- ~ The sole in the rear wardrobe area is wet.

4.9.2 **Hull Integrity Advisory:**

- *Provide access to the base plate in the rear cabin area to allow assessment and the removal of collected water.*
- 4.9.3 Engine bay area found reasonably well painted but very dirty; the drip tray area has oil / diesel present.

4.10 **Front & Rear doors**

- 4.10.1 Painted front deck area with single (starboard) wood topped steel side locker.
- ~ The front deck area would benefit from painting maintenance.
- 4.10.2 Single (split), wood lined, steel door. Found complete with no signs of water ingress into the cabin space.
- 4.10.3 Steel rear doors with inner wood pads, and unlined top slide.
- ~ The rear door inner wood pads appear newly fitted.
 - ~ The top of the port runner has detached.
 - ~ The rear deck would benefit from painting maintenance.

4.11 **Mooring and fender arrangements**

- 4.11.1 Forward 'T' stud and aft dollies, found secure.
- 4.11.2 Front and rear fender with welded on cleats, chains & shackles.
- ~ The front fender is inefficiently positioned.
 - ~ The rear fender is currently rubbing on the rudder nib.
- 4.11.3 A cut through safety chain link is provided to the forward fender as a safety measure to guard against being hung-up on lock gates.

5 Engine and Electrical Supply

5.1 **Engine and installation**

- 5.1.1 The inspection of the engine is limited to the inspections as listed. It is not a full marine engine test. No guarantee or warranty is given or implied. The services of a marine engineer will be required if a detailed inspection and test is required.
- 5.1.2 As confidence builds, when first using 'Boat 1' for long periods, make regular visual checks within the engine bay to hoses etc and frequently check oil and coolant levels.

5.1.3 The four cylinder BMC, water cooled engine and equipment was visually observed without major concern.

- ~ The skin cooling tank is located to port.
- ~ Exhaust lagging has failed.
- ~ A 'G' clamp is clamped to the rear port engine foot.
- ~ Copper, diesel supply pipework leading from the filter is crushed.
- ~ The fitting leading from the diesel lift pump to the on engine filter, is very loose.
- ~ SAEJ30 diesel fuel hoses should be verified as BSS compliant.
- ~ The take-off leading to the water header tank shows signs of leakage. The header tank has a quantity of coolant.
- ~ Engine oil is above the maximum mark on the dip stick; clean in appearance & texture.
- ~ Gear box oil not tested.
- ~ No signs of water is found around under the rocker box filler cap.

5.1.4 **Boat Safety Scheme:**

- *Remove crushed engine diesel supply pipework.*
- *Remove all diesel leaks.*
- *Replace the SAEJ30 diesel hose with a compliant hose.*

5.1.5 The water cooling pipework leading back to the engine via the heat exchanger for gearbox cooling uses a variety of hoses but seen as leak free.

5.1.6 At time of internal survey the engine turned over but failed to start. Particularly if engine maintenance history is unknown it is recommended to undertake a full engine service / assessment, including a compression test. The operation of the gearbox together with forward / reverse control through to the propeller and movement through the water should also be confirmed.

5.1.7 **Recommendation:**

- *Undertake a full engine service and assessment of condition; confirm working order including the gearbox and stern gear.*
- *The drip tray area should be cleared of all liquid.*

5.2 **Electrical 12 volt system (DC)**

5.2.1 The inspection of the electrical system is limited to the inspections as listed. It is not a full marine electrical system test. The services of a marine electrician will be required if a detailed inspection and test is required.

5.2.2 One starter battery and three domestic supply batteries are provided on the starboard swim plate.

- ~ The starter battery requires secure placement and restraint.

5.2.3 **Boat Safety Scheme:**

- *Provide secure placement and restraint to the starter battery*

5.2.4 A combined starter / domestic battery isolation switch lead is provided.

5.2.5 Labelled domestic fused switch panel is provided in the bedroom wardrobe.

5.2.6 Battery charging is via a single engine mounted alternator. An Adverc battery management system is provided.

5.2.7 Batteries were found holding a good charge. Battery charging was not confirmed.

5.2.8 The ongoing condition of the batteries cannot be guaranteed and, in any event, should be considered as consumable items.

5.2.9 **Recommendation:**

- *Confirm the on engine alternator is correctly charging the batteries with the engine running.*

5.2.10 The horn / tunnel light should be confirmed as working.

5.2.11 Most internal lighting was seen working with a poor presence of light. Consideration to up-grade internal lighting to LED should be made.

5.2.12 **Recommendation:**

- *Provide a working horn and tunnel light.*
- *Ensure all internal lighting is working. Consider up-grading to LED.*

5.2.13 The LEC fridge was heard running and the internal light lit. The power supply from the batteries does not pass through an isolator and the inline fuse rating should be verified.

5.2.14 **Boat Safety Scheme:**

- *Route the power supply to the fridge through a battery isolator. Correctly rate the inline fuse.*

5.2.15 Any 12 volt sockets, cigarette style sockets, TV and radio equipment have not been tested.

5.3 **Electrical 230 volt system (AC)**

5.3.1 Shoreline socket located on rear starboard cabin which runs to a consumer unit with 30 milliamp RCD (Residual Current Device) and 5 & 10 amp MCB (Miniature Circuit Breaker).

~ The cover over the RCD & MCBs is broken / loose.

5.3.2 **Boat Safety Scheme:**

- *Ensure the cover over the RCD & MCB's is firmly held in place.*

5.3.3 Using a shoreline connection no concerns were raised when testing a range of sockets with a simple DIY socket plug tester.

5.3.4 Consideration to remove the socket just above the sink should be made; it is not best placed.

5.3.5 **Recommendation:**

- *Remove the 230 volt socket just above the galley sink.*

5.3.6 A remote battery charger was not inspected.

5.4 **Gas system**

5.4.1 Forward gas locker containing two 13kg propane gas bottles; a bottle mounted regulator with braided flexible hose leads to a bulkhead fitting.

5.4.2 The gas locker base and lower sides has a painted surface with surface rust below, being randomly spike tested and considered sound.

~ The gas locker base and sides should be fully prepared and complete condition assured before painting.

5.4.3 **Recommendation:**

- *Thoroughly prepare, assess and ensure sound condition, paint and maintain the gas locker.*

5.4.4 The main gas locker drain has been blocked. An additional drain has been positioned 160mm above.

~ With the current arrangement the volume below the upper drain should be restricted with an inert substance (solid engineering brick / vermiculite), or, the lower drain put back into service. With the lower drain in service the locker will at times take on water due to closeness of the waterline. An adjustment in ballast could be considered. The drain needs to be at least 14mm in diameter.

5.4.5 **Boat Safety Scheme:**

- *Put the lower gas locker drain into service. Ensure the diameter of the drain is at least 14mm.*

5.4.6 The provided gas bottle restraint, (bungee cord) is not being utilised; its strength is likely to be ineffective.

5.4.7 **Boat Safety Scheme:**

- *Provide and utilize an effective gas bottle restraint.*

5.4.8 Gas pipework runs down the underside of the port gunnel into the galley where it supplies, via an isolator and braided flexible hose, a Legacy 50 LPG freestanding cooker with four hob burners and combined oven / grill.

5.4.9 No restraint is provided for the cooker.

5.4.10 **Boat Safety Scheme:**

- *Provide the gas cooker with chained restraint.*

5.4.11 On testing the gas system, no leaks were detected.

5.4.12 A satisfactory flame pattern was observed with all burners running.

5.4.13 Flame failure devices are found correctly working.

6 Cabin Interior and Equipment

6.1 Cabin general and décor

6.1.1 The interior was seen at a good standard. Large areas of linings have the appearance of recent replacement.

~ Cabin top trim in the galley is loose.

6.1.2 During the time of survey no areas of the underlying sole gave concern when walked upon.

~ The covering under the galley lino is uneven and has not been well laid down.

6.1.3 Polystyrene insulation observed in lower corners of windows. Rockwool insulation observed around the galley sink fitting. Rockwool insulation seen through the mushroom pancake cabin top vents.

6.1.4 General layout within cabin area leading from the front:

Lounge: Cabin side lining around the forward port window has become detached.

Galley: The galley appears newly fitted. The drawers are not correctly fitting and are catching on each other. The top drawer front style does not match other door / draw fronts.

Shower room:

Rear sleeping area:

6.2 Fresh water plumbing and delivery

6.2.1 Integral water tank located under the front deck. The tank should be periodically assessed, clean and with an appropriate system, painted.

- 6.2.2 The water filler is raised on a spigot and a water tank vent is located flush with the front deck. The current arrangement may allow water ingress into the tank. The vent has a compound around the fitting.
- 6.2.3 Access under the front cabin steps leads to the water tank take off, stop cock and Jabsco water pump.
~ No inline filter is provided.
~ The area is found wet with deterioration / decay to the structure.
- 6.2.4 **Recommendation:**
- *Fit an appropriate water tank vent. Place the vent on the raised spigot.*
 - *Investigate and rectify the cause of wet under the front cabin step.*
- 6.2.5 Hot water is provided by horizontal Calorifier located under the bed. The Calorifier, with twin coils can be heated by the engine and an additional heat source; neither is utilized. A 230 volt immersion heater is provided, being plugged into the on view double socket above the rear of the bed.
~ The Calorifier is provided with a mixing valve which, if used, can adjust the temperature of hot water at the taps.
~ The hot water supply is correctly fitted with an accumulator.
~ The over pressure leak off pipe for the Calorifier is open ended.
~ The sole in the area of the Calorifier was found wet.
- 6.2.6 The system is winterized and has not been tested. The water pump was heard to operate.
- 6.2.7 Consideration should be made to install an in-line water filter. A separate filtered drinking water tap in the galley could also be considered.
- 6.2.8 **Recommendation:**
- *Terminate the over pressure leak off pipe for the Calorifier to the vessel's exterior.*
 - *With the domestic water system de-winterized ensure the provision of heated water to various outlets.*
 - *Investigate and correct that causing the sole in the area of the Calorifier to be wet.*
 - *Install an in-line domestic water filter.*
- 6.2.9 The plastic wash basin is not sealed or fixed into place within the wood topped vanity unit.
- 6.2.10 The Gulper pump for the shower waste, located under the vanity unit, was heard to operate.
- 6.2.11 Waste pipework sighted was found secure. No access to the underside of the shower tray is provided.
- 6.2.12 Thetford cassette toilet complete with cassette was visually observed without concern.
- 6.3 **Cabin heating**
- 6.3.1 Arada freestanding solid fuel stove; fitted in a traditional manner in the rear port lounge area, with tiled hearth and surround. The stove is not fitted in-line with the code of practice for the installation of solid fuel stove in vessels.
~ The stove is newly fitted and seen as unused. The unprotected surface just above the rear of the stove should be monitored with the stove in use.

~ Minimal signs of water ingress / possibly condensation is observed around the cabin top collar. Monitoring is required.

6.4 **Windows, side doors and hatchways**

Gold anodised, rectangular framed windows with hopper opening, and fixed brass porthole windows. All hoppers found working correctly.

~ Rectangular windows held in place with stainless steel screws; brass portholes with brass split head screws. The forward port window has a protruding screw along the lower edge. The forward starboard window has thick sealant, suggestive of water ingress problems.

6.4.1 Internally, signs of water ingress through most window apertures are sighted. This may relate to previous problems but should be monitored. Resealing window frames into position may be required.

~ Window frame water run offs would benefit from being cleaned of detritus to maximise drainage.

6.4.2 Houdini hatch found operating. Signs of water ingress are present.

6.4.3 **Recommendation:**

- *Provide a leak free Houdini hatch.*

6.4.4 Wood lined steel side doors with lined hinged top hatch. Wood pads have deterioration.

~ Wood trim and lining has an appearance of being newly fitted. The trim is not well sealed with the cabin side and is likely to allow water ingress into the vessel. There is water staining deterioration to the original cabin lining below.

6.4.5 **Recommendation:**

- *Prevent water ingress through the cabin side doors into the cabin space best as possible within the design of that provided.*

6.4.6 Externally, holes either side of the side doors are likely to be from missing screws retaining a previous interior framework.

6.4.7 Opening / closing of side doors and hatch were found to operate without concern.

6.4.8 A previous solid fuel stove flue pipe aperture just forward of the side door. Some deterioration to the cabin lining is present. Monitoring of water ingress should be made with corrective action taken if found leaking.

6.5 **Cabin ventilation**

6.5.1 Overall, cabin ventilation is found compliant with the requirements of the Boat Safety Scheme.

~ Some internal grills are found with debris which should be routinely cleared.

6.6 **Safety equipment**

6.6.1 Two fire extinguishers, compliant with Boat Safety Scheme requirements were sighted. A third fire extinguisher is required.

~ With no service history consideration to replace all fire extinguishers should be made.

6.6.2 A fire blanket was not seen.

6.6.3 **Boat Safety Scheme:**

- Provide a BSS compliant set of correctly positioned fire extinguishers.
- Provide a BSS complaint and correctly positioned fire blanket.

6.6.4 Any smoke and CO detectors currently on the vessel have not been tested. If history is unknown any provided should be replaced. Smoke detectors marked as 'Toast Proof' work best on boats.

~ A good source of guidance on fire and CO prevention can be found on Boat Safety Scheme issued leaflets and from the home page of the Boat Safety Scheme, www.boatsafetyscheme.org

6.6.5 Always follow manufacturer installation instructions.

7 Findings of Survey

Highlighted points are the express opinion of the undersigned surveyor against facts gathered during the survey. As with any vessel a regular & robust maintenance programme is required.

Hull Integrity Requirement:

1. Replace with brass the shower waste plastic skin fitting.
2. Remove by fully welded plate the skin fittings to port approximately 12.3 metres back.
3. Provide a working bilge pump.

Hull Integrity Recommendation:

1. After good preparation correctly apply a good quality protective paint system to the vessel's hull. A two pack epoxy system is preferred.
2. Provide the hull with a new set of four main anodes.

Hull Integrity Advisory:

1. Maintain the weedhatch sealing flange and provided a new seal.
2. Provide access to the base plate in the rear cabin area to allow assessment and the removal of collected water.

Recommendation:

1. Restrict the play found to the bottom bearing supporting the rudder.
2. Replace the split pin to the propeller retaining nut.
3. Undertake a full engine service and assessment of condition; confirm working order including the gearbox and stern gear.
4. The drip tray area should be cleared of all liquid.
5. Confirm the on engine alternator is correctly charging the batteries with the engine running.
6. Provide a working horn and tunnel light.

7. Ensure all internal lighting is working. Consider up-grading to LED.
8. Remove the 230 volt socket just above the galley sink.
9. Thoroughly prepare, assess and ensure sound condition, paint and maintain the gas locker.
10. Fit an appropriate water tank vent. Place the vent on the raised spigot.
11. Investigate and rectify the cause of wet under the front cabin step.
12. Terminate the over pressure leak off pipe for the Calorifier to the vessel's exterior.
13. With the domestic water system de-winterized ensure the provision of heated water to various outlets.
14. Investigate and correct that causing the sole in the area of the Calorifier to be wet.
15. Install an in-line domestic water filter.
16. Provide a leak free Houdini hatch.
17. Prevent water ingress through the cabin side doors into the cabin space best as possible within the design of that provided.

Boat Safety Scheme (BSS):

1. Remove crushed engine diesel supply pipework.
2. Remove all diesel leaks.
3. Replace the SAEJ30 diesel hose with a compliant hose.
4. Provide secure placement and restraint to the starter battery
5. Route the power supply to the fridge through a battery isolator. Correctly rate the inline fuse.
6. Ensure the cover over the RCD & MCB's is firmly held in place.
7. Put the lower gas locker drain into service. Ensure the diameter of the drain is at least 14mm.
8. Provide and utilize an effective gas bottle restraint.
9. Provide the gas cooker with chained restraint.
10. Provide a BSS compliant set of correctly positioned fire extinguishers.
11. Provide a BSS complaint and correctly positioned fire blanket.

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Chris Williams Director - Ovation Boat Surveys Limited ©