BMSUK (Oxon) Limited

Marine Surveyors & Consultants

Cruiser Stern Narrowboat 57 ft

"Quarriers Quest"

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BMS Marine Survey

Pre Purchase Survey Of the Vessel [:Vessel Name:]

"Quarriers Quest"

Cruiser Stern Narrowboat 57 ft

CONDUCTED BY

MJ Wiater AMYDSA MIIMS

BMSUK (OXON) LIMITED

PREPARED FOR

T. Oakes

09/06/2022

1.1 INTRODUCTION

PURPOSE & SCOPE

The attending Surveyor attended aboard the 2001 Piper Cruiser Stern Narrowboat "Quarriers Quest", at the request of T. Oakes, beginning 09/06/2022. The Survey was requested to determine the physical condition of the vessel. No reference or information should be construed to indicate evaluation of the internal condition of engines, transmissions, drives or generators, nor the propulsion system's or the auxiliary power system's operating capacities. Electrical and electronic equipment was powered up and some electrical equipment may have been tested for basic and/or limited function only. The wiring was inspected where accessible and was found to be in generally serviceable condition, unless otherwise noted. A significant amount of wiring could not be observed due to the wiring looms and conduits that transit areas which would require dismantling and removals for their inspection. If a detailed report as to the condition and capacities of the wiring and electrical components is desired, it is recommended that a qualified and Certified Marine Electrical Engineer be engaged. Vessel tankage was visually inspected where accessible. No obvious leakage was observed, unless otherwise noted; however, the tanks were not confirmed to be full at the time of inspection. If a more thorough assessment is desired, the tanks should be filled and checked under full tank status or pressure tested to attest to their condition.

The vessel was Surveyed without the removal of any parts, including fixed partitions, fastened panels, fittings, headliners & wall-liners, heavy furniture, tacked carpeting or other fixed flooring material, appliances, electrical equipment or electronics, instruments, anchors line & chain, spare parts, personal gear, clothing, miscellaneous items in the bilges, cabinets, lockers or other storage spaces, or other fixed or semi-fixed items. Only installed items were inspected, including but not limited to enclosures, covers and tops. Locked compartments or otherwise inaccessible areas would also preclude inspection. The client is advised to open up all such areas for further inspection. A visual inspection was conducted only on accessible structures and no destructive testing was performed. Naval architecture and engineering analysis were not a part of this Survey. Furthermore, no determination of stability characteristics or inherent structural integrity has been made, and no opinion is expressed with respect thereto. Complete compliance with, identification of, and reporting on all standards, codes and regulations is not guaranteed. This signed report represents the findings of the Survey and supersedes any and all conversations, statements and representations, whether verbal or in writing. This Survey Report represents the condition of the vessel on the above date or dates and is the unbiased opinion of the undersigned, but it is not to be considered an inventory, warranty or guarantee, either specified or implied. The Survey Report is for the exclusive use of the client and those lenders and underwriters that will finance and insure the vessel for this client only, and is not assignable to any other parties for any purpose.

CONDUCT OF SURVEY

This survey was carried out under BMSUK (Oxon) Limited standard terms of business (TOB) 2022.

The survey was commissioned by the above for the purpose of establishing the condition of the vessel for purchase purposes on the date of survey. Unless otherwise stated, the vessel was not surveyed for compliance with any build standards or operational codes of practice or local licenses. The vessel has also not been surveyed for suitability for any particular purpose or location. This survey report is a factual statement of the surveyor's examination as carried out and his opinion given in good faith as to the relevance of disclosed facts and defects so far as seen. It implies no guarantee against faulty design or latent defects.

LIMITATIONS

Areas inspected were limited to openings and access available during normal operations and maintenance of the vessel. No fastenings or skin fittings were pulled, or joinery and head linings removed. Materials used in the construction were tested as far as was possible by industry standard Non-Destructive Test (NDT) equipment as stated within report.

The narrow boat was supported ashore in a dry dock on a wooden blocks making any inspection of the base (bottom) plate impossible.

No opinion could be made or responsibility undertaken for condition or defect of those aspects of the vessel not accessible or evident due to the above limitations.

Methods

Visual examination and hammer sounding are utilised for initial inspection and to determine the construction of the vessel and the vulnerable areas which require more detailed and dense sampling. The thickness of the steel is measured with a Tritex 5600 multigauge 2.25 MHz, 13 mm 10mm twin crystal probe. Pit depth is measured with a digital depth gauge. Batteries when tested, with a Foxwell BT-705 Battery Analyser. All instruments are zeroed prior to taking readings.

DEFINITION OF TERMS

The terms and words used in this report have the following meanings as used in this Report of Survey:

APPEARED:

Indicates that a very close inspection of the related item was not possible due to constraints imposed upon the Surveyor (e.g. no power available, inability to remove panels or requirements not to conduct destructive testing, etc.).

SERVICEABLE:

Fulfilling its function adequately (usable at the time of Survey).

READILY ACCESSIBLE

Means capable of being reached for operation, inspection or maintenance without removal of any vessel structure or use of any tools or removal of any item of portable equipment stowed in places intended for storage such as lockers, drawers or shelving. {Source: ISO 10088 E}.

ACCESSIBLE

Means capable of being reached for operation, inspection or maintenance without removal of any vessel structure (Note hatches-are not regarded as permanent vessel structures in this sense even if tools such as wrenches or screwdrivers are needed to open them. Hatches for inspection or maintenance of fuel tanks may be covered by uncut carpet , provided that all tank fittings can be inspected and maintained via other openings. {Source: ISO 10088 E}.

POWERED UP:

Power was applied only. This does not refer to the operation of any system or component, unless specifically indicated.

USE OF "A", "B" or "C":

Use of the letters "A", "B" or "C" in the body of this report will indicate that a finding will be listed in the ''Findings and Recommendations'' Section pertaining to the lettered item. PLEASE BE ADVISED THAT SOME DEFICIENCIES, OBSERVATIONS AND SUGGESTIONS MAY ALSO BE CONTAINED IN THE BODY OF THE REPORT.

The number of asterisks in this General Information section refers to the source of related information as follows:

* Owners/Bookers Information.
** Per Manufacturer's Documentation
*** Per Registration Documentation

Unless specifically noted otherwise, there were no measurements or calculations performed during the Survey. The specifications listed within the report are believed to be correct; however, accuracy is not guaranteed. Recommend obtaining accurate measurements and performing calculations as desired, or verifying all vessel specifications and capacities with the vessel's builder.

SURVEYOR NOTES

TRIAL RUN COMMENTS

A trial run was not performed during the Survey inspection.

OUT OF WATER INSPECTION COMMENTS

An out of the water inspection of the hull's wetted surfaces and running gear was performed while the vessel was ashore supported on low wooden sleepers obstructing the bottom plate and therefore making an inspection of the base plate impossible. The plating was inspected by hammer testing and ultrasonic thickness measurements.

ELECTRICAL INSPECTION COMMENTS

AC and DC power was used to power up the electrical systems specified in this report only, unless otherwise noted. Problems were experienced testing the electrical system due to broken switches on the DC panel, unmarked battery isolation switches and no operation manuals/instructions. Disconnected battery and unprotected and loose battery terminals. It is strongly recommended that the vessel is accepted only after all systems have been verified operational by the owner/owners representative.

FINDING A-1

HIN (HULL IDENTIFICATION NUMBER) VERIFICATION COMMENTS

The vessel's HIN (Hull Identification Number) was not verified during the Survey inspection (see HIN/WIN/CIN Compliance).

ENGINE/MECHANICAL SURVEY

There was no Mechanical/Engine Surveyor onboard during the Survey. It is highly recommended and understood that all propulsion & auxiliary power systems (engines, transmissions, gears, drives, generators) be inspected by their respective Manufacturer's Certified Technician to determine their condition.

GENERAL RECOMMENDATIONS

It is highly recommended that the buyer spend an adequate amount of time aboard with the vessel's owner or captain, in order to learn important details specific to the vessel, and also be educated about any unconventional or complicated system installations or complex electronics/electrical configurations & operations. Special consideration should be given to details regarding periodic maintenance schedules, basic & complex systems operation, vessel maneuverability and any safety concerns. Recommend implementing/maintaining vessel trip and machinery maintenance log books. If not already onboard, the vessel's owner/operator manuals and equipment operating manuals should be sourced and carefully studied. Any missing equipment manuals can typically be obtained by the manufacturer, sourced online or by other third party resources.

2.1 GENERAL VESSEL INFORMATION

TYPE OF SURVEY REQUESTED

Pre-Purchase for Buyer.

DATE AND TIME OF SURVEY

09/06/2022 Ashore Grandon Dry Dock. 08/06 & 09/06/2022

VESSEL TYPE

Cruiser Stern Narrow Boat.

VESSEL BUILDER

Piper. owners website at http://www.piperowners.co.uk/piperowners_history.htm

FINDING C-1

CRT NUMBER

508498 (CRT Licence and plate).

YEAR BUILT

2001 *

VESSEL MATERIAL

Welded and folded Steel.

LENGTH OVERALL (LOA)
Reportedly 57 ft*

BEAM
6' 10" 2.08 M *

DESIGNED MAXIMUM PASSENGERS
No RCD Plate.

LOCATION OF SURVEY INSPECTION
Grandon Dry Dock.

PERSONS IN ATTENDANCE DURING SURVEY
MJ Wiater, and clients representative.

WEATHER CONDITIONS PRESENT
Under cover in dry dock.

GLOSSARY

DEFINITION OF TERMS

Accessible. Capable of being reached for operation, inspection or maintenance without removal of permanent boat structure.

Anti-cavitation plate. A plate fitted flush or almost flush to the counter plate to cover the weedhatch aperture.

At Risk. An installation which, if operated, may lead to a situation which could create a risk to life or property.

Average plate thickness. The calculated steel plate thickness as a mean of a number of readings.

Chine. The joint between the hull side and hull bottom. There may be several chines, depending upon the hull design.

Cratch board A vertical frame, normally triangular, fitted to the fore deck to provide support for covers.

Counter The stern section of a vessel, where the underwater section reduces in beam to allow water to flow to the propeller or rudder

Counter plate Flat plates, extending outboard of the swim. Also known as uxter plates

Dolly. A round bollard used for mooring normally found at the stern.

Extending heel An extension to the bottom below the propeller to support the rudder. Often known as a skeg.

Galvanic corrosion. Pitting caused by stray electric currents.

Gunwale The top edge to the hull top side.

Knee Internal support framing for the hull side, generally vertical. In some craft it may extend to also support the bottom plate.

Nominal. The basic manufactured dimension. Due to manufacturing techniques, the actual dimension may be larger or smaller, within appropriate tolerances.

Overplate Plating fitted on top of the hull plate.

Readily accessible Capable of being reached for operation, inspection or maintenance without the use of tools.

Residual plate thickness The calculated steel plate thickness, after considering the deepest pit measured and the average plate thickness.

Rudder Post A steel bar connecting the rudder blade to the tiller.

Rudder post tube A tube fitted between the counter plate and deck for the rudder post to pass through

Sacrificial strip An extension of the bottom plate to provide protection and a wear edge for the bottom weld.

Scantling The size and location of structural members and plating.

Swim The section of the hull side to the stern of a narrow boat that reduces in beam to allow water to flow to the propeller.

Skin tank A steel tank fitted to the internal hull, with at least one face being the hull plating. The tank contents are cooled by the external water via the hull plating.

Stringer Internal support framing for the hull side or bottom, generally running fore & aft.

Tiller A steel bar used for steering.

Taff rail A safety rail round the back of the steering deck.

Topsides The upper section of the hull side.

Turn of the swim The position on the hull where the side plating starts to bend towards to centre of the craft to form the swim.

Turn of the bow. The position on the hull where the side plating turns in to the bow.

Transom. Flat plate extending across the back of the boat.

Ultrasonic meter A hand-held electronic device with a small probe that indicates material thickness by recording the speed of sound through the material.

Weed hatch An aperture directly above a propeller, enabling removal of debris from the propeller.

3.1 VESSEL CONSTRUCTION

HULL ARRANGEMENT

VESSEL DESCRIPTION AND LAYOUT

'Quarriers Quest' is a cruiser stern style narrowboat with a flat bottom with a slight rise at the bow from the fwd. quarters and a counter stern. The accommodation has slab sides with slight tumblehome from the side deck.

Built from the welding of mild steel plate to hull deck and superstructure. In its parallel middle section, the hull bottom is constructed by butt welding flat bottom plates. On both sides of the flat base a vertical side plates are fillet welded about inside the base plate thus forming a sacrificial chine (Wear plate). Above the waterline the side plate is double folded forming a tumblehome sheer strake and narrow side decks. For impact and rubbing protection, one continuous rubbing strake protects the hull above the waterline, formed by seam welding a D-section bar to the side plating. At the bow plates three additional D-section 'Whisker' rubbing strakes are welded below the main rubbing strake, with the middle strake continued to the aft quarter. The stern is protected by a lower strake from mid ships to mid ships.

The bow is a classic narrow boat style with a substantial stem post protected by solid rubber fendering. The stern is semi-circular in shape over a counter with a traditional swim and Uxter (Counter) plate. A skin tank for engine cooling is fabricated on the stbd. swim. A traditional weed hatch, the cover with a splash plate, is located over the propeller.

The accommodation from fwd.:

Step down from well deck into open plan cabin convertible dining seating. Fitted galley with companionway to Stbd. Door to leads of companionway to Port bathroom compartment and fixed double berth aft. Steps up to aft deck.

Surveyors Comment

At the time of the vessels reported construction, 2001, Quarriers Quest would have been required to comply with the Recreational Craft Directive (RCD). e.g. No HIN/CIN (Hull/Craft Identification Number). No other supporting documentation was observed onboard.

HULL DESIGN TYPE

Traditional Steel cruiser stern narrowboat.

HULL MATERIAL

Welded and folded steel.

BASE PLATE

Access to the base plate was prevented by height due to the vessels position on wooden sleepers in the dry dock. Therefore I am unable to report on the base plates condition.

RUBBING STRAKES

D-Section steel section rubbing strakes protected the stem and stern. The strakes were attached to the hull plating with continuous seam welds. Corrosion behind rubbing strakes is difficult to detect and attention to 'forcing' blacking into the lower margins is strongly recommended and can help to prevent corrosion forming behind the strakes. Therefore no guarantee can be given on the condition of the shell plating behind the rubbing strakes'

HULL BELOW WATERLINE

Underwater plating which had been pressure washed, was inspected visually, by general hammer sounding and by ultrasonic thickness measurements taken at selected and random points. Ultrasonic thickness measurements are taken 'over planes' and therefore represent the maximum thickness of the plating at that point only, with a deduction to be allowed in respect of the depth of any pitting present. These thickness recordings are strictly point thickness and there is no warranty that adjoining areas of plating share the same thickness reading. Over 100 measurements were recorded which gave a good overall impression of the plating condition which was good.

The current popular method of protection is epoxy blacking which lasts for six years. This involves sand blasting the hull back to bare metal. Priming with zinc and coating with epoxy. Though initially more expensive than traditional bitumen based blacking it provides much better protection and scrapes can be touched up as necessary. All that is required at bi-annually lifting is the replacement of anodes if required.

EXTERIOR FINISH

Painted superstructure and upper topsides. Paint was generally in poor condition and requires attention. Painted graphics and signs indicating that at some point in the vessels past it was owned by musicians/band.

FINDING B-1

TRANSOM

Typical narrow boat counter stern with elliptical swim plates tapering aft.

BULKHEADS

Aft steel bulkhead between engine space and accommodation.

STEM

Raked stem with substantial stem post. Bow plates without any defomation.

BALLAST

Believed to be loose concrete paving slabs but could not be accessed in the main bilge. Bags of gravel were observed in the forward locker and broken paving slabs were seen in the engine bilge and on the counter plating. The condition of the plating below the loose ballast cannot be guaranteed.

FINDING B-2

BILGES

A painted surface was used in the bilges. Recommend keeping the bilges clean & dry. The bilges were covered by fixed flooring over the cabin sole. Only the engine bilge could be inspected.

DECK ARRANGEMENT

DECK MATERIAL

Welded steel plating. Damaged laminated boards over engine aperture. Blocked gulleys with visible corrosion in aft drains.

FINDING B-3

BULWARKS

Steel well deck bulwarks .

SUPERSTRUCTURE ARRANGEMENT

SUPERSTRUCTURE MATERIAL

Of 5 mm welded steel construction for the cabin sides and 4mm top. The cabin top was found ridged under the weight of this surveyor. The 4mm cabin structure had a rust spotted paint finish overall. The cabin side and top panels were visibly fair with no evidence of serious damage or indentation.

HATCHES, WINDOWS AND DOORS

Visible leakage damage from leaking window frames.

FINDING B-4

4.1 HULL DECK & SUPERSTRUCTURE

EXTERNAL HULL SURVEY

The side and bottom plating was hammer tested where possible with an 4oz ball pein hammer and found generally sound. The shell plating above the water line was in reasonably good condition though with a few superficial indentations.The bottom plate was visually sound though plate seams could not be examined due to height restrictions.

HULL THICKNESS MEASUREMENT

A Tramex multi echo ultrasonic thickness meter was used to measure sample plate thickness. Multi echo instruments can take readings through coatings. The meter was calibrated before use. The hull was marked at one metre points and thickness testing was of a sample nature at these and other selected locations around the hull. Over 100 readings were achieved which showed an acceptable consistency. Enough sample readings were achieved to confirm the plating remained in good condition, which was confirmed by hammer percussion testing with 4 and 8 oz ball pein hammers.

The vessel had been originally constructed as follows.

Coach roof: 4 mm. Cabin sides: 5 mm. Side plating.: 6 mm. Counter plate (uxtor) and bottom plate 10 mm.

Minimum thickness readings obtained were Topsides: 5.8 mm Counter plating: 9.9 mm. Base Plating (margins only): 9.5 mm.

Shallow pitting was observed on the base plate and topsides (1 mm). nb. Only the the base plates outer margins afforded limited access.

To complete a comprehensive thickness test it would be necessary to remove coatings by blasting the hull. Which would not be practical, or considered necessary at this time. See table at the back of the report.

BOTTOM PLATE

The base plate was found fairly clean and was visually fair with no evidence of serious indentation or damage. (See previous comments regarding base plate inspection) The base plate was cleaned off in sample areas around the outer edges. In the cleaned off areas the underlying plate was found in good condition with only minimal pitting found. There was no evidence of any protective blacking/paint coating, which is typical with narrowboats. Protective coatings are the only effective preventative protection against electrolytic pitting.

A sacrificial strip where the base plate chine extends outside the side shell of the vessel to protect against wear to the weld was found in a good serviceable condition.

Welding joining the swim plate to the counter plate, side plate to bottom plate and weed hatch assembly were also externally inspected, sample hammer tested and found continuous and fair.

UXTER/COUNTER PLATE

In good condition with no pitting or visible damage.

WEED HATCH

The weed hatch extended through the counter plate above the propeller. The weed hatch had an acceptable height above the waterline. (170mm above the counter plates.) The weed hatch top and mechanism were visually acceptable with a damaged gasket and a clamping system. Note the weed hatch top and gasket are keeping the vessel afloat so should be removed at least once a year to keep the mechanism serviceable and inspect the gasket.

There was no cavitation (Splash) plate. Evidence of leakage from the seal.Thickness measurements of the weed hatch sides averaged 5.9 mm which is good.

FINDING A-2

SIDE PLATING

The side shell readings – some 100 in number - which also, as might be expected, again approximately followed the normal distribution, had a range from 5.5 mm to 6 mm.

Pitting to a depth of 1 mm was measured. Though this was not widespread. This has been caused by the breakdown of the blacking exposing the steel along and below the waterline.

FINDING B-5

RUBBING STRAKES

Well attached.

ANODES

The vessel featured four pairs of cast magnesium sacrificial anodes fitted to the hull side shell by way of welded straps which hammer tested serviceable. Four each side. The newer anodes at the stem and stern were estimated at 80% worn so should be replaced at the next haul out. The four side anodes at approximately 40%. Remnants of old anodes.

Note: Cast magnesium sacrificial anodes on steel narrowboats in fresh water help to protect only a limited area around each anode with little or no benefit to the majority of the underwater hull.

THROUGH HULL FITTINGS

Welded spigots and yellow metal through hull fittings.

HULL COATINGS

The hull has been previously coated with a coal tar or bitumen coating which has worn off.

FINDING B-6

5.1 STERN GEAR

PROPELLERS

The vessel was fitted with a 38 mm diameter stainless steel shaft with a fixed coupling to a three bladed right handed yellow metal propeller of about 17 inch diameter and supported with a cutlass bearing. The propeller dimensions were not checked for matching with the machinery power and revolution output. Nor was it checked for balance and no guarantee can be given that the system is free of vibration. The propeller was turned over by hand and the shaft appeared to turn freely with no sign of bending or distortion of the shaft or stern bush.

The propeller was examined and found good with some minor damage the tips, the leading and trailing edges of the propeller blades, no action was considered necessary at this time. It was hammer tested and found to ring true. There was no sign of corrosion or dezincification in the metal and protected by a boss anode. The propeller blades were also individually sighted for obvious signs of deformation and some were found. The precise chemistry of the material of the propeller could not be determined.

BEARINGS

Little movement in shaft which is indicative of low bearing wear. Engineer reported that the cutlass bearing had been replaced.

RUDDER MATERIAL

Steel flat blade rudder mounted on rudder stock. with a loose upper connection with unacceptable wear.

It was not possible to check the straightness of the rudderstock and that cannot be guaranteed. e bearings and was found good. The rudder was not dismounted and it was not practical to examine the interior of the rudder stock bearings tubes as they may be corroded, its actual condition cannot be guaranteed.

FINDING B-7

RUDDER MOUNTING

Skeg mounted. See earlier comments regarding repair.

HULL SKEGS

Substantial steel section skeg welded to the bottom plate.

6.1 EXTERIOR EQUIPMENT

GENERAL HARDWARE CONDITION

No significant corrosion was observed on the vessel's hardware.

CABIN VENTILATION

There is no upper level ventilation which might create problems with on your next BSS inspection.

DECK HATCHES

Opening deck hatch on the foredeck. Note previous comment regarding ballast. Damaged and spalling aft deck hatch boards which require replacing.You may wish to concider a n aft deck cover to keep the water out of the engine bay.

FINDING C-2

PORTHOLES/PORTLIGHTS

Two fixed aft with simple wooden inner covers.

EXTERIOR DOORS

Forward: Twin half glazed wooden doors. The aft entrance door was by way of twin steel doors and a steel sliding hatch, solidly constructed.

WINDOWS

Hopper style alloy glazed windows in accommodation sides with visible internal leakage. See earlier comments.

HAND RAILS/GRAB RAILS

Integral steel handrails welded along coachroof sides. Appeared well attached.

DECK DRAINAGE

Self bailing well deck drains at the port & starboard. Keep clear.

MOORING ARRANGEMENT

T-stud mooring point on bow. Centre line attachment point on coach roof midships. Two mooring dolly's on stern.

CRATCH

Wooden glazed, cracked pane cratch frame with headboard.Old blue cover seen in aft locker, could be for cratch. Not examined or fitted.

FINDING B-8

MOORING LINES

NOTE: general wear & tear was observed on some of the lines and replacement recommended and a centre line fitted.

FENDERS
Serviceable bow and stern rope fenders seen. No side fenders observed.

BOARDING PLANK
No plank overserved. Recommended on rivers and canals where you can't moor close to the bank.

BOAT HOOKS AND POLES
Two wooden boat hooks.

7.1 CABIN ARRANGEMENT

INTERIOR

INTERIOR HULL CONDITION
[No Content]

INSULATION
Sprayed closed cell foam.

INTERIOR BULKHEADS
The interior wooden bulkheads/partitions appeared serviceable, where sighted.

CEILING HEADLINERS
Veneered plywood.

CABIN SOLE FOUNDATION
The floor was believed to be plywood covered in carpet or lino All in adequate condition. Felt firm under-foot.

MAIN CABIN ARRANGEMENT
Open plan saloon. Galley. Corridor with door to bathroom. Aft cabin.

GALLEY ARRANGEMENT
The L shaped galley was located Port amidships.

DINING ARRANGEMENT
Dining and occasional table supported by removable legs stored under raised area. Tables stored along Stbd. side opposite.

ACCOMMODATION ARRANGEMENT
Convertible settee cushions in saloon and fixed double aft with mattress.

HEAD ARRANGEMENT
Single Dometic cassette type toilet with electric fresh water flushing. NOT operated. Spare cassette in fwd. locker. Connected tank needs emptying.

SHOWER ARRANGEMENT
Integral shower in the Head.

INTERIOR CABINETRY & TRIM
The interior Satin finished cabinetry and trim appeared serviceable. Lightweight with rot below all windows. Some detaching trims.

FINDING B-9

INTERIOR STORAGE
The cabinets, lockers, drawers and shelving appeared serviceable, where sighted.

WALL-LINERS
Veneered plywood.

WINDOW TREATMENTS
Mixed curtains. Acrylic infill for galley side hatch.

COUNTER TOPS
Plastic covered chipboard. Serviceable.

INTERIOR MIRRORS

No significant de-silvering was observed on the interior mirror's reflective coatings.

GENERAL INTERIOR & SOFTGOODS CONDITION

The general maintenance of the vessel's interior appeared serviceable if not a little shabby.

COMMENTS

Limitations of Inspection

This is a visual inspection as laid out in the inspection contract and no fixed panels are removed Appliances and heavy items are not moved to inspect behind Carpets and other floor coverings can not usually be lifted to inspect below.

Moisture testing is of a sample nature and only gives an indication of any leaking fittings. Woodwork is assessed by discreet sample spike testing, particularly to accessible sub structures but this can not be completed to high quality finished timber or woodwork which is covered or inaccessible and we are therefore unable to report that such parts are free from defect. Insulation could not be seen so it could not be confirmed that all panels were insulated behind.

INTERIOR SYSTEMS & EQUIPMENT

WATER INTRUSION COMMENTS

Below window frames. See earlier recommendation.

LIGHTING

12 Volt DC filament lighting throughout. Not all working. Consideration should be given to replacing bulbs with LED's.

LAUNDRY SYSTEMS

Stand alone twin tub electric washing machine. Please see photo appendix.

HEAD EXHAUST VENTILATION FANS

NO extraction in bathroom. Opening window.

AUDIO/VISUAL EQUIPMENT

STEREO SYSTEM

Stereo/CD Player, with speakers. NOT operated.

GALLEY EQUIPMENT

REFRIGERATION

Shoreline12 Volt DC free standing fridge. Switch tested. Appeared to be cooling down. Ice box.

OVEN

Domestic free standing cooker which has been adapted to LPG. Not operated. In serviceable condition.

GALLEY SINK

Stainless Steel sink and drainer.

CABIN HEATING

CABIN HEATING SYSTEM

Alde LPG boiler and radiators. Thermostat. NOT operated.

COMMENTS

Central heating. Recommend buyer checks operation with vendor prior to purchase.

8.1 PROPULSION & MACHINERY SPACE

PROPULSION SYSTEM

ENGINE MODEL
Vetus

MANUFACTURE DATE
Unknown.

ENGINE HORSEPOWER
24.3 kW @ 3000 RPM.

NUMBER OF CYLINDERS
Four (4) in-line configuration.

ENGINE STARTER VOLTAGE RATING
12 Volt.

ENGINE HOURS
Unknown as clock not clear.

ENGINE SERIAL NUMBERS
64606

ENGINE DISPLAYS
Simple Volvo panel on pedestal. RPM and alarms. Not tested.

ENGINE EXHAUST SYSTEM
Lagged dry exhaust with silencer exiting at stern.

ENGINE COOLING SYSTEM TYPE
Closed with header tank. Keel cooled via skin tank located on interior swim plating.

ENGINE DRIVE BELTS
Serpentine belt condition appeared serviceable.

THROTTLE & SHIFT CONTROLS
Single Morse mechanical lever/cable type.

ENGINE BED MOTOR MOUNTS
Adjustable motor mounts on steel longitudinal engine bed stringers.

ENGINE BED SUMPS
Dirty but dry. No visible oil/coolant.

MAIN ENGINE OIL LEVEL
Normal.

MAIN ENGINE COOLANT LEVEL
Normal levels were observed in the Heat Exchanger's Header Tanks.

ENGINE NOTES
Externally the engine appeared serviceable with the paint system reasonably intact. The engine was run briefly, started easily with no smoke. Sounde audibly smooth. Nb. Only run in neutral for a few minutes.

ENGINE SPACE CONDITION
The engine space was filthy. With loos junk and rubbish. Loose ballast scattered at random.

FINDING A-3

MACHINERY & BILGE SPACE EQUIPMENT

ENGINE SPACE VENTILATION
Natural from hull vent.

HOSES
Appeared serviceable, where sighted. Monitor frequently for dry cracking, degradation, damage or chafing.

HOSE CLAMPS

Some corroded clamps. Single clipped engine cooling water hoses. We always recommend double clamping cooling hoses and installing corrosion resistant marine grade stainless steel T-bolt type hose clamps and/or solid banded (non-open slotted) hose clamps where appropriate.

TOOL BOX

No tools or spares observed onboard.

COMMENTS

NO service records observed onboard.

TRANSMISSIONS / GEARS / DRIVES

DRIVE SYSTEM TYPE

Direct Drive.

TRANSMISSIONS/GEARS

Twin Disc TMC 60 M marine reduction box. Oil clean and within marks.

GEAR RATIO

2.1

GEAR SERIAL NUMBERS

136999

GEAR CONTROLS

Teleflex type mechanical cable and linkage.

GEAR COOLERS/HEAT EXCHANGERS

Closed cooling heat exchangers.

PROPELLER SHAFTS

Material: Stainless Steel.

PROPELLER SHAFT SEALS

Vetys dripless ceramic seals. Water discharge directly overboard via weed box with valve. Reported new by dock staff.

COMMENTS

NOT operated.

9.1 FUEL SYSTEMS

FUEL SYSTEM TYPE

Diesel.

FUEL TANK MATERIAL

Integral steel tank under aft deck. The rudder post passes through the tank.

NUMBER OF FUEL TANKS

One (1).

FUEL TANKAGE CAPACITY

Possibly 200 litres but unknown. Recommend verifying the fuel tankage capacity and calibrating a simple dipstick.

FUEL TANKAGE SECURING

Tank welded on top of counter plate. Appeared secure. Only aft face observed.

FUEL TANKAGE LOCATION

Integral steel tank located in the transom.

FUEL FILL LOCATION

Hollow Stbd. mooring post. Cap unscrews.

FUEL FILL MARKING
The deck fuel fill fittings were clearly marked as to fuel type.

FUEL TANK VENTILATION
Port mooring post.

FUEL LINES/HOSES
Copper fuel lines, with flexible hose to engine connections.

FUEL SHUT-OFF VALVES
By tank. Valves on feed and return.

MAIN ENGINE PRIMARY FUEL FILTERS
Primary filter with water drain. NO service information observed onboard.

MAIN ENGINE SECONDARY FUEL FILTERS
Engine mounted Secondary Fuel Filter.

11.1 ELECTRICAL SYSTEMS

DC ELECTRICAL SYSTEMS

DC SYSTEMS VOLTAGE
12 Volt systems.

BATTERIES
12V DC System. Five 110ah leisure batteries reading 13.8V. One battery disconnected with loose and unprotected connections. 12.72V. Batteries found in acceptable battery trays Battery wiring was visually serviceable apart from loose battery cables for disconnected battery. Batteries were secure in their tray but not strapped down.

Batteries in two banks. Engine start and service.

FINDING B-10

BATTERY SWITCHES
Three battery main switches. Unidentified.

FINDING B-11

BATTERY ISOLATORS
Vetus unit.

DC ELECTRICAL PANEL BREAKERS/FUSES
Recommend tracing and properly labelling all electrical switches. Broken switch on DC distribution panel.

FINDING B-12

DC ELECTRICAL SYSTEM MONITORS
Simple battery monitoring. Panel indicates three banks. Only two banks exist.

BATTERY CHARGERS
Vetus 12v 20 ah battery charger. Switch tested only.

MAIN ENGINE ALTERNATORS
One engine mounted belt driven alternator. NOT tested. Assumed to be connected to split charge relay though not confirmed.

DC POWER OUTLETS
Two cigarette style 12 volt DC sockets. NOT tested.

DC SYSTEM WIRING TYPE
Appeared serviceable for intended use, where sighted.

DC ELECTRICAL/WIRING COMMENTS

Appeared to be well supported and secured where sighted, except where noted. Always recommend installing chafe gear at all key friction points where wires/cables and hoses transit the vessel against sharp edges. Also recommend waterproofing all wiring connections that may be exposed to moisture. Always recommend installing chafe gear at all key friction points where wires/cables and hoses transit the vessel against sharp edges. Also recommend waterproofing all wiring connections that may be exposed to moisture.

SOLAR PANELS

Two !00 watt solar panels mounted on on adjustable brackets. MPTT controller. Display indicated no charge even though there was sufficient light available in the covered dry dock

FINDING C-3

COMMENTS

Always recommend verifying that the AC/DC electrical systems have properly sized & rated overcurrent circuit protection and conductor sizes.

AC ELECTRICAL SYSTEMS

AC SHORE POWER SYSTEM VOLTAGE

230 Volts AC @ 50Hz.

AC SHORE POWER PHASE RATING

Single Phase.

AC SHORE POWER INLETS

Single shore socket on aft deck. Shore lead observed onboard. Operated.

FINDING B-13

MAIN AC SHORE POWER BREAKERS

Simple consumer unit with RCD and two unmarked circuit breakers.

FINDING B-14

AC ELECTRICAL SOURCE SELECTOR SWITCHING

AC source selection rotary switch. Unclear labelling.

FINDING A-4

GALVANIC ISOLATION SYSTEM

Highly recommended if not installed.

FINDING B-15

AC ELECTRICAL POWER OUTLETS

UK type 230 volt AC switched sockets. All sample sockets tested with polarity checker. Powered by inverter/shore line.

AC ELECTRICAL OUTLET POLARITY

AC electrical outlets polarity was checked and found to be wired correctly.

AC SYSTEM WIRING TYPE

Not sighted.

AC ELECTRICAL/WIRING COMMENTS

Recommend thorough inspection and maintenance of the vessel's AC & DC wiring, by checking the security of all electrical conductor terminations (destructive testing), cleaning any corrosion off of the electrical conductors and applying a corrosion inhibitor where appropriate.

INVERTER

Victron Phoenix 12 Volt DC 1600 watt AC Inverter. Operated.

12.1 WATER SYSTEMS

FRESHWATER SYSTEM

WATER TANKAGE MATERIAL

An insulated tank was observed under the fwd. well deck. Tank material not identified. The tank interior was not observed.

NUMBER OF FRESHWATER TANKS

One (1).

WATER TANKAGE CAPACITY

Unknown. Recommend verifying the water tankage capacity and creating dip stick.

WATER TANKAGE LOCATION

Below the well deck fwd.

WATER FILL LOCATION

On the fwd. well deck.

WATER FILL MARKING

Properly marked for water.

FRESHWATER PUMPS

Flojet pressure demand water pump. Locate under Port saloon with main valve. Operated to all outlets.

FRESHWATER PIPE/HOSE PLUMBING

PEX quick fit system.

WATER LEVEL MONITORING

Recommend verifying the water tankage level with a dipstick if possible.

COMMENTS

Recommend periodically sanitizing the vessel's water tankage and water delivery systems.

HOT WATER SYSTEM

WATER HEATER

Hot water from Alde and engine heated calorifier. NOT tested.

WATER HEATER TYPE

Insulated hot water tank with twin coils. NOT operated.

WATER HEATER CAPACITY

Unknown due to access (estimate approximately twenty gallons).

WATER HEATER PRESSURE RELIEF VALVE

Relief valve built into the tank.

GREYWATER SYSTEM

GREYWATER DISCHARGE SYSTEM

Shower sump discharged directly overboard by an electric 12 volt DC pump with switch in bathroom. Operated.

GREYWATER SYSTEM COMMENTS

All grey water discharged directly overboard.

COMMENTS

The vessel's operator is responsible for determining whether direct greywater overboard discharge is prohibited or permitted by law in the location of the vessel's intended use.

13.1 STEERING SYSTEMS

STEERING SYSTEM TYPE

Direct tiller steering from swan neck attached to the rudder stock above the top bearing. Steel rudder stock passing through external trunk in transom which could not be examined.

Short tiller jammed onto swan neck. Second tiller observed onboard.

RUDDER SKEG

Substantial steel skeg welded to base plate with welded lower rudder cup bearing with minimal wear. Hammer tested.

UPPER RUDDER BEARINGS & RUDDER SUPPORT

Deck mounted bearing. NO discernible play apart from loose upper pintle as noted earlier.

LOWER RUDDER BEARING

Cup bearing welded to skeg.

RUDDER STOCKS

Steel solid tube stock. Not observed where it passed through the diesel tank in the rudder stock tube.

RUDDER

Solid steel 10 mm plate rudder.

14.1 GROUND TACKLE

ANCHORS

No anchor was observed onboard. Ground tackle is important safety equipment. Properly sized, rigged, stowed and ready for use. Rig properly sized anchor, as necessary.

COMMENTS

Some navigation authorities and river trusts require an anchor with chain and rope. The MCA would recommend an 12 kg Danforth type attached to 5 mm 10 mm short link chain with 20 m 12 mm nylon anchor rode.

15.1 ELECTRONICS & NAVIGATION EQUIPMENT

NAVIGATION LIGHTS

Tunnel Light. Not working. NO navigation lights.

FINDING B-16

16.1 AUXILIARY GAS SYSTEMS

GAS TYPE

LPG (Liquified Petroleum Gas/Propane).

GAS TANKAGE LOCATION

Two (2) 13 kg tanks in the aft deck lockers. Connected tank in Port locker. Water in both lockers due to poorly sealed lids.

FINDING B-17

GAS TANKAGE SPACE VENTILATION

The drain at the base of the tankage locker appeared adequate and must be kept clear, remove water.. Monitor and do not store deck equipment in locker.

GAS SHUT-OFFS

At the tank.

GAS TANKAGE MOUNTING

The tanks were unsecured.

FINDING B-18

GAS LINES & FITTINGS

Reinforced rubber LP Gas lines appeared serviceable.

GAS REGULATOR

A Gas Regulator was installed inline. Port locker only.

COMMENTS

BMSUK (Oxon) Limited always recommend performing a Gas Leak Test. The BSS certificate is transferable with the vessel. It is the responsibility of the new owner to keep the vessel compliant with the regulations. These can be downloaded from: www.boatsafetyscheme.org. In my opinion considering the condition of certain equipment the BSS certificate should not of been issued.

17.1 VESSEL DOCUMENTATION

RCD MARKING

Due to the apparent date of build the vessel should comply and be certified under the RCD regulation. NO documentation or marking (win & Plate) observed onboard.

FINDING C-4

18.1 SAFETY EQUIPMENT

SAFETY EQUIPMENT

WEARABLE PERSONAL FLOATATION DEVICES

None conveyed with the vessel.

FINDING B-19

LIFEBOUYS

One lifebuoy. Throwable devices must be immediately available for use. They should be on the main deck within arm's reach, hanging on a lifeline or other easily reached location.

FIRE EXTINGUISHERS

Three 8A 55B powder fire extinguishers. Fwd. extinguisher unmounted.

FINDING B-20

MOUNTED IN GALLEY

Mounted in galley.

SOUND PRODUCING DEVICES (33 CFR 83)

Manual hand operated horn. Operated.

AUXILIARY SAFETY EQUIPMENT

MAN OVERBOARD SYSTEM (MOB)

Two steps on aft sacrificial chine to assist recovery from water.

FIRST AID SUPPLIES

None sighted. Highly recommend a basic first aid kit is carried onboard.

CARBON MONOXIDE DETECTORS

Installed and tested.

SMOKE DETECTORS

None sighted. Install Smoke Detectors inside the accommodation spaces.

SEARCH LIGHT

None sighted. Highly recommended. Can be a powerful torch.

BILGE PUMPING SYSTEMS

ELECTRIC BILGE PUMPING SYSTEMS

Automatic bilge pump with switch on aft cockpit pedestal. Tested.

19.1 SUMMARY

VESSEL CONDITION

Quarriers Quest hull is in good structural condition as observed under the limitations of the survey. Paint coatings on cabin and hull require attention. It is strongly recommended that all systems are observed to be be working before accepting the vessel. Nb. The window frames will require resealing which will require removal.

SUMMARY

In accordance with the request for a Marine Survey of the "Quarriers Quest", for the purpose of evaluating its present condition and estimating its Fair Market Value and Replacement Cost, I herewith submit my conclusion based on the preceding report. The subject vessel was personally inspected by the undersigned on 09/06/2022. Subject to correction of deficiencies listed in sections A and B, the vessel is considered to be reasonably suitable for its intended use. Other deficiencies listed should be attended to in keeping with good maintenance practices or as upgrades.

BOAT OWNERS TIPS

TIPS

Boat Ownership Advice:

After taking ownership of your new vessel there will be some maintenance and safety issues that should be addressed immediately.

The following checklist should help you to undertake these improvements and comply with current legislation. It is the responsibility of the skipper to ensure the vessel is of suitable dimensions for intended cruising grounds.

When you first get your boat.

Pick a good weather weekend and remove all of the soft furnishings.
Open all cupboards and lift floor panels. Understand where all the pipe runs and electrical runs are installed.
Understanding where everything is and how systems work, makes repairs a lot easier.
Once you have purchased your boat you are largely on your own and completing basic repairs and servicing yourself will save you a lot of money.
Learn to steer your vessel by practicing manoeuvring in tight spaces. Learn how the wind effects your vessel.

For inland users River Canal Rescue offer a comprehensive breakdown and recovery service.

Security: Change the locks on all exterior entrances and hatches to improve security. Though please remember that you may also have to evacuate in an emergency. Check that all windows and doors are secure: Improve window hardware as necessary. Security bars can be added to windows, hatches and doors. Consideration could also be given to an alarm system.

Mooring: Boats can be left for long periods in exposed and sometimes undesirable locations. Vandalism, arson and theft are all problems to be considered. Be aware that water levels can change and the effect of this must be considered.

Fire Safety: Create a plan of action in case of fire in your boat. Check fire extinguishers are fully charged and in the correct place on a monthly basis. Smoke detectors should be installed in each room. Carbon Monoxide and gas detectors should be fitted in suitable locations. In case of fire get everyone off, and well away from the boat a soon as possible. Suggest: Install all necessary alarms and test on a monthly basis: Inspect fire extinguishers monthly.

Narrowboat Corrosion: To minimise steel corrosion it is now widely agreed that the use of epoxy primers and epoxy blacking is the best protective method under the waterline. Older boats can only be painted properly after they have been grit blasted clean. This is now becoming normal practice for quality boat builders. Epoxy fillers can be used on existing corrosion and pitting. Plug welding is also acceptable for pitting. It is important that pits are cleaned out well prior to filling or welding and are painted over afterwards.

Ventilate your boat well: The importance of continuous ventilation can not be stressed too highly to avoid

condensation and to keep the internal plating as dry as possible. It is also vital for the prevention of Carbon Monoxide poisoning. The use of several floor ventilation hatches will help to ventilate under a wooden floor. Suggest: Remove floor inspection hatches and open access cupboards when the boat is not in use to improve ventilation to the hull and reduce the risk of damage to the sub floor from damp.

Bilge Pumping Arrangements: There is no requirement for bilge pumping on recreational vessels. They are however the last line of defence against sinking.
Automatic 12v bilge pumps rely on a continuous power supply and should not be switched off when the vessel is left unattended. They also rely on cleanliness. One bilge pump is never enough. A back up, manual, high capacity bilge pump that can be operated by a passer by may save the vessel. Test all bilge pumps prior to leaving the vessel.

Winterise your engine and water systems:

Engines should be winterised to the engine manual, and drain all water systems before leaving the boat for the winter. Check your boat at least once a month.

Docking: It is advisable to dock your vessel every 12 months on a lift and hold basis to inspect the underbody and the stern gear. Use this opportunity to pressure wash the vessel to aid inspection. Narrowboats very two years.

Safety Equipment:

It is important that safety equipment is relevant to the cruising area envisaged. Safety Equipment must be kept in good condition and serviced according to manufacturers instructions. Each crew member should wear a life jacket at all times when on the water.

Marine Coastguard Agency coding:

Only applicable if the vessel is to be used for commercial work.

Boat Safety Scheme:

A Boat Safety Scheme Certificate should be provided with the vessel rather like a car M.o.T.
Please be aware that the existence of a Boat Safety Scheme certificate does not imply that the craft is safe. It only indicates that, on the day of the inspection, the craft has met the requirements for licensing with the Navigational Authority, concerned with minimising the risk of fire and pollution and its effect on other vessels. Boat Safety Certificates have little value in a Pre Purchase Situation. BSS inspections are required every 4 years.
Suggest: Inland waterways boat owners are advised to download a full copy of the Boat Safety Scheme guide from www.boatsafetyscheme.com and keep it on the vessel for reference. Alterations and improvements should be made to manufacturers instructions and the BSS.

Registration:

Some vessels are registered with the Marine Coastguard Agency on Parts 1 & 111 for proof of ownership and finance reasons. We can help with this registration if required.

Canal and River Trust Registration:

Inland vessels should be registered with the relevant navigation authority e.g Canal and River Trust (CRT), Environmental Agency (EA) etc.. The license should be displayed on the vessel. A Canal and River Trust

Number should be correctly displayed on both sides of the vessel for identification. Registration with the Canal and River Trust will require updating with a change of ownership. A combined CRT and EA 'Gold' licence is available for use on rivers and canals. Always be aware that regulations can change.

Recreational Craft Directive:

If the vessel was built after July 1998 the requirements of the Recreational Craft Directive apply. The vessel should have an acceptable builders plate with CE mark.
An owners manual should be available which included a Certificate of Conformity for the vessel. A Hull Identification Number should be correctly marked on the starboard side of the transom. It is generally accepted that the requirements of the Recreational Craft Directive have little effect once the vessel is over 5 years old or undergone a refit. Suggest: An owners manual should be kept up to date and all paperwork for the vessel added to it. This is particularly important for receipts.

The Findings & Recommendations section is only one section of the Survey Report. If received on its own, this section should not be mistaken as this vessel's full Survey Report.

Deficiencies noted under ''FIRST PRIORITY/SAFETY AND STRUCTUAL REPAIR'' should be addressed before the vessel is next underway. These findings could represent an endangerment to personnel and/or the vessel's safe operating condition.

Deficiencies noted under ''SECONDARY PRIORITY/FINDINGS REQUIRING TIMELY ATTENTION'' should be corrected in the near future, so as to maintain and adhere to certain codes, regulations, standards or recommended practices (and safety in some cases) and to help the vessel to retain its value.

Deficiencies noted under ''SURVEYOR'S GENERAL FINDINGS AND OBSERVATIONS'' are lower priority or cosmetic findings, which should be addressed in keeping with good marine maintenance practices and in some cases as a desired upgrade.

Deficiencies will be listed under the appropriate heading:

A. FIRST PRIORITY/SAFETY AND STRUCTUAL REPAIR

B. SECOND PRIORITY/FINDINGS REQUIRING TIMELY ATTENTION

C. SURVEYOR'S GENERAL FINDINGS AND OBSERVATIONS

A: URGENT RECCOMENDATION

ELECTRICAL INSPECTION COMMENTS

AC and DC power was used to power up the electrical systems specified in this report only, unless otherwise noted. Problems were experienced testing the electrical system due to broken switches on the DC panel, unmarked battery isolation switches and no operation manuals/instructions. Disconnected battery and unprotected and loose battery terminals. It is strongly recommended that the vessel is accepted only after all systems have been verified operational by the owner/owners representative.

FINDING A-1

Verification of operational status of electrical systems.

RECOMMENDATION

Only accept vessel once systems are verified working.

WEED HATCH

The weed hatch extended through the counter plate above the propeller. The weed hatch had an acceptable height above the waterline. (170mm above the counter plates.) The weed hatch top and mechanism were visually acceptable with a damaged gasket and a clamping system. Note the weed hatch top and gasket are keeping the vessel afloat so should be removed at least once a year to keep the mechanism serviceable and inspect the gasket.

There was no cavitation (Splash) plate. Evidence of leakage from the seal.Thickness measurements of the weed hatch sides averaged 5.9 mm which is good.

FINDING A-2

Old weed hatch seal. Evidence of leakage from seal.

RECOMMENDATION

Open up hatch and repair corrosion from leakage. Replace seal as a matter of urgency.

ENGINE SPACE CONDITION

The engine space was filthy. With loos junk and rubbish. Loose ballast scattered at random.

FINDING A-3

Engine space condition. Corrosion on sole.

RECOMMENDATION

Clean corrosion and paint. Remove junk, loose items, inflamible liquids (Paint) etc.

AC ELECTRICAL SOURCE SELECTOR SWITCHING

AC source selection rotary switch. Unclear labelling.

FINDING A-4

Unclear labelling.

RECOMMENDATION

Label correctly and clearly.

B: RECCOMENDATION

EXTERIOR FINISH

Painted superstructure and upper topsides. Paint was generally in poor condition and requires attention. Painted graphics and signs indicating that at some point in the vessels past it was owned by musicians/band.

FINDING B-1

Generally in poor condition, though serviceable in the short term.

RECOMMENDATION

Touch up bare and damaged paint work. Consider a full repaint. Possibly in conjunction of the removal of the windows for resealing.

BALLAST

Believed to be loose concrete paving slabs but could not be accessed in the main bilge. Bags of gravel were observed in the forward locker and broken paving slabs were seen in the engine bilge and on the counter plating. The condition of the plating below the loose ballast cannot be guaranteed.

FINDING B-2

Loose ballast.

RECOMMENDATION

Remove and inspect plating beneath and repair any corrosion.

DECK MATERIAL

Welded steel plating. Damaged laminated boards over engine aperture. Blocked gulleys with visible corrosion in aft drains.

FINDING B-3

Blocked and corroded aft deck gullies and drains. Damaged hatch boards.

RECOMMENDATION

Clean and paint gullies. Treat drain corrosion. Replace hatch boards.

HATCHES, WINDOWS AND DOORS

Visible leakage damage from leaking window frames.

FINDING B-4

Interior damage and visual evidence of corrosion behind window frames.

RECOMMENDATION

Remove frames which are attached with screws and reseal.

SIDE PLATING

The side shell readings – some 100 in number - which also, as might be expected, again approximately followed the normal distribution, had a range from 5.5 mm to 6 mm.

Pitting to a depth of 1 mm was measured. Though this was not widespread. This has been caused by the breakdown of the blacking exposing the steel along and below the waterline.

FINDING B-5

Plating pitting.

RECOMMENDATION

Scrape back and re black ASAP.

HULL COATINGS

The hull has been previously coated with a coal tar or bitumen coating which has worn off.

FINDING B-6

In poor condition.

RECOMMENDATION

RE-black as a matter of urgency as noted previously.

RUDDER MATERIAL

Steel flat blade rudder mounted on rudder stock. with a loose upper connection with unacceptable wear.

It was not possible to check the straightness of the rudderstock and that cannot be guaranteed. e bearings and was found good. The rudder was not dismounted and it was not practical to examine the interior of the rudder stock bearings tubes as they may be corroded, its actual condition cannot be guaranteed.

FINDING B-7

Rudder loose on stock from worn attachment point. Lower cup bearing and upper bearing on deck appeared good. Nb. No test run under power.

RECOMMENDATION

Repair by welding udder stock to rudder.

CRATCH

Wooden glazed, cracked pane cratch frame with headboard.Old blue cover seen in aft locker, could be for cratch. Not examined or fitted.

FINDING B-8

Cracked cratch glazing.

RECOMMENDATION

Re-glaze with toughened/laminated glass.

INTERIOR CABINETRY & TRIM

The interior Satin finished cabinetry and trim appeared serviceable. Lightweight with rot below all windows. Some detaching trims.

FINDING B-9

Rot below windows.

RECOMMENDATION

Reseal window frames. See earlier comment.

Findings & Recommendations

BATTERIES

12V DC System. Five 110ah leisure batteries reading 13.8V. One battery disconnected with loose and unprotected connections. 12.72V. Batteries found in acceptable battery trays Battery wiring was visually serviceable apart from loose battery cables for disconnected battery. Batteries were secure in their tray but not strapped down.

Batteries in two banks. Engine start and service.

FINDING B-10

Loose battery cables. Loose disconnected battery in aft cabin.

RECOMMENDATION

Reconnect missing battery, in aft cabin, replace if damaged. Protect and insulate loose battery cables.

BATTERY SWITCHES

Three battery main switches. Unidentified.

FINDING B-11

Unmarked battery isolation switches.

RECOMMENDATION

Identify and label.

DC ELECTRICAL PANEL BREAKERS/FUSES

Recommend tracing and properly labelling all electrical switches. Broken switch on DC distribution panel.

FINDING B-12

Broken DC distribution panel.

RECOMMENDATION

Replace panel.

AC SHORE POWER INLETS

Single shore socket on aft deck. Shore lead observed onboard. Operated.

FINDING B-13

Exposed wires at one end of shore cable.

RECOMMENDATION

Reconnect cable to plug properly.

MAIN AC SHORE POWER BREAKERS

Simple consumer unit with RCD and two unmarked circuit breakers.

FINDING B-14

Unmarked circuit breakers.

RECOMMENDATION

Identify and label.

GALVANIC ISOLATION SYSTEM

Highly recommended if not installed.

FINDING B-15

No galvanic isolator,

RECOMMENDATION

Install.

NAVIGATION LIGHTS

Tunnel Light. Not working. NO navigation lights.

FINDING B-16

Tunnel light not working.

RECOMMENDATION

Repair or replace.

GAS TANKAGE LOCATION

Two (2) 13 kg tanks in the aft deck lockers. Connected tank in Port locker. Water in both lockers due to poorly sealed lids.

FINDING B-17

Water in LPG lockers.

RECOMMENDATION

Seal lids properly.

GAS TANKAGE MOUNTING

The tanks were unsecured.

FINDING B-18

The LPG tanks were not secured.

RECOMMENDATION

Secure with straps/chains to avoid damage to LPG lines.

WEARABLE PERSONAL FLOATATION DEVICES

None conveyed with the vessel.

FINDING B-19

NO life jackets onboard.

RECOMMENDATION

Consideration should be given to life jackets for children, non swimmers and for use of the crew in tunnels and rivers.

FIRE EXTINGUISHERS

Three 8A 55B powder fire extinguishers. Fwd. extinguisher unmounted.

FINDING B-20

Loose fwd. extinguisher.

RECOMMENDATION

Secure extinguisher in mounting bracket in prominent position.

C: SURVEYOR'S SUGGESTION & OBSERVATIONS

VESSEL BUILDER

Piper. owners website at http://www.piperowners.co.uk/piperowners_history.htm

FINDING C-1

Owners Website at http://www.piperowners.co.uk/piperowners_history.htm

RECOMMENDATION

A valuable source of information on Piper narrow boats.

DECK HATCHES

Opening deck hatch on the foredeck. Note previous comment regarding ballast. Damaged and spalling aft deck hatch boards which require replacing.You may wish to concider a n aft deck cover to keep the water out of the engine bay.

FINDING C-2

Damaged hatch boards.

RECOMMENDATION

Repair or replace the hatchboards, as necessary.

SOLAR PANELS

Two !00 watt solar panels mounted on on adjustable brackets. MPTT controller. Display indicated no charge even though there was sufficient light available in the covered dry dock

FINDING C-3

NO solar charging.

RECOMMENDATION

Investigate in clear sunlight.

RCD MARKING

Due to the apparent date of build the vessel should comply and be certified under the RCD regulation. NO documentation or marking (win & Plate) observed onboard.

FINDING C-4

NO RCD marking.

RECOMMENDATION

Confirm vessels RCD status.

Photos


09 06 2022


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RPMx100
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35
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HOURS
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