BMSUK (Oxon) Limited

Marine Surveyors & Consultants

Semi Traditional Narrowboat 60 ft

"NB Elisa"

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BMS Marine Survey

Pre Purchase Survey Of the Vessel

"NB Elisa"

Semi Traditional Narrowboat 60 ft

CONDUCTED BY

MJ Wiater AMYDSA MIIMS

BMSUK (OXON) LIMITED

PREPARED FOR

Chris Coleby

25/03/2021

1.1 INTRODUCTION

PURPOSE & SCOPE

The attending Surveyor attended aboard the Semi Traditional Narrowboat steel narrow boat "NB Elisa" , at the request of Chris Coleby beginning 25/03/2021 . 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. Survey requester 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) 2021.

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 vessel was initially examined ashore and afloat at Whilton Marina. The narrow boat was supported ashore on the hauling trolley 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 are 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).
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

OUT OF WATER INSPECTION COMMENTS

The Survey was performed while the vessel was supported on a trolly. Visual inspection of the hull's wetted surfaces, accessible hull sides and propulsion running gear was performed on a trolly whose supports obscured some of the bottom plating. Access was good to the stern sections only and therefore we are unable to confirm the condition of the bottom plate.

ELECTRICAL SYSTEMS COMMENTS

DC power and 230 volt SC from the inverter was available. Therefore electrical systems and equipment specified in this report could not be operated, unless otherwise noted.

HIN (HULL IDENTIFICATION NUMBER) VERIFICATION COMMENTS

The vessel's HIN (Hull Identification Number) was verified during the Survey inspection.This was welded on the aft Stbd. quarter.

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. The engine was inspected visually only.

ELECTRICAL/MECHANICAL SURVEY

As there was no qualified and experienced electrical surveyor onboard during the inspection electrical equipment, where power is available has been switch tested only.

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 manoeuvrability and any safety concerns.

2.1 GENERAL VESSEL INFORMATION

TYPE OF SURVEY REQUESTED

Pre-Purchase Survey for the prospective buyer.

DATE AND TIME OF SURVEY

25/03/2021

VESSEL TYPE

Semi Traditional style narrow boat.

VESSEL BUILDER

Amber Narrowboats. (Believed closed down).

FITTED OUT BY:

Interior fit out completed by vendors.

HIN (HULL IDENTIFICATION NUMBER)

GB-ABC-60E11H505

CRT NUMBER

514210

RCD PLATE DETAILS

None observed. According to the HIN the vessel should of been certified to RCD. NO plate or documentation observed onboard.

YEAR BUILT

2005 (per Hull Identification Number)

HULL NUMBER

60E

VESSEL MATERIAL

Steel

BEAM

6' 10" approx.

DRAFT

Measured approximately 2' 11"

VESSEL USE

Inland watreways (Cat D)

LOCATION OF SURVEY INSPECTION

Enslow. Enslow Marina. Oxon.

LOCATION OF BOTTOM INSPECTION

Ashore supported on slipway trolly Enslow Marina Oxon.

PERSONS IN ATTENDANCE DURING SURVEY

MJ Wiater and client.

WEATHER CONDITIONS PRESENT

Dry with showers.

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.

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.

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

3.1 HULL DECK & STRUCTURE

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. Thickness testing was of a sample nature at selected locations and cleaned back patches 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.

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.

ULTRASONIC PLATE THICKNESS MEASUREMENTS

Side Plate original nominal thickness : 6 mm . Readings range between 5.7 mm and 6.0 mm. Nominal palte thickness loss probably due to sand blasting prior to the application of the epoxey coating.

Baseplate original nominal thickness : 10 mm . Readings range between 9.8 mm and 9.6 mm. Very limited and isolated pitting observed approximately 1 mm in depth.

The readings taken were consistent and show little diminution. The virtual lack of pitting confirmed that the vessel had been originally built out of a high quality steel. There was little evidence of serious corrosion internally in the
few areas where the base plate could be accessed, namely the engine bay.

We were led to believe there had been some rusty areas internally but this always looks worse than it is. The owner has cleaned off the rust and painted these areas and there was no evidence of any fault on this survey. The hull was therefore believed to be in good condition at the present time so long as further corrosion is minimised. There was evidence of paint on the base plate externally

BOTTOM PLATE

The 10 mm base plate was found fairly clean and was visually fair with no evidence of serious indentation or damage. The base plate was cleaned off in sample areas around the outer edges and on the centreline. In the cleaned off
areas the underlying plate was found in good condition with only minimal pitting found. The base plate was not coated in canal crud as normally seen so inspection was reasonably easy. 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 acrificial strip where the chine extends outside the side shell of the vessel to minimise wear to the weld was found in serviceable condition offering approximately 12-13 mm protection. Two lifing rings at stem, two counterplate extions for foot steps and an aft towing eye. Counter plate extended at stern as an anti-cavitation plate and rudder stop.

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.

The counter plates were of 10 mm plating and in good condition on both sides

WEED HATCH

The weed hatch extended through the counter plate above the propeller. The weed hatch top was an acceptable height above the waterline. (150mm above the counter plates.) The weed hatch top and mechanism were visually acceptable with a substantial rubber and a well maintained 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 an adequate integral cavitation (Splash) plate in place. The hatch was opened. The weed hatch interior should be painted when the hull is re-coated.

SIDE PLATING

The side plates above the water line were clean and fair though covered in thick slime and calcium deosts. The paintwork above the waterline was in fair condition. There was no visible evidence of significant impact damage or indentation. The side plates were coated in a layer of epoxey blacking. In places epoxey blacking had detached and should be sanded and repainted at the next slipping. Slight plate deformation from construction particulary on the Stbd. topsides.

The welding to the hull was a little uneven but believed to be serviceable. Welded butt joints were externally inspected, were tidy and unobtrusive and hammer tested serviceable. Waterline pitting was minimal. Aggressive hammer testing below the waterline produced no evidence of weakness in the steelwork. Sample hammer testing carried out around welds gave no indication of weakness.

The rubbing bars were welded top and bottom, which was considered good practice.

FINDING B-1

ANODES

Eight 2.5 kg magnesium anodes. Two at the bow and two at the stern. 80% material remaining. Four new low profile 2.5 kg magnesium anodes were fitted during the survey. Two on each side.

THROUGH HULL FITTINGS

There were no underwater skin fittings which is considered good practice. Most overboard drains were above the recommendation of a minimum 250mm freeboard. They were all of welded spigot type.

DECK ARRANGEMENT

Self draining foredeck with gas locker hatch with broken hinges. Self draining well deck. Aft deck with cants and varnished plywood hatch over the engine bay.

FINDING B-2

4.1 VESSEL CONSTRUCTION

HULL ARRANGEMENT

VESSEL DESCRIPTION AND LAYOUT

"NB Elisa" is a semi traditional 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. 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 port 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 with convertible sofa and fitted galley. Single cabin. Walk through bathroom compartment. Doulble aft cabin with a bench and steps up to aft deck.

HULL

Hull construction is of welded and folded steel. Sample thickness measurements taken from locations where corrosion is unlikely to be present, indicated an original nominal build plate thickness as:

Coachroof: 4 mm
Superstructure: 4 mm
Topsides: 6 mm
Counter (Uxter) Plate: 10 mm
Bottom (Base) Plate: 10 mm

HULL DESIGN TYPE

Traditional Steel Narrowboat 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. Lower strake above the chine from the fwd. quarter to the aft quarter. The stern is protected by a partial lower strake.

The bow is a classic narrow boat style with a substantial stem post. The stern is semi-circular in shape over an ellipical counter with a traditional swim and Uxter (Counter) plate. A traditional weed hatch is located over the propeller.

HULL MATERIAL

Folded and welded steel. Hull construction is of welded and folded steel. Ultrasound measurements taken at one metre intervals on ground back strips approximately 5 cm wide. Minimum measurements recorded were 5.8 mm on vertical hull plating. Counter plate 9.9 mm and bottom plate only at aft margins of 9.8 mm. Light limited pitting observed. See previous comments on Blacking

RUBBING STRAKES

Upper chine strake. Ontwo whisker strakes at bow and one around the transom above the counter plate chine. Seam welded top and bottom which is good building practice.

HULL BELOW WATERLINE

Hammer soundings revealed no areas of severe thinning. Point ultrasonic thickness measurements taken of the bottom plate at the margins and at accessible mid section points indicated a minimum bottom plate thickness of 9.8 mm and topsides of 5.7 mm. See previous comments.

EXTERIOR FINISH

Painted superstructure. Generally in serviceable condition. Appears to be painted in houshold type paint.

GENERAL EXTERIOR CONDITION

General wear & tear was observed on some of the exterior surfaces.

TRANSOM

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

BOARDING SWIM LADDER

Two extensions to counter plate extend outwards for foot steps to aid boarding.

FINDING C-1

BULKHEADS

Not all visible behind linings. Where observed appear well welded and structually sound.

STEM

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

BALLAST

Not closely examined as hidden below sole panels though observed to be loose concrete paving where accessed at cabin bow and stern cupboards. See earlier comments regrding trim and recomendations.

STRUCTURAL FRAMES

Not accessible for inspection.

UNDERWATER SURFACES

Flat bottom with an overlap (Sacrificial Chine) to protect the weld that joins the bottom and hull topside plates offering good protection. The chine had been extended at the stern to provide foot steps to assist boarding from water.

The inboard 6 mm weed hatch was inspected, and opened, hammer tapped on three sides. Freeboard was 240 mm minimum.

It was observed that the weed hatch seal was good and had not let water into the vessel.

BILGES

Fwd. Bilge was covered by flooring and could not be examined. Only the aft engine bilge could be inspected. Bucket below stern gland with small submersible pump. Not tested.

FINDING B-3

BILGE LIMBER HOLES

The limber holes appeared to be appropriately sized and clear, where sighted.

VESSEL LIST

A large amount rusting of pig iron trim ballast was observed in the engine space aft and in the port aft locker.

FINDING C-2

DECK ARRANGEMENT

DECK MATERIAL

Welded steel plating. Self draining Foredeck with hinged hatch over bow locker with overboard drains at acceptable freeboard. Self draining well deck with suitably high sill at bow cabin door. Corrosion observed in independent watertight aft deck gas locker. Aft deck self draining with two drains to engine space hatch board supports which must be kept clean to avoid water ingress to engine space. A bow up trim must be maintained to avoid flooding of the engine bilge.

TOE-RAILS

Cants on aft deck.

RUB-RAILS

Continuoue upper rubbing strake. Whisker style rubbing strakes protected the bow. Waterline rubbing strake at stern. See Rubbing Strakes.

SUPERSTRUCTURE ARRANGEMENT

SUPERSTRUCTURE MATERIAL

Of 4mm welded steel construction for the cabin sides and 4 mm top. The 4mm cabin structure had a serviceable quality paint finish overall. The cabin side and top panels were visibly fair with no evidence of serious damage or indentation. All in good condition. There were five brass mushroom vents on the cabin roof.

HATCHES, WINDOWS AND DOORS

Forward doors were twin timber and half glazed. Fitted cat flap. Aft steel door with lock and substancial padlock and hasp.

Windows were alloy hopper type, rectangle and circular. All lying tight and fair to the cabin side.

Suggest: It is important to clean out window drip channels and drains on a regular basis to prevent moisture ingress on to the internal timber.

5.1 STERN GEAR

PROPELLERS

Three bladed right hand phosphor bronze propeller. Tips serviceable with only minor impact damage. Propeller secure.

PROPELLER SHAFTS

38 mm magnetic shaft. Visually serviceable and believed straight. Turned easily by hand.

RUDDER MATERIAL

Steel flat bar rudder with short anti cavitation plate/rudder stop extension to counter plate

RUDDER MOUNTING

Rudder mounted in lower cup bearing on 6 mm steel U-section skeg welded to base plate. Upper bearing with noticable play mounted on aft deck.

FINDING C-3

6.1 EXTERIOR EQUIPMENT

COCKPIT/AFT DECK EQUIPMENT

Aft cockpitwith two deck lockers with varnished wooden tops.

FINDING B-4

EXTERIOR SEATING

Benches on well deck. Aft cockpit locker lids.

CABIN VENTILATION

Mushroom vents on coahc roof. Fan fitted to vent near galley for extraction.

DECK HATCHES

Opening hinged deck hatch on the foredeck to bow gas locker. See earlier comment regarding broken hinges.

WINDOWS

Alloy glazed hopper style windows in cabin sides. No visible internal leakage.

HAND RAILS/GRAB RAILS

Integral hand steel rails on coach roof sides.

CHINNEY COLLAR AND CHINNEY.

Deck collar with flue on fwd. Coachroof. No Chimney for solid fuel stove observed.

BOARDING PLANK

Wooden boarding plank on welded coach roof storage frame.

MOORING ARRANGEMENT

T-stud mooring point on bow. Two mooring dollies on stern. Twin centre lines on Coachroof. two stakes onboard.

FINDING B-5

EXTERIOR STORAGE

Various exterior lockers and storage areas appeared serviceable, though with corrosion on aft deck.

FINDING C-4

EXTERIOR COVERS

No covers.

FINDING C-5

MOORING LINES

Suitable dock/mooring lines were observed onboard (amount included unknown).

FENDERS

Servicable bow rope fender. various plastic fenders and lines. fender attachtment points on superstructure. Steel folding stern fender arrangement. Rubber stern fender missing.

FINDING B-6

7.1 CABIN ARRANGEMENT

INTERIOR

GALLEY ARRANGEMENT

Walk through. Serviceable work surface over kitchen cabinets with S/s sink and drainer. Shelves onboard though not fitted.

ACCOMMODATION ARRANGEMENT

Currently double berth aft, no matress. Single berth and convertable sofa fwd

HEAD ARRANGEMENT

Electric Tecma flushing toilet directly discharges with to black water holding tanks. 800 litres (Owners figure). Pump out fittings on side deck. Tank level gauge by toilet. Not tested. Toilet flushes.

SHOWER ARRANGEMENT

Stall type shower. Switched pump discharged directly overboard. Pump operated.

INTERIOR CABINETRY & TRIM

Sevicable.

INTERIOR STORAGE

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

WALL-LINERS

The cabin linings were a light oak type panelling and were solidly built.

FLOORING

Plywood flooring below fitted carpet, lino and plastic wooden flooring fwd.

CABIN SOLE FOUNDATION

The floor was believed to be plywood covered in carpet or lino All in adequate condition

INTERIOR MIRRORS

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

GENERAL INTERIOR FURNISHINGS & SOFT-GOODS CONDITION

In visually serviceable condition.

WATER INTRUSION COMMENTS

No significant signs of water intrusion were observed at the vessel's interior.

COMMENTS

The internal linings were tested with a Tramex moisture meter for moisture ingress as mentioned previously. There was no evidence of leaking or moisture internally.

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. Solid fuel stoves are not lit to be tested.

INTERIOR SYSTEMS & EQUIPMENT

LIGHTING

12 Volt DC LED lighting throughout. All working.

CABIN VENTILATION FANS

12 Volt DC electric ventilation fans were installed in galley mushroom vent. One fitted in bathroom. Not working.

AUDIO/VISUAL EQUIPMENT

TELEVISION SYSTEM

LCD TV in aft cabin. Loose aerial. Not switched on.

GALLEY EQUIPMENT

REFRIGERATION

Shoreline 12 volt DC fridge. switch tested only.

COOKER

Caprice Mk 111 fitted four burner hob, oven and grill. Not operated.

GALLEY SINK

Stainless Steel sink with drainer. Drains directly overboard.

CABIN HEATING

CABIN HEATING SYSTEM

Radiators hot water heated from disel fired boiler in engine space. Not operated.

STOVE

Flue condition good with no evidence of scorching. Lower flue seal needs resealing. No evidence of scorching where the flue passed through the headlining. Fire bricks and glass in servicable condition. Door seal must be replaced before lighting. Coal storage under steps. Tiled suround. NO chinney observed onboard.

FINDING A-1

8.1 PROPULSION & MACHINERY SPACE

PROPULSION SYSTEM

ENGINE MODEL

2019 Barrus Shire No: 45-02720 naturally asperated diesel engine based on a Yanmar 4TNV88.

MANUFACTURE DATE

Installed 2019. Possibly still under warranty. Check with vendor.

ENGINE HORSEPOWER

45 HP estimated.

NUMBER OF CYLINDERS

Four (4) inline configuration.

ENGINE STARTER VOLTAGE RATING

12 Vol DC vrom dedicated battery with twin alternators.

ENGINE HOURS

684.3 from digital meter on engine panel.

ENGINE DISPLAYS

Simple Barrus panel with alarms. Not tested.

ENGINE EXHAUST SYSTEM

Lagged dry exhaust with silencer exiting at stern.

ENGINE COOLING SYSTEM TYPE

Closed water jacket cooling, which is cooled by belt driven circulation pump via skin tank on inner face of Port swim.

ENGINE DRIVE BELTS

Serpentine belt condition appeared serviceable.

THROTTLE & SHIFT CONTROLS

Single lever at helm with neutral. Morse cable connections. Appeared operational.

ENGINE BED MOTOR MOUNTS

Engine flexible mounts bolted directly to solid steel longitudinal bearers that form the drip tray.

ENGINE BED SUMPS

Integrated drip sump under the engines. Clean and dry.

MAIN ENGINE OIL LEVEL

Normal level was observed on the engine sump dipstick. Oil appears uncontaminated.

MAIN ENGINE COOLANT LEVEL

Expansion tank/resvoir in Port deck locker. Anti-freeze observed.

ENGINE NOTES

Mannuals onboard. NOT operated.

ENGINE SPACE CONDITION

Clean Some bilge water. Sound inslation on fwd. bulkhead.

TRIAL RUN INFORMATION

ENGINE SPACE COMBUSTION AIR VOLUME

Natural air.

MACHINERY & BILGE SPACE EQUIPMENT

HOSES

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

TOOL BOX

No tools or spares observed onboard.

FINDING C-6

TRANSMISSIONS / GEARS / DRIVES

DRIVE SYSTEM TYPE

Direct drive from engine mounted reduction gear coupled to propeller shaft via Aqudrive CV joint.

TRANSMISSIONS/GEARS

PRM marine reduction gear. Oil level not checked.

PROPELLER SHAFTS

Stainless steel shaft running through water lubricated stern tube with conventional cord type stuffing box stern gland with remote greaser in cockpit locker. NO grease observed onboard.

FINDING B-7

PROPELLER SHAFT PACKING GLANDS

Flange & bolt stuffing box type packing gland. Remote greaser. Monitor frequently.

COMMENTS

The bucket under the glan with loose pump indicates possible leakge from the gland. If excessive leakage observed, a drip or two is normal them tighten flange bolts but a drip a minute or so is quite normal and indicates the gland is being cooled. A half turn on the gland each time the engine is stopped for the day will prevent leakage.

9.1 FUEL SYSTEMS

FUEL SYSTEM TYPE

Diesel.

The cleanliness of the fuel in the tank could not be confirmed and dirty fuel is a common cause of engine failure. Drain water from primary filter and carry spares onboard.

FUEL TANK MATERIAL

Steel.

NUMBER OF FUEL TANKS

One (1). Integral steel tank in stern.

FUEL TANKAGE CAPACITY

Owners details state 180 litres*. Recommend verifying the fuel tankage capacity and calibrating a wooden dip stick. Owner states 200 lires.

FUEL TANKAGE SECURING

Electrically welded to the hull. Only the tanks aft face could be observed.

FUEL TANKAGE LOCATION

Integral steel tank located in the transom.

FUEL FILL LOCATION

On aft deck with overboard drain.

FUEL TANK VENTILATION

Fuel air vent with gauze flame arrestor on transom.

FUEL LINES/HOSES

Copper fuel lines, with flexible hose to engine connections.

FUEL SHUT-OFF VALVES

Valves inline with the fuel system located by the tank.

MAIN ENGINE PRIMARY FUEL FILTERS

Remote & engine mounted, spin-on canister type filter/water separators.

10.1 ELECTRICAL SYSTEMS

DC ELECTRICAL SYSTEMS

DC SYSTEMS VOLTAGE

12 Volt system.

BATTERIES

olts at inverter.12V DC System. Four 120ah leisure batteries reading 12.8 V Batteries found with acceptable storage but neither sets of batteries had the terminals covered this is a BSS requirement. Battery wiring was visually serviceable but was disconnected due to the welding work being completed. Batteries were secure though not strapped down.

BATTERY SWITCHES

There were two rotary main battery isolating switchs which tested serviceable in the Port cockpit locker.

DC ELECTRICAL PANEL BREAKERS/FUSES

12 volt DC circuit protection from circuit breaker distribution panel in aft cabin.

DC ELECTRICAL SYSTEM MONITORS

No battery monitoring. Battery voltage for domestic bank shown on the inverter and at the USB socket in galley.

BATTERY CHARGERS

Battery charging from engine driven alternators only.

FINDING B-8

MAIN ENGINE ALTERNATORS

12 Volt engine mounted and belt driven alternators. Not tested. Large capacity domestic alternator.

DC POWER OUTLETS

Car type cigarette 12 volt sockets observed in saloon. Not tested.

DC ELECTRICAL/WIRING COMMENTS

Appeared to be well supported and secured, where sighted. 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 solar panels on coachroof with a solar power regulator in the aft cabin. Operating at time of inspection.

COMMENTS

The electrical system should be checked by a qualified marine electrician for verifying that the AC/DC electrical systems have properly sized & rated overcurrent circuit protection and conductor sizes. Beyond the scope of this inspection. The installation of extra solar panel capacity and controller should be considered to keep the banks charged if the vessel is left for extended periods without engine operation and to supplement the battery capacity.

AC ELECTRICAL SYSTEMS

AC SHORE POWER SYSTEM VOLTAGE

230 Volt AC (Single Phase) electricity from inverter.

MAIN AC SHORE POWER BREAKERS

The main RCD AC breaker was installed next to the DC breaker board in the aft cabin.

AC ELECTRICAL SYSTEM MONITORS

None.

GALVANIC ISOLATION SYSTEM

NO Galvanic protection.

FINDING B-9

AC ELECTRICAL POWER OUTLETS

UK type 230 volt AC switched sockets. Powered by inverter.

AC SYSTEM WIRING TYPE

Appeared serviceable for intended use, where 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

Ring Power 3100 watt inverter. Sockets tested and correct polaryt indicated on test meter. See battery charger comments.

COMMENTS

NO shore socket or circuit protection insalled. Fitting a marine batter charger (Mastervolt, Victron or Sterling) recommened. A AC source selector swith must also be installed and a suitable consumer unit with circuit breaker protection and RCD earth leak protection. See earlier comment on galvanic isolator.

12.1 WATER SYSTEMS

FRESHWATER SYSTEM

WATER TANKAGE MATERIAL

Steel. Located below fwd. well deck. NOT observed.

NUMBER OF FRESHWATER TANKS

One (1).

WATER TANKAGE CAPACITY

Capacity stated as 1000 lt*. Recommend verifying the water tankage capacity. A dipstick could be used.

WATER TANKAGE LOCATION

Integral steel tank located below the fwd. well deck sole. Not observed.

WATER FILL LOCATION

On well deck sole below Port bench.

FRESHWATER TANKAGE VENTILATION

Tank breather next to filler.

FRESHWATER PUMPS

12 volt Demand type freshwater Pump located in locker by fwd, steps. Switch tested but not observed due to jammed lid. A wwitch next to pump or in the galley that operates as a stop valve when switched off.will prevent pump noise at night when sleeping. Accumulator tank installed fwd. of hot water tank under aft berth.

FRESHWATER PIPE/HOSE PLUMBING

Plastic PEX type (Cross-linked Polyethylene) push fit hoses. Not closely observed but no leaks seen during limited test.

COMMENTS

We recommend periodically sanitizing the vessel's water tankage and water delivery systems. NO water hose observed onboard.

HOT WATER SYSTEM

WATER HEATER

New Webasto TOP C disel fired boiler. Not operated.

WATER HEATER CAPACITY

Inslated 20 gallons approx hot water tank located under aft berth. NOT operated. NB. If mains electricty fitted then an imersion element could be fitted to the tank.

WATER HEATER PRESSURE RELIEF VALVE

Relief valve built into the tank.

BLACKWATER SYSTEM

BLACKWATER TANKAGE

Black water Holding tank fitted aft. Owner claims 800 lire capacir. Not observed.

BLACKWATER TANKAGE VENTILATION

None seen. If unpleasant odours are experienced during operation a charcoal odour filter can be fitted.

BLACKWATER SYSTEM DISCHARGE

Deck pump-out fittings.

COMMENTS

System not operated.

GREYWATER SYSTEM

GREYWATER TANKAGE

None installed. All sinks and showers discharge directly overboard.

GREYWATER DISCHARGE SYSTEM

Diaphragm shower sump discharged directly overboard by an electric 12 volt DC pump located in the bathroom. Operated.

13.1 STERN GEAR

STEERING SYSTEM

Direct tiller steering from swan neck attached to the rudder stock above the top bearing. Steel rudder stock passing through tube in transom diesel tank and therefore could not be inspected.

RUDDER SKEG

Steel skeg welded to base plate,

UPPER RUDDER BEARINGS & RUDDER SUPPORT

Upper rudder bearing on deck with substantial movement. See earlier comment.

LOWER RUDDER BEARING

Cup bearing welded to skeg.

RUDDER STOCKS

Steel rudder stock passing through steel rudder tube to deck. 10mm substantial flat blade rudder welded to stock.

RUDDER

Solid steel plate rudder.

COMMENTS

Rudder stops incorporated in counter plate extension.

14.1 GROUND TACKLE

ANCHORS

No anchor was observed onboard. Ground tackle is important safety equipment. Properly sized, rigged, stowed and ready for use. EA requirement for Thames navigation.

ANCHOR RODE TYPE

None.

COMMENTS

Highly recommend at least one anchor and rode (Chain/rope) for emergencies and added mooring options. This is mandatory on most EA waterways. For river use a suitably sized anchor, 10 kg and length of chain, min 5m of 8mm and 20m 12 mm nylon rode is recommended. This is mandatory on most river Authorities including the Thames.

15.1 ELECTRONICS & NAVIGATION EQUIPMENT

NAVIGATION LIGHTS

Tunnel Light . Not operational.

FINDING B-10

16.1 LPG GAS SYSTEMS

GAS TYPE

LPG (Liquified Petroleum Gas/Propane). Two 13 kg gas canisters in the forwards gas locker with acceptable overboard drainage. Locker floor visually serviceable subject to painting. Gas canisters were not secured.

No Bubble tester fitted.

Age of flexible pipe was dated as 2004

Limitations of Inspection as laid out in inspection contract

A full gas installation inspection can only be carried out by a suitably qualified gas operative registered with Gas Safe as a specialist LPG engineer with an endorsement to work on boats Please note this survey is not any kind of gas safety certificate. That is only obtainable in the UK after comprehensive pressure testing and assessment by a qualified person listed on the Gas safe register (formally CORGI) www aassafereaister co uk Any serious deficiencies that affect safety will be noted and may be shared with third parties Boat Safety Scheme issues are compared to the Boat Safety Scheme essential guide only. A boat Safety Scheme Certificate is rather like an M.O.T. on a car and does not guarantee suitability or safety.
Electrical, plumbing, heating and other services are inspected where visible but not operated unless presented in commission. Electrical wiring is inspected visually only in all cases.

FINDING A-2

GAS SHUT-OFFS

At the bottles. Individual appliance isolation valves not observed.

GAS LINES & FITTINGS

Seamless copper pipe, with out of date flexible hose at bottles and galley cooker connection.

GAS REGULATOR

A Gas Regulator was installed inline.

GAS PRESSURE GAUGE

None sighted.

LPG GAS FUME DETECTORS

No gas detector observed.

COMMENTS

The vessels LPG system was beyond the scope of this survey and should be checked by a registered Gas Safe engineer certified for marine installations. I always recommend performing a Gas Leak Test regardless. Secure gas bottles.

17.1 VESSEL DOCUMENTATION

HIN (HULL IDENTIFICATION NUMBER) COMPLIANCE (33 CFR 181)

The vessel's WIN (Watercraft Identification Number) was displayed on the starboard upper transom corner, though it was not found at a hidden area of the vessel. All boats manufactured or imported on or after June 16th, 1998 must comly with the essential requirements specified in the Recreational Craft Directive (RCD) and bear a WIN. The primary WIN must be permanently affixed (so that it can be seen from outside the boat) to the starboard side of the transom within two inches of the top of the transom, gunwale or hull/deck joint, whichever is lowest.

More information can be obtained from the RYA at www.rya.org.uk/knowledge-advice/legal/buying-a-boat/Pages/recreational-craft-directive.aspx.

What to look out for.

Identification Number (WIN)

All RCD compliant boats are marked with a Watercraft Identification Number (WIN) which provides the country code of the manufacturer, unique code of the manufacturer assigned by an approved EU RCD authority, unique serial number , month and year of production and model year.

Owners Manual

All RCD compliant craft must be supplied with an Owners Manual. The Owners manual must provide all the information necessary for safe use of the vessel drawing particular attention to set maintenance, regular operation, prevention of risks and risk management.

Builders Plate

A builders plate must be affixed to all RCD compliant watercraft. The builders plate includes:

. the CE mark(a mark used to indicate product conformity for supply in the EU and EEA)

. the builders name and contact address

. the design category (Normally D for inland waterways).

. he builders maximum recommended load.

The CE marking plate must be in a visible, legible and indelible form.

In the case of a post construction assessment, the contact details of the notified body which has carried out the assessment are included in place of those of the builder and the words 'post construction assessment are also included.

FINDING C-7

DOCUMENTATION COMPLIANCE

License displayed. Current BSS certificate not seen. Please note Gold Licence (EA & CRT) advertised in sale. This is not transferable and a suitable new licence must be purchased on purchase.

18.1 SAFETY EQUIPMENT

SAFETY EQUIPMENT

LIFE JACKETS

Wearable life jackets must be readily accessible. Worn by non swimmers and in tunnels and rivers. You should be able to put them on in a reasonable amount of time in an emergency (vessel sinking, on fire, etc.). They should not be stowed in plastic bags, in locked or closed compartments, or have other gear stowed on top of them.

LIFEBOUYS

None sighted.

FINDING B-11

FIRE EXTINGUISHERS

Two dry powder 5A 34B extinguishers. NOT mounted. Gauges all indicating an acceptable pressure

FINDING A-3

MOUNTED IN GALLEY

Fire blanket onboard though not mounted.

FINDING A-4

SOUND PRODUCING DEVICES

12 Volt DC Electric Horn. Operated.

COMMENTS

Safety information is available from the RYA http://RYA.org.uk and BSS www.boatsafetyscheme.org/stay-safe/

AUXILIARY SAFETY EQUIPMENT

FIRST AID SUPPLIES

None sighted. Highly recommend a first aid Kit is carried onboard with the periodic renewal of any outdated medical supplies.

CARBON MONOXIDE DETECTORS

Sighted though not mounted. . Highly recommend installing Carbon Monoxide Detectors inside all of the accommodation spaces.

FINDING A-5

SMOKE DETECTORS

None sighted. Install Smoke Detectors inside the accommodation spaces. Two recommended , one in each cabin.

FINDING A-6

BILGE PUMPING SYSTEMS

ELECTRIC BILGE PUMPING SYSTEMS

A small submersible 12 Volt DC bilge pump was observed in a bucket under the stern gland.. Switch below DC electric panel. It was not operating.

FINDING A-7

19.1 SUMMARY

VESSEL CONDITION

"NB Elisa" hull is in very good condition. Once the recommendations listed in this report have been attended and a preventative maintenance schedule adhered to "NB Elisa" could be a comfortable cruising home.

SUMMARY

In accordance with the request for a Marine Survey of the "NB Elisa", for the purpose of evaluating its present hull condition only, I herewith submit my conclusion based on the preceding report. The subject vessel was personally inspected by the undersigned on 25/03/2021. 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.

SURVEYOR'S CERTIFICATION

I certify that, to the best of my knowledge and belief:

The statements of fact contained in this report are true and correct.

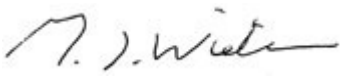
The reported analyses, opinions and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, unbiased professional analyses, opinions and conclusions.

I have no present or prospective interest in the vessel that is the subject of this report and I have no personal interest or bias with respect to the parties involved.

My compensation is not contingent upon the reporting of a predetermined value or direction in value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulated result or the occurrence of a subsequent event.

I have made a personal inspection of the vessel that is the subject of this report.

This report is submitted without prejudice and for the benefit of whom it may concern.



Principal Surveyor
Mark J. Wiater AMYDSA MIIMS
25/03/2021

BOAT OWNERS INFORMATION

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. Check that all windows and doors are secure: Improve window hardware as necessary. Security rods 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.

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.

V.A.T. Status and proof of ownership:

The original purchase invoice confirms that V.A.T. has been paid so long as the vessel is properly identified. This invoice should be kept in the owners manual. This is only important if the vessel is to be taken abroad.
If you do not have proof of V.A.T payment and take your vessel abroad you may be charged V.A.T again.

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.

Small Ships Register:

Some vessels are registered with the Marine Coastguard Agency on the Small Ships Register 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 Canal and River Trust. 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.

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. 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

STOVE

Flue condition good with no evidence of scorching. Lower flue seal needs resealing. No evidence of scorching where the flue passed through the headlining. Fire bricks and glass in servicable condition. Door seal must be replaced before lighting. Coal storage under steps. Tiled suround. NO chinney observed onboard.

FINDING A-1

Solid fuel stove condition.

RECOMMENDATION

Reseal flue. Replace door seal. Obtain chimney, rain hat and flue rain cover.

GAS TYPE

LPG (Liquified Petroleum Gas/Propane). Two 13 kg gas canisters in the forwards gas locker with acceptable overboard drainage. Locker floor visually serviceable subject to painting. Gas canisters were not secured.

No Bubble tester fitted.

Age of flexible pipe was dated as 2004

Limitations of Inspection as laid out in inspection contract

A full gas installation inspection can only be carried out by a suitably qualified gas operative registered with Gas Safe as a specialist LPG engineer with an endorsement to work on boats Please note this survey is not any kind of gas safety certificate. That is only obtainable in the UK after comprehensive pressure testing and assessment by a qualified person listed on the Gas safe register (formally CORGI) www aassafereaister co uk Any serious deficiencies that affect safety will be noted and may be shared with third parties Boat Safety Scheme issues are compared to the Boat Safety Scheme essential guide only. A boat Safety Scheme Certificate is rather like an M.O.T. on a car and does not guarantee suitability or safety.
Electrical, plumbing, heating and other services are inspected where visible but not operated unless presented in commission. Electrical wiring is inspected visually only in all cases.

FINDING A-2

Low pressure flexible gas hose must be replaced

RECOMMENDATION

Fit new hoses and a bubble leak detector.

FIRE EXTINGUISHERS

Two dry powder 5A 34B extinguishers. NOT mounted. Gauges all indicating an acceptable pressure

FINDING A-3

Mount extinguishers where they can be seen and easily deployed.

RECOMMENDATION

Mount the fire extinguishers at prominent locations of the vessel.

MOUNTED IN GALLEY

Fire blanket onboard though not mounted.

FINDING A-4

Umounted fire blanket.

RECOMMENDATION

Mount in readily accessible location in galley away from the cooker.

CARBON MONOXIDE DETECTORS

Sighted though not mounted. . Highly recommend installing Carbon Monoxide Detectors inside all of the accommodation spaces.

FINDING A-5

Carbon Monoxide Detectors were notmounted.

RECOMMENDATION

Fix to structure.

SMOKE DETECTORS

None sighted. Install Smoke Detectors inside the accommodation spaces. Two recommended , one in each cabin.

FINDING A-6

Smoke detectors.

RECOMMENDATION

Install in each cabin.

ELECTRIC BILGE PUMPING SYSTEMS

A small submersible 12 Volt DC bilge pump was observed in a bucket under the stern gland.. Switch below DC electric panel. It was not operating.

FINDING A-7

Bilge pump operation and installation.

RECOMMENDATION

Investigate further/trace, and service, repair or replace as necessary. Fix to bilge sole.

B: RECCOMENDATION

SIDE PLATING

The side plates above the water line were clean and fair though covered in thick slime and calcium deosts. The paintwork above the waterline was in fair condition. There was no visible evidence of significant impact damage or indentation. The side plates were coated in a layer of epoxey blacking. In places epoxey blacking had detached and should be sanded and repainted at the next slipping. Slight plate deformation from construction particulary on the Stbd. topsides.

The welding to the hull was a little uneven but believed to be serviceable. Welded butt joints were externally inspected, were tidy and unobtrusive and hammer tested serviceable. Waterline pitting was minimal. Aggressive hammer testing below the waterline produced no evidence of weakness in the steelwork. Sample hammer testing carried out around welds gave no indication of weakness.

The rubbing bars were welded top and bottom, which was considered good practice.

FINDING B-1

Hull epoxey coating.

RECOMMENDATION

sand back bare areas and repaint in the future.

DECK ARRANGEMENT

Self draining foredeck with gas locker hatch with broken hinges. Self draining well deck. Aft deck with cants and varnished plywood hatch over the engine bay.

FINDING B-2

Vanished hatch cover.

RECOMMENDATION

The hatch cover will be slippery when wet. AA simple solution would be to attch self-adhesive non slip tapr to cover.

BILGES

Fwd. Bilge was covered by flooring and could not be examined. Only the aft engine bilge could be inspected. Bucket below stern gland with small submersible pump. Not tested.

FINDING B-3

Small submersible pump in bucket. Not working.

RECOMMENDATION

Investigate further, trace all sources of water and address as necessary.

COCKPIT/AFT DECK EQUIPMENT

Aft cockpitwith two deck lockers with varnished wooden tops.

FINDING B-4

Varnished locker lids.

RECOMMENDATION

Will be slippery when wet. Attach non-slip tape as recommended for engine bay hatch.

MOORING ARRANGEMENT

T-stud mooring point on bow. Two mooring dollies on stern. Twin centre lines on Coachroof. two stakes onboard.

FINDING B-5

Mooring arrangements.

RECOMMENDATION

Get a heavy club hammer and additional mooring stakes and mooring hooks.

FENDERS

Servicable bow rope fender. various plastic fenders and lines. fender attachtment points on superstructure. Steel folding stern fender arrangement. Rubber stern fender missing.

FINDING B-6

Missing stern fender.

RECOMMENDATION

Attach rubber bad on stern or adapt a rope fender as nessacary.

PROPELLER SHAFTS

Stainless steel shaft running through water lubricated stern tube with conventional cord type stuffing box stern gland with remote greaser in cockpit locker. NO grease observed onboard.

FINDING B-7

NO spare grease for stern gland observed onboard.

RECOMMENDATION

Obtain a suitable water resistant grease to refill greaser,

BATTERY CHARGERS

Battery charging from engine driven alternators only.

FINDING B-8

Battery charging.

RECOMMENDATION

See comments under AC electricity.

GALVANIC ISOLATION SYSTEM

NO Galvanic protection.

FINDING B-9

NO galvanic isolator.

RECOMMENDATION

If a method of shore supply is installed then a galvanic isolator is strongly recommended.

NAVIGATION LIGHTS

Tunnel Light . Not operational.

FINDING B-10

The tunnel light did not illuminate when tested.

RECOMMENDATION

Investgate and repair. Possibly install a waterproof LED unit

LIFEBOUYS

None sighted.

FINDING B-11

No lifebuoy observed.

RECOMMENDATION

Install.

C: SURVEYOR'S SUGGESTION & OBSERVATIONS

BOARDING SWIM LADDER

Two extensions to counter plate extend outwards for foot steps to aid boarding.

FINDING C-1

The vessel did not have an approved boarding ladder installed for safe boarding of the vessel from the water in an emergency.

RECOMMENDATION

A short three metre alloy ladder can be utilised for boarging from the canal or bank. Recommened.

VESSEL LIST

A large amount rusting of pig iron trim ballast was observed in the engine space aft and in the port aft locker.

FINDING C-2

Iron trim ballast.

RECOMMENDATION

Possibly not required once vessel is loaded with persnel gear. If the trim requires attention then punched nut centres in sealed heavy duty plastic bags is a much better option.

RUDDER MOUNTING

Rudder mounted in lower cup bearing on 6 mm steel U-section skeg welded to base plate. Upper bearing with noticable play mounted on aft deck.

FINDING C-3

Upper rudder bearing play.

RECOMMENDATION

Replace inner rubber sleeve to reduce vibration underway.

EXTERIOR STORAGE

Various exterior lockers and storage areas appeared serviceable, though with corrosion on aft deck.

FINDING C-4

Corroded lockers.

RECOMMENDATION

Clean rust and refinish the coatings, as necessary.

EXTERIOR COVERS

No covers.

FINDING C-5

No tournou cover for aft deck.

RECOMMENDATION

I would stronglyrecommend a cover over the aft cockpit to keep water out of the engine bay.

TOOL BOX

No tools or spares observed onboard.

FINDING C-6

NO tools or spares observed onboard.

RECOMMENDATION

Recommend obtaing manfacturers spares kit to include filters and belts. Oil and antifreeze.

HIN (HULL IDENTIFICATION NUMBER) COMPLIANCE (33 CFR 181)

The vessel's WIN (Watercraft Identification Number) was displayed on the starboard upper transom corner, though it was not found at a hidden area of the vessel. All boats manufactured or imported on or after June 16th, 1998 must comly with the essential requirements specified in the Recreational Craft Directive (RCD) and bear a WIN. The primary WIN must be permanently affixed (so that it can be seen from outside the boat) to the starboard side of the transom within two inches of the top of the transom, gunwale or hull/deck joint, whichever is lowest.

More information can be obtained from the RYA at www.rya.org.uk/knowledge-advice/legal/buying-a-boat/Pages/recreational-craft-directive.aspx.

What to look out for.

Identification Number (WIN)

All RCD compliant boats are marked with a Watercraft Identification Number (WIN) which provides the country code of the manufacturer, unique code of the manufacturer assigned by an approved EU RCD authority, unique serial number , month and year of production and model year.

Owners Manual

All RCD compliant craft must be supplied with an Owners Manual. The Owners manual must provide all the information necessary for safe use of the vessel drawing particular attention to set maintenance, regular operation, prevention of risks and risk management.

Builders Plate

A builders plate must be affixed to all RCD compliant watercraft. The builders plate includes:

. the CE mark(a mark used to indicate product conformity for supply in the EU and EEA)

. the builders name and contact address

. the design category (Normally D for inland waterways).

. he builders maximum recommended load.

The CE marking plate must be in a visible, legible and indelible form.

In the case of a post construction assessment, the contact details of the notified body which has carried out the assessment are included in place of those of the builder and the words 'post construction assessment are also included.

FINDING C-7

RCD Compliance. NO documentation observed.

RECOMMENDATION

Due to the vessels age the boat should have RCD marking. THIs is often omitted on narrow boats.