

MARINE ENGINEERING SERVICES

Yacht and Small Craft Surveyors

Proprietor: Ricky Tropman

4 Crow Hill, Palterton, Chesterfield, S44 6UP

Converted Canal Barge
"Rose"

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Structural Survey

Canal Barge

“Rose”

Report Reference: RT-H190327

27th March 2019

Craft Data

Craft Type: *Pleasure Craft, Ex Working Canal Barge*

Hull *Displacement*

Built by: *Yarwood*

Build (Hull): *Said to be Circa 1910*

BW No: 54981

Craft Limitations *Category “D” Waters*

Specifications: *LOA 40’ (Dimensions are approximate only)*

Beam 13’4”

Draught 3’5”

Engine: *Perkins, 3-cylinder, diesel, with shaft drive*

Conditions of Survey

- The weather was cool and overcast at the time of survey.
- The client was present at the time of the survey.
- The craft was slipped prior to the survey
- No documents or compliance with any regulations have been checked as part of this survey.

This Insurance / structural survey was carried out on the slipway at “Hirsts Boat Yard”, Knottingley on the 27th March 2019 on the instruction of:

Peter Adams.

This survey has been carried out on the express understanding that we are legally liable to the above client only and not to any subsequent holders of this report.

General Description

The craft "Rose" is an ex-canal barge said to have been built as a dumb water tanker working out of hull. Work was started in 1970 to convert the barge into a pleasure craft and said to have been completed circa 1990, the work included, enclosing the hold with steel plates, a fixed steel wheel house an engine and accommodation.

The hull is riveted construction, with panhead rivets, overlapped said to be, constructed of low moor iron.

Various minor previous repairs were evident by way of capped rivets, a small mild steel over plate was evident at the bow starboard side but no sign of serious repair.

Hull Exterior

The exterior above the waterline was coated in a black bitumen type paint which had been applied prior to the survey.

The structure was the original riveted plating. The plating and riveting are to a good standard with no undue rippling or buckling evident, various minor distortions evident due to its previous working life and is by no means any short coming in the construction.

The plate thickness was tested using a "Cygnus Six Plus" ultra-sonic gauge. Readings were recorded in bands around the hull at 3' intervals.

Readings recorded along the centre plates ranged between 5.7mm and 9.5mm.

Readings on the mid plates ranged between 5.9mm and 9mm. The readings recorded on the outer plate to the wind and waterline ranged between 5.3mm and 9mm.

A single reading mid ships port side was lower than the remaining hull, measuring, 2.7mm, an area approximately 24" x 7", was chalked and indicated for over plating.

A single eroded rivet head was also marked for welding, starboard side mid ships.

The hull was extensively hammer sounded across the entire under water section which revealed no further defects.

Note: A single area starboard side at the bow had previously been over-plated using a 6mm plate, the repair was to a good standard.

Recommendations

Over plate the chalked and indicated area, mid ships port side.

Cap weld the eroded rivet starboard side.

Hull Internal Structure

The bulkheads, deck beams and frames, that could be seen, were found to be well secured and free of distortion (where accessible) spaced at 2' 2" intervals. The visible frames all remain serviceable.

Recommendations

None.

Through Hull fittings

The through hull fittings below the waterline consists of:

- Engine inlet coolant.
- Generator coolant inlet
- Toilet outlet.
- Sink outlet.

All were fitted with closable valves which operated freely and appeared in good order. Engine and generator inlets are raised to the waterline level using steel pipes.

Recommendations

None.

Deck & Fittings

The deck of the craft is steel and fairly robust, the hold has been enclosed using steel plates the area was coated with an oil-based paint which is due to be recoated, minor surface corrosion evident. The windows are all glass in alloy frames and found to be in good condition. Four mushroom vents along the roof provided ventilation for the cabin space.

There was no evidence of any undue damage or distortion to the area.

There was a robust original bulwark at the bow, a steel rail around the stern and robust steel stanchions along the decks with a steel life line. There is a steel tubular grab rail along the cabin roof and wheel house, all found to be secure and in good order.

The super structure has a mild steel tabernacle and steadying mast mounted, forward. Steel mooring bollards are robust and original, eight in total, all found to be in good order and secure.

Recommendations

Prepare and paint as required.

Ground Tackle

A large Danforth type anchor is stowed on the foredeck, alloy in construction. Attached to a good length of chain with a manual windlass mounted on the fore deck.

Recommendations

None.

Interior

The interior fit-out is to a good standard with good quality materials. The sole is timber planked and the sides panelled with tongue and groove cladding. The insulation was found to be fibre glass wool. Four mushroom vents along the roof provide high level ventilation; two horns at the bow are trunked to provide low level.

The wheelhouse is constructed in mild steel plate and timber lined. Glass in alloy windows all around the structure allowing good all-round vision. The entry doors are steel, fairly robust and secured with a hasp. Hasp is port side with the relevant controls.

Steering system

The crafts steering system is hydraulic, with a rotary manual pump at the helm, controlled by a wheel at the helm. There is a ram mounted on the aft deck, linked directly to a rudder stock lever. The steering was smooth in operation.

An emergency tiller is stowed at the wheel house and slots into the rudder stock in case of hydraulic failure.

Recommendations

None.

Engine

Type: Perkins (3-Cylinder), diesel with “Newage” gearbox and shaft drive.

The engine was found to be in good condition with no undue corrosion with no evidence of serious oil or water leaks. Installed on steel bearers. The exhaust and hoses were in good order.

The unit is raw water cooled.

Recommendations

None.

Fuel system

The craft is equipped with two mild steel fuel tanks, a single tank located either side of the engine bay, the tanks were found to be in good condition with no undue corrosion visible, the starboard tank supplies the engine and generator the port tank supplies the stove.

Fuel is conveyed from the tanks via copper and fire-resistant flexible hose with inline filters.

The isolation valves are at the outlets.

A slight leak was noted at the starboard outlet.

Recommendations

Rectify the slight leak at the starboard tank outlet.

Stern Gland and Drive Coupling

The drive coupling is a nylon flexible type which was secure and in good order. The stainless-steel drive shaft was also in good order. The stern gland was a conventional packed type, fit with a remote greaser, the gland held grease pressure.

A large amount of water was evident below the gland.

Recommendations

Dry the area below the gland, grease and adjust the gland as required.

Galvanic Protection

The hull is fit with ten sacrificial anodes in all, (six recent) which are well positioned, wearing normally and have approximately 75% life remaining.

The propeller shaft is also fit with an additional anode, which appears static (possibly zinc).

Recommendations

None.

Rudder

The rudder is a mild steel blade, mounted on the stern, supported a steel skeg at the base, with brackets on the stern post.

The rudder pivots freely in the gudgeons on the stern post.

All was in good condition with no excess free play noted in the system.

Recommendations

None.

Hangings

The three bladed right handed 22" propeller was in good condition, true to the eye when rotated by hand. With no undue distortion or corrosion noted, the propeller was well secured to the shaft with two nuts and split-pin.

The 2" stainless steel drive shaft was also in good order with only minor free play noted on the outer bearing.



Recommendations

None.

Summary

The craft was found to be in good condition and well presented. The conversion of the craft has been done to a good standard, the on-going maintenance and up keep of the craft is to a good standard. With the small area of indicated over plating carried out and the defective rivet welded.

The craft "Rose" should represent a normal risk for the purpose of insurance.

Normal limitations of survey:

Hull - No skin fittings or bolts have been drawn and we have not inspected woodwork or other parts of the structure which are covered, unexposed or otherwise inaccessible. We are therefore unable to report that any such part of the structure is free from defect.

R. Tropman A.I.I.M.S

Marine Surveyor

Marine Engineering Services

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Details of Work

Cost

To carry out a survey of the above-mentioned craft at "Hirsts Boat Yard" Knottingley on the 27th March 2019, and the supply of the survey report (Ref: RT-H190327)

Total Fee Due: £400