



ANCHOR HOUSE MARINE SURVEYS

Limited Outer Bottom Survey

Fairline Phantom 43AC

'Quirky Lady'

Port Solent Marina, Portchester, Hampshire, UK

Friday 28th October 2022

Prepared on Behalf of the Purchaser

Mr. [REDACTED]



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Summary

'Quirky Lady' is a Fairline Phantom 43AC built in 1997 by Fairline Boats, Oundle, UK to a design by Bernard Olesinski. Of the areas inspected, she was found to be in overall good condition showing evidence of having had regular use but requiring servicing and maintenance to various seacocks and there is salt water in the bilges due to various leaks. She appears not to have been altered from her original design. The main summary of points is as follows:

1. The internal structure where seen is clean with no evidence of any movement, though there is long standing salt water in the bilges aft.
2. The antifoul is in Coppercoat and overpainted with a thin layer of black antifoul. The gel condition is good and the outer bottom laminates were tested for moisture content with the resulting readings being in the dry. The Coppercoat has reacted to the metallic skin fittings and possibly with the bonding system as around the components, the costing is very blistered.
3. The stern gear is in a serviceable condition overall, though there is a knock from the starboard side cutlass bearing area.
4. The steering gear is in a serviceable condition, though there is strong corrosion / patina to the copper hydraulic fuel lines due to a leak possibly through the bathing platform fender fixings.
5. The various seacocks are in an average state, but all requiring a service.
6. The bonding system is poor, incorrect and not professionally installed.

This is a good example of a Fairline Phantom 43AC where inspected and with all maintenance issues addressed, 'Quirky Lady' should give good service for many years.

Within this report, any issues found are graded for your information according to severity as:

"Urgent Recommendation"	Must be done urgently before re-floating and certainly before any use is made of the vessel.
"Recommendation"	Should be done at the earlier of next docking or within twelve months or such other time scale as may be specified.
"Suggestion"	For information and consideration but not particularly significant to safety at this stage.
"Note"	For information only.

Circumstances

The survey was carried out on the 28th of October 2022. 'Quirky Lady' was inspected ashore at Port Solent Marina, Portchester, Hampshire, UK. The weather at time of inspection was fine and clear with medium south westerly winds at 17°C. The survey was carried out on the instruction of Mr. [REDACTED] to ascertain the condition of the yacht and produce a report prior to purchase.

No fastenings were drawn and no paint was removed above the water line externally. No areas of paint were removed below the waterline to determine coatings makeup due to a 'Coppercoat' epoxy resin application. Moisture meter readings were taken to determine the moisture content of the hull laminate. The hull was examined externally above and below the water line and internally where accessible, elsewhere internal mouldings prevented examination. The cabin soles, bunk boards, hatches and portable joinery were removed as necessary to gain access to the interior of the vessel.

Please note: This condition report is correct as per the date of survey stated above and as such, it cannot be guaranteed for any time after the survey was undertaken.



Description of the Yacht

'Quirky Lady' is an all glass fibre construction, deep 'V' planing hull with a raked entry bow and a transom stern, carrying her maximum beam aft of amidships.

She was built by Fairline Boats, Oundle, UK in 1997.

The yacht's principle dimensions as supplied are set out below:

Length Overall	13.60m
Length of Waterline	13.13m
Beam	4.11m
Draft	1.09m (approx.)
Displacement	12.20 tonnes (approx.)
Engines	2 x Volvo Penta TAMD-63P-A 6-cylinder turbocharger diesel
Stern Gear	Conventional shafts
Fuel Capacity	1318 litres (approx.)
Water Capacity	460 litres (approx.)
Yard No.	n/r
SSR No	



Hull

Underwater Hull:

All GRP construction with deep 'V' planing hull with raked entry bow and a transom stern, carrying her maximum beam aft of amidships. This is in good overall condition.

Coatings:

The antifoul is in 'Coppercoat', which the owner stated is 7 years old, and is overpainted with a thin black antifoul layer which is flaking and peeling in areas. However, around the various metallic skin fittings, the Coppercoat has reacted and blistered all the way around. Precisely why this has happened is unknown, but it is possible the different metals have reacted. It may also be a result of this plus the electrical bonding of the majority of the fittings all reacting as one, as the sea water acts as an electrical conductor between the various metals. Where the blistering was scraped away, the Coppercoat is still in a serviceable condition.



Fig.1 – Coppercoat blistering / reaction around skin fittings.

Gel Condition:

The gel was inspected and is smooth with no clear signs of any blistering, delamination or damage.

Hull Below Waterline:

Moisture readings were taken with a 'Protimeter' Aquant 2 meter at more than 100 positions over the outer bottom two days after being lifted ashore. The scale used is 0 – 160 (dry) / 161 – 200 (medium) / 201 – 999 (wet) and produced the following readings:

- Hull – this produced readings ranging from 70 to 160 which is in the dry scale, but where the meter was placed on the blistering patches, the readings were maximum. The hull around the bow thruster tunnel returned dry scale readings as well as around the stern thruster on the transom.
- Transom – readings ranged from 120 to 150 which is in the dry scale.

Floors / Stiffening:

There are moulded fore and aft stringers and frame sections bonded to the hull with GRP coated, marine ply floors bonded between the hull and deck tray to give extra stiffness to the structure. Where seen, there are no clear signs of any movement but there is salt water in the bilge, particularly aft due to a leak from the starboard stern gland. The fore cabin deck access panel cannot be accessed as the carpet has been glued over the top.

Recommendation

Remove all black antifoul. Scrape back all blistered Coppercoat back to a fresh layer. Remove the Coppercoat around all metallic components and fittings back to bare GRP, leaving around a 1" gap.

Cathodic Protection

Anodes:

- There are 2 x bar anodes securely fitted outboard of the shafts.
- There is a circular anode securely fitted to each trim tab.
- There is a circular anode securely to the boss of each bow thruster propeller.

Bonding:

The bar anodes are electrically bonded to the P brackets, rudders and certain seacocks, though the rudders and seacocks were not tested due to distance considerations. Where tested, continuity is excellent and resistances are all below 1Ω. Internally the wire connections are not properly connected and thus will likely cause more issues than they prevent. All bonding wires must be either welded or screw tapped to the bodies, not by using jubilee clips. The further away an anode is from the item to be bonded reduces effectiveness.

Wastage:

The bar anodes are wasted by approximately 20% and the trim tab anodes by up to 50% and are also beginning to crumble. All anodes should be replaced and it is recommended to fit circular anodes to the shaft, at least 6" forward of the P bracket cutlass bearing openings and secured at each end by tie wraps to stop the anodes sliding.

Hull Openings, Seacocks and Fittings

Sea Water Coolant Inlets:

- The engine coolant inlets are located aft of midships and outboard of the keel and are 2 x securely fitted, forward facing stainless steel scoops. Both are in a clean condition but there is some light paint build-up noted in the grills. Internally, both seacocks are brass bodied ball valve types in a serviceable condition, but the handles are loose and the outlets are in double clipped wire reinforced hose.
- The generator coolant inlet is located at midships on the starboard side and is a secure, small bore bronze inlet in good condition. Internally, this is fitted to a brass bodied ball valve seacock and strainer which operated satisfactorily but has corrosion to the handle. Access and visibility was limited but the outlet is in single clipped translucent hose.
- There is a secure, small bore bronze inlet located adjacent to the generator inlet but on the port side. Internally, this is fitted to a blanked off seacock which is in an average condition but the handle has surface corrosion.



Fig.2 – salt deposits and corrosion to the forward toilet inlet seacock base and handle.

Recommendation

Replace all anodes with aluminium which is for fresh and salt water.

Recommendation

The bonding system ultimately requires replacing with a professionally installed system. It is advised to discuss this with a competent marine electrical engineer.

Recommendation

Free up any tight seacocks and service all seacocks, removing deposits and corrosion. Ensure all hoses are double clipped and where necessary, replace any poor condition seacocks.

Note

All seacocks must be 'CR' or 'CW602N' marked types, full bronze types or 'Marelon' plastic types. Do **not** use 'CW617N' marked brass types.

Toilet Inlets / Outlets:

- The forward cabin toilet inlet is located aft of the bow thruster tunnel on the port side and is a secure, small bore bronze fitting in good condition. Internally, this is fitted to a 'CR' marked (corrosion resistant) brass bodied ball valve seacock which operated satisfactorily but has salt deposits and corrosion noted in areas with corrosion to the handle base. The outlet is in double clipped clear reinforced hose.
- The forward cabin toilet outlet is located aft of the bow thruster tunnel on the starboard side and is a secure, medium bore bronze fitting in good condition. Internally, this is fitted to a 'CR' marked brass bodied ball valve seacock which is seized open and has salt deposits and patina noted in areas. The outlet is in double clipped green reinforced hose.
- The aft cabin toilet inlet is located forward of aft on the port side and is a secure, small bore bronze fitting in good condition. Internally, this is fitted to a brass bodied ball valve seacock which operated satisfactorily but has quite strong deposits and corrosion to the upper section with corrosion to the handle base. The outlet is in double clipped green and white reinforced hose.
- The aft cabin toilet outlet is located forward of aft on the starboard side and is a secure, medium bore bronze fitting in good condition. Internally, this is fitted to a 'CR' marked brass bodied ball valve seacock which operated satisfactorily and has areas of corrosion and patina noted and there is corrosion to the handle base. The outlet is in double clipped white / sanitary reinforced hose.

Recommendation

Free up any tight seacocks and service all seacocks, removing deposits and corrosion. Ensure all hoses are double clipped and where necessary, replace any poor condition seacocks.

Note

All seacocks must be 'CR' or 'CW602N' marked types, full bronze types or 'Marelon' plastic types. Do **not** use 'CW617N' marked brass types.

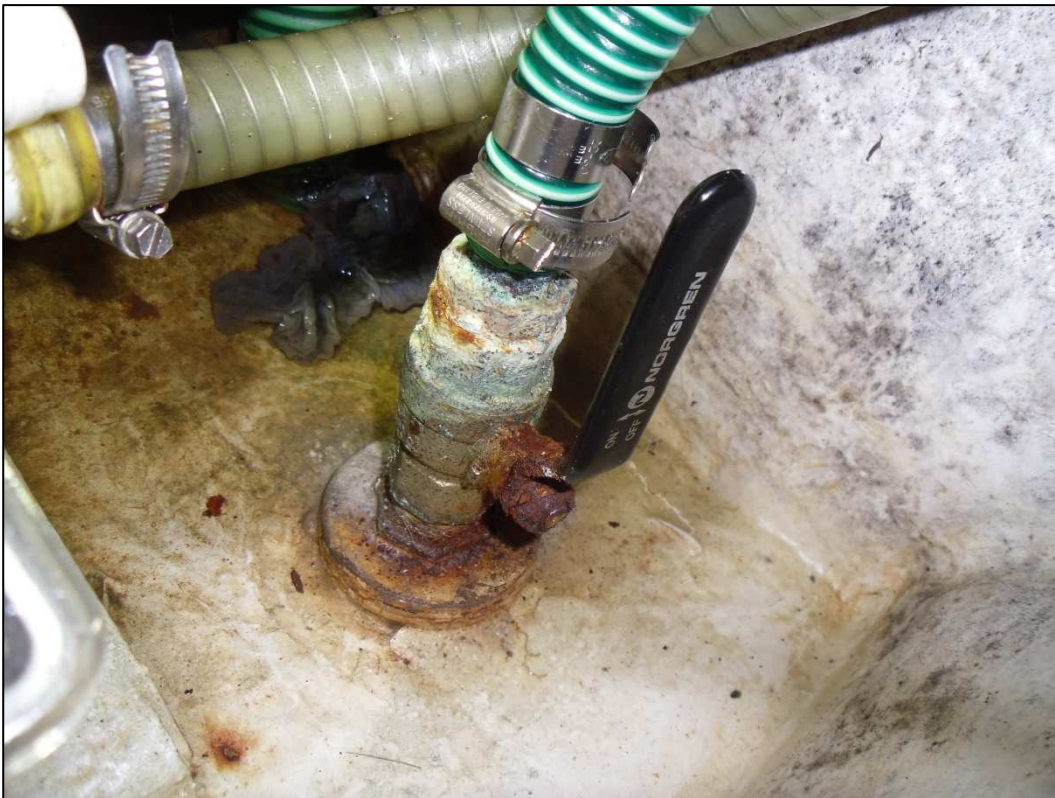


Fig.3 - deposits and corrosion to the aft toilet inlet seacock and handle.

Transducers:

- Located aft on the starboard side is a thru hull plastic paddle wheel speed log transducer and the wheel spins freely. This was not seen internally and so it is advised to ensure there are no leaks through the fitting.
- Fitted through the keel at midships is a thru hull depth transducer. This was not seen internally as it requires the removal of the engine compartment treadplate and so it is advised to ensure there are no leaks through the fitting.

Recommendation

Once all the bilge water is removed, ensure the transducers do not leak.

Stern Gear

Propellers:

There are 2 x four blade, outward turning bronze propellers fitted in overall good condition with mainly clean edges and tips, though there is some light edge chipping / deformation. There were no signs of dezincification and hammer testing produced a good ring overall.

Shafts:

The propeller shafts are in temet (iron content) stainless steel, in a serviceable condition and rotated satisfactorily when turned by hand. However, upon initial take up when rotating the starboard propeller in both directions there is a knock heard. Though not seen at the time, it is possible the cutlass bearing is slightly loose or the coupling has some play, though the engineer reported the coupling to be tight and secure.

Securing Arrangements:

Each propeller is securely fitted to the shaft via a hex nut with tab washer bent.

P Brackets:

These are in bronze, securely fitted and in a good condition. The palms are securely located where seen with no clear signs of any large gaps in the sealant on both units.

Cutlass Bearings:

There is negligible play in both bearings, but the starboard one may be slightly loose in the P bracket due to the knocking heard, but no clear movement was seen at the time of survey.

Stern Tubes:

The stern tubes are in GRP with inner bronze sleeves holding the bearings and these are secure where seen with no clear signs of any wear or movement noted.

Stern Glands:

These are water cooled, mechanical face seal types with the port unit in a serviceable condition under the aft cabin deck. This is dry, though there is evidence of a previous leak. The starboard unit is located under the shower tray but this one has a leak and corrosion is starting to appear on the seal ring.

Recommendation

Inspect the starboard cutlass bearing for any movement. If not, have a marine engineer check for the source of the knock with the yacht out of the water.

Recommendation

Repair or replace the starboard stern gland. Monitor both regularly.



Fig.4 – starboard stern gland has a leak with long standing salt water in the bilge.

Steering Gear

Mechanism:

The rudders are turned via a hydraulic ram and tiller link arm installation operated from the twin helm power steering circuits. However, it was noted that the main copper lines are showing various areas of corrosion / patina along their length, heaviest in the starboard corner where seen and were all wet at the time of survey. There is a leak coming through the starboard aft end / bathing platform which is corroding the copper pipes in the area. It was noted the bathing platform rubbing strip is missing and leaks may be coming through the various fixings.

Recommendation

Replace the copper pipes with modern hydraulic hoses as an upgrade. Resolve the leak and reinstate the missing fender strip.

Rudders:

There are 2 x unsupported, clean bronze spade rudders with no signs of dezincification.



Fig.5 – various water leaks from the aft end / bathing platform on the starboard side.

Trunks and Glands:

The stocks are topped with bronze tiller arms with no clear signs of any leaks through the glands, but both are greased.

Bearings:

There is some very light, almost negligible play detected in the starboard bearing and no detectable play in the port bearing.



Fig. 6 – hydraulic copper pipes all showing signs of heavy patina / corrosion.

Trim Tabs:

There are two stainless steel trim tabs securely attached to the transom. These are operated by single acting, hydraulic rams which are securely fitted to the tab and transom. The return spring action was serviceable when the tabs were pushed down.

Bow Thruster:

There is an electric bow thruster securely fitted with 2 x five bladed steel propellers in a coated but serviceable condition. These rotate freely with no binding on the tunnel and have around 3-4mm of backlash present. Internally, access was not possible as the fore cabin carpet had been glued down, covering the access panel. But it was possible to photograph the installation around the bulkhead and where seen, the tunnel is clean with no clear signs of any leaks.

Stern Thruster:

There is a 'Sleipner' Sidepower thruster externally secured to the transom with 2 x four bladed plastic propellers in a coated but serviceable condition. These rotate freely with no binding on the tunnel and have around 2-3mm of backlash present.



Fig.7 – areas of long standing salt water extreme aft and outboard on the starboard side.

Statement

This report is a true and accurate description of 'Quirky Lady' as far as could be ascertained at the time of the survey, but no guarantee is given or implied. We have not inspected equipment, woodwork or other parts of the structure which are not included within this report or were covered, unexposed or inaccessible and we are therefore unable to report that any such part is free from defect.

The potential purchaser should satisfy themselves that all systems which could not be tested or inspected at the time of survey are operable.

The yacht has not been examined for compliance with any code, rule, or craft directives and no opinion as to such compliance is expressed or implied.

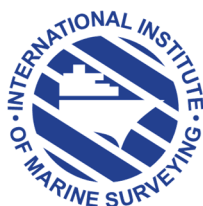
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This report is submitted without prejudice.



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