

H T Bettle & Co



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Marine Yacht Surveyor



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Jeanneau Sun Odyssey 40



Vessel name: [REDACTED]

Type of vessel: Jeanneau Sun Odyssey 40 Fin Keel GRP sloop

Vessel Lying: Chichester Marina.

Purchaser: [REDACTED]

Email: [REDACTED]

Date of Survey: 20/09/2022

Survey was conducted for [REDACTED] for the purpose of Pre-Purchase, Condition and Valuation by Henry Bettle MCMS AMRINA AMIMarEST BEng, Marine Surveyor.

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Vessel Details and principle dimensions:

Name: [REDACTED]

- Type: Jeanneau Sun Odyssey 40 Fin Keel GRP sloop
- Builder/ Designer: Jeanneau Yachts / Daniel Andrieu.
- Year built: [REDACTED]
- Engine: Volvo Penta D2 55HP.
- HIN: [REDACTED]
- ON: [REDACTED]
- RT: [REDACTED]

Dimensions:

- LOA: 40.03 ft / 12.20 m
- LWL: 33.37 ft / 10.17 m
- Beam: 12.96 ft / 3.95 m
- Draught: 5.92 ft / 1.50 m
- Displacement: 15,807 lb / 7,170 kg

Tankage:

- Fresh Water: 320 litres (85 gallons) (2 tanks).
- Fuel: 136 litres (36 gallons).

Sail Area:

- Mainsail and headsail: 894.48 ft² / 83.10 m²

*All data and information above has been given by others, obtained by outside sources or publications.

Survey conditions:

The survey was undertaken on the 20/09/2022. The survey took place on the water at Chichester Marina, as well as on the hard for a short period of time to inspect the underside. The weather conditions on the 20/09/2022 were warm and dry throughout.

Survey Limitations:

The mast was stepped; hence, the rig was inspected to head height only. No dismantling of the hull, machinery or furniture took place, other than lifting or unscrewing portable boards and covers.

No dismantling of the engine took place and so the internal condition of the engine cannot be commented upon. Components hidden from view, such as the sump, crankshaft, camshafts, pistons, valves and cylinder head gaskets could not be examined for latent defects. No compression tests of the cylinders took place. Comments can only be made regarding the performance and general condition of the engine on the day of the inspection. No guarantee can be made regarding the life expectancy of the engine.

This report is subject to the conditions set out in the "terms and conditions" section of this report.

Introduction:

██████████ is a Jeanneau Sun Odyssey 40 fin keel GRP sloop. The vessel has a white hull and a white superstructure, with blue antifouling.

The vessel's name ██████████ is displayed upon the transom of the yacht, as well as on either side of the bow.

Condition Report:

Hull External:

Construction: The hull is constructed of GRP that is stiffened by internal mouldings, plywood bulkheads, semi-bulkheads, bonded-in locker dividers, glassed-in foam stringers and floor moulding support beams.

The hull's GRP construction utilises a lay-up of polyester resin, mixed-strand glass-fibre matting and woven rovings finished with a white pigmented gelcoat. The thickness of the hull increases around the keel area. Deck fittings were found to be reinforced by hardwood pads.

The underwater area of the hull was found to be coated with a blue antifoul. This was found to be in an end of season condition overall, with areas of flaking antifoul noted. I recommend that the hull below the waterline is sanded smooth and coated with fresh coats of antifoul in the near future.

There were no signs of blistering, or wicking, on the GRP hull below the waterline.

Moisture readings: Moisture readings were taken using a Tramex Skipper 5 randomly over the entirety of the hull. The weather conditions on the 20/09/2022 were warm and dry when the moisture readings were being taken. Readings ranged from 20 to off the scale high over its entirety. Readings below 14 are considered good, readings below 18 are considered acceptable, and readings of 18 and above are considered high.

It must be taken into account that the vessel was only on the hard for a short period of time. The hull below the waterline did not have enough time to dry out properly before readings were taken. If the vessel was allowed to dry out on the hard for 48 hours, I would expect the moisture readings to be acceptable.

Due to the fact that there were no signs of blistering forming on the GRP hull below the waterline during the survey, I suggest that the moisture readings taken on the 20/09/2022 are not a concern at this time.

Wintering the vessel ashore yearly will help to prevent the moisture readings within the hull below the waterline from increasing further.

Skin Fittings: All skin fittings below the waterline were found to be in a good condition externally, with no evidence of galvanic corrosion on the fittings.

Recommendations:

- I recommend that the hull below the waterline is sanded smooth and coated with fresh coats of antifoul in the near future.
- Wintering the vessel ashore yearly will help to prevent the moisture readings within the hull below the waterline from increasing further.

Keel/Skeg:

Description: An iron fin keel, with bulb, is bolted to the hull by steel studs, nuts, and backing plates. The area of hull around the keel is thicker to prevent any flex or damage from grounding.

Hull/Keel join: The hull-keel join was found to be in a good condition overall, with no evidence of keel movement noted during the survey. A layer of sealant has been added to the outside of the hull-keel join to prevent corrosion of the join. This is beginning to peel off at the aft of the keel. I recommend that it would be wise to remove the sealant covering the outside of the hull keel join at the aft of the keel. The area of join can then be rust treated, protected, and coated with a new layer of marine grade sealant.



The keel itself was found to be in a good condition overall. Minor areas of surface corrosion were noted over the keel during the survey. Although only a minor issue at this time, I recommend that the areas of surface corrosion on the keel are sanded back to good metal, rust treated, and coated with layers of protective paint.



There was no evidence of heavy grounding on the base of the keel, or any evidence of cracking or distress around the keel mounting (fore and aft), both externally and internally.

Keel bolts: The keel was found to be held in place with steel studs, nuts, and backing plates. None of the keel bolts were disturbed during the survey.

No evidence of weeping, or movement of the keel bolts, was noted during the survey.

The portside forward keel bolt, as well as the two aft keel bolts, were found to be beginning to corrode. This is a minor issue only at this time. However, I recommend that it would be wise to rust treat and protect the portside forward and two aft keel bolts in the future.



All other keel bolts were found to be in a good condition.





Due to the vessel being over 10 years old, a maintenance program of removing a different set of keel bolts for inspection every few years is to be recommended.

Recommendations:

- I recommend that it would be wise to remove the sealant covering the outside of the hull keel join at the aft of the keel. The area of join can then be rust treated, protected, and coated with a new layer of marine grade sealant.
- I recommend that the areas of surface corrosion on the keel are sanded back to good metal, rust treated, and coated with layers of protective paint.
- I recommend that it would be wise to rust treat and protect the portside forward and two aft keel bolts in the future.
- Due to the vessel being over 10 years old, a maintenance program of removing a different set of keel bolts for inspection every few years is to be recommended.

Stern Gear:

Rudder: The vessel's rudder is of the semi-balanced spade type and is constructed of GRP. This was found to be in a serviceable condition overall.

On the base of the rudder, evidence of grounding damage was noted. This has caused the rudder to delaminate in this area. This, overtime, will cause moisture ingress into the rudder, degrading the rudder core foam.

At the top of the rudder, surrounding the rudder post, gelcoat cracking was noted. This is further evidence that the rudder has hit the ground in the past.

I recommend that the rudder is removed from the vessel. The gelcoat cracking surrounding the rudder post can then be ground out and repaired. The damage to the base of the rudder can be ground out, and the rudder core inspected and dried. The bottom of the rudder can then be re-built using GRP.



Moisture readings of the rudder were taken at random locations, spanning the whole of the rudder. Readings were found to be off the scale high over its entirety. No evidence of any osmosis blistering was noted during the survey.

The rudder post bearings were found to be in a good condition, with little to no play noted during the survey.

Steering system: The vessel was found to be fitted with wheel steering, with twin helm positions in the cockpit. The steering system was found to be in a good condition, with little to no play noted. The rudder post casing was found to be in a good condition, where access was possible.

Propeller: The vessel is fitted with a 3-bladed folding Kiwi propeller, attached to a conventional shaft running through a P-bracket and cutlass bearing. A rope cutter has also been fitted. The propeller and shaft were found to be in a good condition overall, with no evidence of galvanic corrosion, pitting, or damage due to fouling.

The folding propeller foils mechanism was found to be in a good condition overall, operating correctly during the survey.

A spare 3 bladed bronze fixed propeller is located within the portside aft cockpit locker.

The cutlass bearing was found to be in a good condition, with minimal to no play noted during the survey.

The "P" bracket was found to be in a good condition, with no evidence of movement or corrosion noted.



Anodes: The vessel is fitted with shaft anode and a pear-shaped anode. The shaft anode was found to be in a depleted condition and will most likely need to be replaced within the next three months. The pear-shaped anode was found to be in a good condition and should last another 6 months at least.

I tested for an electrical connection between the pear-shaped anode and the stern gear of the vessel. A good connection was found. Internally, the pear-shaped anode bolts were found to be in a structurally sound condition.



Bow thruster: A bow thruster has been fitted to the yacht in 2020. Externally and internally, the bow thruster was found to be in a good condition, with no areas of damage noted. However, the bow thruster could not be made to operate during the survey. I recommend that the faulty bow thruster is serviced.



No serious signs of electrolytic corrosion of the underwater fittings or stern gear was noted.

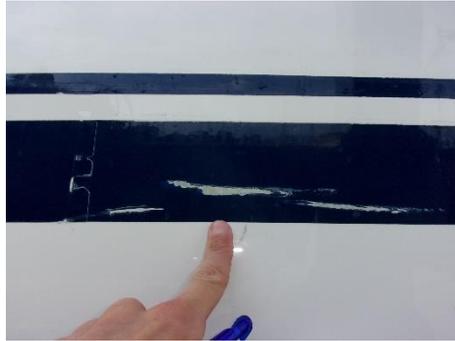
Recommendations:

- I recommend that the rudder is removed from the vessel. The gelcoat cracking surrounding the rudder post can then be ground out and repaired. The damage to the base of the rudder can be ground out, and the rudder core inspected and dried. The bottom of the rudder can then be re-built using GRP.
- I recommend that the shaft anode is replaced within the next three months.
- I recommend that the faulty bow thruster is serviced.

Topsides:

The white topsides, with blue boot stripes, and blue strake stripes, were found to be in a good condition overall. Taptests of the hull in 20 random locations, spanning the whole of the topsides, found that this was in a good condition, with no evidence of delamination or weaknesses forming.

The boot and strake stripes were found to be in a cosmetically fair condition, with cosmetic scratches and scuffs noted on the starboard side amidships of the vessel.



Moisture readings were taken over the entirety of the topsides and were found to be low on both the port and starboard sides.

Mooring damage /Abrasion: The topsides of the vessel were found to be in a good condition overall, benefitting from a recent clean and polish.

On the portside of the topsides, approximate 10ft forward from the stern, a shallow scuff to the gelcoat was noted. This was found to be a cosmetic issue only.

On the starboard side aft of the vessel, a shallow gelcoat scratch was noted. This was found to be a cosmetic issue only.



Other than what has been mentioned above, the portside and starboard side of the vessel were found to be in a good condition, with no evidence of structural or major cosmetic damage noted during the survey.

Transom: The transom of the vessel was found to be in a good condition overall, with no evidence of structural or major cosmetic damage noted during the survey.

Bow: The bow of [REDACTED] was found to be in a good condition overall, with no areas of structural or major cosmetic damage noted during the survey.



Deck and Superstructure:

The superstructure consists of a deck, a coachroof and a cockpit in one moulding of GRP. The deck, coachroof walk area and cockpit seats are of the sandwiched balsa core construction and are stiffened by glassed-in lateral members and fore and aft stringers. Areas of load are backed with hardwood plates, which were found to be in good order, where access was possible.

The coachroof of the vessel still has its original white gelcoat. This was found to be in a good condition overall. No evidence of pinhead blistering was noted on the superstructure of the vessel. The deck and coachroof were found to be in a good condition cosmetically.

Teak decking: Teak decking was fitted to the vessel from new. This was found to be in a serviceable condition overall. Over the entirety of the teak deck, stainless-steel screws have been screwed into the deck at 45 degree angles, to hold the teak down. Over the whole of the foredeck, as far back as the shroud plates, many of these are now visible. Visible screw heads were also found aft of the shroud plates, but were less frequent in occurrence. Visible screw heads in the teak decking will, over time, cause water ingress into the deck core.



The teak decking is approximately 8mm to 10mm in thickness currently (where measurements could be taken). Some areas appear to be thinner than this.

None of the teak decking was found to be lifting from the deck during the survey.

To increase the lifespan of the teak decking, and to prevent moisture ingress into the deck core, I recommend that all of the visible screws in the teak decking are either removed, or screwed further into the deck and teak dowels placed over the top.

The teak decking may be able to take a light sand to create a flatter surface, but I would be careful with this. At a minimum, the caulking could be sanded back down to the teak level.

I would suggest that the teak decking will most likely need to be removed in the next 10 years.

I both walk-tested and percussion-tested the deck and coachroof with a rubber-faced hammer and found no signs of flexing, or degradation of the core. Moisture readings of the coachroof were taken and were found to be low to acceptable over its entirety.



Damage: No areas of structural or major cosmetic damage was noted to the deck or coachroof of the vessel.

Hull - deck join: The hull and deck were found to be joined together by an inward flange joint, which was internally bonded and screwed at 6" intervals. The joint is finished by an aluminium rubbing strake and toerail. The joint and the toerail were found to be in good order and appropriate for the size of the vessel.

On the starboard side of the vessel, between the 1st and 2nd stanchion bases from the bow, an area of mooring damage to the toerail was noted. Below the bent toerail, minor gelcoat cracking was noted. No evidence of damage to the hull keel join was noted during the survey. Moisture readings surrounding the area of damage were taken and found to be low. The gelcoat cracking and bent toerail were found to be cosmetic issues only.



Windows: It was a dry day when the vessel was surveyed. None of the six windows onboard showed any evidence of leaking, or damage during the survey.

Hatches: All hatches onboard (8) were found to be in a good condition overall, with no evidence of leaking internally, or damage to the frames noted.

All the hatch blinds were found to be mouldy internally. This is a cosmetic issue only.



Recommendations:

- To increase the lifespan of the teak decking, and to prevent moisture ingress into the deck core, I recommend that all of the visible screws in the teak decking are either removed, or screwed further into the deck and teak dowels placed over the top.

Deck gear:

The following deck gear was found to be present onboard



- Two bow cleats.
- Two amidships cleats.
- Two stern cleats.
- Two bow, two stern, and two amidships fairleads.
- Pulpit, pushpit and stanchions (5 each side).
- Two winches on the coachroof (Harken 40).
- Two winches in the cockpit (Harken 44).
- Two timber grabrails on the coachroof.
- Main hatch and wash boards.

- Chainplates.
- Anchor locker.
- Bow roller.
- 35Lb CQR type anchor on bow with 10mm chain and warp.
- 10kg Danforth type anchor in the portside aft cockpit locker.
- Lofrans electric anchor windlass.
- Boarding ladder.
- Fuel and water filler caps.
- 13 rope clutches.
- Inflatable tender.
- Honda 2.3hp 4-stroke outboard.

The inflatable tender was not inflated during the survey and could therefore not be inspected for leaks. The tender appeared to be in a good condition, with a number of minor age-related marks noted.

The outboard motor was started during the survey, starting with ease, and running well throughout.

The anchor chain to anchor shackle was found to be beginning to corrode. I recommend that this is replaced within the next two years.



All other equipment was found to be in a good condition other than what has been mentioned above.

Recommendations:

- I recommend that the anchor to anchor chain shackle is replaced within the next two years.

Hull Internal:

Condition of bilges: Access to the bilges is made by lifting the saloon sole boards and through the engine compartment. All portable boards were lifted for inspection. The bilges were found to be clean and dry in the most part, with a small amount of brackish water located in the bilge pump well below the saloon.

Bilge pumps: One automatic bilge pump is fitted below the saloon. This was found to be working correctly during the survey.

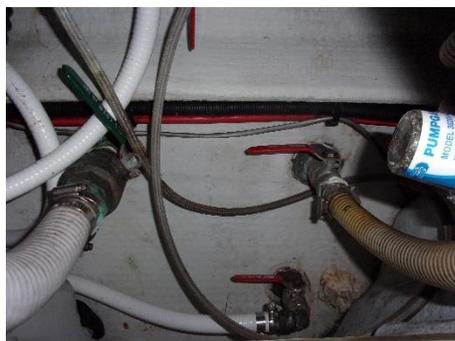
A manual bilge pump is fitted on the starboard side aft of the cockpit. This was working correctly when tested.

Skin fittings: A table of all the skin fittings onboard is shown below:

Use	Size/Type	Location	Nr of clips	Operational
Toilet inlet	¾" ball valve	Below heads sink	2	Good.
Toilet outlet	1 ½" ball valve	Below heads sink	2	Good.
Heads sink drain	1" ball valve	Below heads sink	2	Good.
Shower drain	¾" ball valve	Below heads sink	2	Good.
Engine inlet	1 ½" ball valve	Forward of engine	2	Good.
Galley sink drain	1 ½" ball valve	Below sink	2	Good.
Speed log plus blank.	Standard fitting	Below forward saloon	Na	Good.
Echo sounder	Standard transducer	Below forward saloon	Na	Good.

*The seacocks were all left as they were found.

All seacocks were found to be in a good condition and moving freely during the survey.



Stiffeners Attached: The stiffeners strengthening the keel mounting, coated in GRP, were all found to be in a good condition.

The metal kingpost, supporting the mast mounting, was found to be in a good condition.

The marine ply main bulkhead, located below the mast mounting, was found to be in a good condition, with no signs of the bulkhead coming away from the coach roof or bilges.

The hull is further stiffened by plywood semi-bulkheads in the saloon and rear of the cockpit, and locker dividers, all of which are properly attached with glassed-in bondings.

Sprayhood, Dodgers and Other Canvas Work:

The vessel is fitted with a spray hood, cockpit tent, mainsail stack pack, two wheel covers, a cockpit table cover, and two navigation equipment covers.

The spray hood was found to be in a fair condition, with the portside forward window being torn. I recommend that a new window is fitted to the spray hood.

The cockpit tent was found to be in a good condition, with no evidence of damage noted during the survey.

The mainsail stack pack was found to be in a good condition overall.

The two wheel covers were both found to be in a good condition overall.

The cockpit table cover was found to be torn on every corner.

The two navigation equipment covers were found to be in a good condition overall.



Recommendations:

- I recommend that a new window is fitted to the spray hood.

Cockpit:

The vessel benefits from a spacious and safe cockpit. There is a bilge pump fitted to starboard aft of the cockpit. This was tested and found to be working well. The vessel has twin wheel steering. There was no lateral play noted in the steering system. There is a large cockpit locker on both the port and starboard side of the cockpit. A gas locker is located on the starboard side aft of the cockpit. A third cockpit locker is located on the portside aft of the cockpit.



The cockpit teak decking and gelcoat was all found to be in a good condition, with no evidence of structural or major cosmetic damage noted.

The teak folding cockpit table was found to be in a good condition.

The dark blue cockpit cushions, currently being stored within the starboard side locker, were all found to be in a good condition.

Interior:

The interior is created by white gelcoat-faced GRP mouldings, as well as hardwood and hardwood-faced marine plywood. There is a two-berth forecabin, a separate heads compartment to stern (port), a large double berth, and a saloon. The saloon has a settee seat either side, a galley to starboard aft, and a chart table to port.



The joinery below was found to be in good order and the finish too being in a good condition overall.

The floorboards in the saloon and three berths were found to be in a good condition overall.

The upholstery was found to be in a good condition overall, with the v-berth and aft berth cushions being custom boat mattresses.

The headlining was found to be in a good condition overall.

The interior woodwork was found to be in a good condition overall, with no evidence of any major UV or water damage noted during the survey.

Machinery:

A Volvo Penta D2 55HP marine diesel engine is properly secured to substantial beds and bearers. The engine is original to the yacht. The engine number was too faint to read during the survey. The engine hours are displayed as 194.6. However, these are only the engine hours since 2020. I would suggest that the actual engine hours would be around 1500-2000. The engine was last professionally serviced in 12/2021. The engine has been professionally serviced yearly in the vessels' current ownership.

The engine was started during the survey, run up to temperature, and tested under load. The engine started with ease and ran well throughout.

The engine oil was found to be at the correct level and relatively clean.

Externally, the engine was found to be in a good condition, with only very minor areas of surface corrosion and damaged paint work noted.

The piping and filters on the engine were found to be in a good condition.

The engine mountings were found to be in a good condition overall, with minimal surface corrosion noted.

The engine wiring was found to be in a good, tidy condition. The bilges below the engine were found to be clean and dry.

The exhaust was found to be in a good condition, with no evidence of leaking or damage noted.



The gearbox was found to be in a good condition, going in and out of gear with ease.

Stern gland: [REDACTED] is fitted with a Volvo Penta dripless shaft seal. This was found to be in a good condition overall, with no evidence of leaking noted during the survey. This type of shaft seal, according to Volvo, should be replaced every 5 years. The seal onboard [REDACTED] is aged 2017. The dripless shaft seal will therefore need to be replaced at the end of the 2022 season.



Recommendations:

- I recommend that the Volvo Penta shaft seal is replaced at the end of the 2022 season.

Fuel system:

There is an 136L plastic fuel tank fitted below the aft berth of the vessel. The tank is held in place by metal clamps. The tank was only partially visible for the inspection.



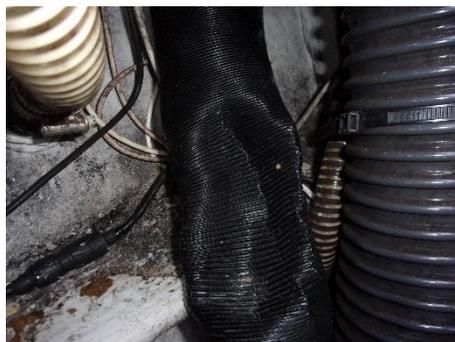
All piping and valves were found to be in a good condition and secured properly to the boat. The fuel filter, mounted to aft of the engine, was found to be in a good condition. The fuel gauge, mounted at the engine control panel, was found to be working correctly. The fuel gauge was reading as 3/4 full.

No smell or sign of fuel in the bilges or around the tank was noted.

No evidence of diesel bug in the fuel system was noted.

Heater: A diesel heater has been fitted within the portside aft cockpit locker of the vessel. Where visible, the heater was found to be in a good condition, with no evidence of damage noted during the survey. The heater was tested during the survey and was found to be working correctly.

The heater hot air ducting, used to carry hot air from the heater to the interior of the vessel, was found to be crushed in the portside aft cockpit locker. I recommend that the crushed diesel heater hot air ducting is replaced.



Recommendations:

- I recommend that the crushed diesel heater hot air ducting is replaced.

Gas systems:

The gas system has a single gas Campingaz bottle (with spare) located in the starboard side aft cockpit locker. The gas locker is well vented and self-draining.



The orange rubber gas piping, connecting the cylinder to the copper gas piping, is dated 2016. This type of piping should be replaced every 5 years. I therefore recommend that the orange gas piping in the gas locker is replaced. The gas regulator was found to be in a good condition.

The gas shut off valve, located to aft of the cooker, was found to be in a good condition. The copper gas piping, where visible, was found to be in a good condition.

The braided gas hose behind the gas locker is most probably the same age as the orange gas piping (2016). I therefore recommend that the braided gas hose behind the gas cooker is replaced.

The ENO gas cooker onboard was found to be in a good condition, with no areas of damage noted. The hob and cooker were tested during the survey and were found to be working correctly.

Once the above gas recommendations have been performed, I recommend that a gas safety inspection is undertaken on the system.



Recommendations:

- I recommend that the orange gas piping, connecting the gas bottle to the copper gas piping, is replaced.
- I recommend that the braided gas hose behind the gas cooker is replaced.

- Once the above gas recommendations have been performed, I recommend that a gas safety inspection is undertaken on the system.

Electrical Installation:

The vessel has five batteries fitted onboard. Three of the batteries are located below the aft berth (two 85Ah and one 110Ah). The three batteries look to be in a good condition, with no signs of any leaking or damage noted. The three batteries are housed and vented correctly.

One 50Ah AGM battery is fitted below the v-berth of the vessel and is for the bow thruster only. The battery was found to be in a good condition and properly housed.

One 84Ah battery is located below the starboard side cockpit locker. The battery was found to be in a good condition and housed and vented correctly.

A voltmeter was used to check the output of each battery, which found that all batteries were producing a good output voltage and were at 100% health.



The four batteries below the aft berth and cockpit locker are connected to three isolator switches. The isolator switches are located to aft of the engine bay and were found to be working correctly.



The bow battery is connected to one isolator switch located within the v-berth cabin. This was found to be working correctly.

A switch board is located above the chart table.

During the survey, every item on the switch board was tested. There were no issues with the switchboard, and all items worked as they should.

Wiring: All wiring, where visible, was found to be in a good condition.

The fridge was tested during the survey and was found to be working correctly.

Shore power: The shore power system was tested during the survey and was found to be working correctly.

An RCD breaker switch is mounted within the portside aft cockpit locker, as well as the shore power inlet plug. A marine grade battery charger is located below the portside saloon seat.

The immersion heater was tested during the survey and was found to be working correctly.

Water system:

Two plastic water tanks are fitted to [REDACTED]. One tank is located below the v-berth, and one tank is located below the aft berth. Neither tank could be inspected in its entirety. Both tanks, where visible, were found to be in a good condition, with no evidence of leaking noted during the survey. Both tanks are held in place by metal clamps.

The piping coming out of the tanks was found to be in a good condition and is well secured throughout the vessel.

The pressurised water pump and accumulator are located below the chart table. Both were found to be in a good condition. The water pump is activated correctly using the taps and control panel switch.



All taps were tested during the survey and were found to be working correctly.

The shower drain pump, fitted below the heads sink, was found to be working correctly.

Hot water: A calorifier is fitted below the starboard side aft saloon seat. This was found to be in a good condition where visible, being heated correctly using the engine and 240V immersion heater. The hot water system was tested during the survey and was found to be working correctly.



Toilet installation:

A Jabsco manual toilet system has been fitted to this yacht. The toilet was found to be in a good condition, with no evidence of leaking noted. The seals on the toilet manual pump were found to be in a good condition.



The toilet pipework was all found to be in a good condition and is the correct sanitary grade, rising correctly above the heeled waterline.

No holding tank has been fitted to the vessel.

Mast, rigging and sails:

As the mast was stepped for this survey, the mast could only be examined from head height downwards. The mast is constructed of aluminium and has two pairs of spreaders.

The mast is stepped by a cast aluminium deck plate and supported internally by a metal kingpost that runs down to the bilge and by the plywood main bulkhead. The mast step was found to be in a good condition, with no evidence of cracking, distortion, or stress related marks. The lower kingpost mounting was found to be in a good condition, with no signs of stress related damage.

Moisture readings of the area of coachroof surrounding the mast step were taken and found to be low.

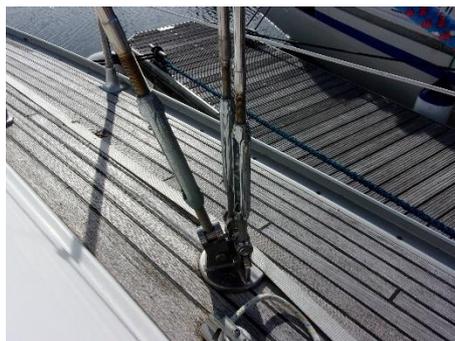


The following stainless-steel wire shrouds with roll-swaged eye toggle terminals were present:

- Forestay.
- Backstay (one to two).
- Two lower shrouds per side.
- One $\frac{3}{4}$ shroud per side.
- One cap shroud per side.

The standing rigging is aged 12/12/2013. From head height downwards, the standing rigging was found to be in a good condition, with no evidence of damage noted. Once the rigging has reached 10 years old, it is recommended that the standing rigging is inspected in its entirety by a rigger, who can either sign it off as okay, or recommend that it is replaced.

Bottle screws are fitted at the base of each shroud, all of which are correctly secured with split pins.



The boom was found to be in a good condition.

The chainplates on [REDACTED] include:

- Substantial stem head fitting for the forestay.
- Two strip fittings for the backstays.
- Hull mounted fittings for the cap, $\frac{3}{4}$, and lower shrouds (2 each side).

All the chainplates were found to be well-attached to the hull and were found to be in good order.

No cracking of the hull connected to the internal chainplates was noted.

Surrounding the starboard side main shroud chainplate, evidence of minor water ingress internally was noted. I recommend that the area is monitored frequently for any evidence of leaking. If the shroud plate is indeed leaking, I recommend that the shroud plate is re-bed.



The running rigging was found to be in a good condition overall. The running rigging appears to be structurally sound and relatively clean for its age.

Mainsail: The mainsail could not be raised due to the wind direction during the survey. The sail could therefore only be examined within the sail bag. The mainsail (age 2007) was found to be in a good condition, where visible. No evidence of damage to the sail was noted during the survey.



Headsail: The headsail (2007), with blue UV strip, was found to be in a fair condition overall. The sail is structurally sound but is beginning to go baggy with age. The blue UV strip was found to be in a serviceable condition and will most probably need to be replaced in the next two seasons.



The headsail furling system was found to be working correctly during the survey.

A cruising chute, with snuffer, is currently being stored within the starboard side cockpit locker. This, where visible, was found to be in a good condition.

Recommendations:

- I recommend that the area of interior woodwork surrounding the starboard side main shroud chainplate is monitored frequently for any evidence of leaking. If the shroud plate is indeed leaking, I recommend that the shroud plate is re-bed.

Safety Gear and Navigation Equipment:

The following safety and navigation equipment are fitted to



Item	Location	Condition
Fire extinguishers	1 v-berth (2001), 1 galley (2001), 1 aft (2001), 1 Saloon (2001)	All fire extinguishers due to be serviced or replaced.
CO alarm	Galley	Not working.
Life Jackets	4 onboard	All due a service.
Flares	Not Found	-
Jon Buoy	(P) Aft	Good.
Rescue line	(P) cockpit locker	Good.
Fire blanket	Galley	Good.
Icom IC-M423G VHF	Chart table	Good.
Raymarine C90 plotter and radar	Chart table	Good.
Raymarine Multi	Cockpit	Good.
Raymarine wind	Cockpit	Good.
Raymarine Tri-data	Cockpit	Good.
Garmin GPS 128	(P) helm	Good.
Raymarine ST6001+	(S) helm	Good.
Raymarine plotter and radar	Cockpit	<i>Missing button but working.</i>
Compass (2)	Port and starboard helm	Good.
Navigation lights	Deck and mast	Port forward light and mast steaming light not working.

I recommend that all fire extinguishers onboard are serviced or replaced due to their ages. For this length of yacht, the RYA recommend that a minimum of three fire extinguishers should be carried onboard, with a combined minimum fire rating of 21A / 144B.

I recommend that the lifejackets onboard are all most probably due a service.

I recommend that a set of flares, suitable for the sailing conditions planned, are purchased for the vessel.

I recommend that the carbon dioxide alarm is serviced or replaced.

I recommend that the portside forward and mast steaming navigation lights are serviced or replaced.



Recommendations:

- I recommend that all fire extinguishers onboard are serviced or replaced due to their ages. For this length of yacht, the RYA recommend that a minimum of three fire extinguishers should be carried onboard, with a combined minimum fire rating of 21A / 144B.
- I recommend that the lifejackets onboard are all most probably due a service.
- I recommend that a set of flares, suitable for the sailing condition planned, are purchased for the vessel.
- I recommend that the carbon dioxide alarm is serviced or replaced.
- I recommend that the portside forward and mast steaming navigation lights are serviced or replaced.

Recommendations:

Recommendations have been ordered into three groups; "1)" is for serious structural or safety recommendations that should be addressed before the vessel is taken to sea. "2)" is for structural or safety recommendations that should be undertaken in the near future. "3)" is for cosmetic and minor recommendations.

1)

-

2)

- I recommend that the rudder is removed from the vessel. The gelcoat cracking surrounding the rudder post can then be ground out and repaired. The damage to the base of the rudder can be ground out, and the rudder core inspected and dried. The bottom of the rudder can then be re-built using GRP.
- I recommend that the orange gas piping, connecting the gas bottle to the copper gas piping, is replaced.
- I recommend that the braded gas hose behind the gas cooker is replaced.
- Once the above gas recommendations have been performed, I recommend that a gas safety inspection is undertaken on the system.
- I recommend that all fire extinguishers onboard are serviced or replaced due to their ages. For this length of yacht, the RYA recommend that a minimum of three fire extinguishers should be carried onboard, with a combined minimum fire rating of 21A / 144B.
- I recommend that the lifejackets onboard are all most probably due a service.
- I recommend that a set of flares, suitable for the sailing condition planned, are purchased for the vessel.
- I recommend that the carbon dioxide alarm is serviced or replaced.
- I recommend that the portside forward and mast steaming navigation lights are serviced or replaced.

3)

- I recommend that the hull below the waterline is sanded smooth and coated with fresh coats of antifoul in the near future.
- Wintering the vessel ashore yearly will help to prevent the moisture readings within the hull below the waterline from increasing further.
- I recommend that it would be wise to remove the sealant covering the outside of the hull keel join at the aft of the keel. The area of join can then be rust treated, protected, and coated with a new layer of marine grade sealant.

- I recommend that the areas of surface corrosion on the keel are sanded back to good metal, rust treated, and coated with layers of protective paint.
- I recommend that it would be wise to rust treat and protect the portside forward and two aft keel bolts in the future.
- Due to the vessel being over 10 years old, a maintenance program of removing a different set of keel bolts for inspection every few years is to be recommended.
- I recommend that the shaft anode is replaced within the next three months.
- I recommend that the faulty bow thruster is serviced.
- To increase the lifespan of the teak decking, and to prevent moisture ingress into the deck core, I recommend that all of the visible screws in the teak decking are either removed, or screwed further into the deck and teak dowels placed over the top.
- I recommend that the anchor to anchor chain shackle is replaced within the next two years.
- I recommend that a new window is fitted to the spray hood.
- I recommend that the Volvo Penta shaft seal is replaced at the end of the 2022 season.
- I recommend that the crushed diesel heater hot air ducting is replaced.
- I recommend that the area of interior woodwork surrounding the starboard side main shroud chainplate is monitored frequently for any evidence of leaking. If the shroud plate is indeed leaking, I recommend that the shroud plate is re-bed.

Terms and Conditions

1. Definitions

"Surveyor"/"Consultant" is the Surveyor/Consultant trading under these conditions.

"Client" is the party at whose request or on whose behalf the Surveyor/Consultant undertakes surveying services.

"Report" means any report or statement supplied by the Surveyor/Consultant in connection with instructions received from the Client.

"Disbursements" means the cost of all reasonable photography, reproduction of drawings, diagrams, sketches and printing, duplicating and, where applicable, electronic transmission fees, and all reasonable and appropriate expenses including travel, subsistence and hotel accommodation where an overnight stay is necessary.

"Fees" means the fees charged by the Surveyor/Consultant to the Client and including any value added tax where applicable and any Disbursements.

2. Scope

The Surveyor/Consultant shall provide its services solely in accordance with these terms and conditions.

3. Work

The Client will set out in writing the services which it requires the Surveyor/Consultant to provide. The Surveyor/Consultant will confirm in writing that it accepts those instructions or alternatively what services it will perform in connection with the Client's instructions. Once the Surveyor/Consultant and the Client have agreed what services are to be performed (the Services) any subsequent changes or additions must be agreed by both parties in writing.

4. Payment

The Client shall pay the Surveyor/Consultant's Fees punctually in accordance with these Conditions and in any event not later than 10 days following the relevant invoice date, or in such other manner as may have been agreed in writing between the parties. Any delay in payment shall entitle the Surveyor/Consultant to interest at 8% above the Base Lending Rate of the Bank of England prevailing at the time of default.

5. Obligations and Responsibilities

(a) Client: The Client undertakes to ensure that full instructions are given to the Surveyor/Consultant and are provided in sufficient time to enable the required Services to be performed effectively and efficiently and to procure all necessary access for the Surveyor/Consultant to goods, premises, vessels, installations and transport and to ensure that all appropriate safety measures are taken to provide safe and secure working conditions. The Surveyor/Consultant shall not be liable for the consequences of late, incomplete, inadequate, inaccurate or ambiguous instructions.

(b) Surveyor: The Surveyor/Consultant shall use reasonable care and skill in the performance of the services in accordance with sound marine surveying/consulting practice.

(c) Reporting: The Surveyor/Consultant shall submit a final written Report to the Client following completion of the agreed Services describing the Surveyor's/Consultant's findings and the condition and/or quality of the object and/or purpose of the assignment, unless otherwise expressly instructed by the Client not to do so.

(d) Confidentiality: The Surveyor/Consultant undertakes not to disclose any information provided in confidence by the Client to any third party and will not permit access to such information by any third party unless the Client expressly grants permission save where required to do so by an order of a competent court of law.

(e) Property: The right of ownership in respect of all original work created by the Surveyor/Consultant remains the property of the Surveyor/Consultant.

(f) Conflict of Interest/Qualification: The Surveyor/Consultant shall promptly notify the Client of any matter including conflict of interest or lack of suitable qualifications and experience, which would render it undesirable for the Surveyor/Consultant to continue its involvement with the appointment. The Client shall be responsible for payment of the Surveyor/Consultant's Fees up to the date of notification.

6. Liability

(a) Without prejudice to Clause 7, the Surveyor/Consultant shall be under no liability whatsoever to the Client for any loss, damage, delay or expense of whatsoever nature, whether direct or indirect and howsoever arising UNLESS same is proved to have resulted solely from the negligence, gross negligence or wilful default of the Surveyor/Consultant or any of its employees or agents or sub-contractors.

(b) In the event that the Client proves that the loss, damage, delay or expense suffered was caused by the negligence, gross negligence

or wilful default of the Surveyor/Consultant aforesaid, then, save where loss, damage, delay or expense has resulted from the Surveyor's/Consultant's personal act or omission committed with the intent to cause same or recklessly and with knowledge that such loss, damage, delay or expense would probably result, the Surveyor's/Consultant's liability for each incident or series of incidents giving rise to a claim or claims shall never exceed a sum calculated on the basis of ten times the Surveyor's/Consultant's charges.

(c) Without prejudice to (a) and (b) above, the Surveyor/Consultant shall not be liable for loss of or damage to physical equipment and property placed at its disposal by, or on behalf, of the Client however such loss or damage occurs, unless such loss or damage was caused by act or omission committed with intent to cause some or recklessly with knowledge that such loss or damage would probably result.

7. Indemnity

Except to the extent and solely for the amount therein set out that the Surveyor/Consultant would be liable under Clause 6, the Client hereby undertakes to keep the Surveyor/Consultant and its employees, agents and sub-contractors indemnified and to hold them harmless against all actions, proceedings, claims, demands or liabilities whatsoever or howsoever arising which may be brought against them or incurred or suffered by them, and against and in respect of all costs, loss, damages and expenses (including, but not limited to, legal costs and expenses on a full indemnity basis) which the Surveyor/Consultant may suffer or incur (either directly or indirectly) in the course of the Services under these Conditions.

8. Force Majeure

The Surveyor/Consultant and/or the Client shall not, except as otherwise provided in these Conditions, be responsible or have any liability for any loss, damage, delay or failure in performance hereunder arising or resulting from act of God (including, but not limited to earthquake, flood, tsunami, volcano, hurricane, tropical storm, cyclone, blizzard or other similar event), act of war, terrorist attack, nuclear contamination, seizure under legal process, epidemic quarantine restrictions, strikes, boycotts, lockouts, riots, civil commotions and arrest or restraint of princes, rulers or people. Following a force majeure event either party may serve notice on the other to terminate the agreement.

9. Insurance

The Surveyor/Consultant shall affect and maintain, at no cost to the Client, Professional Liability Insurance for such loss and damage

for which the Surveyor/Consultant may be held liable to the Client under these terms and conditions.

10. Surveyor's/ Consultant's Right to Sub-contract

The Surveyor/Consultant shall have the right to sub-contract any of the services provided under the Conditions, subject to the Client's right to object on reasonable grounds. In the event of such a sub-contract the Surveyor/Consultant shall remain fully liable for the due performance of its obligations under these Conditions.

11. Time Bar

Any claims against the Surveyor/Consultant by the Client shall be deemed to be waived and absolutely time barred upon the expiry of 6 months from the submission date of the Report to the Client.

12. Jurisdiction and Law

These Conditions shall be governed by and construed in accordance with the laws of England and Wales and any dispute shall be subject to the exclusive jurisdiction of the English Courts.