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MARINE SURVEYOR

Accredited Member of the Yacht Designers and Surveyors Association

REPORT OF A CONDITION SURVEY CARRIED OUT ON THE VESSEL:

“ [REDACTED] ”



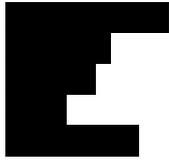
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A. GENERAL NOTES

The following survey was carried out at Sovereign Yacht Harbour on 21 January 2009 for:



A sea trial was carried out on 26 January.

Scope

The survey was carried out as a pre-purchase measure to assess the structural and material condition of the vessel. Where equipment was tested this is detailed in the text. References to condition are in relation to the vessel's age (i.e. good condition does not necessarily mean new).

Recommendations are restricted to:

- (A) items which should be addressed before the vessel is used and/or which may affect insurability and;
- (B) items which should be addressed in the near future order to prevent future problems.

Recommendations are printed in red for quick reference within the body of report and are also listed in the summary. They do not cover cosmetic or minor defects, although suggestions to address these may be included.

The survey is for the client above. No liability is extended to anyone else.

Limitations

The survey was mostly carried out afloat. The vessel was lifted ashore for an hour for the underwater hull to be cleaned and inspected. Note short haul outs limit the accuracy of moisture meter readings. A 2-3 day drying out period is preferable.

Parts of the vessel that were covered, unexposed or inaccessible due to fixed panels, mouldings etc. were not examined, so I cannot say these areas are free from defects other than where specified.

No fittings or fastenings were removed for examination other than where specified. Note it is not possible to detect some latent and hidden defects without destructive testing which is not possible without the owner's consent.

The mast was stepped so could only be inspected from deck level.

Conditions

Conditions were dry and fair, air temperature 10°C, humidity 60% and the dew point around 5° below ambient temperatures. These are adequate conditions for moisture meter readings. On the sea trial, conditions were easterly 1-2, moderate swell.

SUMMARY

██████████ is a Jeanneau Sun Odyssey 42.2, built in 2000 to a design by Guy Ribadeau Dumas. She was previously owned by 'Sunsail Charters' and based in the Solent. Although no sales documents were seen, it is likely they bought her from new.

She was 'Part 1. Registered' on the British Shipping Register (the broker says she was deregistered). She has been on this brokers books for about 8 months. From the amount of weed growth on the bottom, she does not appear to have been used over the last year.

██████████ is in good overall condition. Although she has been heavily used as a charter yacht (there are 3244 hours on the engine), she has also been well maintained. With the exception of damage to the port deck, her structure is in very good condition. The downside is that some of her mechanical and domestic systems are worn and now in need of repair or replacement.

However her asking price of £70k is about £10-15k below that for similar yachts. Given some adjustments to carry out the recommendations of this survey and a satisfactory sea trial to prove the rig, in my opinion she would represent good value and be well suited for her designed purpose.

As she was used commercially for charter, you should get written proof that she is now VAT paid and keep this on the boat if you sail to other EC countries.

Recommendations

Defects which should be rectified before vessel is used and/or which may affect insurability:

1. Replace the shaft anodes (A).
2. Tighten lower starboard and upper port guard wires and those across the transom (A).
3. Replace the starboard navigation light (A).
4. Replace the jackstay webbing (A).
5. Replace the flares and rockets (A).
6. Replace the armoured hose between the cooker and fixed pipe plus the flexible hose between the bottle and fixed pipe (A).
7. Replace the smoke detector batteries (A).
8. Repair the anchor winch (A)
9. Replace the lights on the life buoys (A).

Defects which should be rectified in order to prevent future problems:

1. Fill minor cracks to the gel coat port forward between the deck and coachroof (B).
2. Repair major cracks to the deck, port, aft by re-laminating the sandwich construction from inside the boat (B).
3. Repair gel coat chips to coachroof starboard forward, forward end of the starboard handrail mount, fore edge of the table base and inner aft edge of the starboard coaming (B).
4. Refinish or replace the teak hand rails and the teak seat on the pulpit (B)
5. Replace the mastic at the base of the prop shaft bracket(B)
6. Refit the port anchor locker drain skin fitting (B)
7. Replace the washboard lock plate (B)
8. Replace the shackle joining the chain to the anchor and remake the rope to chain splice (B)
9. Replace the alloy casting on the boom gooseneck (B).
10. Clean the slots at the base of the mast step to allow proper drainage (B).
11. Clean the engine cooling water drain cock valve to prevent dripping (B)
12. Repair the rev counter (B)
13. Tighten the alternator belt (B).
14. Secure the primary fuel filter mounting bracket (B)
15. Repair the fuel level indicator.
16. Adjust the single lever engine control to ensure it is firmly in gear at low revs (B).
17. Refit the pressurised water accumulator (B).
18. Repair or replace both sea toilets (B)

C. VESSEL DATA

Dimensions taken from manufacturers details, not checked.

| | | |
|----------------|---|--|
| LENGTH OVERALL | : | 12.80m |
| BEAM | : | 4.10m |
| DRAFT | : | 2.0m |
| DISPLACEMENT | : | 8.40 tonnes |
| BUILT | : | 2000 Jeanneau Newco, Les Herbiers, France. |
| REGISTRATION | : | [REDACTED] |
| HIN | : | [REDACTED] |
| CATEGORY | : | RCD A (Ocean going, 10 persons, max 3030kg load) |
| YARD NUMBER | : | No record |
| FUEL CAPACITY | : | 175 litres |
| WATER CAPACITY | : | 440 litres |
| ENGINE | : | Yanmar diesel 4JH3E 56hp. |
| SAIL AREA | : | 32m ² main, 55 m ² genoa. |

USE OF MOISTURE METERS

A 'Sovereign Quantum' capacitance type moisture meter which measures both shallow and deep seated moisture is used to check for ingress of moisture into GRP laminates. References to moisture meter readings throughout the text are in relation to a relative scale of 0-100, not moisture content as a percentage of dry weight.

Readings of between 0-15 are considered dry; 16-20 low and no cause for concern; 21-30 medium carrying some risk of future defects, 30 - 45 show a high risk of moisture related defects being present (but not necessarily physically detectable), greater than 45 usually indicates visible laminate damage.

Whilst high moisture content (i.e. greater than 30) is not generally a structural defect in itself and should be expected in older boats, if moisture has been absorbed, the likelihood of problems occurring are higher. The actual state of the laminate cannot be completely guaranteed without destructive testing followed by chemical analysis. The opinions in this survey are based on all the evidence available at the time, but without destructive testing.

D. Hull, Deck and Structure.

D1. Keel.

The vessel has a cast iron fin keel with a profiled bulb. This is secured by seven studs, approximately 30mm diameter, the nuts for which are glassed over in the bilge. There are no signs of seepage or movement in the glassed over areas. Externally, the keel surface is smooth and in good condition with no signs of rust other than under the base of the bulb. This was examined with a mirror when the vessel was lifted ashore and no signs of grounding or impact damage found.

The hull/keel joint is tight and has a mastic bead which is secure and in good condition. There are no signs of movement. Aft of the fin the flat underbody is sound (this area is prone to damage if the keel strikes an object).

D2. Hull below Waterline.

The hull below the waterline is a single skin GRP laminate using chopped strand mat and woven rovings. The vessel was lifted ashore for an hour early afternoon and hosed clean. The entire underwater area was visually inspected and hammer sounded. No signs of osmotic blistering, delamination, voids or damage were found other than a small chip to the forefoot of no significance.

The antifouling was scraped back to the bare GRP in six test areas, three either side at bow, midships and aft. No signs of wicking were seen in the bare areas. Moisture meter readings of 16-22 were found on the shallow (near surface) setting and 20-29 on the deep setting. Given the vessel had only just been hauled out and the relatively high humidity on the day, these readings suggest there is no significant ingress of moisture to the gel coat and hull laminate and that the underwater hull is in good condition at this time.

The blue antifouling coating is adhering well but has lost its effectiveness. There is some build up around the boot top where it is beginning to flake. The coating will need to be scraped back where needed and entirely renewed before the vessel is re-commissioned.

D3. Topsides above Waterline including Rubbing Strake etc.

The topsides are a single skin GRP laminate with an inboard flange to take the deck moulding. The entire area was visually examined, lightly hammer sounded and checked with a moisture meter. The moulding is fair with no imperfections. No signs of voids or delamination were found. Moisture meter readings were 10-15 shallow and 15-20 deep. These are low and taken with the above show the gelcoat and laminate are in good condition at this time.



There is a deep chip to the gel coat at the stem about 0.5m above the boot top. This does not extend through to the gel coat and only needs repair for cosmetic reasons.

There are some minor scuffs and scratches on the port side around amidships (shown). These can be polished out.

There is a very slight manufacturing discontinuity where the sheer line and rubbing strake is slightly unfair on the starboard side midships (shown). There are no signs of this being the result of a major repair.



The starboard side is polished whereas the port side is relatively faded. This may simply be a result of how the vessel has been moored over the last year; wax polishing the whole will help maintain condition.

The aluminium rubbing strake combines with a toe rail and covers the hull to deck join. It has a white rubber insert which is in poor condition with several areas damaged by chafe or completely missing, both port and starboard. The aluminium is in good condition although it has mould growing beneath in several places. Apart from the visual appearance, it would be advisable to pressure wash this out to prevent 'poultice' corrosion.

The vessel has a sugar scoop transom which is integral with deck moulding, the join being an external flange which is covered with a rubber extrusion. This is secure and in fair condition apart from some mould and growth on its lower edge.

There is a vinyl blue cove line and painted blue, paired, boot top lines. All are in good condition apart from minor abrasions port amidships to the cove line which can be touched up with suitable paint. This is due to the lower wire on the boarding gate hanging down and which should be tied back.

Overall the topsides are in remarkably good condition given the amount of usage the vessel has had. Pressure washing and wax polishing the entire hull would considerably enhance appearance.

D4. Deck Moulding.

The deck is a single GRP moulding integral with the coachroof and cockpit. It has a balsa cored sandwich construction on horizontal areas to increase strength and insulation. These areas have an effective moulded non slip pattern.

The entire deck was hammer sounded, weight tested and checked with a moisture meter. There are two significant areas of damage that need attention.

On the port side forward at the angle between the deck and coachroof, there is a series of deep cracks to the gel coat where the area has been flexed, possibly by crew jumping aboard. There is no movement in the structure and moisture meter readings are 20-25 which shows no significant moisture ingress. **It is recommended the cracks be ground out and filled with gel coat paste (B).**



Around the port boarding gate there are two groups of transverse cracks across the side deck about 1.5m apart in clear sections of the gel coat (shown) (B). Both showed signs of movement when hammer sounded and small amounts of water could be forced out of the forward crack. Moisture meter readings were 90 about 10cm either side of the damage. This will (or may already) have caused the balsa core to rot which will reduce the strength and rigidity of the deck (it is firm at present). It is recommended

that the head lining be removed fore and aft of the bulkhead between chart table and aft

port cabin. The laminate on the underside of the sandwich deck construction should be removed 10-15cm either side of the cracks, taking care not to damage the upper laminate. An inspection of the exposed core will indicate whether this is sufficient, the object being to cut back to firm material. The core should then be replaced (it may be easier to source polypropylene core material), securing this with epoxy paste. The laminate on the underside should be remade with epoxy resin and cloth, laid up on a waxed piece of formica or similar and then propped or temporarily secured with self tapping screws and removed when set. This need not be particularly neat given it will be covered. The main thing is to overlap the damaged area by about 10cm so as to return strength to the structure. The deck cracks should then be filled with gel coat paste. The object of repairing from beneath is to avoid having to match deck gel coat colours and non slip patterns. I have found <http://www.cfsnet.co.uk> a good source of mail order supplies.

Some minor crazing was noticed to the deck around the starboard quarter; this and other similar areas should be cleaned and wax polished.

D5. Coachroof.

The coachroof was weight tested, hammer sounded and checked with a moisture meter and found in good order. There are no signs of damage or cracking around the mast step.



There are deep gel coat chips starboard forward and to the forward end of the starboard handrail mount (shown) **which should be filled (B).**

There are two teak handrails which are secure but badly weathered. They were coated with 'Sadolin' but this is peeling. **They should be restored with sanding and teak oil which would add much to overall appearance and prevent the wood losing strength (B).** The same applies to teak stripping which retains the sliding plexiglass hatch.

D6. Cockpit.

The cockpit is integral with the deck moulding and open aft (a hinged seat allows access to steps onto the bathing platform. It has a teak overlay which is sound, adhering well but badly weathered. The caulking is firm at present. As above, if the area were restored with teak cleaners and oil it would add much to the vessel's appearance.

There are large lockers port and starboard with hinged locking lids which are in good condition. Comments on the teak overlay above also apply here.

The steering pedestal and cockpit table are securely mounted. Deep gel coat chips on the fore edge of the table base and aft edge of the starboard coaming need filling (B).

Rest of survey covering systems, engine, rig and sea trial tests removed