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Survey Report no: [redacted]

Name of Vessel: "[redacted]"

Type of Vessel: Beneteau Antares 650HB, FRP Motor vessel

Type of survey: Pre-purchase

At the request of:

[redacted]

This survey was carried out on [redacted] December 2010 ashore at Ramsgate Boat Yard, Ramsgate, Kent, UK. The above named being a prospective purchaser of the vessel.

Limitations:

- Where access is restricted by fixed panels, linings etc. it was not possible to examine and I cannot say those areas are free from defects.
- This report has been prepared for the use of commissioning client and no liability is extended to others who may see it.
- In some cases it is not possible to detect latent and hidden defects without destructive testing which is not possible without the Owner's consent.

Scope of Survey:

- This is a Pre-Purchase Survey and its purpose is to establish the structural and general condition of the vessel. Where items of equipment have been tested this will be stated in the text.
- Camera equipment was used in places to view normally inaccessible areas and the pictures analysed to identify any issues.
- A general inspection of the engine and installation will be made, but this is a visual inspection only without running the engine. It should be appreciated that some components may appear serviceable but found to be defective when the engine is run.
- The vessel was surveyed out of the water and tests carried out as described to ascertain any possible sources of water ingress, however, the vessel was not surveyed in the water and when launched, best practice is to thoroughly check for any leaks.
- The hatches and port lights were not leak tested with a hose and cannot be guaranteed not to leak, however visual evidence will be reported.

Recommendations:

- These will not be made concerning cosmetic or other minor defects, although relevant advice may be made in the text.
- Recommendations will be restricted to those defects which should be rectified before vessel is used, (or within a given time span if specified), and items which may affect insurability.
- ***Recommendations will be printed in bold italics for quick reference.***
- The recommendations are contained in the body of report in order that they may be read in context, and are also listed as part of the Conclusions at the end of this report.

Conditions of Survey:

Vessel was examined on the on hard standing, sitting on a cradle ashore at the premises of Ramsgate Port boat Yard, Ramsgate, UK. No special conditions affected the survey other than as described in the text.

Information is reported in the Sections below, followed by Recommendations and Conclusions.

Hull, Deck and Structure.

1. Details of Subject Vessel, (General Description, Dimensions, Registration etc.).
2. Keel.
3. Hull below Waterline.
4. Topsides above Waterline including Rubbing Strake etc.
5. Deck Moulding.
6. Coach roof.
7. Cockpit.
8. Hull/Deck Join.
9. Bulkheads and Structural Stiffening including Internal Mouldings.

Steering, Stern Gear, and Skin Fittings etc.

10. Rudder and Steering.
11. Stern Gear.
12. Cathodic Protection.
13. Skin Fittings and other through Hull Apertures.

On Deck.

14. Main Companionway and other Accesses to Accommodation.
15. Ports Windows etc.
16. Pulpit, Stanchions, Pushpit, Lifelines and Jackstays.
17. Ground Tackle and Mooring Arrangements.
18. Other Deck Gear and Fittings.
19. Davits and Boarding Ladders.

Safety.

20. Navigation Lights.
21. Bilge Pumping Arrangements.
22. Fire fighting Equipment.
23. Lifesaving and Emergency Equipment.

Engine.

24. Engine and Installation.
25. Fuel System.

Accommodation and onboard Systems.

26. Accommodation General.
27. Gas Installation.
28. Fresh Water Tanks and Delivery.
29. Heads.
30. Electrical Installation.
31. Electronic and Navigation Equipment.
32. Heating & Refrigeration

1.Details of subject vessel:

Designed for coastal fishing trips and reportedly very stable by the Manufacturer. Group Beneteau designed the vessel and P.Sarrazin the interior. Built in Poland for Beneteau Yachts, Z.1 des Mares, BP66, 85270, St-Hilaire-de-Riez, France. The owner reported that [redacted] is normally kept in the water all year around.

Manufacturers' information (from Builders certificate not verified by measurement)

Length Overall:	6.15m
Beam:	2.47m
Draft:	1.23m
Gross Tonnage	4.79T
CE Marked	Yes – Plate seen
RCD	Yes

Boat specific information

Registration	None seen
HIN Number	PL-BEYC7[redacted]G506
Year of Build	July 2005 Model year 2006
Serial Number	Serial number [redacted]
Engines	Suzuki 115hp Outboard

2. Keel

a) The keel is part of the hull moulding and has been considered such below. The centre line and forefoot viewed externally found in satisfactory condition with no serious abrasion damage noted.

3. Hull below Waterline:

a) Deep V single chine with spray rails of solid FRP construction and finished in white gel coat.
b) The vessel was suspended in a cradle with 1 pads and the bow and stern supported by wooden chocks. There are no signs of distortion in the hull.
c) The hull has blue antifouling over primer and old antifouling and a black primer.

d) Light hammer sounding was carried out (not heavy enough to damage anti-foul) of hull at regular intervals approximately 500cm spacing all over to identify any areas of delaminating. No areas of delaminating were noted

e) The chines and spray rails were checked under 10x magnification; no signs of stress crazing were noted.

f) The antifouling was removed in 8 areas at random approximately 50mm x 50mm. While scraping I was looking for evidence of wicking or blistering of the FRP and once antifouling was removed all patches were checked with 10x magnification. No evidence was found.

g) Moisture readings were taken where the antifouling was removed using a capacitance moisture meter of Sovereign Quantum model, operating in both shallow and deep reading modes.
The meter was first checked for correct calibration.
The readings recorded below are from the meter operating in the shallow and also deep mode on the relative scale 0-100.

The conditions prevailing when the readings were taken were as follows:

Air Temperature:	**8.5°C**
Surface temperature:	**8.1 °C**
Relative Humidity:	**72%**
Time ashore	**6 Days**
In summary the weather conditions for obtaining moisture readings were fair	

Readings were as follows:

Meter	**Range below waterline.**	**Range above waterline.**
Sovereign Quantum, Scale 0-100 Shallow mode	**17-19**	**13**
Deep Mode	**13 -17**	**9**

The interpretation of the readings in shallow mode range;

- 16 - 20: Some moisture present at low levels but of no great concern.
- 21 - 30: Considered medium, but those at the top of the range i.e 30 are at the point where the risk of moisture related defects developing is significant.
- 31- 45 Considered high and at a level where the risk of moisture related defects being present but not yet physically detectable is significant.

Advisory note - Always storing the boat ashore out of season to allow some natural drying out to occur will contribute significantly to maintaining this condition.

4. Topsides above Waterline including Rubbing Strake:

a) Topsides have a single chine, constructed of solid FRP.
b) Top side moulding found fair and finished in white gel coat. Minor abrasions noted, no signs of damage or repairs except where noted below.
c) No stress crazing or cracking noted in way of bulkheads or other re-enforcing members
d) A white rubber rubbing strake runs around the hull and deck join.
a) There were two areas of minor stress cracks Starboard side, just above rubbing strake at front of wooden capping. 50mm long. And Starboard side transom edge. Also 50mm. See picture at end of document.

Advisory note:- These areas could not be flexed when pressed or pulled. They are possibly from settling or minor impact. Star cracks in the gel coat, if not repaired should be heavily waxed to prevent water ingress into the laminates.

5. Deck moulding:

a) The deck is solid FRP. Access to the underside is greatly restricted by headlining material and FRP inner lining.
b) The gel coat is white with moulded in non slip
c) The whole deck was carefully tested underfoot. No sign of delaminating or other structural defect found.
d) Moisture readings were taken and found to be 13 shallow – 9 deep. See hull section for details.
e) Starboard side, inside bulwark by aft guard rail post 50mm starcrack, this is inboard of 4.e) above. Both possibly caused by the guard rail post being flexed.
f) The anchor locker is moulded into the deck. The forward hinge is a little loose.
g) There are two lockers on the transom. Starboard side giving access to the fuel filter and the port contain the boarding ladder. Both are securely hinged. The starboard locker lid clips in place securely as gives access to inside the vessel structure.

6. Coachroof:

a) The coach roof is integral with deck moulding and is reported above.
b) The deckhouse roof is solid FRP and reported on 5 above. The hand rails were leaned on and found secure. Headlining restricted access to fixings.

7. Cockpit:

a) The cockpit is integral with the deck moulding and constructed in the same way.
b) The cockpit has 1 solid FRP hatche in the sole, giving access to the compartment below. This lid sits above a gutter which drains to the cockpit drains, one at either aft quarter of the cockpit. These drains are stainless steel and connected to ISO7840 marine hose directly to the transom thru hulls. The locker lid has a gasket which is intact and a secure method of closure.
c) The compartment below contains the battery, Isolator switch and fuel tank, all of which are reported in sections below.

8. Hull/Deck join:

a) This is a bonded and mechanical type. The hull and deck have an external flange which is bolted together on which the rubbing strake is fitted. Bonding paste is visible from the inside of the vessel.
b) Internally no signs or evidence of any leaks on linings.
c) There are no signs of damage to the joint.

9. Bulkheads and structural stiffening including internal mouldings:

A number of components contribute to the overall structure.

a) Both hull and deck have FRP inner mouldings bonded to themselves with bonding paste.
b) A number of floors are moulded into the inner moulding.
c) The bonding where seen was secure.
d) A second inner moulding comprising the furniture is bonded to the hull.

10. Rudder and steering:

a) Steering is via the outboard engine
b) The wheel is connected by cable to the steering rack which is securely connected to the engine mounting bracket.
c) The bolts connecting the rack to the engine are secure and sound. The bracket on the engine is corroded. This is just surface corrosion and should be cleaned off and painted.

11. Stern Gear:

All part of outboard engine reported below.

12. Cathodic Protection:

a) There are no hull anodes fitted nor designed to be fitted.
b) The engine anodes and engine bracket anodes are not wasted at all and connected directly to the metals they are protecting.

13. Skin Fittings and other through Hull Apertures:

Some thru hulls may not be reported below but will be with relevant systems sections and have been tested the same way.

No skin fittings or valves were dismantled as part of this survey but the following routine tests were carried out:

- Examination from outside and inside the boat. Checked for de-zincification
- All valves open and closed to their full extent where possible.
- Any fixing bolts hammer tested where accessible.
- Bodies of metal valves or sea cocks tested with a hammer inside the boat and external parts hammer tested outside the boat.
- Fittings aggressively tested inside the boat for security in the hull.
- Hose clips inspected and hoses aggressively tested for security. 2 clips correctly fitted on outlet spigot unless noted.

- Lying fair to hull unless noted

Below Waterline:

a) The toilet intake thru hull is yellow metal with some minor signs of dezincification – shows up as pinkish colour on the fitting. The valve is DZR type.
b) The toilet inlet pipe is as per a) above

Advisory note:- This is typical of the fittings now being used by Group Beneteau. There is plenty of metal left intack. These should be checked annually.

c) Log and sounder fitting is combined, located starboard side in cockpit locker. Plastic and flush to hull.

Above Waterline:

d) Sink drain: Plastic thru hull.

14. Main Companionway and other Access to Accommodation:

These were all checked;

- to be lying fair to the deck
- fixings were randomly tested with screw driver for tightness
- frames checked for damage
- a secure method of closure
- correctly fitted hinges
- glazing checked for damage
- gaskets checked

All found ok unless noted. The hatches were not hose tested for leaks.

a) Main access into deckhouse saloon through sliding door, acrylic "glass" alloy frame, secure in runners with secure means of locking and holding open.
b) Fore cabin has Lewmar hatch with aft hinge two latches that can be locked.
c) Deckhouse has Lewmar hatch, hinged aft with two catches that can be locked.

15. Ports, Windows etc.:

The same checks as section 14. above were carried out. All found ok unless noted. The ports and windows were not hose tested for leaks.

b) Deckhouse. 2 x side opening windows.
c) Main screen. Plastic frames so no signs corrosion. There is slight split in frame starboard side bottom and behind the navigation light. These do not appear to be leaking. See picture at end of document.

16. Pulpit, stanchions, pushpit, lifelines and jackstays:

a) Pulpit and side guard rails are combined stainless steel tubing. Secured through deck with stainless bolts, metal plate and large nut. Limited access to underside, all found secure when body weight applied.

b) No life line attachments seen.

17. Ground Tackle and Mooring Arrangements:

a) Main bow anchor. This is a Brittany type, no weight marked. 8mm galvanised chain, and 10mm warp. Not laid out and examined link by link. Secured to u bolt at bitter end. Found in clean condition. Anchor shackle is rusted / corroded. Secure but could do with replacement. Correct size shackle seen spare in boat.
b) Stainless steel stem head with single bow roller. Pin to put over chain to stop jumping off is missing.
c) Vessel has stainless steel cleats fore, and aft of adequate size through bolted the laminate. All hammers tested, levered and found secure.
d) No second anchor found seen. No mooring warps or fenders seen.

Advisory note:- Mooring tackle is suitable for this type of boat and category.

18. Other Deck Gear and Fittings:

a) Windscreen wiper blade split.
b) Transom watertight locker lid TCL/4 housing is split. See photo.

19. Davits and Boarding Ladders:

a) Vessel fitted with folding stainless steel boarding ladder with plastic steps, extending below water line for easy boarding from water. No signs of wear and secure when pulled out and climbed on. Ladder a bit corroded but will clean up.
b) Locker lid has slight crack at hinge.

20. Navigation Lights:

Vessel fitted with

a) All round white combined anchor light, steaming light and stern light, seen working. Securely fitted.
b) Bicolour light - seen working and secure.

21. Bilge Pumping Arrangements:

a) Manual bilge pump, Plastimo 925, mounted under helm seat. Long pick up pipe to put in any area of boat. Discharges overboard through plastic thru hull above water line. 2 Clips on each pipe outlet.
b) Submersible bilge pump Rule 500GPH in aft locker. Discharges through plastic skin fitting. Operates from electrical panel.

22. Fire-fighting Equipment:

a) There were the following fire-fighting appliances found onboard.
    a. 1KG dry powder not mounted. Dated 2005.

Recommendation:-. Fire extinguishers should be serviced or replaced every 5 years. The MCA recommend one Fire extinguishers at every exit to open space plus 2 buckets with lanyards. This vessel should be equipped to this standard.

23. Lifesaving and Emergency Equipment:

The following was found aboard –

a) Plastimo rescue line
b) Flare pack – out of date December 2010.

The RNLI operate an excellent free inspection and advice service concerning levels of safety equipment (SEA Check) and can be contacted on 08003280600 or via the RNLI website, www.rnli.org.uk.
The RYA also publish a booklet, G16, "The Boat Safety Handbook" and this specifies levels of Safety Equipment for different categories of use and it is ***Recommended this vessel be equipped to the level appropriate to proposed use.***
Booklet is obtainable from nautical bookshops or direct from the RYA, www.rya.org.uk.

24. Engine and Installation:

Engine is Suzuki 115HP, petrol outboard built 2005

a) Engine operates tilts fully up and down from steering position and on engine switch. Temperature has been below freezing and owner did not want engine started.
b) Cover was removed and there are no signs of corrosion, water or fuel leaks on the engine. The engine looks well maintained.
c) Engine mounting bracket is securely attached to transom with 4 stainless steel bolts and nyloc nuts. These were visually checked and spanner checked and found secure.
d) Propeller is 3 blade plastic, with no damage. Secured with castellated lock nut and split pin correctly fitted.

25. Fuel system:

a) Plastic Petrol tank mounted under cockpit sole, secured with metal frame and found secure.
b) All hoses securely fitted and those marked ISO 7840 – Marine fuel grade quality.
c) Deck filler securely fitted.
d) There is a fuel filter mounted in starboard aft locker, securely fitted and hoses secure with 2 clips at each connection.

26. Accommodation General:

a) Interior is basic, wooden table, headlining clean, cushions undamaged.

27. Gas Installation:

There is no gas systems fitted.

28. Fresh Water Tanks and Delivery.

a) Water to sink is supplied via removable plastic jerry can can with fitting for hand pump and strap to secure in place. Drainage over board via plastic thru hull.

29. Heads:

a) Toilet is a manual Par Jabsco ITT. Thru hulls reported above. Pipes go direct to toilet and securely clipped.

30. Electrical Installation:

12v circuits

a) Single battery, looks 100amh but no size marked, is charged from engine charge circuit. Mounted in air tight Ocean Bag box securely strapped down. Vent pipe goes overboard. Secure grommets for wires are not secured. Terminals not tight.

Recommendation: Grommets should be fitted to prevent ignition of petrol vapours by sparks.

b) All wiring appears original manufacturers; all circuits have RCD breakers.
c) In aft locker they is a green and white wire not connected one end.

Advisory note - I suspect this is fuel filler earth and should be wired to outboard engine bracket.

240v Circuits

d) None.

31. Electronic and Navigation Equipment:

a) Raymarine C80 display with GPs, fish finder. Screen started up then turned off. Could not get to operate. Owner advised no issues until now.
b) VHF– Raymarine RAY54E DSC type seen working.
c) Radar reflector on deckhouse roof. Outer casing is not attached to base. Evidence of silicone used to fix.

32. Heating and refrigeration

a) None

RECOMMENDATIONS and CONCLUSIONS:

Maintenance Overview:

Cosmetic maintenance: Clean and tidy throughout.
Technical Maintenance: Engine appears well maintained as does rest of boat.

List of Recommendations:

The Recommendations made in the Report are listed below with their respective section numbers. ***All Recommendations should be carried out before use of vessel or as stated.***

22. Fire-fighting Equipment:

Recommendation:-. Fire extinguishers should be serviced or replaced every 5 years. The MCA recommend one Fire extinguishers at every exit to open space plus 2 buckets with lanyards. This vessel should be equipped to this standard.

23. Lifesaving and Emergency Equipment:

Recommended this vessel be equipped to the level appropriate to proposed use.

30. Electrical Installation:

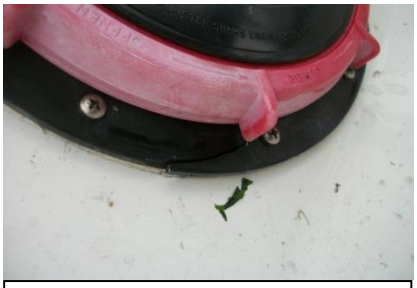
Recommendation: Grommets should be fitted to prevent ignition of petrol vapours by sparks.

Conclusions:

Good clean un-abused example lacking in some equipment and some equipment needing repair or replacement.

Photo's

Star crack



Watertight lid crack

Crack on screen pillar