

Aidan Tuckett B.Sc.(Hons).



MARINE SURVEYOR

Accredited Member of the Yacht Designers and Surveyors Association

REPORT OF AN INSURANCE SURVEY CARRIED OUT ON THE VESSEL:

'Vanessa', 1953, 53' twin screw motor yacht.



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A. GENERAL NOTES

The following survey was carried out at Hayling Island Boatyard on 13 & 26 April 2012 for:

**Elizabeth Crisp
476 London Road,
Grays,
Essex
RM204AR**

Scope

The survey was carried out for insurance purposes 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 in 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.

It is understood the boat will be launched and kept alongside whilst the remainder of the outfitting is completed. The (A) recommendations have accordingly been divided into those which should be done before launch and which should be done before going to sea.

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

Limitations

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

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 boat was seen ashore under cover. No guarantees can be given as to watertight integrity.

Many of the control systems were yet to be installed. The interior outfitting is not complete.

Conditions

Ashore under cover at Hayling Island Boatyard.

B. SUMMARY

'Vanessa' is a twin screw motor yacht, built in 1953 for use on inland waterways and sheltered coastal waters.

She has been extensively restored to a high standard over the last two years. The hull, deck and coachroof structures are now all in very good condition. The new engine installations are to a high standard.

Several issues were identified regarding existing systems and structures which should be addressed to satisfy insurers and these are summarised below and in the text.

The survey was carried out early April in anticipation of a late April launch date, but the vessel was not at that time complete. A second visit was made end April when there was still work to be completed to the vessel's systems. Essential items are listed below. If required, a further short inspection can be carried out and this report amended and re-issued. Otherwise it is assumed the owners will satisfactorily complete the works in the (A) list of the recommendations to make the vessel an acceptable risk to insurers.

RECOMMENDATIONS

(A) items which should be addressed before the vessel is used and/or which may affect insurability.

Pre-launch

1. The propeller hub nuts should be drilled and pinned (A) .
2. The water supply should be fitted to the stern bearings (A).
3. A cathodic protection system should be installed as described (A).
4. Skin fittings should be repaired /replaced as indicated before launch (A).
5. The earth plate must be fitted (A).
6. Bollards and fairleads have yet to be fitted (A).
7. The electric bilge pump must be wired up (A).
8. A manual bilge pump should be fitted (A).
9. Fire extinguishers should be fitted (A).

Pre-seagoing

1. Anchor chain or chain and warp to be fitted as described (A).
2. Engine control and steering systems should be installed and proven (A).
3. Separate side lights, a masthead steaming light and a stern light should be fitted (A).

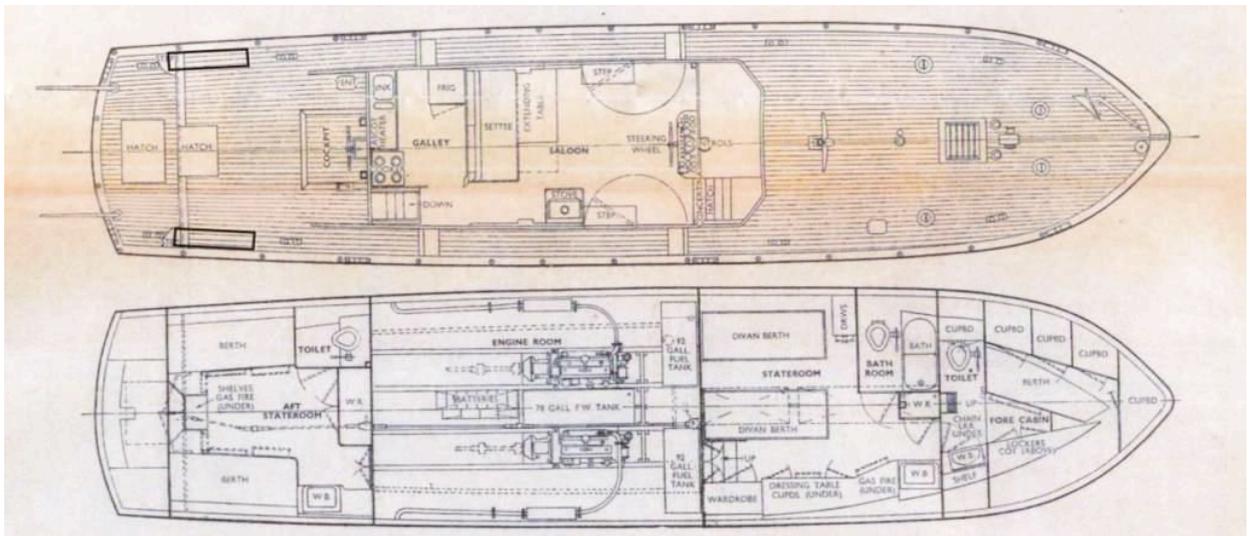
(B) items which should be addressed in the near future order to prevent future problems;

1. Holes for old hull fittings should be filled to prevent potential leaks and deterioration of the hull planking. Likewise the tack holes around the edge of the removed tingles have been left unfilled (B).
2. A small area of planking has cracked away from a frame mid ships, possibly where the hull planking has been loaded with the vessel ashore. No damage was seen outside the hull, but this should be monitored when the vessel is launched for leaks or excessive movement (B).
3. Ventilation slots should be cut into the internal linings all around the beam shelf/ deck edge to ensure a good flow of air behind these. Likewise there must be a ventilated access to the bow compartment (B).
4. There should be an emergency steering tiller (B).
5. Locks should be fitted to hatches and external doors (B).
6. Fuel filler pipes have yet to be replaced (B).
7. If there is a possibility of rougher weather on open water passages, some means of sealing the topsides windows should be carried such as plywood blanks (B).
8. A windscreen wiper will be needed on the helm side (B) .

C. VESSEL DATA

Dimensions approximate or taken from published details, not checked.

LENGTH OVERALL	:	53.5'
BEAM	:	12.0'
DRAFT	:	4.2'
DISPLACEMENT	:	Not known, estimate 30 tonnes
BUILT	:	1953, Graham Bunn of Wroxham.
REGISTRATION	:	SSR 62365
ENGINES	:	Twin Perkins Sabre 4 cylinder 86hp diesels (new)
FUEL	:	800lts
WATER	:	Approx 1000lts



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D. Hull, Deck and Structure.

D1. Keel and outer stem.

The vessel has a hardwood stem which runs back to a skeg which is 90mm sided. There is a metal rubbing piece at the bow. It appears original and is secure with no signs of decay. The joints are tight. There are no signs of hogging along the line of the keel.

There are hardwood bilge keels which are secured against new hardwood blocks sitting inboard of the chine log. This work is recent and to a good standard.

D2. Planking below the waterline

All planking is 1" teak, laid double diagonally over hard wood frames and fastened with copper roves. It is understood to be original. Plank to frame fastenings could not be inspected but are assumed bronze screws or nails.

All surfaces were hammer sounded and sample areas gently spike tested. No signs of softness or other weakness was found. Seams are generally tight although some small gaps were seen along the garboard joint and the port chine, possibly due to drying whilst the vessel was ashore. These should be filled with sealant such as Sikflex 291.

The underwater paint system is new and in good condition.

Copper tingles had been fitted on the port and starboard side aft but not replaced. The original requirement is not clear, the planking not showing any signs of weakness in this area when hammer sounded. **The tack holes around the edge of the tingles have been left unfilled and this should be done with thickened epoxy (B).**

Similarly, various holes left around old skin fitting locations should be plugged.

It is planned to put the vessel afloat for a period to 'take up'. There will be less movement in this type of construction than traditional carvel plank on frame. Any excessive seepage that does occur should be monitored as it may be beyond what would be dealt with by expansion of the hull structure. Any significant leaks remaining after 48hrs are unlikely to be reduced by swelling.

D3. Internal keel, centreline structures and frames

The vessel has a hardwood keelson, approximately 180mm sided to which the floors are through bolted at 2' centres. The floors are lap fitted to the frames. Fastenings appear to be galvanized steel bolts. No significant corrosion or looseness was seen to these where visible.

Frames are hardwood, 2" sided, at 2' centres, straight section. They are jointed by bolted knees and gussets over the chine logs, all as normal for V bottom construction.



There is a beam shelf and a mid-topsides stringer to provide additional longitudinal strength. There is an iron plate breast hook at the bow.

Most of these structures were in good order where seen with no signs of deterioration to the material and fastenings with the exception of a frame around midships in the engine space which has cracked away from the hull (shown), possibly where the hull planking has been loaded with the vessel

ashore. No damage was seen outside the hull but **this should be monitored when the vessel is launched for leaks or excessive movement (B)**.

There is a hardwood stern knee which is secure.

All interior surfaces have been cleaned back and repainted. No decay, bare wood or damage was found in any of the bilge areas other than that mentioned above.

D4. Topsides planking, bulwarks etc.

As for the bottom planking, double diagonal teak. The surfaces are finished to undercoat stage and some cracking has developed along the plank lines since this was done. Moving the boat outside pre-launch for a few weeks to allow the planks to take up before gloss coating would address this. Mixing gloss with undercoat as an intermediate layer will ensure better adhesion between layers.

The upper rubbing strake at the transom has a horizontal surface about 7cm wide. This will retain water so should be kept well coated to prevent rot developing along the angle between the strake and the planking.

The stem has a stainless steel capping piece. It is understood this was removed and the hood ends beneath checked. Some of the securing screws have pulled through and need to be replaced with larger sizes.

The internal linings have not been fitted with ventilation slots at the beam shelf/ deck edge. **It is strongly recommended these are made to ensure a good flow of air behind the linings (B)**. Most decay in wooden vessels originates from leaks at the deck edge which can lead to decay at the beam and frame ends, the sheer strake etc.

Similarly there is no access at present into the bow compartment. This also needs to be ventilated.

D7. Bulkheads

Bulkheads are veneered or painted 20mm plywood and in good condition where seen. All are secured to frames or the floor/cabin sole bearers.

D8. Deck beams

Deck beams are sawn teak, mostly covered by linings. All are in good condition where accessible with no signs of decay or looseness at their ends.

D9. Decks and built cockpits

The vessel is decked with swept teak planking laid on plywood and secured with plugged stainless steel screws. The planking is 65mm teak, all recently replaced or re-fitted. It has been caulked with polysulphide. The deck was firm underfoot with no signs of give or poor bonding of the teak.

D10. Built coachroof

The coachroof structure is hardwood framed with edge jointed board panels, believed teak, all varnished. The deck head is sheathed plywood with insulation beneath. Beams appear to be sawn or laminated where seen. All structures have been repaired and coated to a high standard.

E. Steering, Stern Gear, and Skin Fittings etc.

E1. Rudder and Steering.

There are paired stainless steel rudders which attach by flanges to bronze stocks (yet to be fitted). These have partially balanced blades and grease packed glands. They are operated by Whitlock steering gear from the wheelhouse (yet to be connected).

The steering operates a central tiller connected individually by bar to each stock. The bars are secure. The rudder stock bearings are new.

Externally the rudder blades are sound and undamaged.

Morse control cables are new. The wheel, autopilot etc are yet to be fitted. All should be **installed and tested (A)**.

There should be an emergency steering tiller (B).

E2. Stern Gear.

There are twin, three blade, contra rotating, 21" diameter, manganese bronze propellers, both new. These are secured on 1.6" stainless steel shafts. This is magnetic and presumed to be 'Aquamet' or similar.

The props are secured with castle nuts which have not been drilled or pinned (A) .

The shafts are supported on double arm bronze brackets. These are original but in good order with no signs of erosion or damage. They are securely mounted.

There are new cutlass bearings on the shaft logs. The logs are in good condition. Inboard there are new PSS seals. **The water supply has yet to be fitted to these (A)**.

There are hard couplings between the engine and shafts.

E3. Cathodic Protection.

The vessel requires the following cathodic protection system (A). For an explanation of the principles behind this see <http://www.mgduff.co.uk/leisure-craft/cathodic-protection.html>.

On the assumption she will be based on the lower Thames, all anodes should be zinc. If she is sailed in freshwater for more than a few days and up to a month (e.g. the Thames above Teddington), a magnesium anode or block should be carried and suspended in the water from a wire, the other end of which is secured to a prop shaft.

There should be anodes on each rudder blade, 0.7kg size, and on each 'P' bracket. There should also be two hull anodes, port and starboard, 1kg size, bolted in the existing locations or no more more than 1m from the stern gear. Inside the hull, these bolted anodes should be bonded to the engine block.

Note an electrical bond between the existing anode and the shaft does not exist and the wire should be remade.

It is no longer considered good practice to bond individual bronze skin fittings to anodes, although it was when Vanessa was built.

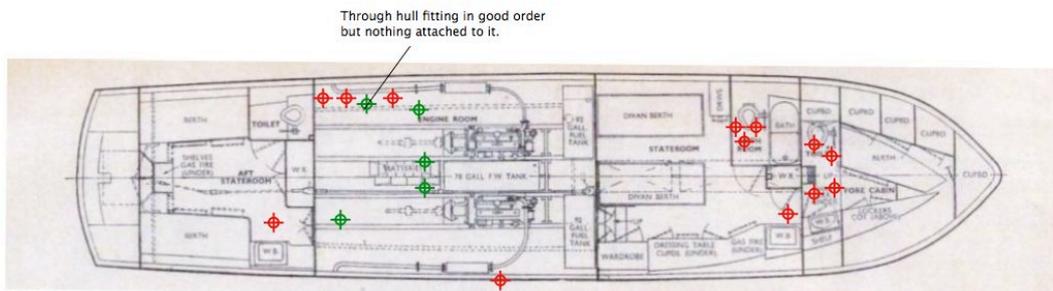
If the vessel is moved to a freshwater mooring, all existing zinc anodes will need to be replaced with magnesium ones.

E4. Skin Fittings and other through Hull Apertures.

The vessel is mostly fitted with bronze, tapered valve, type skin fittings, often called 'Blakes', although these particular ones were made by Simpson Laurence. On the first visit, several of were found to have been fastened with what were probably brass bolts. These had de-zincified over the years such that they could be easily broken. By the second visit, all suspect fittings had been removed and were in the process of being replaced.

A plan provided after the initial visit is below.

SKETCH TO SHOW POSITION OF SEA COCKS - NOTE THE NUMBER OF FITTINGS IS CORRECT BUT THEIR EXACT LOCATION MAY NOT BE SO CHECK THE AREAS MARKED UNTIL ALL ARE ACCOUNTED FOR.



- ◆ BLAKES TYPE SEA COCK SECURED WITH FOUR BOLTS. THESE TO BE DISMANTLED, BOLTS SECURING THEM TO HULL REPLACED WITH NEW BRONZE TAIL PIPES REPLACED AND REINSTALLED.
- ◆ OTHER SEACOCKS ALL FOUND SATISFACTORY.

It is understood that all fittings will be made good before launch (A). This includes the valve and through hull being securely mounted, valves being easily accessible and moving freely, connecting hoses being secured with two stainless steel hose clips and the hoses being in good order and free from chafe sources, and any tail pipes (the copper pipes over which the hoses are secured on the older bronze fittings) being free of corrosion.

At present only those marked in green on the above plan are in good condition and one of these (aft engine port) has no valve.

Some of the holes from the old skin fittings had not been filled (shown on engine water intake); these should be in order to prevent potential leaks and deterioration of the hull planking (B).



A grounding plate has yet to be fitted midships on the port side of the boat, the holes for this are open at present (A).

F. Deck structures.

F1. Main Companionway and other Accesses to Accommodation.

There are wooden slide doors either side of accommodation, **locks to be fitted (B)**.

A hinged fore hatch is fitted, the after hatches having yet to be installed. **Locks or internal bolts are needed to provide adequate protection from break in (B)**.

F2. Ports Windows etc.



The wheelhouse windows are safety glass, all in good condition and recently re-fitted. There are large 'wind-down' opening windows port and starboard.

A windscreen wiper will be needed on the helm side (B).

There are opening windows in the topsides forward, all with sliding glass fittings. These are adequate for inland and coastal waters in fair (<F4) conditions. If there is a possibility of rougher weather e.g. any open

water passages >12hrs, **some means of sealing the windows should be carried such as plywood blanks (B)**. They are unlikely to be weather tight against breaking waves.

F3. Pulpit, Stanchions, Pushpit, Lifelines and Jackstays.

The boat has a stainless steel pulpit which is secure.

Painted steel stanchions have been fitted to the cover board and a varnished teak rail fitted to this. All are secure.

F4. Rigging Attachment Points n/a.

F5. Ground Tackle and Mooring Arrangements.

There are 2 x 60lb CQR type galvanised anchors. These are of more than adequate weight for the boat. No chain was seen and **it is recommended at least 40m of chain or 10m+ chain and warp to make up to 40m is carried for inshore cruising (A)**.

A new Lofrans 1.75kw electric anchor windlass is securely mounted on the foredeck but was not tested.

Bollards and fairleads have yet to be fitted (A).

F6. Other Deck Gear and Fittings.

N/a

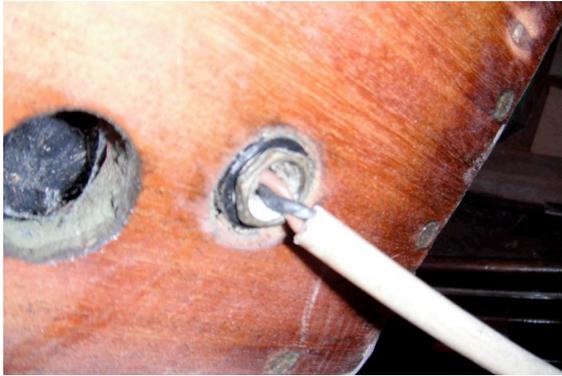
F7. Davits and Boarding Ladders.

Not yet fitted. Some means of recovering a man overboard should be planned for given the high topsides

G. Rig. N/a.

H. Safety.

H1. Navigation Lights.



Not yet fitted although the side lights were seen loose.

Note the cable on one needs re-securing (shown).

To comply with regulations, the vessel should have separate side lights, a masthead steaming light and a stern light (A).

There should also be a horn.

H2. Bilge Pumping Arrangements.

There is an electric bilge pump with a float switch in the engine compartment. It was not wired up when tested (A).

A manual bilge pump should be fitted (A).

H3. Firefighting Equipment.

Fire extinguishers are to be fitted (A). There should be four 4kg (3A/113B/C) dry powder fire extinguishers in total, including one by the helm for immediate use and one in each compartment. The total can be made up with multiple smaller extinguishers to total the same ABC rating if preferred.

It is also recommended an automatic engine space fire extinguishing system be fitted. Those using FM200 as an extinguishant will cause less damage than dry powder if ingested into a running engine. Note the engine space is approximately 18m³ which will require about 2 x 5kg extinguishers - exact details will vary with make and should be checked with manufacturers/suppliers.

H4. Lifesaving and Emergency Equipment.

Not yet fitted

The RNLI operate 'Sea Check', a free boat safety inspection service which can advise on appropriate safety equipment. See

http://www.rnli.org.uk/what_we_do/sea_and_beach_safety/sea_safety/sea_check

I. Engine.

I1. Installation.

The vessel has twin Perkins Sabre M92B 4 cylinder diesels. This is a new installation to a good standard. The engines are on flexible mounts on wooden bearers. The mounts are secure.

I2. Running and service checks.

Not tested.

I3. Controls and indicators

Not yet installed.

I4. Exhaust system

The engines have flexible water cooled exhausts which exit either side above the waterline. Hose, water locks, silencers and through hull fittings are all new and in good order.

I5. Fuel system

There are two wing fuel tanks, both painted mild steel, approximately 400lts each. They are adequately secured. No sign of past leaks were seen beneath them but it is understood the starboard tank is to be replaced.

Note if diesel was in the remaining tank throughout the refit, there is a risk that bacteria ('diesel bug') will have developed, so it should be treated before the boat is first sea trialled .

The fuel lines are new, to ISO7840 and well fitted as are pre-filters.

Filler pipes have yet to be replaced (B).

J. Accommodation and on Board Systems.**J1. Accommodation General.**

To be fitted.

J2. Gas Installation.

Not fitted.

J3. Fresh Water Tanks and Delivery.

N/a

J4. Heads.

To be fitted. Note intake and exit pipes should be led well up to avoid siphoning where the toilet rim will be less than 300mm above the waterline as is likely here.

J5. Electrical Installation.

12v control panels and isolator switches have yet to be completed so could not be tested. Work done to date is to a good standard.

There are four 12v 260AH lead acid batteries, secured on the centreline in the engine room. All are fixed against movement and the wiring is to a good standard.

Battery charging will be by engine alternator and shore power.

J6. Electronic and Navigation Equipment.

No electronic navigation systems are fitted at present. A Furuno radar scanner was seen .

There is a Sestrel globe compass which has yet to be fitted. It spins smoothly when deflected, returning to the same bearing. The glass is in good order and there are no bubbles in the damping fluid.

J7. Heating and refrigeration.

N/a

A handwritten signature in black ink, appearing to read 'Aidan Tuckett', written in a cursive style.

Aidan Tuckett
Accredited Member of the Yacht Designers and Surveyors Association
6 May 2012.

K. Valuation

Subject: 'Vanessa', 1953 classic twin screw motor yacht

'Vanessa' is a wooden twin screw motor yacht, originally built in 1953. She has been extensively restored over the last two years and although some work remains to systems, she is substantially complete. The interior outfitting has yet to be completed and when done would add to the present value.

There are few comparable yachts on the market at present. Examples are:

52' Fleur de Lys motor yacht. 1965, Avon,	£115k
54' James Silver motor-sailer. 1948, Holland	£129k
43' Parker diesel yacht. 1963, Devon	£98k

These are all complete, restored vessels. 'Vanessa' would be about the mid range of this range once all work is done.

In her present condition as surveyed during April 2012, I estimate 'Vanessa' to have a market value in the region of £100k.

This excludes any dinghies or liferaft, which should be considered separately. The valuation assumes the engines are in good running order. Commercial rebuilding costs would be considerably in excess of this figure.



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6 May 2012