

SURVEY REPORT

Vessel:

1/28/2014

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VESSEL`s PARTICULARS

<i>NAME OF VESSEL & IDENT No</i>			
<i>REGISTERED/UNREGISTERED</i>			
<i>MANUFACTURER</i>			
<i>TYPE & MODEL</i>			
<i>PRINCIPAL DIMENSIONS</i>	<i>Length</i>	<i>Breadth</i>	<i>Draught</i>
<i>MACHINERY</i>			
<i>TRANSMISSION</i>			
<i>STERNDRIVES</i>			
<i>STERNGEAR</i>			
<i>PLACE OF INSPECTION</i>			
<i>DATE OF INSPECTION</i>			
<i>WEATHER CONDITIONS</i>			

The vessel was not measured in any way. These particulars were recorded as disclosed by the Broker and no guarantee of accuracy can be given.

CLIENT DETAILS

Name:
Address:

Post Code:

Telephone Nos:
Email:

Mobile:

INTRODUCTION

Instructions were received from the client (details above) to undertake a pre-purchase condition survey of the vessel whose particulars appear on Page 3 of this report. The vessel was examined whilst ashore/afloat.

Limitations of Survey

The inspection was carried out using non-destructive techniques. The only surface coatings removed by scraping back were antifouling coatings on the underwater surfaces of the hull, and these were removed in coupon areas to enable the moisture content of the substrate to be determined.

The vessel was not opened-up in any way other than by removal of normally portable panels.

Fastenings, keel bolts, shafts etc were not drawn for inspection.

Electrical, electronic and navigation equipment were not assessed for performance. However, circuits to these equipments were energised where connected to the vessel's power supplies.

Machinery operation was not assessed.

Defects in and/or under the antifouling, painted or fairing compound coatings on the hull, rudder or skegs, or any other structure, can only be identified by destructive means. Such means are outside the scope of this survey.

NOTE: The abbreviation **S**, which means “**satisfactory**”, used in this Report to condition an item does not necessarily mean new but suitable for reasonable use.

The abbreviation **F**, which means “**fair**”, used in this Report to condition an item does not necessarily mean new but suitable for reasonable use. However, it requires maintenance or attention.

The abbreviation **P**, which means “**poor**”, used in this Report to condition an item means that it requires replacement or major repair.

The abbreviation **N** used in this Report means that the Item was **not found** on board at the time of the inspection.

METHOD OF DETERMINATION OF HULL WETNESS

The wetness of a vessel’s GRP hull substrate is often used as an indicator of the condition known as osmosis. A high degree of wetness within a GRP substrate is usually, but not always, a precursor to this condition. Moreover, the moisture meters generally used by surveyors can be fooled into detecting a high level of moisture in the substrate where none exists. This may be due to metallic components in surface coatings, internal wiring, other metallic components or free-standing water close to the surfaces being sampled. Condensation on either the outside or inside of the substrate being tested can also affect meter readings. The meter readings therefore need to be treated with caution and collateral physical evidence (e.g. blistering) is needed before osmosis can be determined with confidence.

The degree of wetness is determined by comparison of measured wetness metered on hull datum (vessel’s topsides above the boot-topping) to that metered on the hull bottom (vessel’s underwater surfaces). Topsides are considered normally to be “dry” (surfaces not usually immersed) whereas hull bottom is usually considered to be “wet” (surfaces usually immersed with vessel afloat).

The metered datum samples were taken in 10 random areas (numbered) on both sides of the vessel’s topsides, to establish a value for dry substrate for this particular vessel. The samples on the vessel’s bottom surfaces were taken at 10 random areas (numbered) on each side. The numbered areas sampled were used consistently for both meters and meter ranges used.

The scale used on both meters was the Relative Scale. Note that this scale does not represent a measurement of moisture that is linear in value and a reading of 40, say, does not indicate twice as much moisture as a reading of 20.

Instruments Used:

DTH1C – Digital Temperature and Hygrometer, Fluke 61 infrared thermometer

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Moisture Meters - Sovereign Scale A (Sov), Tramex Skipper Scales 1 and 2 - (TR1), (TR2).

Measured Relative Humidity (%)	
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Measured Ambient Air Temperature (deg C)	
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Calculated Dewpoint (deg C)	
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External Hull Surface Temperatures (deg C)	(lowest) (highest)
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Metered Datum Established on Topsides

Meter	1	2	3	4	5	6	7	8	9	10	A
Sov											0v.0
Tr1											0.0
Tr2											0.0

**Metered Samples on Bottom
(Starboard)**

Meter	1	2	3	4	5	6	7	8	9	10	Av
Sov											0.0
TR1											0.0
TR2											0.0

(Port)

Meter	1	2	3	4	5	6	7	8	9	10	Av
Sov											0.0
TR1											0.0
TR2											0.0

Rudder

Meter	Starboard		Port		Av
	R1	R2	R1	R2	
Sov					
TR1					
TR2					

Comments on Meter Performance:

Both meters tested for performance prior to survey. The Sovereign moisture meter had a shallow depth of GRP substrate penetration in which to detect significant moisture content and could not reliably operate deeper than about 1mm. Set to Scale 1 (TR1)

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the Tramex could reliably detect significant moisture content to a depth of about 9mm whilst set to Scale 2 (TR2) could reliably detect moisture to a depth of about 14mm.

Comments on Ambient Conditions and Variances in Metered Wetness:

Collateral Evidence of Osmosis:

ITEMISED CONDITION REPORT

HULL BELOW WATERLINE

Item	Condition	Comments
Hull Lines		
Coating(s)		
Damage or Repair	Yes/No	
Keel to Hull joint		
Keel		
Rudder(s)		
Play in Rudderstock bearing(s)		
Prop shaft(s) - (where visible)		
P or A Strut(s)		
Propeller(s)		
Cutless Bearing(s)		
Bowthruster		
Skin Fittings		

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Item	Condition	Comments
Cathodic Protection		
Other Defects		

HULL ABOVE WATERLINE

Item	Condition	Comments
Hull lines fair		
Damage or Repair		
Coatings		
Rub rail		
Gunwale		
Hull/Deck joint		
Other Defect		

DECK, SUPERSTRUCTURE AND COCKPIT

Item	Condition	Comments
Material		
Coatings on Deck		
Deck Covering		
Deck Fittings		
Coatings on Superstructure		
Coating Cockpit		
Winches		
Cockpit Drains		

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Item	Condition	Comments
Anchor and Chain		
Chain Locker		
Windlass		
Hatches/Windows, Portlights		
Mast Step		
Pulpit, Pushpit and Guard- rails		
Other Defects		

RIGGING

Note:

1. This rigging inspection is carried out from deck level unless otherwise stated. Items marked with asterisk can be fully inspected only if mast is unstepped.

Condition	Comments
Are chainplates aligned with bottlescrews and shrouds?	Yes/No
Are there any signs of leakage around chainplates?	
Are terminal fittings free of cracks, bends and rust?	
Are bottlescrews sufficiently lubricated to turn freely?	
Are bottlescrew barrels secured to the threads with rings, pins or locknuts?	
* Is the standing rigging free of broken strands (whiskers)?	
Is the mast straight (sighted along mainsail track)?	
If the mast is stepped on deck, is it properly supported below (e.g. compression post)?	
Are there signs of galvanic corrosion at the mast step, or at	

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Condition	Comments
mast furniture?	
* Are any rivets or screws missing from sail tracks or other fittings?	
Are welds on mast and boom rusted?	
Do spreaders bisect the shrouds at equal angles?	
Are spreader ends secured to the shroud?	
Are spreader ends protected (tape or boot)?	
Are all pins taped?	
Are any clevis pins missing?	
* Do "T" terminals show any indication of stress?	
* Are halyard fittings, especially the sheaves, crushed, split or badly worn?	
* Are masthead mounts for masthead gear secure?	
Are potential problems with forestay fittings hidden by roller reefing gear?	

Additional Comments:

HULL INTERNALS

Item	Condition	Comments
Access to Hull Internally		
Coating		
Corrosion/Rot		

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Item	Condition	Comments
Delamination		
Bulkheads, Frames, Stringers, Longitudinals		
Hull Fittings		
Sea Valves		
Hoses and Hose Clamps		
Chainplates		
Mast Heel/Support		
Water in Bilge		
Keel Bolts		
Hull/Deck Joint		
Other Defects		

Notes:

1. No checks for leaks were performed by hosing down.
2. Parts of the hull that are inaccessible and cannot be reached for inspection are not assessed and cannot be checked for leaks.
3. The hull in way of tanks, ballast, thru-hull piping, rudder shafts, skegs, keels, behind joinery, inner moulds or otherwise hidden from inspection cannot be assessed.

INTERIOR

Item	Condition	Comments
Joinery		
Brightwork		
Leaks		
Hinges and Locks		

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Item	Condition	Comments
Linings		
Upholstery		
Sea Toilets/Showers		
Other Defects		

UTILITIES

Item	Condition	Comments
Fresh Water System		
Grey Water System		
Black Water System		
Fridge/Freezer		
Heating		
Air Conditioning		
Hot Water System		
Other Defects		

Note:

1. Tanks were not assessed for tightness nor pressure tested

LIQUIFIED PETROLEUM GAS (LPG) INSTALLATION

The LPG installation was not surveyed. Incorrectly installed or faulty LPG appliances and systems are dangerous to use. This installation should be inspected by a CORGI registered LPG Engineer.

ELECTRICAL INSTALLATION

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Item	Condition	Comments
DC Voltage		
Battery Master Switches		
Master Switch Fused	Yes/No	
Circuits Fused		
Standard of Wiring		
Battery Installation		
Lighting		
Navigation Lights		
Shore Power Connection		
Inverter		
Battery Charger		
Generator		
Other defects		

Notes:

1. Wiring and/or connections that cannot be reached for inspection are not assessed.
2. The electrical system is only assessed on its on/off functions during and at the time of the survey.
3. Conductor cross-sections, number and rating of fuses, bonding, grounding, wire specifications and connections are exempt from this survey. This also applies to condition and capacity of batteries.

ELECTRONIC EQUIPMENT

Item	Condition	Comments
Compass(es)		

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Item	Condition	Comments
VHF/DSC		
SSB		
GPS		
Log/Speed		
Navtex		
Radar		
Autopilot		
Radio/Cassette/CD player		
Depth Sounder		
Wind Indicator		
Instrument Repeaters		
Chart Plotter		
Other		

STEERING GEAR

Item	Condition	Comments
Wheel/Tiller		
Steering Gear		
Rudderstock Seal		
Play in Steering Gear		
Rudder Stops		
Other Defects		

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PROPULSION

Item	Function	Comments
Engine Mounts		
Vibration Dampers		
Rigid/Flexible Shaft Coupling	Rigid/Flexible	
Engine Beds		
Engine Leaks – Oil/Water	Yes/No Oil/Water	
Corrosion	Yes/No	
Transmission		
Thrust Plate		
Cooling System		
Seawater Strainer(s)	Yes/No	
Antisiphon Vent	Yes/No	
Exhaust System		
Muffler/Water Lock	Yes/No	
Exhaust Insulation		
Fuel Tank(s)		
Fuel Filter(s)/Water Separator	Yes/No	
Fuel Shut-Off Valve(s)	Yes/No	
Stern Gland Leaks	Yes/No	
Sail drive – rubber seal		
Stern drive – bellows		
Oil/Water Levels		

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Item	Function	Comments
Other Defects		

Notes:

1. The engine was not dismantled and its internals, transmission and tankage were not surveyed. Oil samples were taken for analysis only if requested by the client.
2. The engine was assessed on performance (where a wet survey was able to be conducted) and not on its condition.

SAFETY AND EMERGENCY EQUIPMENT

Item	Included on Inventory	Comments
Fire Extinguishers	Yes/No	
Life raft		
EPIRB		
Lifeline and Quoit		
Lifejackets		
TPAs		
SOLAS Signal Table		
Pyrotechnics		
Boarding ladder or equivalent		
Emergency Steering		
Bilge Pumps		
Other		

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Note:

1. The condition of the lifesaving and emergency equipment on board was not established during this survey, only its presence on board.

SEA TRIAL (Instructed: YES/NO)

Note:

1. A sea trial is undertaken only on the instructions of the client.

Item	Function	Comments
Bowthruster		
Sternthruster		
Handling/Steering		
Engine(s) Cold Start		
Exhaust Gases		
Oil Pressure(s) indicated		
Engine Temperature(s) indicated		
Engine Alarms		
Vibrations/Resonance		
Propulsion		
Transmission operation		
Engine Controls operation		
Alternator Output(s)		
Other		

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Engine Performance Table

RPM	Oil pressure	Water temp	Gearbox pressure	Exhaust emissions	Vibration noise	Alternator output	Boat speed (GPS)
Neutral							
1000							
1450							
2000							
Max (.....)							

SURVEYOR'S ADDITIONAL COMMENTS

This survey is a factual report on the inspection carried out and the opinions expressed are given in good faith as to the condition of the vessel as seen at the time of the survey. It implies no guarantee, no safeguard against latent defects, subsequent defects, or defects not discovered at the time of the survey in woodwork or areas of the vessel which were covered, unexposed or not accessible to the surveyor internally due to the installation of non-removable linings, panels and internal structures etc., or agreement and permission and instructions given to the surveyor to gain access to closed-off areas. I am, therefore, unable to report that any such part of the structure is free from defect.

Signed:

Surveyor

Date: