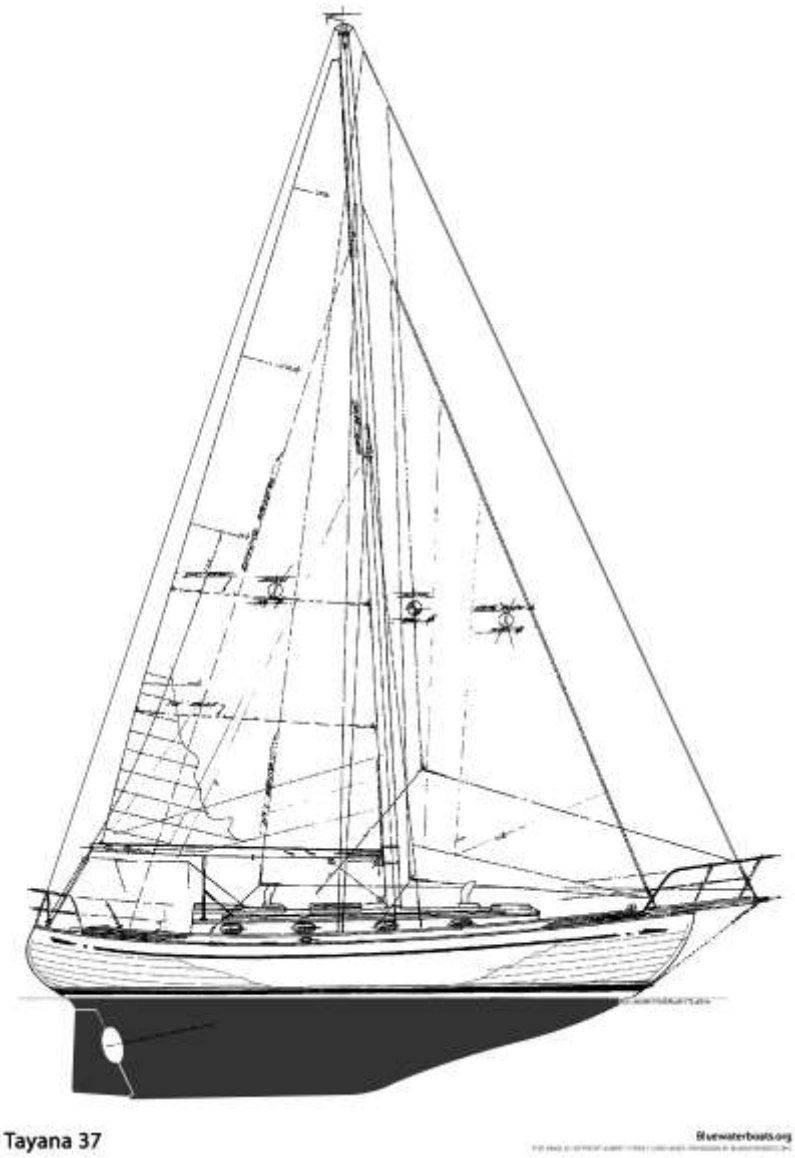
Pre-purchase survey of Tayana 37, 2005

‘xxx’



Discovery Marine Surveys®

January 29, 2014
DISCOVERYMARINESURVEYS.COM
604 318-1402
Vancouver, B.C.
Canada

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Pre-purchase Marine Survey Report

Report Number

2014-0101

Date of Inspection

29 January, 2014

Commissioned by

Mr. xxx

Address

xxx

E-mail

xxx

Telephone

xxx

General description

Vessel condition (summary)

The vessel is in: **Above average condition.**

General information

Vessel

Name of Vessel: xxx
Model year: 2005
Date of mfg.: 2005

Registration

The vessel registration information was not provided.
N.R.T.
Reg.
See comment A1.

HIN/MIC

HIN number as found on the top starboard side of transom.

Manufacturer's plate

Located on the aft fuel tank

Model no. T37

Serial no. xxx

Survey site

Vessel inspected at: Sydney B.C.
Vessel observed: In water and in crane.
Weather was: Grey & wet
Temperature: 8' – 12'C
Survey started at: 09h00
Survey ended at: 16h15

The client attended: Yes
Note.
n/a

Published specifications

Weights and dimensions are taken from common publications. If any are in question then the concerned party should take actual measurements.

LOA:	36.80' / 11.22m	LWL:	31.83' / 9.70m
Beam:	11.60' / 3.54m	Listed SA:	846 ft2 / 78.59 m2
Draft (max.)	5.67' / 1.73m	Draft (min.)	
Disp.	24000 lbs./ 10886 kgs.	Ballast:	7340 lbs. / 3329 kgs.
SA/Disp.:	16.33	Bal./Disp.:	30.58%
Disp./Len.:	332.24 à	Designer:	Robert Perry
Builder:	Ta Yang Yacht Building Co. (TAIWAN)		
Construct.:	FG	Bal. type:	Internal
First Built:	1976 Last Built:	# Built:	650

TANKS

Water:	110 gals. / 416 ltrs.	Fuel:	90 gals. / 341 ltrs.

RIG DIMENSIONS KEY

I:	50.80' / 15.48m	J:	19.50' / 5.94m
P:	45.30' / 13.81m	E:	15.50' / 4.72m
PY:		EY:	
SPL:		ISP:	
SA(Fore.):	495.30 ft2 / 46.01 m2	SA(Main):	351.08 ft2 / 32.61 m2
Total(calc.)SA:	846.38 ft2 / 78.63 m2	DL ratio:	332.24
SA/Disp:	16.34	Est. Forestay Len.:	54.41' / 16.59m

BUILDERS (past & present)

More about & boats built by:	Ta-Yang Yacht Building Co. Ltd.

DESIGNER

More about & boats designed by:	Robert Perry

NOTES

The design was initiated by Bob Berg and Will Eckert, partners in Flying Dutchman Yachts, as well as C.T. Chen of the Ta Chiao, where at least one was built as the CT 37. The rights were then sold to Ta Yang, the primary builder of this, one of most successful boats of this type, with more than 600 built.

NOTES

n/a

Scope of survey

The purpose of this inspection and survey report, requested by and created for Mr. & Ms. xx is to determine insofar as possible within the limitations of visual and physical accessibility, through non-invasive and non-destructive means, the vessel's condition at time of survey by reporting deficiencies against the standards quoted in the "comments" section of this report and to present the surveyor's personal opinion as to the vessel's condition. This type of survey is also known as a Pre-Purchase survey. Certain parts of the structure, systems and equipment are inaccessible without removing decks, tanks, bulkheads and headliners etc. or in the case of cored structure, drilling core samples. This is not within the scope of this survey. Coatings build up, corrosion, marine growth, excessive gear on board or dirt may have hampered the surveyor's ability to inspect. Thick layers of anti-fouling paint may inhibit bottom inspection and therefore destructive testing is offered at additional cost.
Be advised that moisture meter readings and percussive soundings on frozen structure are not reliable and that if a survey must be conducted under these conditions the soundings and meter readings should be re-done at thaw. It should be noted that moisture meter readings are relative and these meters are affected by many factors other than moisture and that percussive sounding interpretations are subjective.
Components requiring access with tools or by disassembly are not inspected. A vessel's systems and component parts have a limited useful life and are subject to deterioration over time. Some conditions affecting useful life include original material specifications, fabrication techniques, environmental exposure and history of use. These systems and component parts often give no readily detectable external indication of deterioration or failure. Cosmetic or comfort issues may be addressed where there is a significant effect on the value of the vessel. Electronic and electrical equipment may be tested by powering up, only when power is already connected. A complete analysis of the vessels electrical systems would require the services of a qualified marine electrician. Only the external visual condition of wiring, connections and panels is reported. The surveyor recommends that a qualified marine mechanic inspect all engines, generators, V-drives, transmissions, sail-drives and or stern drives regularly. Loose gear and accessories are neither inventoried nor inspected. This survey is an opinion of the surveyor based on his knowledge, experience and following the ABYC standards, NFDA standards and the SAMS code of ethics. Within these parameters the surveyor will report on the hull, deck, vessel systems, running gear, cosmetic condition and provide a valuation based on the foregoing. This is surveyor cannot predict how the vessel or its systems will perform over time and therefore this report is valid only at time of survey. The surveyor has made neither weight calculations nor measurements. All dimensions and weights are from published specifications such as original brochures, the PowerBoat Guide, Mauch's Sailboat Guides, manufacturers or owners association web sites.
Survey fees are based on such published L.O.A.

Structural components

The internal and external structural elements were visually inspected and tested with an Electrophysics GRP200 moisture metre, where accessible, and with other non-invasive tools.

General

Hull is fabricated from fibre reinforced resin. The deck is cored and re-enforced around stress area. The hull and deck shell are supported by integral frames (bulkheads) and grid floors.

Structural changes

None sighted.

Hull and keel

Hull was visually inspected and tapped returned crisp clear sound, no signs of damage or repairs. Hull is fair, a coat of anti-fouling is in serviceable condition. The keel was visually inspected and tapped, does not appear to have had repairs. The ballast is cast iron and internal to the keel cavity and glassed over. The anode were not depleting equally, they were removed the connecting plate was brushed clean and new anodes were installed.

See comment B1.

Deck to hull joint

Deck to hull joint is a strong hollow box section, which forms a high standing bulwark, it was visually inspected no separation was sighted. The joint is capped with teak but appears in good condition, the toe rail appears secure with no sign of damage. No sign of leakage was sighted from the interior where inspection was possible.

Topsides

The topsides were visually inspected, no cracks or deformation were noticed outside of normal wear for a vessel of this age. No hairline cracks were noticed. Moisture metre readings were consistent over the topside returning low moisture levels. Topside was also tapped and returned clear sound, no signs of delamination. A small spider web hairline crack was noticed at the stern.
See comment C1.

Transom

Stern pushpit, stainless steel is secure and in serviceable condition. There is a windvane, an antenna holder fitting a GPS antenna and a wind generator located at the stern. The pushpit have been modified to accept the windvane, quality work in serviceable condition.
See comment C2.

Deck

The deck was visually inspected and tested with an Electrophysics GRP200 moisture metre. The readings were low and consistent, the non-skid is in good condition, no cracks or damage were noticed other than normal for a vessel of this age. The deck, stanchions, stanchion bases, lifelines and handrails appear in good condition. The hatches and ports show no sign of leaks or separation from the hull and appear in good condition. Some chips in the gel coat were noticed forward on the cabin top port and starboard. Hatches have protective covers (sunbrella type material). A small crack in the top of one hand rail was noticed. **See comment C3.**

Cockpit equipment

Engine control located at the helm station is original equipment and in operating condition. Raymarine ST60 (wind, speed, depth) equipment is on helm pedestal in custom teak box, cabling is fished in the pedestal. A Richie Navigator compass is located at the helm, fluid damped type, clear and responsive to magnetic influence. Bimini with stainless steel frames is installed and secure, the covering material (Sunbrealla type) is in serviceable condition. Cockpit lockers are in good and clean condition. The cockpit sole and locker tops are teak covered in serviceable condition. Engine gauges are located under a protective plexiglass type lid forward of the helm under companionway hatch. Four winches are available and clutches are located on cabin top, most of the running rigging is led aft to the cockpit. Folding teak table is secured to the helm pedestal.

See comment C4, C5, C6.

Bulkheads, floor

Bulkheads were inspected where possible, appear sound and show no signs of fractures, movement, delamination or moisture. The floor is made of a grid of frp and/or wood beams and carlings. The sole is secured to the floor, the panels are in good condition with very little to no markings. Floor boards fit very tightly. The floor boards each have a latch system to keep them secure.

See comment C7.

Keel/bilge

The bilge is reasonably clean and dry. No stress cracks or damage was noticed on the floor and grid. The cast iron keel is encapsulated in the hull and capped. The bilges are connected via limber holes. A small amount of fluid was noticed in the bilge near the bilge pump; it could not be identified, but could be oil and other engine fluid.

See comment C8.

Rudder

Limited amount of play was found for the rudder bearing. The rudder was tapped and returned a clear crisp sound. No sign of water intrusion, cracks or damage was found. Some small blisters were noticed on the rudder blade, a few were pierced. Thick vinegar smelling liquid oozed out of them with low pressure. Rudder shoe and rudder strapping appear in good condition. The rudder is also supported by top bearing and rudder port. All elements appear in serviceable condition.

See comment C9.

Standing rigging and chainplates

Was inspected from deck level with a Bushnell ”Le Sport” 7x25 binocular model. The rigging appears to be original equipment 1X19 stainless steel, using swage turnbuckle fittings. The rigging at deck level was inspected with a cart magnifying glass. All appear in good condition, no cracks were notice at the fittings, swage or mating with the deck. Some light rust at the inside chainplates, bonding wire is present at all fittings that were inspected and accessible. The vessel is cutter rig with self-tacking stay-sail. Shrouds are forward, aft, lowers and mast tip. The forestay and stay-sail have a roller furling, appear properly tensioned and appear in serviceable condition. The sail plan includes running backstay. These were stored forward along the shrouds, appear in good condition.
See comment B2, C10.

Mast

Inspection of mast was done from the deck level and keel only. The mast on this particular Tayana is keel stepped and there is no sign of fatigue or stress cracks in the gelcoat on deck and at the mast step, some light corrosion was noticed at the mast step. The mast itself is aluminum and appears in good condition, with no cracks around the fittings. Single spreader arrangement appears to be in serviceable condition. Two winches are located on the mast, self-tailing Lewmar 30. The mast collar is rubber type and showed some cracks, the clamp that secures the collar shows some rust.

See comment C11.

Boom(s)

Note: Sails are neither inventoried nor inspected and are accepted to be in a condition of normal wear relative to their age.
A UV resistant material (Sunbrella type) boom cover in brown and in serviceable condition protects the main sail. The mainsheet attachment is located just forward of the bimini on the cabin top, the blocks all apear in good condition, no signs of stress or cracks were sighted around the main sheet track, the track appear securely mounted. A regular line based boom vang including a purchasing system is installed.

Furling

The vessel is equipped with furling on the jibstay and forstaystay. Profurl Titanium NC42 both appear in serviceable condition. The attachment to the bowsprit and bow are secure. The staysail is a self-tacking type.

Running gear

All lines, sheets and halyards that were sighted at the mast, on the boom, and on deck appear to be in average or above average condition. Most lines are led aft to the cockpit area.

Blocks/Clutches

Original equipment appears in serviceable condition.

Steering

Steering is via a wheel of medium diameter in stainless steel and wood rim. There was minimal to no play noticed while turning the wheel. The quadrant appears in good condition, the cable needs to be properly tensioned. The quadrant sheave and pulley system appear to be original equipment, when under stress the supports flexes. The part of the rudderpost that is visible appears in good condition. No signs of stress or cracks in the fibreglass were noticed. The vessel was pushed to above seven knots returning to its slip, no vibration were felt at the helm, the helm was light and the vessel responsive to input by the helmsman. The emergency tiller was not found.
See comment B3.

Winches

Self-tailing winches Lewmar 40 & 30 are on the cabin top and cockpit on port and starboard and turned freely, a set of clutches are located forward of the cabin top winches and services all lines. No stress cracks were noticed. Two winches are also located on the mast.

Navigation lights

All navigation light fittings are original equipment with added stainless steel protective cage and properly placed. All navigation lights are working, the deck light on the mast is working. The port side nav-light cage is damage and the fitting to the pulpit is damage.

See comment C12.

Bowsprit

The bow sprit was visually inspected, the wood sprit appear in serviceable condition and the wood platform appear in serviceable condition, no sign of crack or wood delamination was noticed, no sign of water ingress in the wood was noted. Some signs of rust on the fittings were noticed. The bobstay and shrouds appear in serviceable condition, the hull near the bowsprit fittings sow no cracks or damage. The cranes and gammon both stainless steel show no cracks or damage. The heel is covered by a stainless steel plate and shows no signs of separation from the deck, no signs of moisture ingress in the wood.

Auxiliary engine


Yanmar diesel

Model 4JH4E

Engine no. E02949

Engine hours 610

Engine is located under the companionway steps. The engine compartment is lined with aluminium lined cork sound insulation barrier in serviceable condition, above average installation. The engine was clean and the engine area was clean. The oil is clean and the oil filter appears recent. Original equipment water strainer was sighted. The alternator belt is in good condition but loose. The engine is accessible by removing the companionway steps and by removing miscellaneous hatch covers from the sea birth and the aft-cockpit, through the port locker. The oil pan appears in good condition no leak was sighted or felt. The compressor for the freezer/fridge is located to starboard with double belts and double, apparently custom made, stainless steel pulleys. Double belts appear in serviceable condition and are tensioned properly. The impellor cover has been replaced by an aftermarket “speedseal” with fastening that can be tighten and loosen by hand. The original cover was noticed in the aft cockpit locker. The silencer box is glassed and a flex hose installed. All hoses appear in serviceable condition. Coolant level was low in the overflow tank. The engine after warm up was push to about 3200rpm pushing the vessel at approximately 7.5 knots, the temperature remained stable no vibrations were noticed or felt. The engine blower is in serviceable condition.

See comment B4, C13.

Engine mounts

Conventional Anti Vibration Mounts of synthetic rubber and metal, able to absorb the propeller’s thrust, bolted to frp bed. No hairline cracks or signs of stress on the supports.
Minimal amount of rust on the aft mount, synthetic rubber appear in satisfactory condition.

Oil filter

OEM type. Appears recent. No leak sighted.

Drip pans

Integral to frp bed. Relatively clean, no cracks or damage was noticed.

Cooling system

Coolant level was checked, the coolant was low in the expansion tank located near the access hatch from the sea-birth, starboard side, and a small amount was visually inspected from the header tank located in the engine compartment port side. The coolant should be an Ethylene glycol mix; this could not be easily confirmed during the survey. All hoses appear in serviceable condition. Raw water was flowing through the strainer during operation
See comment C14.

Exhaust system

Original equipment, exit located aft to starboard, cooling water flowed properly while engine was running, in serviceable condition. Engine temperature remained normal while motoring to the crane.

Alternator and regulator

The alternator is LR180-03C, 12V – 80A unit. Appear in good working condition. The electrical output was not tested. Separate regulator was not sighted.

Transmission

Tuff Torq

Model: KM35A2

Ratio: 2.33

Oil: SAE20/30HD, 0.65L

S/n: 00713

The transmission operated properly, the casing is clean no signs of leak. The transmission fluid is clean.

Fuel systems

Fuel tanks (two)

Original stainless steel tanks, located under the V-berth compartment 90g total. No leaks were found, no smell, hoses are flexible and in good condition. Tanks can be managed via valves, the valves operated easily. The tanks are secure. Limited access is available. Deck fittings are labelled properly. Stainless steel tanks are factory upgrades.

Fuel lines(s)

All hoses are proper marine type and appear in good, flexible condition.

Fuel filters

Fuel filter is original equipment appear in serviceable condition.

See comment C15.

Propeller, shaft and strut

Propellor: Hung Shen
Made in Taiwan
Markings:
Type 18 RH 10
S/n 30600 P

Stainless steel prop shaft appears in good condition with no corrosion outside of normal for a vessel this age, shaft turned freely and appear true. Dripless coupling with strainer is installed and appears in serviceable condition.
Propeller is a three blade prop, shows no hairline cracks or signs of de-zincification. Prop returned a crisp clear sound when tapped with a tac hammer. Cap nut “torpedo” style in bronze appear in good condition, followed by locking nut and tap washer folded on the nut.

Ground tackle

Anchors

Located on bow roller a delta type anchor of adequate size for the vessel and intended use. No marking on the anchor estimated 20kg. The chain locker in the bow contain: Two lengths of chain, of proper size and a length reported to be 300ft long each. Part of the hull can be inspected from the chain locker. The locker appears in good condition. The fitting used to secure the anchor to the chain is inadequate. Access to the chain locker is via the V-berth. Worth noticing, the compartment has been made water tight with a watertight forward bulkhead and a watertight access door, in case of hull breach at the bow the chain locker drain hose should be shut using the valve located under the forward sole board near the mast.

See comment B5.

Windlass

Vetus RY 006065, anodized aluminium unit, mounted securely and appear in good condition. A second gypsy wheel was noticed to accept a different size chain. Double Samson posts in solid wood with stainless steel caps are on each side of the bowsprit. A large bolt secures the two posts to the bowsprit, the bolt is missing its washer and nut.

See comment B6.

AC electrical system

Ship's power

The vessel is equipped with 30A shore power connection. The AC shore cable is older, appears still in serviceable condition. The cable was clamped with a Fluke multi metre, no AC leak was detected.

See comment B7.

AC panel

AC panel is shared with the DC panel. Original equipment appears in good working order. The panel does meet all of recent ABYC standards for separation of AC and DC as far as could be viewed. The panel is mounted with hinges. The wiring is clean and appears in good condition. Boat was connected to shore and AC was available onboard. A few AC outlets were tested for reverse polarity, tested OK. The panel is located behind the companionway steps. The back of the engine instrument cluster is visible from this location.

See comment C16.

Shore connection

30A shore connection is located on the transom, no signs of corrosion or arching was noticed.

G.F.C.I.

GFCI outlet was located in the head, was tested, tripped and reset properly.

Other Outlets

Other outlets are located forward and in main cabins, all in serviceable condition. At least one 12V DC outlet is located on starboard side in the main cabin beside a 110V AC outlet, this once common practice is now discourage due to the potential of energizing an appliance with the wrong outlet. An AC outlet is located in the engine compartment; this practice is discouraged for possible non ignition-protected device could be used in the area with risk of explosion.

See comment B8, B9.

Battery charger

A Newmar Phase Three "Smart" Charger PT-40CE - 40 Amp - 12 Volt battery charger is located starboard side under the cockpit, accessible from the aft cabin. This is a three phase charger with options for type of battery to be charged. The charger appears to be wired properly from the electrical panel. One pair of wire of proper gauge and type is on the output side of the charger.

See comment C17.

DC electrical system

Ship's power

The vessel is equipped with two battery banks, house and starting batteries. The batteries are one lead acid for the starting battery and two AGM deep cycle batteries as house batteries. The vessel also uses a wind generator that doubles as a hydro generator for the ship's need.

DC panel

Original equipment located with the AC panel. All breakers energized their respective circuits. All breakers (AC and DC) remain within acceptable temperature after load was applied, tested with a Fluke 561 HVAC pro IR thermometer

DC batteries

Two deep cycle batteries are located under the port settee, used as house batteries, in battery boxes and secured. The battery terminals are not covered with boots. The battery cables are loose on the terminals. The batteries boxes have covers.
The batteries are connected in parallel.
Trojan AGM 110A Type 3, date tag indicates June 2009 (both batteries.
House 1 is the forward battery, house 2 is aft battery.
A starting battery is located in the engine compartment, is secure but with no boot on the positive terminals. The battery might have vented recently. Starting battery might be original equipment, the name, type and date could not be identified. A small electrical bus bar is located near battery house 1.
See comment B10, C17, C18.

Battery switch (es)

Two battery switches are located at the helm station, under the sea-birth, in serviceable condition.

See comment C17.

Battery monitor

AdervC DCM MKIII multi function, multi circuit with low voltage alert monitoring unit is located at the nav station. The head unit is located under the cockpit on starboard side. The unit did not power up.

See comment C19.

Wind generator & hydro generator

DuoGen 3 water and wind generator mounted on the stern appears in good condition, securely mounted. Was not tested. Extra blades for the wind generator are under the cockpit, the sail drive part was found under the cockpit and shows some corrosion.

See comment C20, C21.

Electronic, navigational equipment

Radio communication

An ICOM IC-M602 VHF Marine Radio - Landfall Navigation, is mounted at the nav station powered-up and transmissions could be heard on miscellaneous channels.

An ICOM IC-M802 HF Marine Transceiver head unit is mounted at the nav station powered-up.

An Icom SP-24 External SSB Speaker head unit is mounted at the nav station and worked properly.

This unit has a DSC option.

A NASA marine HF (DSC) active antenna is mounted at the stern the Back stay is also used as an antenna for the radio mounted properly with isolators.

Icom AT140 Aerial Tuner, Shakespeare VHF antenna, SSB areal antenna is located on the backstay
See comment B11, C22.

Radar system

Raymarine 2Kw radar, enclosed array type, secured on the mast at spreader height, not gimballed, Raymarine control panel RL70 at the van station. The system powered up and displayed the docks.
Sea-Me Radar Enhancer is located above the RL 70, the witness light did not come on when the switch was position to ‘on’.
See comment C23.

Auto pilot

Raymarine ST1000 Plus, attaches to the wind vane, autopilot was tested and is in working order.

Wind vane

Hydrovane VXA 2D located at the stern. Appears in good condition, was not tested.

Other

Lightning protection system ‘Strikeshield’ is installed on this vessel was not tested. Some parts for the connection were located behind the engine compartment.

See comment C24.

Security system

n/a

Entertainment

There is no entertainment system on-board.

Sea connections

Bilge & bilge pumps

One automatic bilge pump is located under the floorboard, forward of the engine bay, Rule 1500 with separate automatic float switch. Control for ‘auto’, ‘off’ or manual operation located near the companionway to port. The bilge pump operated properly when switched to the on position and the float switch was lifted, operated properly on automatic position.
A manual bilge pump is located under the floorboards near the mast. The pump is plumed so it can also be used to empty the holding tank. All separate bilges were reasonably dry.
See comment C25, C26.

Thru-hulls and seacock

Thru-hulls and seacocks are original equipment, appear in serviceable condition, most are bronze, some marelon, valve are marine SS ball-valve. all seacock and valve that were tested moved freely. Most valve and seacock are labelled. Some hoses are not supported. The bonding wire is visible on these fittings. One thru-hull located under the engine is not double clamped.
See comment B12, C28.

Interior

General comment

The interior is nicely appointed in wood paneling and wood veneer in above average condition. The sole panels, upholstery and cabinetry are clean, sound and in good condition. All opening ports are stainless steel or aluminum, providing light and ventilation, all in good condition with no signs of leakage or damage. All overhead hatches have mosquito screens framed in teak. A ‘U’ shape dining area is located aft of the head to port facing a settee to starboard, galley is to port immediately next to the companionway steps. Nav station and quarter birth are to starboard of galley area.

See comment C29

Galley

The galley is located immediately to port. It is a ‘U’ shape arrangement. All appliances appear in above average to ‘as new’ condition.

Stove

Force 10 3 burner marine stove, gimballed. Clean and appears in good working order. The stove was not tested but when the breaker for the stove was turned to the ‘on’ position the breaker invariably tripped.

See comment B13.

LPG locker and tanks

The tanks are located at the stern in their own locker, original installation. The locker is vented at the bottom by two vent holes integral to the locker. All hoses appear in serviceable condition, solenoid with gauge indicated pressure when tank was opened. When inspected the system was pressurized, preferably the valves at the tanks should be closed when not in use. One vent hole is missing the protective plastic ‘doughnut’. The tanks are aluminum. The Trident LPG alarm is located under the stove, appear in serviceable condition.

See comment C30, C31.

Refrigeration

Top loader type, clean and appears in good working order. This is an engine driven fridge and freezer, most of the components are located on the aft bulkhead accessible from under the cockpit. Grunert ED75 unit. Controls and temperature gauges are located above the fridge. The unit was not tested.

See comment B14.

Counter space and sink.

The stainless steel double sink in the counter top is clean with no damage; counter top is white melamine type material with wood accent for the drawers and edges, in clean condition with no apparent damage.

Potable water

Stainless steel water tank 89g located in the bilge is secure no leak was found Water tank vent and water tank fill are located on deck and labled properly and appear in good working order. Fresh water foot pumps and sea water foot pump are located in the galley. Cold and hot water system is pressurized all in working order. Stainless steel tanks were factory upgrades.

Water maker

Katadyn survivor 80 watermaker is located under the sea-birth, is secure and appears in working condition. The system was not tested.

Water heater

Make Seaward

Model S-1100

SN xxx

Man. 2005

Cap. 11g

Water heater is secure, located under the cockpit on starboard side. Appears in good condition, no leak or rust was noticed. The manual release valve could not be operated due to the location of the tank. Hot water was available in the galley and in the head.

Sanitation

Heads

There is one head on port side forward of the dining area. The head has one stainless steel sink and one manual Raritan head unit, all appear in working order. 30g FRP holding tank appear in serviceable condition. A macerator is installed. A separate shower stall appears in good condition. Cold and hot pressure water is available. Access hatches and storage compartments are in good condition. Vent hose and valves are accessible, the valves worked properly. Shureflow and Flowjet pumps are installed near the engine compartment, secure with their own fuse, in working condition. There was some water near the head pump, could be condensation, should be monitored.

V-berth.

Located at the bow, access door on centerline of the vessel. All wood and storage compartments are in above average condition. The door open and close easily. The cushions are in good condition; some mold on the underside of the cushion was noticed.

See comment C32.

Main cabin

Main cabin with galley to port, head to port, chart table, quarter birth and settee to starboard, dining area with ‘U’ shape settee forward of galley. Small locker and drawer set facing the head. All appointments are wood and in above average condition. All cushions are in good condition. All ports and hatches are in good condition no signs of leaks or damage to the wood trims. All hatches including the companionway hatch have mosquito screens framed in teak; one of the screen frames has a cracked corner. Some reading lights did not work. One of the engine cover (the aft one) appear to sit too low preventing the companionway step to be supported properly.

See comment C29.

Heating system

Diesel heating system Eberspacher

Model Airtronic D4

Sn xxx

Located under the cockpit is secure, properly vented, with outlets in the main cabin and V-berth. The controls are near the nav station. The system worked properly. The ducts are under the quarter birth the starboard settee and at the bottom of the cabinetry that is adjacent to the V-berth. The ducts became very hot during operation, the compartment under the settee actually became very warm. The programmable heater control is at the nav station.

See comment C33.

Safety equipment

Safety equipment that is not integral to the vessel or permanently installed has not been inventoried or inspected by the surveyor. The Transport Canada "Safe Boating Guide" (TP511E) should be consulted for requirements specific to the vessel.

Items sighted

Not all safety equipment required was sighted.

The fire extinguishers at the nav station and in the V-berth are small and appear to be original equipment; markings could not be deciphered (Asian).

Life ring, fix re-boarding ladder accessible from the water, sufficient quantity of life-vest and other equipments were missing. Flares are out of date.

Two sea anchors 'Para-Anchor' and a set of storm sails appear in 'as new' condition was noticed in a storage shed. An older 4 person liferaft 'Eurovinyl' Type: ORC-ROR4, (other markings could not be read) was noticed in the same shed.



See comment B15, C34.

Comments

Comments based on a specific authority are cited as such. Other comments are based on the opinion of the surveyor as being of "good marine practice".

A: Issues in need of immediate attention.

A1. Registration paper must be provided; the name(s) on the registration must match the name(s) on the sale's agreement.

B: Issues that may enhance safety and/or value of vessel.

B1. The broker agreed to have these anodes replaced at owner`s cost. Confirm this is not included in the sales price.

B2. Insure the chainplates are sealed at deck level, re-bed as necessary.

B3. The quadrant system supports could be modified to avoid it flexing under stress.

B4. Adjust tension on the alternator belt.

B5. A proper shackle with its pin seized to the shackle should be used to secure the anchor to the rode.

B6. Install and tighten a proper stainless steel washer and nut on the Samson post bolt.

B7. The AC shore cable should be replaced due to the intend use of the vessel.

B8. Clearly identify the 110V and 12V outlets or make the use of the 12V DC outlet requiring one extra step (covers or lid, like the one used in the head).

B9. Not as critical as in a gas engine installation, but still recommended, remove or disable the 110V outlet located in the engine room. If absolutely necessary the outlet should never be used without providing proper ventilation and only while under supervision.

B10. Battery boots should be installed on the positive terminal of each battery. This is an ABYC recommended practice.

B11.The DSC must be registered with TC, the vessel and the owner.

B12. A small thruhull located under the engine is underwater and should be double clamped.

B13. Repair or learn how to properly fire up all three burners and the oven.

B14. The fridge and freezer were not tested during the survey, this should be done while performing sea-trial or by running the engine at the dock.

B15. The vessel should not be operated without all the safety equipment required by CCG and Transport Canada.

C: Offered for information or suggested as maintenance or upgrades.

C1. The small spider web hairline crack could be buffed and waxed to prevent moisture ingress.
C2. Port side push pit should be inspected further and possibly re-bedded with a large backing plate on the underside. This section supports the wind generator.
C3. The small chips on the gelcoat should be repaired to prevent water ingress. The small crack in the hand-rail should be glued (Cyano-acetate type) and clamped to prevent the crack opening more.
C4. The bimini material had signs of having been power-washed; the material will need maintenance or replacement. Same for the boom cover and hatch covers.

C5. The ST60 speed indicated ‘0’ at all time, probably due to the transducer: The wheel in the transducer was filled with marine growth and difficult to turn by hand. This transducer can be accessed from the stainless steel inspection hatch located in the head.
C6. The ST60 wind powered up but appeared to always indicate the same direction. This could be due to vessel speed but this should be confirmed. The cable from the instruments should be secured so as not to interfere with cable for the quadrant.
C7. Dry floor board thoroughly and see if they are easier to fit, one floor board is missing its latching system .
C8. Clean bilge and monitor for re-apparition of fluid.
C9. Monitor rudder blisters when boat is hauled out. Document with picture to confirm if blisters are growing or multiplying.
C10. The chainplates are relatively easy to access from the cabin, inspect regularly.
C11. Plan replacement of mast boot as maintenance item. Monitor for water coming in the bilge from that area, seal as necessary.
C12. Repair port side nav-light to prevent water ingress in the pulpit tube, which could lead to water ingress in the cored deck.
C13. Some marine growth was seen floating within the strainer during operation. Recommend cleaning the strainer. This is valid for all strainers in the vessel.
C14. The fluid in the cooling system did not appear to be a glycol mix antifreeze fluid. Recommend replacing with manufacturer approved coolant.
C15. A polishing filter (Raycor type) is usually considered a valuable addition to diesel fuel system.

C16. The wiring from the back of the engine panel could be supported and secured, this is an ABYC standards recommendation.

C17. The circuit for this charger should be mapped and the diagram part of the ship’s log. The following concern(s) could then be addressed: The Newmar has the ability to be set for lead acid, AGM and gel battery. The unit has multiple isolated output banks presumably these can be adjusted separately for different battery type. The vessel has two different battery types: House battery bank is 2009 AGM type, starting battery is apparently original and is lead acid type. Only one pair of wires is on the charger output bank. AGM requires higher voltage then lead acid type to be charged properly. With only one pair of wires leaving the charger I suspect that one bank is not being charged properly. Some signs of the lead acid battery possibly venting was noticed on the battery top. It was outside the scope of this survey to map this entire circuit, I believe the charger might be set for AGM battery type, this would explain the lead acid battery venting from the higher voltage. The double battery switches would not prevent this situation. If this situation exist possible solution are:

1-If the charger is capable of sending different voltage through its different output the starting battery could be wired separately.

2- Replace the starting battery with an AGM battery.

The addition of a charging relay in the circuit would be a great upgrade, an example is blue sea relays like the SI series.
C18. The bus bar located under the port settee near house battery 1, should have a bus bar cover. All bus bar with current carrying wire should have a cover.
C19. Confirm unit is working; it might be on a circuit breaker that is not labeled at the panel and was in the ‘off’ position when the unit was tested.

C20. The base of the pushpit port side might need re-bedding this could be due to the wind generator being secured to the pushpit. A large backing plate should be installed to take the extra load.

C21. The DuoGen 3 saildrive will require maintenance or replacement.

C22. The operator of the ICM802 when used in the HAM-2M frequencies need to be licensed and have call sign. There are fines for operating without a licence. The radio can be otherwise used on open frequencies.

C23. Sea-Me Radar Enhancer, this unit might be on a circuit with an unmarked breaker, the breaker for this unit might have been in the 'off' position.

C24. Parts located under the cockpit should be secure so they cannot interfere or damage systems that are located in that area.

C25. Manual bilge pump handle should be tethered to a fitting near the pump to be readily available.

C26. The manual bilge pump can be used to discharge holding tank overboard, this option is also available directly from the head. Canadian laws are not as strict regarding discharge of treated or untreated sewage as the USA and other countries have far more restrictive regulations. It is a good idea to familiarize yourself with these regulations. While traveling in USA water, entertain the idea of having a USCG agent appose a seal on the handles of the valves so no case can be made that you had the ability to discharge sewage in USA water.

C27. Making labels for the seacocks and valves that remain unmarked would complete an already very nice installation.

C28. Hoses like the ones on the port side of the hull under the cockpit should be supported; this is an ABYC recommended practice to avoid having the fitting bearing the weight of the hose.

C29. One fly-screen wooden frame is broken in a corner, it should be repaired. Replace light bulb as necessary to insure it is only a burnt bulb and not something more significant. The engine cover should be sitting properly to align with the forward cover and to support the companionway steps.

C30. The missing protective 'doughnut' should be replaced.

C31. Confirm the expiration date of the LPG aluminums tanks.

C32. Use mold remover and then clean cushion covers to avoid stain, smell or damage to the material.

C33. Insulation should be wrapped over the ducking system this will improve the heat in the cabin and make the storage compartment more usable.

C34. Life raft needs to be inspected and re-certified.

Suggestion: I often suggest that my customers consider the installation of an isolation transformer on their vessel, this case is no different especially considering the intended use of the vessel and if you are considering doing a bit of research and work regarding C17.

**An older type galvanic isolator with diodes might be installed under the cockpit behind, the engine. It is located near the access hatch from the quarter birthunder the AdverC head unit. I have a note about it but did not return and record the type or model.*

Standards used

Standards used are the most current editions and may not have been in place when this vessel was built. ABYC standards are voluntary but generally accepted throughout the marine pleasure craft industry and counts as the reference standard. Transport Canada “Construction Standards for Small Vessels, TP1332 are mandatory to the date of manufacture and states "existing pleasure craft shall comply with this standard insofar as it is reasonable and practicable to do so". TP1332 frequently refers to and is in the process of being harmonized with ABYC Standards. Compliance with “Collision Regulations” is mandatory. NFPA 302 is a voluntary standard. Standards quoted may have been paraphrased in the interest of brevity. A 100% accurate survey to the aforementioned standards would require complete disassembly of the vessel and inspection by several specialists and is not within the scope of this report.
Canada Shipping Act, CSA Small Vessel Regulations. TP127 "Ships Electrical Systems". TP10739B "International Regulations for Preventing Collisions at Sea, ed.1972 with Canadian Modifications".
American Boat and Yacht Council "Standards and Technical Information Reports for Small Craft".
National Fire Protection Association. NFPA302 "Fire Protection Standard for Pleasure and Commercial Motor Craft" might be referred to as necessary.

Certification statement

I certify that to the best of my knowledge and belief:

The statements of fact contained in this report are true and correct. The reported analyses, opinions and conclusions are limited only by the reported assumptions and limiting conditions and are my personal unbiased professional analyses, opinions and conclusions. I have no present or prospective interest in the vessel that is the subject of this report and I have no personal interest or bias with respect to the parties involved. My compensation is not contingent upon reporting of a predetermined value or direction in value that favours the cause of the client, the amount of the value estimate, the attainment of a stipulate result, or the occurrence of a subsequent event. I have made a personal inspection of the vessel that is the subject of this report.

This report should be considered as an entire document. No single section is meant to be used except as part of the whole.
This report is submitted without prejudice and for the benefit of whom it may concern. This report does not constitute a warranty, either expressed or implied, nor does it warrant the future condition of the vessel. It is a statement of the condition of the vessel at the time if the survey only.

Valuation

Valuation is primarily determined through www.yachtworld.com and derived from consultation with knowledgeable boat brokers, other marine surveyors, personal experience, current listings of similar vessels in the area and available pricing sources such, Computer Boat Value Guide, N.A.D.A. Marine Appraisal Guide and the BUC Value Guide. Boat values vary considerably due to local market demands and significant premiums may be paid for fresh water vessels in exceptional condition for example. Currency conversion is done on the date of survey using www.xe.com Universal Currency Converter. Valuations do not include taxes.

Fair market value

"Current fair market value" is the price, in terms of currency or its equivalent that a willing seller will accept for property from a willing buyer, neither part being under undue pressure to act in the matter.
The assigned value assumes that components, systems, sails or equipment not inspected during the survey are in serviceable condition commensurate with age. This valuation opinion is intended for insurance and financing purposes only and is not intended to influence the purchase or purchase price of the subject vessel. The surveyor has no interest in the vessel financial or otherwise.

It is the opinion of the surveyor that:
The vessel “zzz” surveyed is in “Above average” condition and that the current fair market value is: $ xxx,000.00USD.

Currency conversion is done on date of survey using, www.xe.com Universal Currency Converter:
$xxx000.00CDN

Replacement value.

“Replacement value” is the value of replacement in case of a total loss of the vessel.

It is the opinion of the surveyor that the vessel “xxx” current replacement value is:
$x,000.00USD.

Prepared without prejudice.

Captain Alain Pascal Routhier
Discovery Marine Surveys.com®
Cpt. Licence A104769
CDN# 142164M
SAMS-SA member
ABYC member
NFPA member
BoatUS member

Marine grading system of condition

The following is the accepted marine grading system of condition used:

"**BRISTOL CONDITION"**	Vessel is maintained in mint or Bristol fashion, loaded with extras. Maintenance is performed as 'restoration' projects – a rarity.
"**ABOVE AVERAGE CONDITION"**	Has had above average care and is equipped with extra gear. Maintenance is done as 'improvement'.
AVERAGE CONDITION"	Ready for sale requiring no additional work and normally equipped for its size. Maintenance is done as repair of faults.
"FAIR CONDITION"	Requires usual maintenance to prepare for sale.
"POOR CONDITION"	Substantial yard work required and or maintenance previously performed was sub-standard.
"RESTORABLE CONDITION"	Enough of hull and engine exists to restore the boat to usable condition.

Abreviations

ABYC	American Boat and Yacht Concil
TP	Transport Canada
CCG	Canadian Coast Guard
USCG	United States Coast Guard
NFPA	National Fire Protection Association
MIIMS	International Institute of Marine Surveyors Gosport, UK.
AMSBC	Association of Marine Surveyors of British Columbia.
IAMI	International Association of Marine Investigators
MIAB	Marine Insurance Association of BC

TP511E, requirements for a vessel this size*

Sail and Power Boats over 9 m and up to 12 m (29'6" – 39'4")

Personal Lifesaving Appliances

1. One (1) lifejacket or PFD for each person on board
2. One (1) buoyant heaving line at least 15 m (49'3") long
3. One (1) lifebuoy attached to a buoyant line at least 15 m (49'3") lo*ng*
4. *One (1) reboarding device

Vessel Safety Equipment (See Note 1)

5. One (1) anchor and at least 30 m (98'5") of cable, rope or chain in any combination
6. One (1) manual bilge pump

OR

Bilge-pumping arrangements

Visual Signals (See Note 2)

7. One (1) watertight flashlight
8. Twelve (12) flares of Type A, B, C or D, not more than six (6) of which are of Type D

Navigation Equipment

9. One (1) sound-signalling device or appliance
10. Navigation lights
11. One (1) magnetic compass
12. One (1) radar reflector (See Note 3)

Fire Fighting Equipment

13. One (1) 10BC fire extinguisher if equipped with a motor
14. One (1) 10BC fire extinguisher if equipped with a fuel-burning cooking, heating or refrigerating appliance

Note 1 – Exception for Bailers and Manual Bilge Pumps

A bailer or manual bilge pump is not required for a boat that cannot hold enough water to make it capsize or a boat that has watertight compartments that are sealed and not readily accessible.

Note 2 – Exception for Flares

Flares are not required for a boat that:
is operating on a river, canal or lake in which it can never be more than one (1) nautical mile (1.852 km) from shore; or has no sleeping quarters and is engaged in an official competition or in final preparation for an official competition.

*This information offered as courtesy always confirms TC requirements with TC official publications.