MARINE SURVEYS CANADA

Condition & Valuation Marine Survey Report of

[redacted]

1982 Tayana Vancouver 42

CONDUCTED BY

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Transport Canada Appointed Tonnage Measurer <24m

PREPARED FOR

[redacted]

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Disclosure Statement

The principal attending surveyor is of the belief, in consideration of full disclosure, that neither the surveyors nor Lewis Martin & Associates Ltd. (Marine Surveys Canada) have surveyed the subject vessel, nor been contracted to provide consulting services in relation to this vessel for a period of three years prior to the date of the inspection described in this report. Should it be discovered that this statement is inaccurate at any time following publication of this report, including any follow-up correspondence or compliance inspections undertaken, the attending surveyors will issue a disclosure statement outlining the details of any such work.

SECTION 1: REPORT PARTICULARS

1.1 Report Details

Marine Surveys Canada File No.	[redacted]
Reason for Survey Request	Condition & Valuation for insurance underwriting
Declared Intended Use of the Vessel	Canadian inland, protected waterways and Great Lakes. Recreational.
Name of the Vessel's Current Owner(s)	[redacted], per Certificate of Registry
Insurer	[redacted]
Insurance Broker	[redacted]
Policy No.	[redacted]
Details of Coverage	[redacted]

1.2 Dates & Conditions of Inspection

The vessel was surveyed blocked on land in the yard at [redacted] on 2nd October 2024. No sea trial was undertaken as part of this survey and the vessel was not surveyed afloat. The attending surveyor was onsite from 11:00am to 3:00pm. Ambient temperature on arrival was 14C with clear skies. The current owners were present for the onboard portion of the out of water inspection. Battery power was available and DC electrical components were tested and found to be operational, unless stated otherwise in this report. Shore power cables were found to be disconnected, and no shore power was provided for the surveyor at the time of the out-of-water inspection.

For the purposes of reporting, the vessel's structure and equipment installations shall be taken as intact, compliant and serviceable unless otherwise stated in Appendix A: Findings and Recommendations section of this report.

SECTION 2: REPORT SCOPE & TERMINOLOGY

2.1 Purpose of Survey

This condition & valuation marine survey was commissioned solely for the purpose of determining condition and value of the subject vessel, for the sole use of the person(s) for whom this report was prepared (the client), or (as designated at the discretion of the client) an insurer or prospective insurer, or a financial institution. Using this report for any other purpose may result in incomplete information and a risk exists that this report may be taken out of context.

2.2 Scope of Survey

This survey is an objective report on the condition and/or value of a particular vessel paying close attention to structural, safety, and appearance issues. This report is unbiased and subject to the condition and accessibility of the vessel at the time of the survey. Test methods used are of a non-destructive nature and vessel disassembly is not within the scope of this survey. A complete report of the vessel would require complete disassembly and will not be undertaken in the formulation of this report.

The hull and hull framing, decks, superstructure, cockpit sole, platforms, and other structures are evaluated using visual inspection for cracks, damage or other deterioration. Random percussive sounding tests have been conducted using a phenolic hammer. Relative moisture measurements, where applicable to the structure (areas constructed of fibreglass or wood), have been conducted.

Rigging and spars, where applicable, are inspected from the deck only. Keel bolts, chain plates, shrouds and stays (where fitted) have been visually inspected, where accessible for inspection. Keel bolt torque has not been verified. Sails and canvas will be inspected if accessible at the time of the survey, but are typically not unfolded if bagged due to normal constraints of space in a boat yard.

Deck and interior hardware such as cleats, handholds, hatches, doors and windows are inspected visually. Latches, locks, supports and hinges are tested for proper function where accessible. Interior joinery is inspected visually for appearance and structural integrity. Electronic moisture detection methods may be used on interior cabinetry and headliners, particularly in areas common for water ingress such as around portlights and hatches.

Propulsion and generator engines, running gear and steering systems are evaluated using visual inspection of accessible castings, mounts, fasteners, hoses, gaskets, pumps, belts, machinery guards, flame arrestors, and the presence of any visible fuel, oil, cooling or exhaust leaks. ***A full mechanical inspection is not undertaken as a part of this survey.*** In cases where a sea trial has been commissioned and completed, engines are observed for starting characteristics, idle quality, power delivery, wide open throttle performance and synchronization (multiple engines only, where conditions permit), backdown test for assessment of engine mounts, and in some cases thermal imaging to detect overheat conditions while underway. Exhaust component castings are observed not to exceed a temperature of 93C (200F) for inboard engine installations. Outdrive bellows, hoses and related fitting (where applicable) are visually inspected where accessible. Components of transom assemblies/transom shield kits with limited or no access for inspection are presumed to be intact and serviceable but are not warranted to be so. Thrusters are evaluated using visual inspection of accessible motors, mounts, fasteners, electrical or hydraulic connections, machinery guards, and the presence of any visible leaks. In cases where the vessel has been surveyed afloat or a sea trial has been commissioned and completed, thrusters are observed for proper operation in both directions.

Onboard electrical systems and electrical output of generators are evaluated using onboard volt- and ammeters, along with a DVOM, as well as visual inspection of accessible wiring, components and fixtures, proper grounding, polarity, ground fault protection and overcurrent protection. Electrical and electronics systems are powered up only where power is available, and where safe and practical to do so. Critical safety systems are powered up where power is available. If power is not available, visual inspections only are performed. Corrosion protection systems have been evaluated using visual inspection of accessible sacrificial anodes, bonding wiring, components and fixtures, and proper grounding. Impressed current systems and galvanic isolators are not tested for proper operation as a part of this survey.

Hydraulic, mechanical and plumbing systems are inspected visually for leaks and defects. Wear evaluations are based on visual inspections and, where available, reported life of the components. Fuel systems have been evaluated using visual inspection of accessible tanks, fittings, hoses/piping, vents, proper grounding, filtration, pumps, valves, and the presence of any visible leaks. LPG/CNG fuel systems have been evaluated using visual inspection of accessible tanks, fittings, hoses/piping, vents, regulators/valves, dedicated lockers, emergency shut-off systems, and the presence of any leaks. A leak down test is performed where possible. The sanitation system has been evaluated using visual inspection of accessible tanks, fittings, hoses/piping, vents, pumps, filtration, toilets, overboard discharge, and the presence of any leaks. Dewatering systems have been evaluated using visual inspection of accessible pumps, fittings, hoses/piping, filtration, operation of bilge pumps & float switches (where accessible and where power available), and the presence of any leaks.

Seacocks, through-hulls and drainage systems have been evaluated using visual inspection of accessible tanks, fittings, seacocks/valves, hoses/piping, vents, pumps, scuppers, overboard drains, and the presence of any leaks.

Any and all equipment inaccessible at the time of the survey will be assumed to be in acceptable condition for its age. Any and all equipment required on the vessel by law and found to be deficient or absent at the time of the survey shall be duly noted in the recommendations of this report. **For the purposes of reporting, the vessel's structure and equipment installations shall be taken as intact, compliant and serviceable unless otherwise stated in Appendix A: Findings and Recommendations section of this report.**

This survey is an opinion of the surveyor on the condition of the vessel as presented and within the parameters outlined above. The recommendations made are based on the surveyor's knowledge and experience. This report is in no way a guarantee of the vessel's condition or performance, either now or in the future.

2.3 Limitation of Liability

Acceptance and use of this report by the client acknowledges the client's understanding that the report has been composed of information that is believed to be true after reasonable investigation and inquiry but is not warranted to be so. The information was obtained without drilling, diving, ultrasonics, cleaning or opening up to expose parts or conditions ordinarily concealed. There were no tests for tightness or soundness conducted other than the conditions noted visually. Acceptance and use of this report acknowledges the client's understanding that no determination of stability or structural strength has been made and no opinion is expressed. Acceptance and use of this report acknowledges the client's understanding that Lewis Martin & Associates Ltd. (Marine Surveys Canada) does not accept any responsibility for damage or deterioration not found or discovered during the course of survey, nor for consequential damage, deterioration or loss due to any error or omission. The Client hereby undertakes to keep the Surveyors/Consultants and its employees, agents and subcontractors indemnified and to hold them harmless against all actions, proceedings, claims, demands or liabilities whatsoever or howsoever arising which may be brought against them or incurred or suffered by them, and against and in respect of all costs, loss, damages and expenses (including legal costs and expenses on a full indemnity basis) which the Surveyor/Consultant may suffer or incur (either directly or indirectly) in the course of the services under these Conditions. Notwithstanding the above clause, in the

event that the Client proves that the loss, damage, delay or expense was caused by the negligence, gross negligence or wilful default of the Surveyors/Consultants aforesaid, then, save where loss, damage, delay or expense has resulted from the Surveyors'/Consultants' personal act or omission committed with the intent to cause same or recklessly and with knowledge that such loss, damage, delay or expense would probably result, the Surveyors'/Consultants' liability for each incident or series of incidents giving rise to a claim or claims shall never exceed a sum equal to the Surveyors'/Consultants' charges.

2.4 Glossary of Terms

An explanation of the terminology and wording in this survey:
Appeared: An opinion based on visual inspection and other non-invasive test methods, as outlined in the Scope of Survey above.
Compliant: Complies with applicable vessel construction standards or applicable legislation.
Findings: Deficiencies observed by the surveyor during inspection. Findings with associated recommendations are listed in Appendix 'A' (Summary of Findings and Recommendations).
Fit for intended use: Use intended by the designer/manufacturer of the vessel.
Inoperable: Was powered up or tested but did not work as designed or did not appear to work as intended.
Operational: Working properly at the time of inspection.
Powered up: Power was applied only (this does not indicate that the system or component was tested and observed running).
Recommendations: Recommended actions for the vessel owner to correct deficiencies identified in this report, as listed in the descriptions within the body of this report, and in Appendix 'A' (Summary of Findings and Recommendations).
Relative moisture readings: Classified as slight, moderate, or significant (for cored and non-cored fibreglass reinforced plastic laminates, numbers referenced in this report are relative to known dry readings using a Flir MR160 moisture meter in non-invasive mode where 0-20 are considered very dry to dry, 21-35 are considered slightly elevated, 36-50 are considered moderately elevated, and numbers exceeding 50 are considered to be significantly elevated when using non-destructive testing on fibreglass reinforced plastics). Relative moisture readings alone do not necessarily indicate a structural issue, though they may have a high cost of repair. Elevated relative moisture readings are commonly found on fibreglass vessels upwards of 5 to 10 years old.
Serviceable: Sufficient for a specific requirement.
Soundings: Sounds created during percussive sounding tests, and typically referred to as 'good' (referring to bright, solid sounds), 'dull' (or dullness), and 'hollow'. Dull soundings are often accompanied by elevated moisture readings and may be an early sign of structural issues in cored areas of fiberglass hulls, decks and below deck structural areas. Hollow soundings may be indicative of fiberglass delamination (separation of layers of fiberglass or core materials) or voids below gelcoat or paint finishes.
Tested: Component was operated or inspected for proper operation or specification.
Ready access: Access for inspection without the use of tools that would require time beyond the scope of this survey.

2.5 Standards for the Marine Industry

This is a brief outline of the organizations responsible for creation and maintenance of standards and regulations used in evaluating the soundness of this vessel. Some of the standards are recommendations, while many have been adopted into Canadian and United States law. More information pertaining to regulations, the Canada Shipping Act and related standards can be obtained by contacting Transport Canada directly. A list of construction standards for pleasure craft is also available from American Boat & Yacht Council. The ABYC standards have been adopted and endorsed by North American pleasure craft manufacturers and insurers, and Transport Canada as of October 31st 2019, and are considered best practice. The following is a list of organizations, regulations and standards considered in the formulation of this report:

Canada Shipping Act
United States Code of Federal Regulations (CFR)
National Fire Protection Association
American Boat & Yacht Council
International Standards Organization (ISO)

SECTION 3: VESSEL IDENTIFICATION & DIMENSIONS

3.1 Vessel Information

Name of Vessel	[redacted]
Designer	Robert Harris
Manufacturer	Ta Yang Yacht Building Co Ltd, Kaoshing Hsein, Taiwan
Model	Vancouver 42
Type	Cutter rig sailing vessel
Year of Manufacture	1982 estimated
Model Year	1982
Hull Identification Number (HIN)	None sighted
Ship Registry Official Number	[redacted]
Port of Registry	[redacted]
Flag	[redacted]
Number of Encumbrances	Zero (0), per Transport Canada vessel query system
Maximum Speed	Not provided
Cruising Speed	Not provided
Approximate Range	Not provided
Hull Material	Fibreglass reinforced plastic (FRP)
Deck Material	Fibreglass reinforced plastic (FRP)
Vessel Documents	The following documents were presented to the attending surveyor: • [redacted]
Placard & Labels	All required safety placards and warning labels were observed affixed to the vessel based on date of manufacture. No Canadian Compliance Label sighted.

3.2 Dimensions & Capacities

Length Overall (excluding non-integral platforms)	12.73m (41',9") (reported, sailboatdata.com)
Load Waterline Length	10.06m (33',0") (reported, sailboatdata.com)
Beam	3.81m (10',6") (reported, sailboatdata.com)
Draft	1.77m (5',9.6") approx. (reported, sailboatdata.com)
Displacement	13,225kg (29,157 lbs.) appox. (reported, sailboatdata.com)
Registered Tonnage	18.72GT / 17.96 NT, per vessel registry documents
Ballast	5,352kg (11,800 lbs.) appox. (reported, sailboatdata.com)
Sail Area	77.39 sq.m (833 sq.ft), reported (sailboatdata.com)
Fuel Capacity	454L (120 gal. US) (reported by manufacturer)
Water Capacity	530L (140 gal. US) (reported by manufacturer)
Holding Capacity (black water)	132L (35 gal. US) (reported by manufacturer)
Passenger Capacity	No capacity label sighted


[redacted]

FIGURE 1 – OFFICIAL NUMBER


[redacted]

FIGURE 2 – CERTIFICATE OF REGISTRY

SECTION 4: VESSEL HISTORY, LAYOUT & CONSTRUCTION

4.1 Vessel History

The current owner acquired the vessel in 1996 and reported to have sailed her more than 40,000 miles from Vancouver to Australia, South Africa and the Caribbean. The vessel has been sailed in the Great Lakes since 2017. No information was provided as to prior ownership history or liens. No history of claims or damage reported to the attending surveyor. The current owner reported the following upgrades and maintenance items:

- Re-rigged twice over the course of ownership
- Repainted and decks re-teaked
- New bilge pumps installed
- Through-hulls replaced as required
- Rewired as required
- Repowered with a new Yanmar diesel engine installed at [redacted] in 2022
- New solar panels and charger installed in 2024
- New canvas dodger and weather covers in 2024

FIGURE 3 - PORT STERN VIEW

FIGURE 4 - STARBOARD STERN VIEW

FIGURE 5 - PORT BOW VIEW

FIGURE 6 – DECK VIEW LOOKING AFT

4.2 Vessel Layout

[redacted] is an aft cockpit displacement hull fin keel sailing vessel with single skeg hung rudder and single auxiliary propulsion. A large deck is fitted atop the cabin, with side decks fitted alongside the raised cabin trunk, and a forward weather deck. An open aft cockpit is fitted. The decks and cockpit are fitted with teak. Stainless steel railings are fitted at the bow and stern, with stainless stanchions and lifelines extending along the port and starboard side decks. Additional stainless steel railings are fitted port and starboard of the mast step. Wooden handholds are fitted along the cabin trunk port and starboard.

Three (3) hatches are hatches are fitted to the foredeck, all of sufficient size to offer escape in the event of an emergency. Three (3) cowl vents are fitted to the foredeck. Opening portlights are fitted to the cabin trunk port and starboard.
The double spreader mast is constructed of painted aluminum and is deck-stepped with compression post below. The mast step is constructed of stainless steel and fitted to the cabin trunk roof. The boom is constructed of aluminum. Stays are constructed of 1x19 stainless steel wire with stainless swages and turnbuckles. Chain plates are fitted port and starboard, integral to the salon cabinetry and therefore not accessible for inspection. A stainless steel sternplate is fitted for the backstay. Externally mounted furling units are provided for the staysail and Yankee sail. Halyards present for inspection were found to be constructed of dacron rope. Plastic clutches are fitted atop the cabin trunk at the aft cockpit port and starboard. Blocks are constructed of plastic housing with plastic sheaves. Eight (8) winches are fitted in the aft cockpit as follows: 4 x Lewmar 40 fitted to the cabin trunk port and starboard of the companionway; 2 x Lewmar 48 port and starboard coamings forward; 2 x Lewmar 42 port and starboard coamings aft. Auxiliary propulsion is fitted amidships with access via lifting hatches in the cabin sole. The subject vessel is fitted with a single helm pedestal in the aft cockpit. Fibreglass bench seating is fitted aft of the helm, and along the port and starboard edges of the cockpit. Lazarettes have been fitted below the port and starboard cockpit benches. The cockpit is fitted with canvas dodger. Canvas weather covers are provided for the helm pedestal and winches.
A hinged wooden companionway with sliding plexiglass top is fitted at the forward end of the cockpit, providing access down into the cabin forward via wooden steps. The cabin is configured with a double V-berth forward, dinette/settee/head/galley mid-cabin, and aft berth fitted below cockpit sole. The forward V-berth is provided with the berth to port and storage lockers fitted starboard. The head is fitted aft of the V-berth and to port. The head is provided with an electric flush toilet, shower stall and vanity with sink and tap set. The mid-cabin salon is arranged with a settee and dinette table to starboard with an additional settee to port. Aft of the salon and to port is a navigation table with bench seat. A compact galley is fitted to starboard, with a gimballed propane stove, stainless sink with tap set, chest-type fridge and freezer units and ample cabinet storage. The aft berth is fitted to port and below the cockpit sole, arranged with a ¾ berth and storage locker. Interior joinery is constructed of teak. The cabin sole is fitted with teak flooring. Headliner fitted throughout, constructed of vinyl.

FIGURE 7 – AFT COCKPIT

FIGURE 8 - SALON

FIGURE 9 - GALLEY

FIGURE 10 – FORWARD V-BERTH

4.3 Vessel Construction

The hull is constructed of moulded FRP. Accessible spans of the hull laminate below decks appeared to be solid laminate without cored areas. Bottom paint appeared in serviceable condition. Bottom appeared intact. No osmosis was observed, although the bottom paint prevents thorough visual inspection of the laminate, and may mask the presence of osmosis. The subject vessel is fitted with a fin keel constructed of fibreglass reinforced plastic with fully encapsulated cast iron ballast. The keel appeared intact. The topsides are constructed of fibreglass reinforced plastic. Topsides appeared intact, no cracks observed. No osmosis was observed. The vessel is constructed with a canoe stern. The stern appeared intact where inspected externally and internally from the aft lazarette. No cracks observed. No osmosis observed. Very limited access for inspection of structural components below cabin sole due to vessel design. Hull framing is constructed of fibreglass reinforced plastic. A single pair of longitudinally-oriented FRP stringers is laminated to the hull and transom, and appears to run most of the length of the vessel. Cross frames are laminated between the stringers at intervals. Accessible spans of hull framing appeared intact. Filleting at framing appeared intact, where accessible for inspection. No cracks or visible delamination observed at framing. The deck is constructed of moulded FRP. The presence and type of core material is not known to the attending surveyor at the time of publication. The cockpit sole is constructed of moulded FRP. The cabin trunk is constructed of moulded FRP. The decks and cockpit are fitted with teak coverings. Deck and cockpit sole appeared intact. Cabin trunk appeared intact. Limited access to the hull/deck joint due to vessel design. Access available only in the forepeak rode locker and aft steering compartment. The hull/deck joint appears to be of an inboard flange type, with the deck flange sitting atop the hull flange, mechanically fastened and bonded. An external wooden rub rail is fitted, with a stainless insert, around the perimeter of the hull/deck joint. The hull/deck joint appeared intact and without visible signs of water seepage where accessible for inspection. The rub rail appeared to be intact and securely fastened.

For the purposes of reporting, the vessel's structure and equipment installations shall be taken as intact, compliant and serviceable unless otherwise stated in Appendix A: Findings and Recommendations section of this report.

FIGURE 11 – BOTTOM VIEW

FIGURE 12 - KEEL

FIGURE 13 – HULL/DECK JOINT IN FOREPEAK RODE LOCKER

FIGURE 14 – CABIN TRUNK

SECTION 5: SPARS AND RIGGING

5.1 Standing Rigging

Mast inspected from deck only. As such, limited access was afforded the surveyor to inspect components that would otherwise be visible aloft. Mast appeared intact and serviceable where accessible for inspection. Appeared securely stepped, in column, and without noticeable distortion or excessive rake. Spreaders appeared intact with secure fastenings at mast and shrouds/stays. Lighting and navigation fixtures appeared securely mounted. The mast step appeared intact and securely fastened to coach roof. Boom appeared intact and serviceable where accessible for inspection. Accessible sheaves, blocks, cleats, and fasteners appeared intact, securely fastened and serviceable. Openings for halyards appeared intact and undamaged. Paint coatings appeared worn. Furling units appeared intact and serviceable where accessible for inspection. 1x19 wires appeared intact and securely fastened, without any broken strands visible. Stainless fittings appeared intact, straight and without visible cracks where accessible for inspection.

FIGURE 15 – MAST INSPECTED FROM DECK

FIGURE 16 – MAST STEP

5.2 Running Rigging

Sails were found to be bagged in the cabin at the time of inspection. Sails were not fully unfolded during the survey, as the surveyor was working alone, and limited space was available to unfold the sails. Sails appeared to be in serviceable condition. Seams and stitching appeared intact. Colour-coded lines fitted, appeared in serviceable condition. Rigging cleats appeared securely fastened and serviceable. Clutches appeared intact and serviceable. Clutches are clearly labeled as to function. Blocks appeared to be intact and serviceable. Winches were found to turn freely and appeared serviceable.

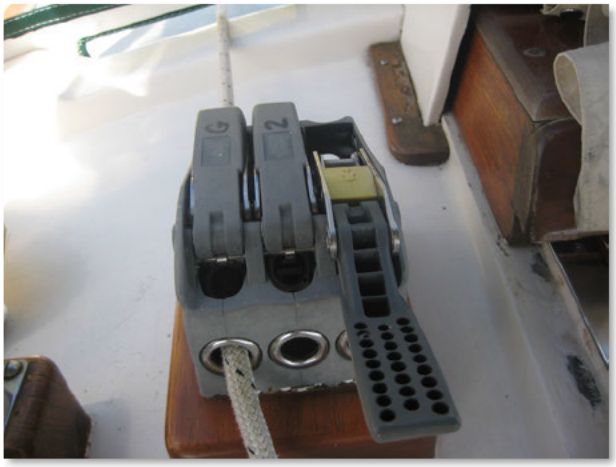


FIGURE 17 – CLUTCH FITTED TO PORT SIDE OF CABIN TRUNK

FIGURE 18 – WINCHES FITTED TO STARBOARD SIDE OF CABIN TRUNK

SECTION 6: PROPULSION SYSTEMS

6.1 Propulsion Machinery & Specifications

COMPONENT	DESCRIPTION
No. of Engines	One (1)
Type	4-cylinder diesel inboard shaft.
Manufacturer	Yanmar
Model	4JH80
Engine Serial No.	[redacted]
Model Year	2021
EPA Label	Yes, as pictured in Figure 19 below
Displacement (each engine)	2L (122 CID)
Rated Power (each engine)	58.8kW (80 HP)
Engine Hours	Unavailable (hour meter in tachometer not powered up with no ignition key available on the day of survey)
Compartment Ventilation	1 x 12VDC electric blower
Reduction Gear Model/Type	Kanzaki KMH4A
Reduction Gear Serial Nos.	[redacted]
Gear Ratio	2.45:1
Shaft(s)	1.5" diam. stainless shaft
Shaft Seal Type	Dripless shaft seal(s).
Struts/Bearings	Cutlass bearing at keel
Propeller(s)	3-blade stainless steel folding propeller
Steering Gear	Single station, cable and pulley. Single fibreglass rudder.
Trim Tabs	None fitted.
Bow Thruster	None fitted.
Stern Thruster	None fitted.

6.2 Propulsion Systems

6.2.1 ENGINES

COMPONENT	DESCRIPTION
Engine block(s) and cylinder head(s)	Cast iron
Engine beds/mounts	Cast iron/aluminum
Cooling system	Closed, freshwater cooling system with raw water cooled heat exchanger.
Exhaust system	Wet-type exhaust with overboard discharge via plastic waterlift muffler.
Automatic oil changer	None fitted.

FIGURE 19 – EPA LABEL

FIGURE 20 - ENGINE

FIGURE 21 – SHAFT SEAL

FIGURE 22 – EXHAUST MUFFLER

Engine appeared serviceable during the survey inspection. Nonetheless, a full mechanical inspection was not undertaken as a part of this survey. Engine appeared securely installed to engine beds amidships. Drive belts appeared to be intact, serviceable and properly tensioned. Machinery guards were observed to be in place as required. There were no fuel, oil, cooling or exhaust leaks found where components were accessible for inspection.

6.2.2 OIL ANALYSIS

Oil analysis was not requested as a part of this survey.

6.2.3 CONTROLS/GAUGES

COMPONENT	MAKE/MODEL	SERIAL NO.	TYPE	LOCATION
Shift/throttle control	Not sighted	Not sighted	Side-mount	Helm
Engine gauges	Yanmar	Not sighted	Analogue gauges for engine speed (tachometer), oil pressure and temperature	Aft cockpit port side
Stop switch/tether	Yanmar	Not sighted	Switch	Aft cockpit port side

FIGURE 23 – ENGINE GAUGES

FIGURE 24 - RUDDER

Shift/throttle controls and engine gauges appeared intact and serviceable but were not tested for functionality at the out of water survey.

SECTION 7: HULL PIPING, PUMPS & TANKAGE

7.1 Propulsion Fuel System

COMPONENT	DESCRIPTION
Fuel type	Diesel
No. of tanks	Two (2)
Tank material	Fibreglass
Tank locations	Below cabin sole, port and starboard of engine
Deck fill locations	Two (2) bronze, port and starboard side decks
Fuel valves	Gate valves fitted to fuel supply lines aft and to starboard of engine
Filtration	2 x Racor water-separating type fitted to bulkhead in engine space 1 x water-separating type fitted to engine
Pumps	Not sighted
Tank monitors	Tank Tender pressure sounding system Monitor below navigation table in cabin

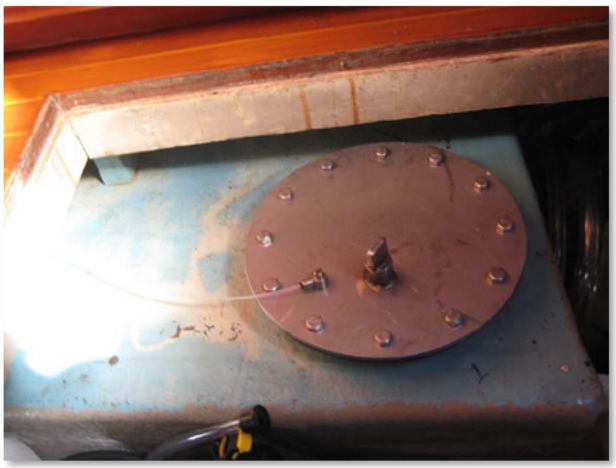


FIGURE 25 – STARBOARD FUEL TANK

FIGURE 26 – DECK FILL PORT SIDE DECK

Very limited access to fuel tanks due to configuration of installations. Tanks appeared to be intact and securely fastened to the vessel. No tank labels sighted. No leaks were sighted at the tanks or tank fittings. Deck fill fittings appeared to be intact, securely fastened and serviceable. Deck fill fittings are not marked with fuel type. Venting appeared intact where accessible for inspection. Deck fill grounding not sighted due to limited access. Fuel tank grounding appeared compliant where accessible for inspection. Fuel valves appeared serviceable and without leaks or weeping at valve bodies or fittings. Fuel valves were cycled and confirmed operational. Fuel filters secured to the vessel and engine and appeared serviceable. No leaks sighted at fuel filters or related fittings. Compliant hoses sighted for fuel fill, vent and supply, dates not visible. Fuel hoses appeared intact and serviceable where accessible for inspection. Double hose clamps of sufficient size are installed on accessible fuel fill hose fittings. Engine fuel pumps not sighted. Fuel level gauge appeared serviceable but was not tested for accuracy as part of this survey.

7.2 LPG (Propane)/CNG (Compressed Natural Gas) Systems

COMPONENT	DESCRIPTION
Fuel type	LPG (propane)
No. of tanks	Two (2) x 14.8L
Tank material	Steel
Tank locations	LPG locker
Regulators	Two-stage with gauge
Lockers	Below starboard bench seat in aft cockpit Vapour tight to hull with vent overboard

Tanks appeared to be securely fitted to the vessel. Tank fittings appeared intact and serviceable. The regulator appeared serviceable. Propane system hoses appeared to be intact, where accessible for inspection. Shut-off solenoid valve appeared serviceable. Locker appeared serviceable.

7.3 Potable Water System

COMPONENT	DESCRIPTION
Pressure pumps	12VDC (specification not sighted)
Filtration	Not sighted
No. of tanks	Two (2)
Tank material	Stainless Steel
Tank locations	Below cabin sole amidships port and starboard
Deck fill locations	Two (2) bronze, port and starboard side decks
Shore water fittings	None sighted
Transom shower	None sighted
Water heater type/capacity	Whale F600 120VAC 6 gallon (22.7L) installed aft of engine
Water heater engine coolant loop	Not sighted
Pressure relief	150 psi
Water maker	Sepectra watermaker system installed below sink in head
Tank monitors	Tank Tender pressure sounding system Monitor below navigation table in cabin

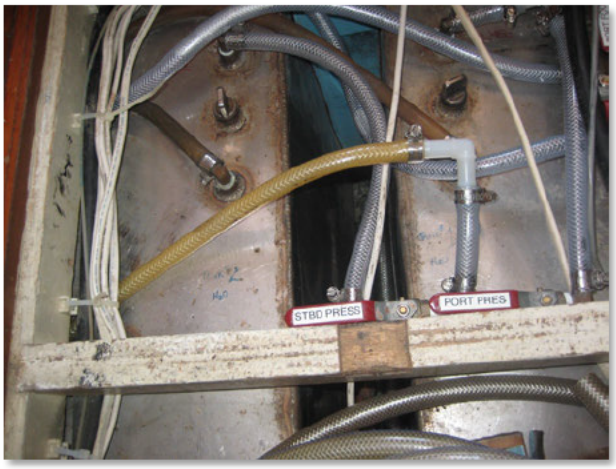


FIGURE 27 – FRESH WATER TANKS

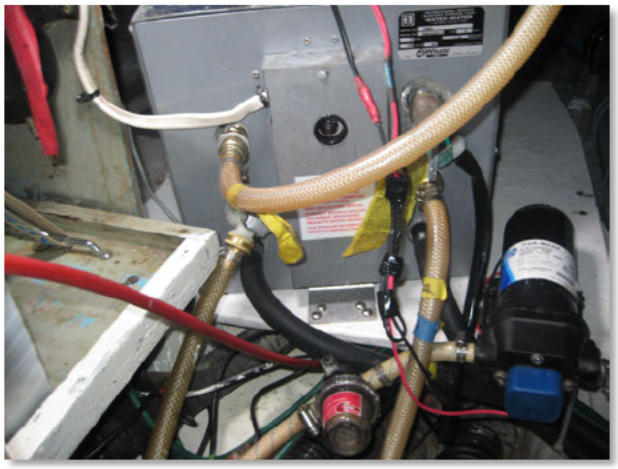


FIGURE 28 - WATER HEATER

Very limited access to the water system pressure pump due to location of installation. Label not accessible for inspection. Very limited access to fresh water tanks due to configuration of installations. Potable water tanks, lines and fittings appeared securely installed to the vessel, serviceable and without visible leaks, where accessible for inspection. Water system pressure pump powered up briefly and sounded operational but not tested with water system decommissioned. The water heater appeared intact and undamaged, with no visible leaks from fittings and no standing water around the base of the tank. Water heater not tested. Water filtration system(s) were not tested as a part of this survey.

7.4 Sanitation System

COMPONENT	DESCRIPTION
Pumps	Jabsco 12VDC macerator pump installed below cabin sole at head
Vent filtration	Vent filter installed in starboard locker
No. of holding tanks	One (1)
Holding tank material	Fibreglass
Holding tank locations	Below cabin sole at head
Deck pump out fitting locations	One (1) bronze, port side deck
Holding tank monitors	None sighted
No. of grey water tanks	None fitted
No. of shower sumps	One (1) Jabsco 12VDC 4.2GPM drain pump
Location of shower sumps	Aft of engine

FIGURE 29 – HOLDING TANKS

FIGURE 30 – Y-VALVE OR DIVERTING WASTE TO TANK OR OVERBOARD

Holding tank, pumps, lines, fittings and fixtures appeared intact, securely fastened and without visible leaks, where accessible for inspection. Sanitation hoses and fittings appeared serviceable where accessible for inspection. Owner reported macerator pump is inoperable and has not been used in some time. Holding tank appeared to be plumbed to permit discharge of sewage overboard.

7.5 Pumps & Dewatering Systems

7.5.1 WASHDOWN

COMPONENT	DESCRIPTION
Pumps	1 x Jabsco 12VDC 50psi pump aft of engine 1 x Par 12VDC 3.8GPM pump in forepeak rode locker
Filtration	In-line plastic
Source/through-hull locations	Vessel potable water system
Spigot locations	Bow and stern

Pump(s), fittings, hoses and related components appeared serviceable. Washdown system was not tested as a part of this survey.

7.5.2 AIR CONDITIONING PUMPS

None fitted.

7.5.3 BILGE PUMPS

COMPONENT	DESCRIPTION
No. of pumps sighted	Two (2)
Pump type	1 x Attwood Sahara 12VDC 1200GPM 1 x manual
Pump locations	Engine space
Float switches	Yes (integral)

Accessible bilge pumps, float switches, hoses and connections appeared intact, securely fastened and serviceable. Bilge pump(s) powered up and sounded operational, though not tested with dynamic load due to the absence of sufficient bilge water on the day of survey.

FIGURE 31 – AFT WASHDOWN PUMP

FIGURE 32 – BILGE PUMP

7.6 Hydraulic Fluid Tanks & Piping

None fitted.

7.7 Seacocks, Through-hulls & Drainage

COMPONENT	DESCRIPTION
Topsides through-hull fittings	Bronze
Through-hulls below the waterline	Bronze
Seacocks type	Ball valves
Hull drain fittings	None fitted
Lifting/trailering eyes	None fitted
Scuppers	Metal scupper drain fitted in windlass recess

FIGURE 33 – THROUGH-HULLS PORT SIDE

FIGURE 34 – SEA COCK FITTED TO THROUGH-HULL

Topsides through-hull fittings appeared intact and securely fastened to the vessel. Through-hull fittings below the waterline appeared intact and securely fastened to the vessel. Through-hulls observed to be without external flanges. Seacocks are fitted on through-hull fittings below the waterline, where accessible for inspection. Seacocks cycled and found to be serviceable at time of inspection. Bungs are provided at all accessible through-hulls below the waterline. Hose clamps appeared securely installed where accessible for inspection.

SECTION 8: ELECTRICAL SYSTEMS

8.1 Direct Current Systems (less than 50V)

COMPONENT	DESCRIPTION
Voltages	12-volt, negative ground
Main disconnects	Single battery master switch at navigation seat in cabin
Panel boards/overcurrent protection	Main DC panel at navigation table in cabin
Batteries – no., type, locations	4 x GC2 6-volt flooded lead-acid batteries installed in engine space starboard side 1 x 4D3 12-volt flooded lead-acid battery installed in engine space port side
Alternators	1 x engine mounted, rated at 125 amps
Battery isolators	None sighted.
Automatic charging relays	None sighted.
Solar charging system	3 x 100W rigid solar panels fitted at stern Victron Energy MPPT 100/50 BlueSolar charge controller with Bluetooth dongle installed below navigation seat
Parallel solenoid	None sighted
12-volt outlet locations	V-berth

FIGURE 35 – 6-VOLT BATTERIES

FIGURE 36 – SOLAR CHARGE CONTOLLER

Battery master disconnect switch(es) and DC panel boards appeared to be intact and compliant, where accessible for inspection. Overcurrent protection appeared to be of sufficient type and capacity for the application. Batteries appeared intact and securely installed in approved trays/boxes. Battery connections appeared clean and secure. Proper electrolyte containment observed. Wiring insulation, connections and related fixtures appeared mostly compliant and in serviceable condition where accessible for inspection. Alternator appeared securely mounted and serviceable. Solar panels, controller and connections appeared securely installed and compliant.

8.2 Alternating Current Systems (over 50V)

COMPONENT	DESCRIPTION
Voltages	120VAC
Shore power inlet receptacles/locations	1 x 125/250V 50A and 1 x 125V 30A fitted to starboard aft cockpit coaming
Main disconnects	Main AC panel
Panel boards/overcurrent protection	Main AC panel located at navigation table in cabin
120-volt GFCI receptacle locations	Navigation table, salon
120-volt non-GFCI receptacle locations	Salon, head, V-berth
Battery charger	None sighted
Inverter	Trace Engineering 1.5kW DC-to-AC inverter/charger installed below navigation seat
Isolation Transformers	None sighted

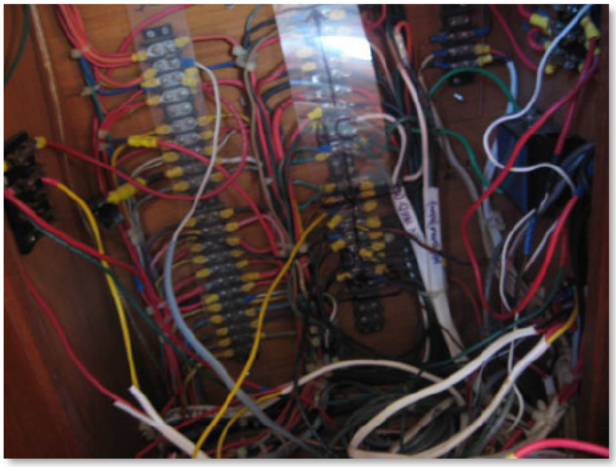


FIGURE 37 – BEHIND MAIN ELECTRICAL PANEL

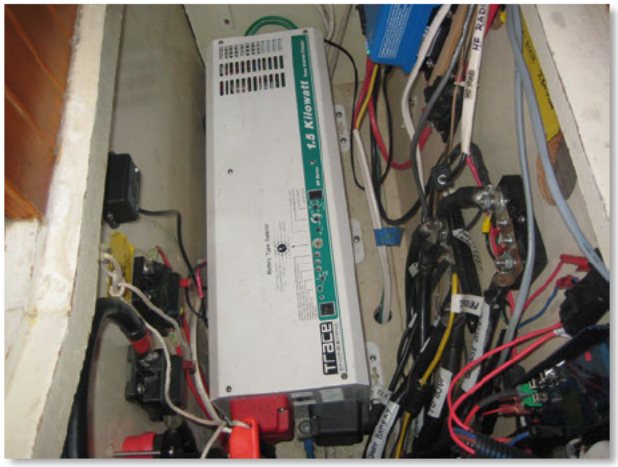


FIGURE 38 – INVERTER/CHARGER

Panel board installation appeared compliant and serviceable, where accessible for inspection. Receptacles appeared securely installed in approved junction boxes and serviceable. Very limited access to large spans of AC wiring harnesses installed to cable races throughout the vessel. AC wiring insulation, connections and related fixtures appeared compliant and in serviceable condition, where accessible for inspection. Inverter(s) appeared securely installed and serviceable. Unit appeared to be correctly installed, with secure connections and sufficient, suitable overcurrent protection. Not powered up.

8.2.1 GENERATORS

None fitted.

8.3 Appliances & Galley Equipment

8.3.1 REFRIGERATION

MAKE	MODEL	TYPE	LOCATION
North Shore Refrigeration Ltd	Not sighted	Chest type fridge/freezer Compressor	Galley Locker in aft berth

FIGURE 39 – CHEST FREEZER IN GALLEY

FIGURE 40 – COMPRESSOR UNIT

Refrigeration appliances appear to be intact and serviceable. Refrigeration units appear to be properly secured to the vessel structure. Refrigeration appliances were powered up and confirmed operational on all applicable power sources.

8.3.2 OVENS/COOKTOPS

MAKE	MODEL	TYPE	LOCATION
Force 10	F63451	Gimbaled range top and oven	Galley
Dickinson	Sea-B-Que	Portable propane barbecue	Aft cockpit railing

FIGURE 41 – RANGE TOP AND OVEN IN GALLEY

FIGURE 42 – BARBECUE AT AFT COCKPIT

Cooking appliances sighted onboard appeared serviceable. Cooking appliances stowed/secured as required for crew safety while underway. Not tested as part of this survey.

8.4 Heating, Ventilation & Air Conditioning Systems

COMPONENT	DESCRIPTION
No. of air conditioners/air handlers	One (1)
Locations and capacities of air unit installations	Dickinson Antarctic diesel heater installed in salon
System voltages	12VDC

FIGURE 43 – DIESEL HEATER IN SALON

FIGURE 44 – COWL VENT ON CABIN TRUNK

Diesel heater found onboard appeared serviceable but was not tested as part of this survey.

8.5 Corrosion Protection Systems

COMPONENT	DESCRIPTION
Locations of sacrificial anode installations	Keel (plate), shaft, propeller and hull (plate)
Through-hull bonding	Yes
Impressed-current corrosion protection	None sighted.
Galvanic isolation	None sighted.

Anodes appeared to be securely installed and in serviceable condition. Metallic through-hulls below the waterline appeared to be bonded where accessible for inspection.

FIGURE 45 – PLATE ANODE ON KEEL

FIGURE 46 – PLATE ANODE ON HULL

SECTION 9: ELECTRONICS & NAVIGATION SYSTEMS

9.1 Navigation & Communications Electronics

COMPONENT	DESCRIPTION	LOCATION
Magnetic compass	Plastimo	Helm
GPS/plotters	Raymarine C-series multi-function display	Navigation table
Depth/speed temperature	Raymarine ST60+ speed and depth Through-hull depth transducer Through-hull speedwheel transducer	Aft cockpit above companionway Hull bottom starboard side forward Hull bottom starboard amidships
Autopilot	Raymarine ST60+ control head Raymarine electronic compass Raymarine ACU-400 actuator control unit	Helm Cabin behind companionway steps Locker in aft berth
Rudder indicator	Raymarine	Helm
Radar	Raymarine closed dome scanner	Stern
Wind speed/direction	Raymarine ST60+ wind sounder Wind speed/direction transducer (anemometer)	Aft cockpit above companionway Mast
Radios/loud hailers	Standard Horizon GX2150 Icom IC-706MKIIG SCS PTC-IIe multimode radio controller modem Icom IC-M34 handheld	Navigation table Navigation table Navigation table Navigation table
Automatic Identification System (AIS)	AIS capable VHF fitted, no transceiver sighted.	-
Intercom/phone system	None fitted.	-
Computers	None sighted.	-
Ethernet	Starlink Flat High Performance	Stern
NMEA networks	No NMEA network sighted.	-
Security systems	None sighted,	-
Video	None sighted.	-
TV/monitors	Asus flatscreen TV	Salon cabinetry, port side
Audio	Pioneer DEH-21001B stereo Pioneer speakers	Salon Salon port and starboard

Navigation equipment powered up and confirmed operational. Helm display(s) appeared properly installed and serviceable. Cables and connections appeared secure and well-supported. TV's appeared securely fastened and serviceable. Not powered up. Audio equipment appeared serviceable and securely fastened. Cable connections appeared to be correctly installed, serviceable and well supported. Powered up and appeared operational.

FIGURE 47 – RAYMARINE MULT-FUNCTION DISPLAY

FIGURE 48 – AUTOPILOT CONTROL AT HELM

SECTION 10: SAFETY SYSTEMS & EQUIPMENT

10.1 Exterior Lighting

COMPONENT	DESCRIPTION	LOCATION
Navigation Lights	Bi-colour Anchor/all-round white Stern	Bow Mast Aft railing
Emergency Lighting	None fitted	-
Docking Lights	None sighted.	-
Spotlight/Searchlight	None fitted.	-
Courtesy Lights	Red 12VDC	Throughout cabin
Deck Lights	None fitted.	-
Spreader Lights	12VDC LED	Mast
Underwater Lights	None fitted.	-

Exterior lighting appeared serviceable and securely fastened to the vessel. Lenses appeared to be intact where able to be sighted from deck level only. Powered up and confirmed operational.

10.2 Safety Equipment

COMPONENT	DESCRIPTION	LOCATION
Signal Horn/Bell/Whistle	Manual	Navigation table
Radar reflector	Corner	Port shroud
MOB recovery	Kisby ring (life ring)	Port railing
EPIRB/Lights	AccuSat EPIRB	Navigation table, mounted
Boat Hooks	1 x plastic with aluminum pole	Transom
Paddles	None sighted	-
Bailer	None sighted.	-
Re-boarding ladders/gangways	Portable stainless steel	Stowed on deck
Liferafts	None present for inspection.	-
First aid kits	One (1)	V-berth
Visual distress signals	12 x Type B, manufacture date January 2024	Cabin storage
Personal flotation devices	Several adult PFDs of various types	Stowed throughout cabin
Emergency hatches	Three (3)	Foredeck – one above V-berth, two above salon port and starboard

10.3 Ground Tackle

COMPONENT	DESCRIPTION	LOCATION
Fenders & mooring lines	Plastic fenders, nylon lines	Stowed on deck
Anchors/rode	25kg galvanized steel Rocna with 5/16" chain and rope Secondary anchor	Bow

Windlass	Lofrans 12VDC dual horizontal windlass Foot controls	Recess at bow Bow

Fenders and mooring lines appeared serviceable. Anchor appeared serviceable. Chain/rode observed in forepeak rode locker, appeared sufficient for vessel and serviceable, but anchor chain/rode was not let out for detailed inspection due to the constraints of the location of inspection. The windlass appeared serviceable, with tidy wiring in the rode locker and overcurrent protection installed at forepeak rode locker. Not tested.

10.4 Detection, Alarm & Fire Suppression Systems

COMPONENT	DESCRIPTION	LOCATION
Detectors	Xintrex S-2A propane/CNG fume detector	Galley
Alarms	Engine warning system High water alarm	Aft cockpit Engine space
Fixed fire extinguishing & fire ports	None fitted	-
Portable fire extinguishers	10B:E, serial number not sighted, dated 2008 2A:40-BE, serial number not sighted, date of last service 2009 3A:40-BC, serial number B79958463, date not sighted 3-A:40-BC, serial number B79884466, dated 2016 3-A:40-BC, serial number B74759865, date not sighted	Aft lazarette Starboard lazarette Aft berth Navigation table storage cabinet V-berth
Fire buckets & axes	None sighted	-
Self-contained breathing apparatus	None sighted	-

FIGURE 49 – PORTABLE FIRE EXTINGUISHER IN V-BERTH

FIGURE 50 – PROPANE FUME DETECTOR IN GALLEY

Propane fume detector appeared serviceable. Unit tested via integral test function and reported audible confirmation tone. Engine warning system alarm confirmed operational with 'key on' power supplied. Individual alarms for low oil pressure, overheat and other connected sensors were not specifically tested as a part of this survey. High water alarm installed in engine space, with monitor at navigation table, powered up and confirmed operational. Portable fire extinguishers mounted, gauges show mostly fully charged.

SECTION 11: ADDITIONAL EQUIPMENT

11.1 Davits

None fitted.

11.2 Tender

The tender has been included in this report for valuation purposes only, and the attending surveyor(s) cannot certify its condition or suitability for intended use.

Manufacturer	Highfield
Model	Unknown
Type	Aluminum bottom RIB
Year of Manufacture	2020
Model Year	2020
Length Overall	3m (10') estimated
Hull Identification Number (HIN)	[redacted]
Rated Power Capacity	Unknown
Outboard Engine Manufacturer/Model	Yamaha 15FMH
Outboard Type	2-cylinder outboard
Outboard Fuel Type	Gasoline
Outboard Serial No.	[redacted]
Rated Power	11kW (15 HP)

FIGURE 51 - TENDER ON DECK

FIGURE 52 - TENDER HIN

11.4 Cradle

Vessel was surveyed on her cradle. The cradle is of painted steel construction and consists of eight (8) pads (four on each side). The cradle appeared serviceable. The cradle has been included in this report for valuation purposes only, and the attending surveyor(s) cannot certify its condition or suitability for intended use.

11.5 Non-Fixed Furnishings

None present for inspection.

SECTION 12: SUMMARY

Overall, the subject vessel presented as clean and well maintained. The subject vessel presented as structurally sound, where accessed for inspection and within the scope of this report. This vessel was found by the surveyor to be in satisfactory condition for its intended use, providing deficiencies listed as Category A: Findings Recommended for Immediate Attention in Appendix A: Summary of Findings & Recommendation are properly addressed.
A compliance inspection should be considered at the conclusion of repairs, to verify repairs are compliant with applicable legislation, construction standards, and best practices.

SECTION 13: SURVEYOR'S CERTIFICATION

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 the 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 intended to be used, except as part of the whole. This report and its contents are 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 of the survey only. Marine Surveys Canada assumes no responsibility or liability for any action taken by the owner or insurer as a result of this report.

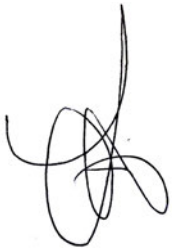
Signed:

Name of Surveyor: Sophie Foster, M.Eng

Surveyor Certification: Staff Surveyor/Naval Architect
Transport Canada Appointed Tonnage Measurer <24m

Date of Report: October 9, 2024

This report has been reviewed for content and compliance by:



Name of Surveyor: Timothy J. S. Martin

Surveyor Certification: SAMS Accredited Marine Surveyor® #1360
Transport Canada Appointed Tonnage Measurer <24m

Date of Review: October 9, 2024

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APPENDIX A: SUMMARY OF FINDINGS & RECOMMENDATIONS

This section is only one part of the survey report. If received on its own, this section should not be mistaken as this vessel's full survey report.

A.1 Summary of Findings & Recommendations

Findings & recommendations in this document have been organized into the following six categories. Definitions of the categories are provided below:

Category A: Findings Recommended for Immediate Attention

These deficiencies are highest priority and should be addressed before the vessel is next underway, and in some cases, prior to launching the vessel. Some of these items may represent an endangerment to personnel or property and may be enforceable where applicable legislation applies. Some findings may also be listed in this category to express urgency of repair, particularly in cases where failure to address the deficiency may result in unexpected damage to (or premature deterioration of) the vessel that is likely to incur significant cost or inconvenience.

A-1 **Finding:**

Gauge fitted to the portable fire extinguisher in the aft lazarette shows recharge required.

Recommendation:

Fire extinguisher should be recharged or replaced, in order to comply with Section 5(2) of the Small Vessel Regulations.

Category B: Findings Related to Regulatory Compliance

Deficiencies in this category are regulatory in nature, but not necessarily of immediate concern with respect to the safe operation of the vessel. Regulations are cited to assist in finding specific details of how to comply. In many cases, the deficiencies listed in this category may be related to equipment fitted at the time the vessel was manufactured and may have been in service for several years as installed. Recommendations in this category may be dependent on intended use of the vessel that cannot be anticipated by the attending surveyor (for example, smaller vessels do not require navigation lights or a compass if certain conditions are met under the regulations). Such items may be listed here because they are regulatory in nature, although the vessel may never be used in a situation requiring compliance under the regulations. Some recommendations in this category that are dependent on how, when, and where the vessel is operated are considered ***dependent recommendations****. Responsibility ultimately rests with the vessel owner to comply when required to do so.*

B-1 **Finding:**

Some additional gear was observed stowed in the propane locker.

Recommendation:

The propane locker should contain only propane tanks, regulators, shut-offs and related components. Propane lockers should not be used to store additional equipment unrelated to the propane system. This item should be addressed prior to next voyage, in accordance with Sections 604 & 721 of the Small Vessel Regulations, and ABYC Standard A-1.

B-2 **Finding:**

Holding tank appeared to be plumbed to permit discharge of sewage overboard.

Recommendation:

Overboard discharge should be locked out and tagged, or system reconfigured to prevent overboard discharge of holding tank contents, in order to comply with Canadian and United States regulations for inland and coastal waterways.

Category C: Findings Related to Removable Safety Gear

This category is intended to include removable safety equipment, particularly items that may be routinely taken off the vessel for off-season storage. Examples of safety equipment considered to be removable are lifejackets/PFDs, man overboard recovery devices such as life rings and buoyant heaving line, visual distress signals etc. It is recognized by the attending surveyor that whilst the safety gear identified below was not present during the survey inspection, the vessel may normally be equipped with these items during operations.

C-1 **Finding:**

EPIRB battery expired August 2016.

Recommendation:

Replace battery and test EPIRB for function.

Periodic inventory of required safety gear is recommended, in order to ensure compliance with the Small Vessel Regulations. A list of required safety equipment for a vessel of this size can be obtained from the Transport Canada, on the Office of Boating Safety website at https://www.tc.gc.ca/eng/marinesafety/debs-obs-menu-1362.htm. (This is a dependent recommendation, as some safety equipment requirements are dependent on when, where and how the vessel is used. Responsibility rests with the vessel owner/operator to ensure required safety gear is present and serviceable for each voyage).

Category D: Findings Related to Voluntary Standards Compliance

These items should be strongly considered for upgrade, in keeping with current standards and best practices, but are not enforceable, either due to the vessel's date of manufacture or because no legislation exists. Voluntary standards are cited to assist in finding specific details of how to comply.

D-1 **Finding:**

The fuel deck fill fittings at the port and starboard side decks are not clearly marked with fuel type.

Recommendation:

The diesel fuel deck fill fittings should be permanently marked with the correct fuel type (the word 'DIESEL' or the ISO symbol). The affected fuel deck fill fitting(s) may need to be replaced, to comply with Section 727 of the Small Vessel Regulations, Section 7.1 of TP1332 Construction Standards for Small Vessels (2004 & 2010), and Section 33.12 of ABYC Standard H-33.

D-2 **Finding:**

Bare wire ends were observed in the inspection port located on the port coaming of the aft cockpit. Taped connections were observed at the fan installed in the salon forward port side. Unsupported wiring was observed below cabin sole forward of fresh water tanks.

Recommendation:

Remove unused wiring or properly terminate, to comply with Section 728(1) of the Small Vessel Regulations, Section 8.7.5 of TP1332E Construction Standards for Small Vessels (2004 & 2010), and Section 11.14 of ABYC Standard E-11. Wiring connections should be made within an enclosed junction box, to comply with Section 728 of the Small Vessel Regulations, TP1332E Construction Standards for Small Vessels (2004 & 2010), and ABYC Standard E-11. Support/secure wiring every 18", to comply with Section 728(1) of the Small Vessel Regulations, Section 8.7.4 of TP1332E Construction Standards for Small Vessels (2004 & 2010), and Section 11.14 of ABYC Standard E-11.

D-3 **Finding:**

Insufficient electrolyte containment observed at port battery installation. Wing nuts observed on port battery posts. Positive (+) terminals not protected at all batteries.

Recommendation:

Install a suitable means of providing electrolyte containment, such as a tray or box designed for the purpose. Replace wing nuts with hex nuts. The positive terminal(s) should be completely covered. Repairs should be completed in order to comply with the requirements of Part 7 of the Small Vessel Regulations, Section 8.6 of TP1332E Construction Standards for Small Vessels (2004 & 2010), and Section 10.7 of ABYC Standard E-10.

D-4 **Finding:**

No GFCI fitted to receptacles in head.

Recommendation:

Receptacle(s) should be confirmed as protected by other GFCI outlets onboard the vessel, or retrofitted with GFCI receptacle(s), in order to comply with Section 728 of the Small Vessel Regulations, Sections 8.2 and 8.12 of TP1332E Construction Standards for Small Vessels (2010 only), and Section 11.13.3.5 of ABYC Standard E-11.

D-5 **Finding:**

No ELCI breaker installed at the shore power mains or panel.

Recommendation:

Install Equipment Leakage Circuit Interrupter (ELCI) breaker or Type A residual current device (RCD) with or in addition to the main shore power circuit breaker(s), in order to comply with Section 728 of the Small Vessel Regulations, Sections 8.2 and 8.12 of TP1332E Construction Standards for Small Vessels (2010 only), and Section 11.11 of ABYC Standard E-11.

D-6 **Finding:**

No carbon monoxide detector sighted onboard.

Recommendation:

Install carbon monoxide detectors in accommodation spaces, in accordance with ABYC Standard A-24.

D-7 **Finding:**

No smoke alarm sighted onboard.

Recommendation:

NFPA Standard 302 recommends installation of single station smoke alarms in enclosed accommodation spaces.

D-8 **Finding:**

No warning label sighted at main AC electrical distribution panel, warning of presence of inverter onboard. No inverter control/status panel installed. Inverter installation has been completed since date of manufacture and is considered by the attending surveyor as a modification to the vessel's electrical systems.

Recommendation:

Install proper label at the shore power panel in the salon, warning of the presence of a DC to AC inverter installed on the vessel, to comply with Section 31.8 of ABYC Standard A-31. Install inverter control/status panel beside shore power panel in salon, to comply with Section 31.6 of ABYC Standard A-31.

D-9 **Finding:**

Through-hull fittings below the waterline were observed to be of a type without external flange. The attending surveyor recognizes this is likely an original configuration from the manufacturer.

Recommendation:

Consideration should be given to replacing through-hulls as part of generational maintenance with externally flanged types, due to their increased strength properties. Through-hull fittings shall be constructed to provide the necessary rigidity and strength to withstand the pressures developed by the expansion and contraction of typical hull constructions, the vibration and shock stress in intended service and a 500lb (227kg) static load for 30 seconds when installed with a seacock, in accordance with ABYC Standard H-27.

FIGURE 53 – NON-GFCI RECEPTACLES IN HEAD

FIGURE 54 – BARE WIRE ENDS IN INSPECTION PORT AFT COCKPIT

Category E: Non-Urgent Findings Related to Vessel Structure

Deficiencies in this category are related to findings around structural components of the vessel but are not considered as immediate structural concerns. These findings represent areas of deterioration that may lead to more serious structural concerns in the future, but are not currently considered by the attending surveyor(s) to be of concern with respect to the structural integrity of the vessel, for any of the following reasons:

a) The structure of the vessel is not compromised, nor likely to be compromised in the foreseeable future
b) The affected area is relatively small or isolated and well-supported by surrounding structures
c) The affected area is not a critical structural component of the vessel (for example, hatches or coamings)

E-1	**Finding:**
	Moderately elevated relative moisture readings were obtained in both faces of the rudder. Bright soundings here and the laminate appeared intact.
	Recommendation:
	Moisture in the rudder should be monitored and repaired when necessary. The surveyor has no immediate structural concerns in the affected areas of this vessel.
E-2	**Finding:**
	Moderately elevated moisture readings were obtained throughout the aft raised cabin trunk roof. Slight dullness was audible to percussive sounding tests on the port side between dodger mounts and cowl vent in an area of approximately 30cm x 30cm (1' x 1'). Moderately elevated moisture readings were obtained, and dullness audible to percussive sounding tests, on the port side of the cabin trunk in the area between two aft portlights and around the aftmost portlight frame.
	Recommendation:
	Moisture in the cabin trunk should be further investigated as necessary to help determine urgency and best course of action for repair. Indications of core deterioration are present and invasive testing, such as core sampling, is recommended. While in the opinion of the surveyor complete structural failure is unlikely in the affected area(s), repairs will be required soon, likely at significant cost.
E-3	**Finding:**
	Gelcoat cracks and chips with exposed fibreglass mat were observed around the windlass recess hatch fitted at bow.
	Recommendation:
	Repair gelcoat to prevent water ingress and protect underlying FRP mat.

Category F: Maintenance & Cosmetic Findings

*Deficiencies in this category do not represent an immediate safety concern. Items in this category should be **considered** for repair, in the interest of maintaining the safe operating condition and appearance of the vessel. In some cases, the surveyor may make suggestions as to a suitable timeline for repair (for example, before or after the vessel is hauled for the season), to assist the vessel owner in service planning and budgeting.*

F-1	**Finding:**
	Paint coating on mast observed to be worn in several areas. Paint bubbling observed on boom at gooseneck. This condition may be indicative of the development of galvanic corrosion.
	Recommendation:
	Consider clean-up and re-painting of the affected area(s).
F-2	**Finding:**
	Cutlass bearing installed to the after face of the keel observed to be cracked and showing signs of wear. No shaft mobility observed.
	Recommendation:
	Replace cutlass bearing. Repairs should be undertaken as soon as practicable, ideally prior to launch.
F-3	**Finding:**
	Corrosive staining observed at rub rail fasteners, suggestive of crevice corrosion.
	Recommendation:
	Monitor and repair as necessary.
F-4	**Finding:**
	Railings fitted to the cabin trunk at the starboard side of the mast step observed to be loose. Fourth stanchion from the bow on the port side deck observed to be loose.
	Recommendation:

	Repair loose stanchions as soon as practicable.
F-5	**Finding:**
	Screw observed to be missing from the aft hinge on the port windlass recess hatch lid.
	Recommendation:
	Replace missing screw.
F-6	**Finding:**
	No mousings sighted at secondary anchor shackle.
	Recommendation:
	Mousings should be installed at anchor shackle to prevent backing off of the fastener(s) and potential loss of anchor with subsequent loss of vessel.
F-7	**Finding:**
	Finish worn on wooden handholds fitted to the cabin trunk.
	Recommendation:
	Consider revarnishing of wooden handholds.
F-8	**Finding:**
	Seal observed to be loose on LPG/propane locker lid.
	Recommendation:
	Repair/replace loose seal.
F-9	**Finding:**
	Macerator pump inoperable. Owner reported the macerator pump is no longer used so as to avoid overboard discharge of waste.
	Recommendation:
	Repair/replace macerator pump or remove from vessel.
F-10	**Finding:**
	Gate valve installed in waste pump out hose observed to be corroded.
	Recommendation:
	Replace gate valve or remove and reconfigure pump out hose arrangement.
F-11	**Finding:**
	Sliding plexiglass top at companionway observed to be crazed.
	Recommendation:
	Consider replacement of plexiglass.
F-12	**Finding:**
	No recertification tags fitted to portable fire extinguishers in cabin. Recertification tags fitted to portable fire extinguishers in cockpit show date of last service as 2009.
	Recommendation:
	Fire extinguishers should be recertified and tagged or replaced, in the interest of maintaining the extinguishers in serviceable condition.

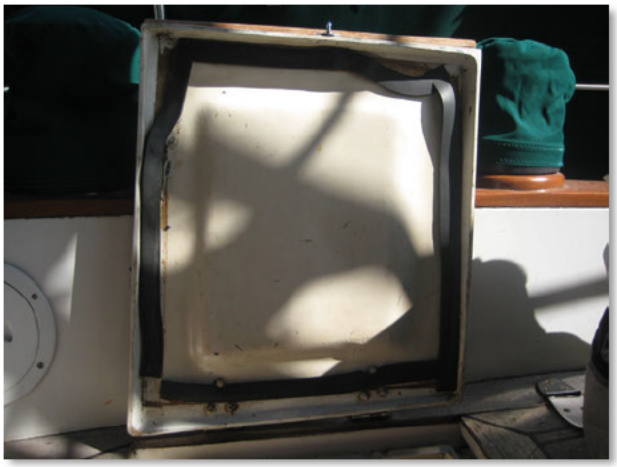

FIGURE 55 – LOOSE SEAL ON PROPANE LOCKER LID

FIGURE 56 – CORROSION AT GATE VALVE IN WASTE PUMP OUT HOSE

APPENDIX B: VALUATION DETAIL

The Comparable Vessel Calculation is the most probable price in terms of money which a vessel should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller, each acting prudently, knowledgeably and assuming the price is not affected by undue stimulus. Implicit in this definition are the consummation of a sale as of a specified date and the passing of title under conditions whereby:
a) Buyer and seller are typically motivated;
b) Both parties are well informed or well advised, and each is acting in what they consider to be their own best interest;
c) A reasonable time is allowed for exposure in the open market;
d) Payment is made in terms of cash in Canadian or U.S. dollars, or in terms of financial arrangements compatible thereto; and
e) The price represents a normal consideration for the vessel sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

The scope of the market or markets considered in the compilation of data is dependent to some extent on the sample size available and the impact of markets in other regions on local values. Generally speaking, a larger sample size provides more accurate data. Variances in the North American market are typically considered, so long as they do not significantly impact average values when compared with vessels found in the local market. In cases where limited comparables exist in local and North American markets, the scope of the research will be broadened and comparables sought in areas outside North America, to help establish a fair and accurate value. The importance of including neighbouring markets cannot be understated, as vessels are commonly relocated from freshwater to saltwater and vice versa throughout North America, therefore the high and low value ranges published in this valuation should reflect the range of vessels that can be found in the local market. Vessels listed for sale, or shown as sold, in USD have been converted to CAD based on the exchange rate of 1.35 as provided by Morningstar (Google) for the date of inspection.

Current Listings. Comparable vessels of the same or similar model and model year (not including the subject vessel) were found on brokerage websites; YachtWorld.com, Boats.com, BoatTrader.com and BoatDealers.ca, as well as various FSBO sites.
No. of comparable vessels (sample size): 3
Average asking price (CAD): $120,960.00
Adjusted avg. price (CAD): $105,620.98
Adjusted high average (CAD): $111,868.65
Adjusted low average (CAD): $99,550.13

SoldBoats.com listed comparable vessels of the same or similar model and model year sold within the date range listed below.
No. of comparable vessels (sample size): 8
Date range of sample: 2021-2024
Average asking price (CAD): $131,727.88
Average reported sold price (CAD): $115,023.38
Pct. of ask price (how 'adjusted price' was calculated for current listings above): 87%

The highest actual sales of vessels of the same or similar model and model year were:
(CAD) $146,609.00 Belhaven, NC, USA
(CAD) $166,201.00 Long Beach, CA, USA
High average of sold boats reported (CAD): $156,405.00

The lowest actual sales of vessels of the same or similar model and model year were:
(CAD) $54,049.00 Placida, FL, USA
(CAD) $67,562.00 Longboat Key, FL, USA
Low average of sold boats reported (CAD): $60,805.50

The subject vessel was not located in the SoldBoat.com data.

BUCValuPro.com places a current fair market value range on a Great Lakes vessel as follows:
BUC Fair Market Value range (CAD), adjusted for location: $113,452.79 to $124,922.12
BUC Fair Market Value midrange average (CAD): $119,187.45
BUC Fair Market Value high average (CAD): $137,065.57
BUC Fair Market Value low average (CAD): $77,471.84
BUC published replacement value (CAD): $683,100.00

The range of market values is represented in the valuation summary below as the range between the lowest average and the highest average of the data listed above. The presenting condition of the vessel at the time of inspection, with any equipment present, is considered against this range of market values.

The findings & recommendations made in this report impact the valuation only to the extent of the vessel's overall condition in relation to the market value ranges listed. The owner (insured, buyer or seller) of the vessel will bear any reconditioning costs that may be required in order to render the vessel suitable for intended use.

Valuation Summary
Compared to many of the vessel's sister ships, the vessel fares well when it comes to overall condition, new engine and upgrades but has more limited appeal with the moisture issues in the cabin trunk. The actual sales data for freshwater boats enjoys a slightly higher average retail value than saltwater vessels. Considering the overall condition and weighing the actual sales data and current listings data, the valuation of the subject vessel is placed at the higher end of market values.

Comparable Approach Average:

Adjusted Values Low		**Adjusted Values Midrange**		**Adjusted Values High**	
Current Adj Listings	$99,550	**Current Adj Listings**	$105,621	**Current Adj Listings**	$111,869
Sold Boats Data	$60,806	**Sold Boats Data**	$115,023	**Sold Boats Data**	$156,405
BUC ValuPro	$77,472	**BUC ValuPro**	$119,187	**BUC ValuPro**	$137,066
LOW AVG VALUE	$79,276	**MIDRANGE AVG VALUE**	$113,277	**HIGH AVG VALUE**	$135,113

Therefore, after consideration of the reliability of the data, the extent of the necessary adjustments and the "as is, where is" condition of the vessel, its equipment as surveyed, it is the opinion of the surveyor that the Fair Market Value range of the subject vessel & included equipment (excluding taxes) is: CAD$148,200.00-$160,000.00.

Value Breakdown as follows:
Vessel only CAD$140,000.00-$150,000.00
Cradle CAD$2,000.00-$2,500.00
Tender CAD$5,000.00-$6,000.00
Auxiliary Outboard Motor CAD$1,200.00-$1,500.00