



American Marine Surveyors
Quality. respect. professionalism

Marine Survey Report For [REDACTED]

1988 Brewer 44' Cutter



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INTRODUCTION

CERTIFICATION

This Is To Certify that the undersigned Marine Surveyor acting on behalf of American Marine Surveyors of Florida inspected the referenced single screw fiberglass sailing vessel on the dates specified.

PURPOSE OF SURVEY

The survey was made at the request of the named client [REDACTED] in order to ascertain the vessel's general condition and valuation for pre-purchase consideration.

CIRCUMSTANCES OF SURVEY

The vessel was inspected while afloat in its berth and later hauled for an inspection of the waterline hull, appendages, and machinery. All accessible compartments were entered but due to paneling, liner, tanks, and installed equipment only about 20 percent of the hulls interior surface could be observed. Any reference to bronze, aluminum or stainless steel metals is a color reference for convenience only, as the actual metallurgy cannot be determined without laboratory testing. The specific materials and layup schedule for the fiberglass moldings could not be determined with the non-destructive techniques available for inspection. A limited trial run was performed. Sails, Machinery and Equipment were inspected while operating unless specifically noted. Electrical power was available and used during the inspection. The deck and superstructure were examined visually and by way of random percussion testing, random moisture meter readings, and thermal imaging where applicable. The below draw waterline hull and appendages were examined visually and by random percussion testing, the use of digital moisture meter and thermal imaging where applicable.

NOTE: Ownership, HIN and Official numbers from documents. Numbers verified on the hull. All specifications included in the report are from official documents or sources such as USCG Documentation, state registration, manufacturer's data or other reference materials and were not measured during the inspection.

REPORT FILE NO

24044

SURVEYOR QUALIFICATIONS

The surveyor is a member of NAMS Global © (An International Association of Marine Surveyors) with a designation of Certified Marine Surveyor CMS, [REDACTED] and a member of ABYC (American Boat and Yacht Council)

INTENDED USE

Recreational

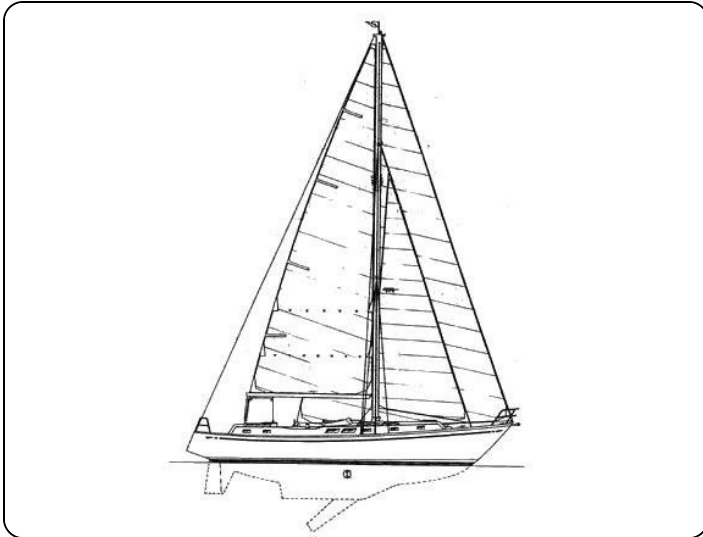
GENERAL VESSEL INFORMATION

DATE OF SURVEY	11.27.2024	
FILE NUMBER	File # 24044	
CUSTOMER NAME	Marvin Recchi	
CUSTOMER ADDRESS	marvin.recchi@gmail.com	
VESSEL BUILDER	Fort Myers Yacht and Shipbuilding, Ft Meyers, FL	
HIN (HULL IDENTIFICATION NUMBER)		of the referenced vessel is shown in the r the purposes of this report to provide
MODEL YEAR	1988 (per Hull Identification Number)	
U.S.C.G. DOCUMENTATION NUMBER	Official No.	
LENGTH OVERALL (LOA)	44' 0" per SailboatData.com	
BEAM	13.50' per SailboatData.com	
DRAFT	4.50' per SailboatData.com	
DISPLACEMENT	29,000.00 lbs. per Sailboatdata.com	
VESSEL NAME		
FUEL CAPACITY	136 Gallons per SailboatData.com	
WATER CAPACITY	200 Gallons per SailboatData.com	
HOT WATER TANK CAPACITY	6 Gallons per Tank Label	
HOLDING TANK CAPACITY	Not Reported	
LOCATION OF SURVEY INSPECTION	Harborage Marina 1110 3rd Street South St. Petersburg, Florida 33701	
LOCATION OF BOTTOM INSPECTION	Embree Marine 201 16th Ave S, St Petersburg, FL 33701	
PERSONS IN ATTENDANCE DURING SURVEY	Attending the survey was: Jack Johnson, Marine Surveyor 	

HULL, DECK & SUPERSTRUCTURE

LAYOUT OVERVIEW

Manufactures Image



DESIGN

Standard manufacture' s hull, deck & superstructure.

HULL: Displacement type hull with moderately raked bow, vertical with increasing flare forward and a reverse shear transom. The bottom is a fin keel design and steered by a skeg hung rudder and propelled by a single inboard engine.

DECK(S) & SUPERSTRUCTURE: Single level deck with mast step forward on the coach roof raised superstructure and a recessed aft cockpit.

WATERTIGHT INTEGRITY: A single watertight sailboat with an overboard self-draining anchor locker at the forepeak. The hatches opening to the exterior hull & weather decks were apparently water tight types (ABYC Standards H-3). The cockpit was a self-draining type via drains located at the aft outboard corners of the cockpit.

HULL, DECK & SUPERSTRUCTURE

Conventional fiberglass reinforced plastic (FRP) moldings with unknown core material, blue anti fouling paint below the waterline and white gel coat above the waterline with bulkheads grafted to the hull with FRP laminates. Deck has unknown core with white exterior gel coat surfaces and molded in anti-skid texture in tread areas. Hull-deck joint is a shoe box design sealed with an elastomeric type compound and secured with stainless steel fasteners and FRP tabbing where observed. Joint protection provided by an external type plastic rub rail with a stainless steel striker molding and stainless steel fasteners. See Findings & Recommendations.

FINDING C-1

FINDING C-2

STRUCTURAL MEMBERS

The longitudinal and athwartship framing system comprised of FRP tabbing attached to marine plywood and hardwood longitudinal framing. Both stringers and frames laminated to the hull's interior along with full and partial bulkheads. Marine plywood and hardwood laminate cabin sole grafted to the hull with FRP tabbing with full and partial bulkheads secured with mechanical fasteners.

BOTTOM PAINT

Bottom paint is in serviceable condition.

BLISTER COMMENT

Blisters are an unknown factor on all boats and if not currently present, there is no guarantee that they will not appear in the future. Blisters have a tendency to dry out over winter storage unless severe or large. Blisters (if any) best appear after the vessel has been in the water for an entire season. In addition, the symptomatic evidence of blistering can be obscured by bottom coatings, a dry storage period during which blisters spontaneously depressurize, bottom laminate sanding, and other conditions or actions. Recommend full inspection for blisters immediately after haul-out and power wash. Surveyor has no firsthand knowledge of the history of bottom maintenance, blistering, repairs or prophylactic coatings on this vessel. Blisters sighted intermittently throughout the hull below the waterline, See Findings and Recommendations.

FINDING B-1**KEEL TYPE**

FRP encapsulated lead ballast fin keel.





ABOVE WATER LINE HULL, DECK SUPERSTRUCTURE, HARDWARE & FITTINGS

DECK FLOOR PLAN

Standard manufactures deck layout with no modifications to the original design.

ANCHOR PLATFORM

Stainless steel tube and Star-Board type plastic platform with double anchor roller, well secured to the deck and bow pulpit and the rollers were in good condition.

TOE RAILS & STANCHIONS & LIFELINES

Molded FRP and Teak toe rail, part of deck lay up, polished stainless steel bow and side stanchions mounted to the deck with stainless steel fasteners and stainless steel cable lifelines. Firmly mounted and serviceable except as otherwise noted.

MOORING HARDWARE

Polished stainless steel horn cleats firmly attached with stainless steel fasteners.

HATCHES, PORTHOLES, PORTLIGHTS, DOORS & WINDOWS

FRP and plastic deck access hatches, apparently watertight type and stainless steel portholes with glass windows on the superstructure. Bi-fold companionway door and aluminum framed hatch with Lexan type window at the forward end of the coach roof. Hatch sufficiently sized to act as a fire escape per NFPA 302. Intact and serviceable except as otherwise noted. See Findings & Recommendations.

FINDING B-2

EXTERIOR SEATING & TABLES

The exterior seat structures were firmly mounted and the upholstery was serviceable showing average wear and tear for age of the vessel.

BOARDING LADDER

A stainless steel deployable boarding ladder is mounted on the transom. The ladder shows minimal wear and was secure when tested. In addition a portable telescopic boarding ladder is mounted on the transom railing for use on the port and starboard midship boarding areas, that was intact and serviceable.

ABOVE DRAW WATER LINE (ADWL) THRU HULLS

Bronze thru hull fittings, all secure and showing average wear and tear for the age of the vessel.

DAVIT/CRANE

Stainless steel davits abaft the transom, intact and serviceable unless otherwise noted.



BELOW DRAW WATER LINE SKIN FITTINGS, MACHINERY & FITTINGS

BELOW DRAW WATER LINE THRU HULL FITTINGS

Bronze fittings in serviceable condition showing average wear and tear for the age of the vessel and secure. See Findings & Recommendations.

FINDING A-1

FINDING B-3

THRU HULL STRAINERS & SCOOPS

Bronze slot style thru hull strainer covers, appear to be in serviceable condition with limited wastage.

TRANSDUCER(S)

Bronze and plastic thru hull mounted circular transducer, Intact and showing limited wastage.

SEA VALVES/SEA COCK TYPE

Bronze sea cocks with mounting flanges. Valves were tested and some found to be inoperable. See Findings & Recommendations.

FINDING A-2

FINDING A-3

FINDING A-4

SEA STRAINERS

Plastic strainer(s) installed along with a multi input sea chest. Strainers and sea chest was inspected visually for cracks or any evidence of blockage. Strainers and sea chest were not opened and inspected due to destructive testing restrictions. It is recommended the buyer open and inspect each strainer prior to taking delivery.

NOTE

This company suggests the sea cock/ sea valves be serviced according to the manufactures recommendations as a preventative measure upon purchasing a used vessel and thereafter as recommended by the sea cock/ sea valve manufacturer or more frequently as a part of the vessel's regular maintenance program. We also strongly recommend that if the vessel is left unattended that all below waterline sea valves be closed with the exception of scuppers, bilge pump discharge, or other valves that are required to be in the open position to prevent flooding of the vessel during inclement weather. This provides an extra measure of safety for the vessel as well as the added benefit of familiarizing the crew with safety valve locations and to exercise the valves to prevent seizure.

Moreover, if not already done so, it is strongly suggested that properly sized tapered wooden plugs be kept in the vicinity of each sea cock/sea valve/thru hull to be used as a plugging device in the case of an emergency. Finally, when renewing the vessels protective coatings, it must be kept in mind that antifouling paints containing copper or other metals must not be applied to metal fittings and/or machinery without first having an insulated coating such as underwater metal primer or epoxy barrier coat applied. Failure to do so can result in harmful galvanic corrosion damage to the fittings and/or machinery.

CONDITION & COMMENTS

In apparent serviceable condition except as noted in the Findings & Recommendations.





CATHODIC PROTECTION

BONDING SYSTEM

The bonding system was found to be using a series of insulated bonding wires. Appeared to be serviceable where sighted except as indicated otherwise in this report. Anodes found on the propeller shaft and Max-Prop are more than 50% wasted. See Findings & Recommendations.

FINDING B-4

LIGHTNING PROTECTION

Insulator sighted atop the back stay, but not normally found on boats of this type.

Note: Few boats are actually wired for lightning protection from the manufacture. There is no known way to ensure complete protection for personnel and equipment from a lightning strike. However, we suggest that any owner review the information at www.marinelightning.com and ABYC TE_4.

ADDITIONAL REMARKS

A separate bonding system survey was not performed, and a corrosion meter was not used to establish the level of protection. If a more detailed analysis is required, a complete separate bonding system survey is recommended.

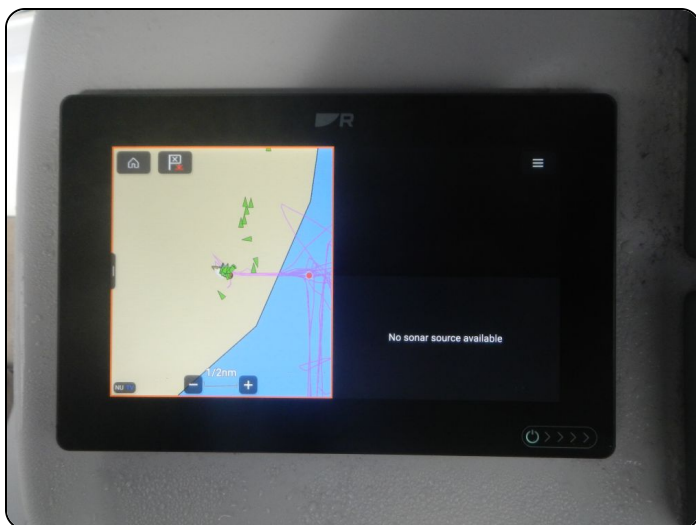
NOTE

A vessels bonding system should be checked as part of the vessel's regular maintenance program. Each bonding wire should be checked regularly for corrosion, and its connection should be checked for connectivity. Resistance should be less than one (1) Ohm.

HELM STATION & NAVIGATIONAL ELECTRONICS

HELM

Electronics mounted on the cockpit Binnacle. A 4" compass showing some damage and not easily readable. The accuracy of the compass was not verified. A Raymarine chart Plotter with navigational charts, sonar and radar that powered up, A multi gauge depth/wind/speed digital displays, A Raymarine Autohelm system with digital display that was proven during the trial run. In addition there is an ICOM IC-M802 SSB (Single Side band) radio that powered on and a SIMRAD VHF radio mounted near the Main power panel with (2) wireless handheld units that powered up and received transmission through the NOAA weather service. All of the equipment powered on and was operable unless otherwise noted. See Findings & Recommendations.



FINDING B-5

FINDING B-6

FINDING C-3

FINDING C-4

THROTTLE & SHIFT CONTROLS

Morse single lever for throttle/shift controls. See Findings & Recommendations

FINDING B-7**ENGINE STATUS**

All engine instruments are analog OEM gauges.

RIGGING & SAILS**STANDING RIGGING**

The standing rigging consists of a single aluminum extruded mast with a single extruded Schaefer aluminum furling boom connected to the mast with an aluminum and stainless steel hinge attached with stainless steel fasteners. The Mast is supported by stainless steel stranded cables with swaged ends and stainless steel adjustable turnbuckles secured with cotter pins to prevent the turnbuckles from rotating. Rigging connected to the hull and bulkheads by Stainless steel tangs and chainplates securely fastened by stainless steel fasteners. The vessels standing rigging and equipment was in good visual condition and serviceable unless otherwise reported in the Findings and Recommendations. Standing rigging was reported replaced in 2018 by the Vessel Owner. See Findings and Recommendations

FINDING B-8**RUNNING RIGGING**

The running rigging consists of multi color braided polyester lines led through stainless steel fastened pad eye and deck mounted blocks, pulleys, fairleads and made fast by cam cleats and horn cleats secured to the deck with stainless steel fasteners. The lines on the vessel act as controls for the sails, halyards, sheets, downhauls, boom vang, spinnaker pole, travelers and headsail furlers.

Winches on the vessel are located in the following areas:

- (2) Barient #21 single speed standard winches securely mounted to the mast by stainless steel fasteners and act to raise the halyards
- (2) Barient #21 two-speed self tailing winches securely mounted to cockpit coaming by stainless steel fasteners and act to manipulate the staysail sheets
- (2) Barient #32 two-speed self tailing winches securely mounted to cockpit coaming by stainless steel fasteners and act to manipulate the headsail sheets
- (1) Harken #32 two-speed self tailing winch securely mounted to the cockpit coaming by stainless steel fasteners
- (1) Harken #900 Multi power two-speed self tailing winch securely mounted to the cockpit coaming by stainless steel fasteners

The running rigging and equipment was in average visual condition and serviceable unless reported in the Findings and Recommendations.

See Findings and Recommendations.

FINDING B-9**FINDING B-10****SAILS**

The sails on the vessel are Dacron type unknown weight sewn "J" type sails. The Installed main sail is a standard full rig that extends to the masthead and has full battens with reefing provided by the boom furler. The headsail appears to be a 120% Genoa with a stainless steel clew ring attached to the main sheets and Furler by a Harken brand roller furler. The staysail appears to be a 120% Genoa with a stainless steel clew ring attached to the main sheets and Furler by a Pro-Furl brand roller furler. The head sails have UV protective covers sewn on the leeches and were in good visual condition. The sails deployed and were proven operational during the trial run. The sails where observed were in serviceable condition with no rips, tears, stains, patches or loose threads unless otherwise noted in the Findings and Recommendations. There were no other sails in the inventory sighted aboard. See Findings and Recommendations. See Findings and Recommendations.

FINDING C-5**FINDING C-6****DISCLAIMER**

According to industry standards, the anticipated lifespan for stainless steel rigging is 10-12 years for wire and 15-20 years for rod. A number of factors affect the standing riggings lifespan including load, sailing conditions, mileage sailed, age, fatigue from cyclic loading, environmental influences such as salinity and contamination, and frequency of care and maintenance. This company makes no warranty of the standing riggings integrity as we cannot assume nor confirm the above referenced history of use or past

maintenance and we are not professional riggers. We recommend replacing the standing rigging according to the guidelines and recommendations of the community of professional sailboat riggers.

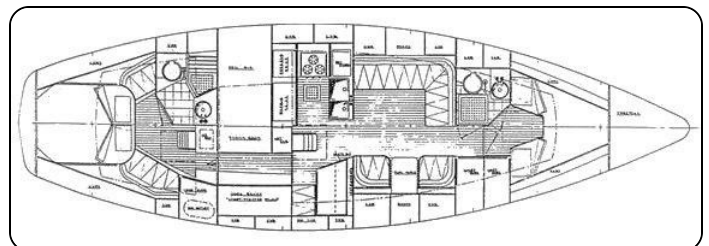
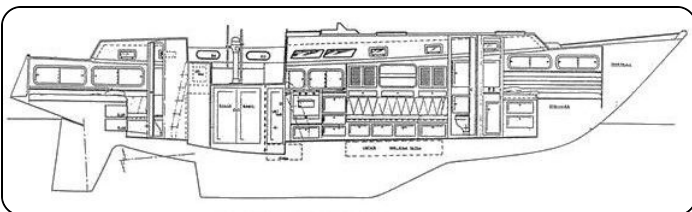




CABIN INTERIOR APPOINTMENTS

MANUFACTURES IMAGE

Standard manufacture layout, no interior changes to the original factory designed interior. Not to scale. For general information purposes only.



ENTERTAINMENT BERTHING & SALON

Bulkhead mounted 120 VAC Samsung brand flat screen TV. Clarion brand in-dash type (automotive style) 12VDC model Bluetooth/Satellite/AM/FM digital stereo mounted in the cabin near the navigation station. A forward V berth, a central salon and a galley to the port side with an aft cabin that sleeps two. The appliances powered up and appeared to function and showed negligible wear and tear. Furthermore, the berthing and entertainment provisions were considered to be satisfactory for the vessel type. See Findings & Recommendations.

FINDING C-7

FINDING C-8

FINDING C-9

INTERIOR LIGHTING

12 VDC. Operable except as noted in the findings.

GALLEY/DINETTE & ACCESSORIES

The Galley consist of a Force 10 brand (3) burner gimballed propane stove, (2) 12VDC cold plates installed in the icebox and freezer that were partly inoperable. The double basin stainless steel sink piped with flex type drain hose secured with hose clamp and polished stainless steel faucet is installed in the Formica countertop above storage lockers, cabinets and drawers. All of the galley appliances and equipment operated and presented average exterior wear and tear for the age of the vessel. The galley arrangement was also considered adequate for the vessel type. See Findings & Recommendations.

FINDING B-11

FINDING B-12

FINDING B-13

WATER CLOSET(S)

(2) Water closets constructed with white exterior surfaces and Formica type counters. Wash basins piped with flex hoses and secured with a hose clamps to polished stainless steel faucet in the forward head and a plastic faucet with extendable shower head provision installed in the aft water closet. Integrated shower stall with drain on sole. A Groco brand manually operated marine head (Toilet) piped with reinforced hoses and secured with hose clamps in the aft cabin water closet and an unknown brand composting toilet mounted in the forward water closet. The installed equipment presented average wear and tear for the age of the vessel. See Findings & Recommendations.

FINDING B-14

FINDING B-15

FINDING B-16

CLIMATE CONTROL

The vessel was equipped with (2) 120 VAC Unknown brand units. A forward unit located in the Salon midship below the setee and a unit in the aft cabin area. Both units inaccessible due to destructive inspection techniques. All controls are SMX II digital controls. All units produced cool air more than 10 degrees cooler than the ambient temperature, however would shut down intermittently showing error code "HPF". See Findings & Recommendations.

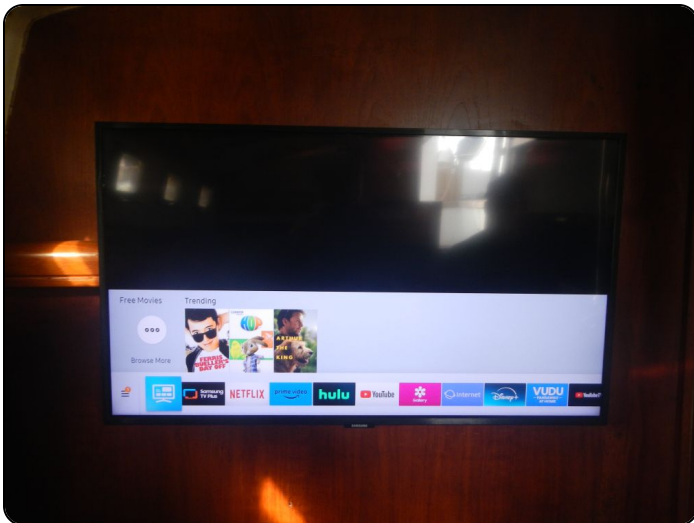
FINDING B-17

FINDING C-10

CABIN PHOTOS:

Interior Cabin







AUXILIARY GAS SYSTEMS

PROPANE SYSTEM

LPG (Liquified Petroleum Gas/Propane) system with (2) aluminum cylinder equipped with a pressure gauge, Built-In Overflow Protection Device (OPD) with Appropriate LPG regulator valve. The cylinders are installed in an OEM designed locker in the port side lazarette. System installed by the manufacturer and conforms to ABYC A-01 recommendations and 46 CFR 184.240(a) regulations. The system was in good condition for the age of the system and proven operational. See Findings and Recommendations.

FINDING C-11

ELECTRICAL SYSTEMS

DIRECT CURRENT SYSTEM(S) TYPE

The vessel was equipped with a single 12VDC system consisting of (8) group 31 6VDC lead acid batteries wired in series and parallel to create 12VDC located under the port side settee and are secured with strapping. The batteries provide power to all 12V systems to include the house electrical, equipment and anchor windlass. (1) Group 31 12VDC battery is mounted in the engine room and mounted in a plastic battery box secured with strapping that acts as the generator and main engine starting battery. (3) Guest brand rotary type battery switches are located under the forward companionway steps. Where visible the vessel was wired with multi-stranded copper conductors with plastic type insulation. Much of the wire did not appear to have been modified from its factory installation.

Furthermore, where observed, no indications of overheating conductor insulation was observed. The terminals where splices could be seen consisted of ring terminals, terminal plugs, spade and blade terminals, fork terminals, marine butt connectors and waterproof marine butt connectors. Battery charging was accomplished by a 12VDC unknown amperage alternator on the engine, by (2) Aft arch mounted solar panels connected to a Victron Energy MPPT solar charge controller mounted near the house batteries and by a Xantrex 12VDC battery charger. In addition there is a staff mounted Rutland Windcharger brand wind generator, that was not tested during the survey. Overcurrent protection of the system was provided by a variety of in-line fuses of different types, push button thermal reset breakers and circuit breakers.

Check all battery dates prior to purchase to determine any batteries that are older than 3 years, It is recommended any battery over 3 years be replaced. Batteries are not load tested as a part of the survey and often battery dates are not visible. Verify this information prior to closing. See Findings & Recommendations.



**FINDING B-18****ALTERNATIVE CURRENT (A.C.) SYSTEM(S)**

The vessel was equipped with (2) 120 VAC Hubbel 30A single phase Ac system receptacles. The vessel shore power connections were located on the starboard outside aft deck in a gunwale locker. The operable main shore power circuit breaker is located in the starboard side lazarette. All breakers were operable and analog volt and amp gauges were installed at the power panel. Overcurrent protection was provided for with individual branch circuit breakers in addition to the main shore power circuit breaker installed on the panel board. An operable main circuit breaker was also installed at the generator, and the generator/shore power selector switch at the panelboard in the cabin was an operable make or break type switch. Where accessible and visible, the shore powers system's consisted of multi-stranded copper conductors with plastic-type insulation, and the terminal's consisted of ring terminals and butt splices. The system's wiring in so far as could be determined did not appear to be modified from its factory installation, and no indications of overheating of the visible portion's of the wiring insulation was found. The AC panel board was fitted with reverse polarity indicators which were functioning. GFCI protected AC receptacles were installed in the vessel. The systems impedance, voltage drop, polarity and GFCI function were tested at each AC receptacle with a Klientools device with shore power and generator supplied power and tested normal except as indicated in the Findings & Recommendations. As far as could be determined by general examination without making disassemblies, the system was found to be in apparently good working order. See Findings & Recommendations.



GENERATOR

Generator Hours: 2632.1

FINDING B-19

INBOARD PROPULSION SYSTEM

ENGINE(S)

Perkins Model 4154 in-line four-cylinder diesel engine with raw water cooled closed loop cooling system and wet type of exhaust with 62 rated horsepower. The engine was secured to the vessels longitudinal main stringers made fast by stainless steel engine mount fasteners. No drip pads available, fluid and the debris fall into the bilge area beneath the engine. The engines cooling systems is equipped with an engine mounted heat exchanger, engine mounted raw water cooling pump, engine mounted closed system circulating pump, remotely mounted closed system expansion bottle and piped with reinforced hard wall marine water hoses secured with hose clamps, engine mounted OEM type cooling system hoses secured with hose clamps and metal piping.

A plastic raw water strainer was piped to the raw water seacock, and the raw water was discharged to the exhaust at the mixing elbow. The exhaust system was wet type with approved high-temperature wet exhaust hose sections, common approved type wet exhaust hose, metal exhaust tubing and discharged to the aft stern quarter through an FRP thru hull exhaust pipe firmly molded to the hull. All sighted exhaust hose connections were made fast with double hose clamps per ABYC recommendations. All hoses appear to be in serviceable condition. Hoses and belts where observed were in serviceable condition unless otherwise noted.



FINDING B-20

SERIAL NUMBERS

Serial numbers missing and/or illegible. Verify with vessel owner.

ENGINE(S) HOURS

Main Engine: 5287.3

OTHER NOTE

It is good practice when buying a used vessel that all fluids (Engine/Transmission or Outdrive) be changed and the raw water cooling impeller(s) also be changed. As stated in the Terms and Conditions agreement, It is understood that the attending surveyor is not an engine/transmission surveyor. As such, I recommend that all engines and transmissions be inspected by a qualified expert engine surveyor/mechanic to determine the internal condition and any repairs necessary of the engine(s), transmission gears, and pumps, heat exchangers, coolers, etc.

The engine(s) exhaust risers and manifolds are a maintenance item and are subject to internal corrosion from salt water and have a life of around 3- 5 years. The corrosion can cause unseen internal water leaks that can cause engine damage. This corrosion is generally undetectable unless components are removed and inspected internally by a qualified marine engine technician. American Marine Surveyors and its surveyors makes no judgement as to the actual condition and or longevity, and does not warranty the manifolds and risers. It is recommended the cost of replacing the manifolds and risers be factored into the cost of purchase of any used vessel.

If engine diagnostics was performed as a part of this survey it is understood the surveyor is not a trained engine mechanic and therefore is providing general information only about the engine(s) and verification of the engine hours. The diagnostics in no way is a guarantee of the health and condition of the engines and any information obtained should be considered informational only and it is recommended you have the information verified by a qualified engine mechanic. American Marine Surveyors take no liability as to the information obtained or the health of the engines and reduction gears or outdrive(s).

SHAFTING & PROPELLER(S)

Single bronze 3-Blade PYI Max-Prop feathering propeller with an 1-1/4" diameter stainless steel shaft supported by a bronze strut and a cutlass bearing. Dripless type packing gland attached to FRP shaft logs exiting the hull. Equipment has average wear for the age of the vessel with little to no play.



OIL ANALYSIS

Oil Samples sent to the laboratory and will be emailed under separate cover.

STEERING SYSTEM

STEERING SYSTEM COMPONENTS

Pedestal with stainless steel spoked collapsible steering wheel, stainless steel cable to pulleys and a bronze steering quadrant attached to the rudder shaft. Also attached to the quadrant was an autopilot reference sensor. Operational, Intact and serviceable. In addition to the main steering system there is a Hydrovane brand wind vane steering system that was intact however not operated during the survey. See Findings & Recommendations.



**FINDING B-21**

TANKAGE

FUEL TANK(S) & PIPING

(2) Tanks located below the cabin sole with limited access to the tanks. The fuel supply hoses were SAEj1527 with stainless steel hose clamps, and the engine was equipped with OEM type flexible fuel lines. Fuel filtration was provided by (2) remotely mounted Racor primary fuel filters. Tanks assumed to be original and in serviceable condition. See Findings & Recommendations.

FINDING B-22

POTABLE WATER SYSTEM

The potable water system consists of a dual steel water tanks located on port and starboard sides under the salon cabin sole secured with framing and fasteners. The tanks were not fully visible. (1) Par Max 12VDC freshwater pump in average visual condition. The system was operable.

HOLDING TANK(S)-BLACK WATER

(1) Manual Jabsco brand marine head in the aft and (1) unknown brand composting head in the V berth. The tankage is unknown capacity and is located under the V berth bed. The system's plumbing consisted of polyethylene semi-flexible tubing with compression fittings at the flushing side and PVC fittings and reinforced sanitation type hose secured with hose clamps at the discharge side. No waste odors were noted within the confined spaces of the vessel, and the system was operable. See Findings & Recommendations.

FINDING B-23

SAFETY EQUIPMENT

NAVIGATIONAL LIGHTS

All Navigation lights are fully operational. See Findings & Recommendations.

FINDING C-12

LIFE JACKETS (P.F.D,'S)

The following USCG approved life jackets were sighted on board:

(4) U.S.G.G. Type II All appear to be in serviceable condition showing minimal wear and tear.

THROWABLE TYPE P.F.D.

The type of USCG approved throwable PFD devices sighted were: (1) USCG approved Lifesling rescue system device.

VISUAL DISTRESS SIGNALS

Visual distress signals aboard vessel are expired.

NOTE: All traditional visual distress signals have a printed expiration date- 3 years from the date of manufacture. It is recommended that expired signals be retained for backup. You must have at least three aerial or three red handheld signals that are current. An additional option is an SOS Distress Light is an LED Visual Distress Signal Device that meets U.S. Coast Guard requirements to completely replace traditional pyrotechnic flares. See Findings & Recommendations.

FINDING A-6

SOUND DEVICES

No sound device sighted. See Findings and Recommendations.

FINDING A-7

U.S.C.G. PLACARDS

Both USCG mandated placards (Oil & Garbage) are properly posted.

ENGINE VENTILATION

Power exhaust ventilation blower(s) are installed and not operational. See Findings & Recommendations.

FINDING A-8

FIRE FIGHTING EQUIPMENT

Type I portable extinguishers were sighted on the vessel.

(3) Type I extinguishers were sighted on the vessel.

Fixed firefighting system was located in the engine room and was not showing current tag or sticker.

Have the portable fire extinguishers serviced per the manufactures recommendations. See Findings & Recommendations.

FINDING A-9

FINDING A-10

BILGE PUMPS

The boat is equipped with (2) 12VDC bilge pumps located in the engine room bilge. These are designed to be fully automatic and should operate when water is present in the bilge, The pumps should be inspected and activated manually by operating the float switch on a regular basis for debris obstruction.

Engine Room Bilge: (1) Rule brand unknown GPH pump with detached float switch, powered on from the helm switch with high water alarm that was tested from the power panel. Pump switches could not be operated due to limited access to the bilge.

Manual Pump: Unit located at the forward companionway on the cockpit sole. Not operated, intact.

GROUND TACKLE & WINDLASS

(The anchor rodes were inspected as stored without ranging)

Primary: A Galvanized steel 33kg Rocna Plow anchor is mounted at the anchor platform with an undetermined length of raw chain

and considered serviceable other than noted in the Findings & Recommendations, showing moderate wear and wastage.

Secondary: An aluminum Danforth anchor is secured to the bow pulpit with lashings and is in good condition(not deployed).

Windlass: A 12VDC Maxwell brand windlass is mounted on the platform and was functional using both the helm and the bow foot controls, however could not reach the full potential due to lack of 12VDC amperage from the damaged batteries. See Findings & Recommendations regarding DC Power and Batteries.

FINDING C-13**AUXILIARY SAFETY EQUIPMENT**

NOTE: During the burning of any of fuels, Carbon Monoxide (CO) gas may be created due to incomplete combustion from propulsion systems, cabin heater or stove as well as nearby boats running generators. Adequate ventilation must be provided at all times while burning any of these fuels, but CO may also be drawn into the cabin through ventilation systems. This is especially true of boats running air conditioning. CO is a silent menace and kills without warning, Regular testing of installed CO detectors in any occupied spaces below decks is highly recommended. See Findings & Recommendations.

FINDING A-11**AUXILIARY EQUIPMENT****WATER MAKER**

Spectra brand watermaker, reported as "pickled" and ready for use. Not proven during the survey, however reported by the broker/owner as operational.

SPARE PROPS

Spare 3-Blade Bronze fixed blade propeller stowed in a locker in the aft cabin on the port side.



TRIAL RUN

OBSERVATIONS

A limited trial run was conducted while in route back from the vessel haul out. Weather conditions were clear skies, a temperature of approximately 80°F and smooth on the waterway. The vessel was operated by a captain hired by the broker. The total operational time considered for trialing was from 12:30PM and completed at 1:30 PM. Total trial time was approximately 60 minutes.

The vessel responded to throttle and helm manipulation in a normal and predictable manner and visibility from the helm considered adequate for the vessel type. The sails were aloft and operational during the trial run and the running rigging operated as expected per the design of the rigging unless otherwise noted. All observed engine temperature, oil pressure and RPMs as per the vessel's gauges appeared to operate at acceptable temperature ranges and pressure ranges.

STATISTICS UNDER ENGINE POWER ONLY:

Indicated engine wide open throttle speed: 7.6kts

Indicated engine temperature: 165 Degrees

Indicated oil pressure: 78 PSI

Indicated battery voltage: 13.8 Volts



A: FIRST PRIORITY / SAFETY AND COMPLIANCE DEFICIENCIES**FINDING A-1** BELOW DRAW WATER LINE THRU HULL FITTINGS

Several hose connections throughout the vessel are showing corrosion. This could eventually lead to a hose failure.

RECOMMENDATION

Replace any hose clamp that shows rust/corrosion.

FINDING A-2 SEA VALVES/SEA COCK TYPE

One of the seacocks was seized and couldn't be operated without extensive force.

RECOMMENDATION

This is typically an indication that all seacocks need lubrication and exercising. This should be done periodically. Lubricate and exercise all seacocks. If unable to service, replace the seacocks.

FINDING A-3 SEA VALVES/SEA COCK TYPE

Several connections and bronze fittings showing heavy corrosion at the sea chest.

RECOMMENDATION

Replace all corroded fittings.

**FINDING A-4** SEA VALVES/SEA COCK TYPE

Cracked and leaking raw water supply hose at the sea chest. Raw water hoses have an intended service life of approximately 10 years. This is typically an indication that there are several hoses that are past their service life.

RECOMMENDATION

Replace any hoses that show wear or cracking and any that appear to be past their service life.



FINDING A-5 ALTERNATIVE CURRENT (A.C.) SYSTEM(S)

GFCI's not functional when tested, a reverse polarity alarm when testing outlets along with some outlets only showing 30VAC. This also was different under generator power showing various conflicting results.

RECOMMENDATION

Investigate further and correct as necessary by an ABYC certified marine electrician.

FINDING A-6 VISUAL DISTRESS SIGNALS

Expired visual distress signals are onboard the vessel.

RECOMMENDATION

Ensure visual distress signals are aboard to comply with USCG regulations 33 CFR 175.110 for visual distress signals prior to using the vessel. You must have at least three aerial or three red handheld signals that are current. In addition, a USCG approved SOS Distress Light is an LED Visual Distress Signal Device that meets U.S. Coast Guard requirements to completely replace traditional pyrotechnic flares.

FINDING A-7 SOUND DEVICES

No sound device sighted.

RECOMMENDATION

Recommend a sound device like a horn, whistle or bell be made readily available to comply with USCG regulations.

FINDING A-8 ENGINE VENTILATION

No or inoperable blower in the engine room.

RECOMMENDATION

This is a violation of 33 CFR Subpart K, Sections 183.601-183.630. Repair or replace power bilge blower to comply with existing regulations.

FINDING A-9 FIRE FIGHTING EQUIPMENT

Fixed fire extinguisher in engine space has outdated or no certification tag.

RECOMMENDATION

ABYC A-4 and NFPA 302 recommends that fixed fire protection systems be inspected and reweighed at One Year, Recommend compliance.

NOTE: Halon or other "clean agent" type fire extinguishers must be weighed to determine true contents. Monitor lights and gauges only show there is pressure available and do not reflect the quantity available. Annual inspection and a tag to show date is recommended to meet ABYC A-4 and NFPA 302 standards.

FINDING A-10 FIRE FIGHTING EQUIPMENT

Portable fire extinguishers are more than 12 years old.

RECOMMENDATION

33 CFR 175, Sub-Chapter S states that fire extinguishers in excess of twelve years old must be removed from the vessel and replaced with extinguishers that are within the 12 year production date.

FINDING A-11 AUXILIARY SAFETY EQUIPMENT

None installed or nonworking CO monitors.

RECOMMENDATION

Install Carbon Monoxide detectors in any enclosed accommodation spaces per ABYC A-24 and NFPA 302 recommendations. CO poisoning is extremely hazardous! Stay SAFE and aware!

B: SECONDARY PRIORITY / FINDINGS NEEDING TIMELY ATTENTION**FINDING B-1 BLISTER COMMENT**

Several blisters sighted on the hull.

RECOMMENDATION

At the next haulout, have blisters repaired by ABYC approved technician.

FINDING B-2 HATCHES, PORTHOLES, PORTLIGHTS, DOORS & WINDOWS

The Hatch catches above the galley stove has pulled or not tightened fasteners. These fasteners could also be oversized for this application.

RECOMMENDATION

Tighten or replace with new fasteners.

**FINDING B-3 BELOW DRAW WATER LINE THRU HULL FITTINGS**

Improper connection sighted for the Blackwater overboard through hull and another nearby. Plastic and bronze connections are not recommended as well as other dissimilar materials due to the variations of the expansion and contraction rates of the material. This can eventually lead to a failure at the connection.

RECOMMENDATION

Recommend replacing plastic to bronze fittings with bronze.

**FINDING B-4 BONDING SYSTEM**

Anodes showing more than 50% wasted or inactive.

RECOMMENDATION

Recommend replacing all sacrificial anodes.

FINDING B-5 HELM

The compass at the helm was illegible.

RECOMMENDATION

Recommend replacing unit or glass dome. A compass needs to be operable at the helm. Per 46 CFR § 184.402 Except as otherwise provided in this section every vessel must be fitted with a suitable magnetic compass designed for marine use, to be mounted at the primary operating station.

**FINDING B-6 HELM**

Fuel gauge not operational. Although not reliable on most vessels, it can be a reference device used to aid in fuel monitoring.

RECOMMENDATION

Investigate and repair fuel gauge failure.

FINDING B-7 THROTTLE & SHIFT CONTROLS

During the trial run, the shifter was not smoothly shifting and seemed "Sticky"

RECOMMENDATION

Recommend lubricating and servicing shifter and cables.

FINDING B-8 STANDING RIGGING

Heavy pitting and corrosion damage sighted to the mast below the cabin at the splice.

RECOMMENDATION

Investigate for further corrosion and add galvanic protection in the form of an anode if desired. Monitor for future corrosion.

**FINDING B-9 RUNNING RIGGING**

A few of the winches were loose, noisy and need some maintenance and lubrication.

RECOMMENDATION

Lubricate and maintain all winches and furlers per manufacturers recommendations.

FINDING B-10 RUNNING RIGGING

Line guide/Anti chafe insert for the staysail halyard has a damaged locking tab.

RECOMMENDATION

Install new unit to protect running gear.

**FINDING B-11 GALLEY/DINETTE & ACCESSORIES**

When testing the LPG system the flame on the burners seemed lower than expected and the built in Piezo igniter was inoperable.

RECOMMENDATION

Recommend investigating range operation by removing, testing, re-filling propane tanks. Investigate for a battery replacement for the ignition system to safely ignite the burners.

FINDING B-12 GALLEY/DINETTE & ACCESSORIES

Port side cold plate in the galley not operational during the survey.

RECOMMENDATION

Investigate further and repair system.

FINDING B-13 GALLEY/DINETTE & ACCESSORIES

Waterflow throughout the vessel is inconsistent with ample volume and pressure to the aft cabin water closet while the galley sink has hardly any flow. Could possibly be obstructions within the faucet heads.

RECOMMENDATION

Investigate further and repair.

FINDING B-14 WATER CLOSET(S)

Forward V berth water closet has a capped hoses with corroded hose clamps sighted.

RECOMMENDATION

Recommend removing hoses and capping off at the seacock/sea chest if left unused.

**FINDING B-15 WATER CLOSET(S)**

The V berth water closet sink would not drain and was leaking under the sink cabinetry. In addition there is a broken and corroded hose clamp on the drain line.

RECOMMENDATION

Repair V berth water closet sink.

**FINDING B-16 WATER CLOSET(S)**

The shower sump pumps for both water closets were inoperable.

RECOMMENDATION

Investigate further to repair or replace shower sumps.

FINDING B-17 CLIMATE CONTROL

The air conditioning system was partly inoperable during the survey. The digital displays showing error code of "HPF". This error is often caused by poor water flow through the AC. To fix this, you can try cleaning or flushing the line.

RECOMMENDATION

Recommend hiring certified AC technician to diagnose after checking for obstructions in the cooling water. Investigate further and repair AC system.

FINDING B-18 DIRECT CURRENT SYSTEM(S) TYPE

House batteries showing bulging near terminals and when attempting to test house on 12 VDC power alone, the system immediately went dead. This is an indication that the batteries need to be replaced.

RECOMMENDATION

Replace house battery bank.

FINDING B-19 GENERATOR

Improper electrical connections sighted inside the generator housing.

RECOMMENDATION

ABYC E-11 14.3.6 states "Twist on connectors, i.e., wire nuts, shall not be used." Recommend compliance.

**FINDING B-20 ENGINE(S)**

Emulsified or discolored oil sighted along with debris and rust sighted on the engine oil dipstick.

RECOMMENDATION

As shown to the buyer and acknowledged, the oil analysis shall reveal further information.

FINDING B-21 STEERING SYSTEM COMPONENTS

Rudder packing showing some evidence of leakage.

RECOMMENDATION

Investigate further and adjust/tighten packing and monitor for future leakage.

**FINDING B-22 FUEL TANK(S) & PIPING**

One of the Racor fuel filters showing lighter than average fuel color and debris in the water separator bowl. This could be an indication of bad fuel or a contaminated fuel tank.

RECOMMENDATION

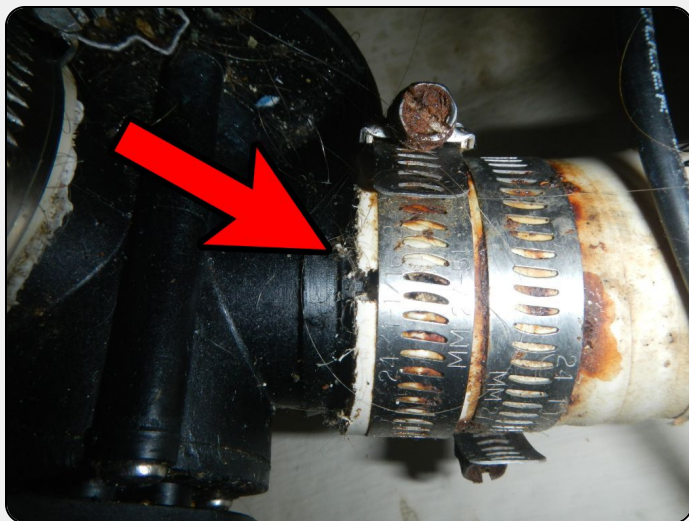
Investigate further, take a sample of the fuel from the bowl to verify its smell, color and consistency. Remove all debris from the bowl and monitor for excessive debris.

**FINDING B-23 HOLDING TANK(S)-BLACK WATER**

Split hose sighted at the blackwater Wye valve.

RECOMMENDATION

Repair or replace hose.



C: SURVEYOR'S GENERAL FINDINGS, NOTES AND OBSERVATIONS

FINDING C-1 HULL, DECK & SUPERSTRUCTURE

Companionway wooden doors have cracks and repairs sighted along with loose fasteners at the hinges.

RECOMMENDATION

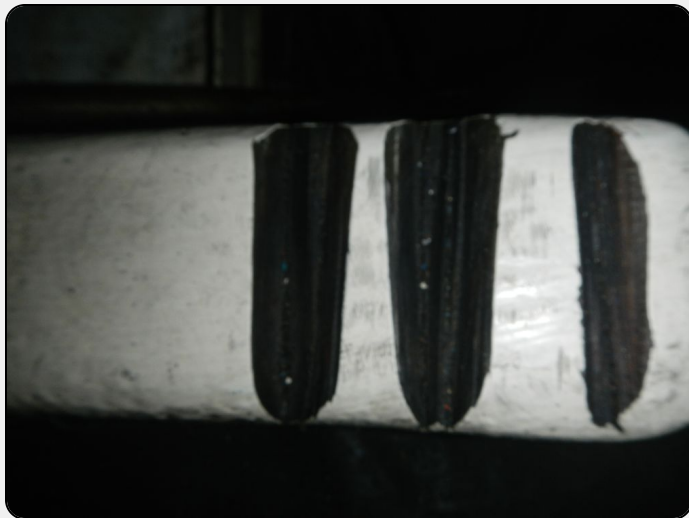
Tighten all hinge fasteners, and replace doors if desired.

FINDING C-2 HULL, DECK & SUPERSTRUCTURE

Gouging or other damage sighted to the starboard side engine stringer.

RECOMMENDATION

To be noted: encapsulate area with epoxy to seal damage.



FINDING C-3 HELM

Raymarine tri-data ST60 has some damage to the LCD display.

RECOMMENDATION

To be noted: Replace screen if desired.

**FINDING C-4** **HELM**

The SSB radio display is showing some damage.

RECOMMENDATION

To be noted only: No recommendations at this time.

**FINDING C-5** **SAILS**

Fraying sighted to the Dacron at the main sail hauling point.

RECOMMENDATION

Seize all frayed areas with sail thread or hemming.

**FINDING C-6 SAILS**

Staysail clew has damage to the Dacron.

RECOMMENDATION

Seize or repair area with sail thread or hemming.

**FINDING C-7 ENTERTAINMENT BERTHING & SALON**

Damaged wood shelving sighted in the V berth starboard side locker.

RECOMMENDATION

Replace plywood.

**FINDING C-8 ENTERTAINMENT BERTHING & SALON**

Damaged plywood sighted under V berth bed.

RECOMMENDATION

To be noted: Replace plywood if desired.

**FINDING C-9 ENTERTAINMENT BERTHING & SALON**

Aft cabin mattress showing heavy staining.

RECOMMENDATION

To be noted: Replace or clean mattress if desired.

FINDING C-10 CLIMATE CONTROL

Damaged ducting sighted in a starboard locker near the aft cabin.

RECOMMENDATION

Repair ducting.

**FINDING C-11 PROPANE SYSTEM**

Heavy corrosion sighted at the 12 VDC propane solenoid.

RECOMMENDATION

Replace unit with the same or similar model.

**FINDING C-12 NAVIGATIONAL LIGHTS**

The port and starboard navigation lights are strapped with common electrical tape. I surmise this was because the housings were rattling and causing excessive noise.

RECOMMENDATION

To be noted: Remove electrical tape if desired.

**FINDING C-13** GROUND TACKLE & WINDLASS

Line to chain eye is rusted and the line is chafed.

RECOMMENDATION

To be noted: replace line if desired with a new end loop.



VALUE

CONDITION & VALUATION

CONCLUSION:

Insofar as could be determined by general examination without making removals to expose concealed parts; in my professional opinion; that upon compliance with the recommendations stated above, it would be in satisfactory condition for the intended use of its designer and builder.

VALUATION:

The definition of "Fair Market Value" as used in this report is that as issued by the Machinery & Technical Specialties of the American Society of Appraisers-July 25, 2010. In addition, In the United States v. Cartwright, 411 US 546, fair market value (FMV) is defined as "the price at which the property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of relevant facts."

The "Fair Market Value" is, "an opinion, expressed in terms of money, at which a property would change hands between a willing buyer and a willing seller, neither under any compulsion to buy or sell, and both having a reasonable knowledge of relevant facts, as of a specific date." Implicit in this definition is the consummation of a sale as of a specified date and of the passing of title from seller to buyer under conditions whereby:

- a. Buyer and seller are typically motivated.
- b. Both parties are well informed or well advised, and acting in what they consider their own best interest.
- c. A reasonable amount of time is allowed for exposure in the open market.
- d. Payment is made in terms of cash in US dollars or in terms of financial arrangements comparable 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 valuation offered in this report is based on the vessel's apparent condition on the date of the survey and assumes that the vessel's engines and/or other installed equipment not proven during the survey inspection are in fact operational. Discoveries made as a consequence of additional testing/inspection procedures may significantly lower this valuation. Also, there is no warranty given, or implied, of the future useful life of engines or machinery described herein. Valuations are developed by using some or all of the following resources; commercially published used boat price guides (BUC, J.D. Power, Boats & Harbors, Yacht World, etc.), commonly accepted Marine depreciation schedules, and consultations with knowledgeable boat brokers not involved with this specific transaction. The "ESTIMATED REPLACEMENT COST" indicates the retail cost of a new vessel of the same make/model with similar equipment offered by the same manufacturer or comparable vessel with the same equipment.

A. Comparable Sales Market Approach:

(All values rounded to the nearest one thousand)

1. The current J.D. Power provides a value range for the vessel of approx. \$113,000.00
2. The current BUC ValuePro provides a value range for an average condition of approx. NOT LISTED
3. The following were various listings found of the same or similar make and model and within 5-year vessels between Jan. 2023 and the date of this survey.
 - a. Vessel Year: 1988 Location: FL Listing Price: \$125,000.00 (Subject Vessel)
 - b. Vessel Year: 1988 Location: MD Listing Price: \$90,000.00
 - c. Vessel Year: 1984 Location: MX Listing Price: \$130,000.00
4. The following were the only active listings found of the same make, model and within one model year vessel found on Yacht World.
 - a. Vessel Year: 1989 Location: FL Listing Price: \$90,000.00

5. Calculations:

- a. J.D. Power Average: \$113,000.00
 - b. BUC Book Average: N/A
 - c. Listings Average: \$145,000.00
- Average Valuation: \$129,000.00

B. Cost Approach Method:

If the Cost Method of appraisal is considered using the Martin Scale with research indicating the same make and model vessel would now cost \$600,000.00 new, this 36-year-old vessel in 2024 would be worth approximately \$96,000.00. Based upon the BUC and J.D. Power data the Cost Approach Method of appraisal is sometimes accurate enough to rely on. We will, therefore, rely on the Comparable Sales/Market Approach Method in conjunction with cost approach method. Therefore, consideration of the reliability of the data, the extent of the necessary adjustments and condition of the vessel the:

Estimated Fair Market Value is: \$110,000.00

Estimated Replacement Cost is: \$600,000.00 (Per manufacturer research)

SURVEYOR CERTIFICATION

Acting on behalf of American Marine Surveyors, the undersigned surveyor certifies that to the best of his or her knowledge and belief: I have made a personal inspection of the property that is the subject of this report. The statements of fact in this report are true and correct. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions at the time of inspection and are my personal, impartial and unbiased professional analyses, opinions and conclusions. I have not performed services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment. I have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved. I have no bias with respect to the property that is the subject of this report or to the parties involved with the assignment. My engagement in this assignment was not contingent upon developing or reporting predetermined results. My compensation for completing this assignment was not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client or seller, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of the report content including the appraisal. Nobody provided significant appraisal assistance to me.

REPORT SUBMITTED WITHOUT PREJUDICE

American Marine Surveyors



By:
Marine Surveyor
Jack Johnson,
NAMS Global CMS ©

Date Signed: 11.30.2024

