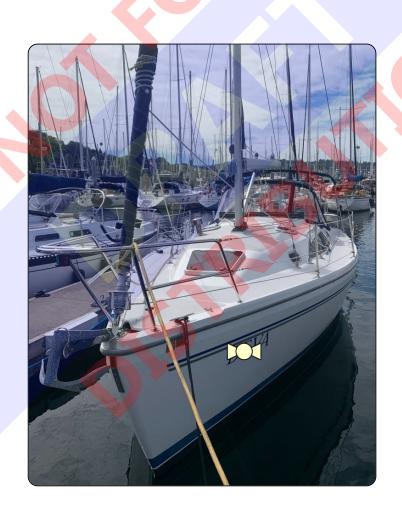


# 2007 31' Catalina 309 Fractional Sloop





# **Condition & Value Report of Marine Survey**

Of the Vessel

# "XXXX"

2007 31' Catalina 309 Fractional Sloop

Conducted By
Cpt. Mark Van der Vliet

Van der Vliet Marine, LLC (406) 270-2221

**Prepared For** 

XXXXXXX XXXXXXX

Date Of Survey: January 16, 2024 Report Submitted On: January 19, 2024

## INTRODUCTION

## **PURPOSE & SCOPE**

Acting at the request of XXXXXXX XXXXXX, did attend onboard the 2007 31' Catalina 309 Fractional Sloop "XXXX" on January 16, 2024 to conduct an insurance/underwriting marine survey which should not be considered to be a comprehensive pre-purchase survey as only equipment deemed critical to the safe operation of the vessel was powered up where possible.

36F, cloudy. The weather during the survey did not hinder completing any portion of the inspection.

The Hull Identification Number CTYXXXXXXXXX was verified. I certify that the photographed image of the vessel's Hull Identification Number (HIN), which appears below in this report, is true and accurate and was taken on the date indicated below.

The reason for the survey was to ascertain the physical condition and value of the vessel. A trial run was not requested or performed and the vessel was not hauled for inspection of the exterior wetted surfaces and running gear.

AC and DC power was used to power up the electrical systems specified in this report only, unless otherwise noted. Electrical and electronic equipment was powered up and some systems may have been tested for basic and/or limited function only. The wiring was inspected where accessible and was found to be in generally serviceable condition, unless otherwise noted. A significant amount of wiring could not be observed due to the wiring looms and conduits that transit areas which would require dismantling and removal for their inspection. If a detailed report as to the condition and capacities of the wiring and electrical components is desired, it is recommended that a qualified marine electrical engineer be engaged.

No reference or information should be construed to indicate evaluation of the internal condition of engine, or transmission, nor the propulsion system's or the auxiliary power system's operating capacities, as this machinery and related mechanical systems are not within the scope of this inspection. Vessel tankage was visually inspected where accessible. No obvious leakage was observed, unless otherwise noted; however, the fuel tank was observed to be at 85% capacity. If a more thorough assessment is desired, the tank should be filled and checked under full tank status or pressure tested to attest to its' condition.

This vessel was surveyed without the removal of any parts, including fixed partitions, fastened panels, fittings, headliners and wallliners, appliances, electrical equipment or electronics, instruments, anchor line and chain, spare parts, personal gear, clothing, miscellaneous items in the bilges, cabinets, lockers or other storage spaces, or other fixed or semi-fixed items. Only installed items were inspected, including but not limited to enclosures, and tops. Locked compartments or otherwise inaccessible areas would also preclude inspection. Survey requester (client) is advised to open up all such areas for further inspection. A visual inspection was conducted only on accessible structures and no destructive testing was performed. Naval architecture and engineering analysis were not a part of this survey. Furthermore, no determination of stability characteristics or inherent structural integrity has been made, and no opinion is expressed with respect thereto. The surveyor has noted in this survey report any adverse conditions and deficiencies observed during the inspection of the subject vessel. Unless otherwise stated in this report, the surveyor has no knowledge of any hidden or unapparent physical deficiencies or adverse conditions of the vessel (such as, but not limited to, undisclosed past incidents, needed repairs, deterioration, the presence of hazardous or toxic substances, etc.) that would make the vessel less valuable, and has assumed that there are no such conditions. The surveyor will not be responsible for any such conditions that do exist or for any engineering or testing that might be required to discover whether such conditions exist. Because the surveyor is not an expert in the field of Naval engineering/marine construction, marine electrical, nor marine mechanics, this survey report must be considered a general assessment of the overall vessel. The surveyor will not be responsible for matters of a legal nature that affect either the vessel being surveyed or the Title to it, except for information that they became aware of during the research involved in performing this survey. The surveyor assumes that the Title is good and marketable and will not render any opinions about the Title. The surveyor will not give testimony or appear in court because they made a survey of the vessel in question, unless specific arrangements to do so have been made beforehand, or as otherwise required by law. Additionally, the surveyor will only make a predetermined court appearance if located within the surveyor's county of residence. If the surveyor has based their survey report and valuation conclusion on an appraisal that is "subject to the satisfactory completion of any repairs or alterations" it is on the hypothetical condition that the completion of these repairs or alterations will be performed in a professional and workmanlike manner. This survey is subject to the hypothetical condition that the deficiencies listed in sections A and B are corrected in order for the vessel to be considered reasonably suitable for its intended use. This survey is also made subject to the extraordinary assumption that the vessel's uninspected areas/components (due to inaccessibility) are average to good in condition with no substantial defects.

This signed report represents the findings of the survey and supersedes any and all conversations, statements and representations, whether verbal or in writing. This survey report represents the condition of the vessel on the above date and is the unbiased opinion of the undersigned, but it is not to be considered an inventory, warranty or guarantee, either specified or implied, nor

does it warrant the future condition of the vessel. The survey report is for the exclusive use of the client and those lenders and underwriters that will finance and insure the vessel for this client only, and is not assignable to any other parties for any purpose.

#### CONDUCT OF SURVEY

The mandatory standards promulgated by the United States Coast Guard (USCG), under the authority of Title 46 United States Code (USC); Title 33 and Title 46 Code of Federal Regulations (CFR), and the voluntary standards and recommended practices developed by the American Boat and Yacht Council (ABYC) and the National Fire Protection Association (NFPA) have been used as guidelines in the conduct of this survey. Complete compliance with, identification of, and reporting on all standards, codes and regulations is not guaranteed.

#### **DEFINITION OF TERMS**

The terms and words used in this report have the following meanings as used in this Condition & Value Report of Marine Survey:

**APPEARED:** Indicates that a very close inspection of the particular system, component or item was not possible due to constraints imposed upon the surveyor (e.g. no power available, inability to remove panels or requirements not to conduct destructive testing, etc.).

**SERVICEABLE:** Sufficient for a specific requirement. Or; Fulfilling its function adequately (usable at the time of survey). Or; Provides service as intended by the manufacturer.

**POWERED UP:** Power was applied only. This does not refer to the operation of any system or component, unless specifically indicated.

**DEMONSTRATED:** The system or equipment was operated as intended for its use.

**SUITABLE FOR INTENDED USE:** The vessel, or its individual specified component(s), can be utilized for the purpose indicated by the manufacturer/builder or end-user (present or prospective owner or operator).

**SUBJECT:** The object of the survey being discussed, described, or dealt with; the vessel being surveyed herein. Or; Dependent or conditional upon.

**ABYC:** The American Boat and Yacht Council creates the standards within the boating industry that have become the authoritative reference for evaluating issues of design, construction, maintenance, safety, and product performance.

**CFR:** Code of Federal Regulations is a codification of the general and permanent rules that were published in the Federal Register by the Executive departments and agencies of the Federal Government. It is divided into 50 titles that represent broad areas subject to Federal regulation.

**NFPA:** National Fire Protection Association is a global self-funded nonprofit organization, established in 1896, devoted to eliminating death, injury, property and economic loss due to fire, electrical and related hazards.

**USCG:** United States Coast Guard - The United States Coast Guard (USCG) is the maritime security, search and rescue, and law enforcement service branch of the United States Armed Forces, and one of the country's eight uniformed services. The Coast Guard is a maritime, military, multi-mission service unique among the U.S. military branches for having a maritime law enforcement mission with jurisdiction in both domestic and international waters and a federal regulatory agency mission as part of its duties.

**DELAMINATION:** Separation into constituent layers.

**PHENOLIC SOUNDING:** Phenolics are the result of polymerization between layers of materials (e.g. fiberglass) impregnated with synthetic thermosetting resins. The purpose of a "phenolic hammer" is to use the percussion of the hammer to identify sound anomalies caused by any disbonding in the layers of materials.

**CONDUCTIVITY:** Electronic moisture meters are designed to detect the 'conductivity' of substrates; including moisture, among various other conductive materials, and their ability to detect conductivity can be limited by many factors, such as the depth of the conductive material, air space present in between the laminate, the conductivity of the material, etc. Boat builders utilize various construction materials, fasteners, coatings, fairings and composites, many of which have been proven to trigger higher conductivity readings and false positive readings for moisture on moisture meters.

**PROPERLY SECURED:** Stowed and/or fastened in an acceptable or suitable way free from risk of loss or physical damage.

ACCESSIBLE: Capable of being reached for inspection without removal of installed fixtures, cabinetry, equipment or structure.

**READILY ACCESSIBLE:** Capable of being reached quickly and safely for effective use under emergency conditions without the use of tools.

Unless specifically noted otherwise, the surveyor determined the subject vessel's details based on official documentation, manufacturer/builder information, or a reliable source indicated herein, and no physical measurements were taken by the surveyor. The specifications listed within the report are believed to be correct; however, accuracy is not guaranteed. Recommend obtaining accurate measurements and performing calculations as desired, or verifying all vessel specifications and capacities with the vessel's builder.

#### USE OF "A" "B" OR "C"

Use of the letters "A", "B" or "C" in the body of this report will indicate that a finding will be listed in the "Findings and Recommendations" Section, pertaining to the lettered item. PLEASE BE ADVISED THAT SOME DEFICIENCIES, OBSERVATIONS AND SUGGESTIONS MAY ALSO BE CONTAINED IN THE BODY OF THE REPORT.

Deficiencies noted under "A" findings are deemed "FIRST PRIORITY/SAFETY FINDINGS" and should be addressed before the vessel is next underway. These findings could represent an endangerment to personnel and/or the vessel's safe operating condition. Findings may also be in violation of U.S.C.G. Regulations, ABYC Voluntary Safety Standards & Recommended Practices or NFPA Codes & Standards.

Deficiencies noted under "B" findings are deemed "SECONDARY PRIORITY/FINDINGS NEEDING TIMELY ATTENTION" and should be corrected in the near future, so as to maintain and adhere to certain codes, regulations, standards or recommended practices (and safety in some cases) and to help the vessel to retain its value.

Deficiencies noted under "C" findings are deemed "SURVEYOR'S GENERAL FINDINGS, NOTES AND OBSERVATIONS" and considered lower priority or cosmetic findings, which should be addressed in keeping with good marine maintenance practices and in some cases as a desired upgrade.

#### **ENGINE SURVEY**

There was no mechanical/engine survey performed during the hull survey. It is highly recommended and understood that the propulsion and auxiliary power systems (engine, transmission) be inspected by their respective manufacturer's certified technician to determine their condition.

#### **SAILS & RIGGING INSPECTION**

It is highly recommended and understood that all rigging and sailing systems be inspected by a certified rigger to determine their condition. Questions about the condition of the rigging and sails should be directed to that specialized technician.

#### GENERAL RECOMMENDATIONS

No vessel trip or maintenance logs were observed onboard.

Although log books are not required on vessels under 100 gross tons (46 CFR 35.07.5), recommend implementing/maintaining vessel trip and machinery maintenance log books.

## REPORTED VESSEL DISCLOSURE COMMENTS

The surveyor was not made aware of any prior damage or insurance claim disclosures on this vessel. The surveyor is employed by Candere Cruising, and has served as captain onboard DEVA.



## **GENERAL INFORMATION**

## **GENERAL SURVEY INFORMATION**

FILE NUMBER VdV-1973

TYPE OF SURVEY REQUESTED Condition & Value Report of Marine Survey

SURVEY REPORT PREPARED FOR XXXXXXX XXXXXX

SURVEY DATE/TIME Survey inspection performed on January 16, 2024 from 9am - 4pm.

LOCATION OF SURVEY INSPECTION Shilshole Bay Marina, Seattle, Washington

PERSONS IN ATTENDANCE Attending the survey was the hull surveyor Mark Van der Vliet and the client(s)

XXXXXXX XXXXXX.

## **GENERAL VESSEL INFORMATION**

VESSEL BUILDER

YEAR BUILT

**HULL NUMBER** 

HIN (HULL IDENTIFICATION NUMBER)

Catalina Yachts
CTYXXXXXXXXX



viewing/privacy.

2007 (per Hull Identification Number)

C-309 XXXXX (per builder's placard)



photo altered for public viewing/privacy

DOCUMENTED HAILING PORT

HAILING PORT DISPLAYED

U.S.C.G. DOCUMENTATION NUMBER

U.S.C.G. DOCUMENTED FOR

STATE REGISTRATION NUMBER

Seattle, WA Seattle, WA

XXXXXXXXX (a current U.S.C.G document was onboard)

Coastwise

XXXXXXXXX (the affixed decal was current)



STATE REGISTERED VESSEL OWNER

**VESSEL MATERIAL** 

LENGTH OVERALL (LOA)

**REGISTERED LENGTH** 

LENGTH WATERLINE (LWL)

**BEAM** 

**REGISTERED BEAM** 

DRAFT

**DISPLACEMENT** 

DEPTH

**GROSS TONNAGE** 

**NET TONNAGE** 

#### RATING & VALUATION SUMMARY

VESSEL OVERALL RATING

ESTIMATED MARKET VALUE

**ESTIMATED REPLACEMENT COST** 

#### XXXXXXXXXXXX

**Fiberglass** 

32' 9" (per owner's manual)

31.0 (per U.S.C.G. Documentation)

26' 6" (per owner's manual)

11' 6" (per owner's manual)

11' 6" (per U.S.C.G. Documentation)

6' 3" (per owner's manual)

9,800 lbs. (per owner's manual)

4.4' (per U.S.C.G. Documentation)

7 GRT (per U.S.C.G. Documentation)

7 NRT (per U.S.C.G. Documentation)

#### **AVERAGE CONDITION**

\$69,700 per BUCValuPro™

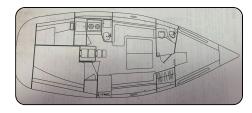
\$200,500 per BUCValuPro™

## VESSEL CONSTRUCTION

## **HULL ARRANGEMENT**

**VESSEL LAYOUT** 

The forward double V-berth, with overhead escape hatch, inspection plate to the chain locker, shelving to port/starboard, AC outlet, lights, and stowage below, leads aft to the port head privacy door and starboard hanging locker with a fiddle-shelf and portlight above. The midship salon has a port settee with L-shaped seating and dinette, and starboard bench seating settee. The cabin has two (2) portlights, two (2) windows, two (2) hatches, AC outlights, lights, and a diesel heater. The navigation station is aft of the starboard seating and leads to the main stateroom door. The stateroom has a hanging locker below a fiddle-shelf and portlight followed aft by a double berth with access panels below to the fuel tank and propeller shaft, an access hatch to engine compartment, and an escape hatch. The U-shaped galley is aft of the port settee and has a sink, stove/oven, refrigerator, and access hatch to the cockpit lazarette. The centerline companionway-hinged stairs provide access to the engine hatch. The companionway leads aft to the cockpit, which has a center helm pedestal, twin pushpit seats and molded FRP bench seating around the cockpit, enclosed with a full Bimini. Side decks access the bow. The centerline walk-through transom boarding steps terminate at a hidden swim ladder and davits are mounted on the transom.



## **HULL DESIGN TYPE**

Full displacement, with 4,000lb. ballast fixed fin keel and internally mounted spade rudder.



#### **HULL MATERIAL**

FRP (fiber reinforced plastic).

#### **EXTERIOR FINISH**

White gelcoated hull with blue boot stripe and blue and gey stripe below the rub rails.

#### **GENERAL EXTERIOR CONDITION**

The exterior of the vessel was well maintained with an overall clean and well-kept appearance.

## **TRANSOM**

Molded FRP transom step with cockpit walk-through.

#### **BOARDING SWIM LADDER**

A four (4) step folding stainless steel boarding ladder under a hatch at the transom centerline scoop was found to be functional for its intended use.



## Finding B-1

The swim ladder has developed slight corrosion (rust).

## Recommendation

Refinish or replace the ladder, as necessary.

#### **BULKHEADS**

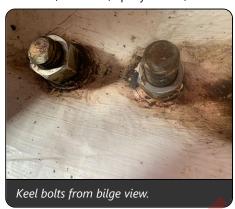
Athwartships reinforcement provided by teak veneer plywood bulkheads. A complete inspection was not possible due to limited access.

#### STRINGERS/TRANSVERSALS

Integral grid structure laminated as part of the hull. High density foam, fiberglass infused, transverse and longitudinal members fiberglassed to the hull (per manufacturer).

#### **KEEL**

Bolted on, cast-lead, epoxy coated, ballast fin keel.



#### **BILGES**

A coated surface was used in the bilges. No significant water was collected in the bilges during the survey.

#### **GENERAL BILGE CONDITION**

The bilges were mostly clean and dry during the survey.

#### CHAIN LOCKER DRAINAGE

Overboard at the starboard lower bow.

#### **VESSEL LIST**

The vessel did not have any significant listing during the survey (a nearly straight waterline was observed).

#### MOISTURE COMMENTS

An FM Wave type moisture meter (Protimeter Aquivant) was used as a reference gauge for conductivity in various areas of the vessel, with particular attention given to areas around the hull, deck and superstructure penetrations, including the mast step, stanchions, hatches, deck drainage, windows, portlights, shrouds and stays. From a range of 60-999, no reading over 150 was observed.

#### **DECK ARRANGEMENT**

#### **DECK MATERIAL**

Composite deck with end-grain balsa wood sandwich cored FRP cabin top, plywood cored cockpit floor, solid FRP for penetrating hardware areas such as mast step and chainplates, with gelcoat and molded non-skid (per manufacturer).

## **BULWARKS**

Molded fiberglass bulwarks (part of the deck's layup).

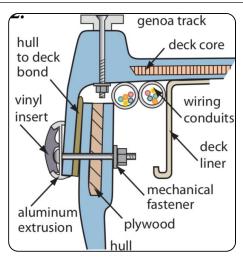
#### **RUB-RAILS**

Aluminum extrusion rub-rails with grey flexible vinyl inserts.

#### **HULL-TO-DECK JOINT TYPE**

External overlapping flange, bonded and screwed/through-bolted through an aluminum rub rail extrusion.

The stern hull/deck joint runs across the top of the transom and around the transom opening.



## **HULL-TO-DECK JOINT FASTENERS**

Stainless steel through bolted and screwed where sighted.

## **EXTERIOR EQUIPMENT**

## **EXTERIOR HARDWARE/EQUIPMENT**

#### **EXTERIOR SEATING**

Cockpit molded FRP bench wrap-around seating with two (2) pushpit (elevated) single aft seats



## **Finding B-2**

The transom walk-through helm seat was removed due to the missing port side support.

#### Recommendation

Repair/replace, as necessary.

#### **GENERAL HARDWARE CONDITION**

No significant corrosion was observed on the vessel's hardware.

## GENERAL CAULKING/SEALANT CONDITION

Typical common weathering was observed on the vessel's exterior caulking sealants, particularly the starboard trunk cabin window, with no apparent areas of significant separation or deterioration. Monitor frequently.

#### **EXTERIOR LIGHTING**

Not all of the exterior lighting illuminated when tested.

## Finding B-3

The deck light on the mast did not illuminate when tested.

## Recommendation

Investigate further/trace, and service, repair or replace as necessary.

#### **EXTERIOR SHOWER**

Hot/cold shower in the port aft cockpit.



## **Finding B-4**

The shower nozzle had broken/missing hardware.

## Recommendation

Investigate further/trace, and service, repair or replace as necessary.

## **CABIN VENTILATION**

Provided by the foredeck hatch, portlights, deck hatches, and the main companionway hatch/washboards.

#### **DECK HATCHES**

One trapezoidal forward V-berth escape hatch, two (2) midship cabin top hatches, one (1) stateroom escape hatch. The hatches were operational and fit for use with no significant UV crazing in the hatch glass.

#### PORTHOLES/PORTLIGHTS

The portlights (two (2) with removable insect screens) were operational and fit for use. Monitor frequently for signs of leakage.

#### **WINDOWS**

The vessel's windows were well fit with no chips or cracks observed, except where noted.



## Finding B-5

The port window had a small crack at the forward fastener.

## Recommendation

Refit, repair or replace, as necessary.

#### **DODGER**

The dodger was equipped with new (reportedly) zippers to accommodate new (reportedly) side and overhead windows to connect to the Bimini and shelter the entire cockpit. The dodger appeared fit for its intended use.

#### **DECK RAILINGS**

Ten (10) 1" stainless steel side deck stanchions located 72" and 53" apart, with cable lifelines 12" and 24" above the deck, and boarding gates, ran the perimeter of the vessel.

Two (4) 1" stainless steel stern railings between the pushpit seats, 12" and 24" above the deck with two (2) stanchions, and two (2) lifeline cables at the transom walk-through.



## Finding A-1

The upper walk-through transom wire gate shackle pin was missing its pull-ring, and could not be opened

## Recommendation

Refit pin with pull ring.

#### **HANDRAILS**

Stainless steel handrails were fitted at convenient locations of the vessel, specifically the cabin top. The handrails were found to be secure.

#### DAVIT/CRANE

Manually operated, stainless steel dinghy davit mounted to the transom.

## **CLEATS**

Four (4) stainless steel horn-type mooring cleats. The cleats were found to be secure.

#### **ANCHOR PLATFORM**

The stainless steel anchor fairlead chute and its associated hardware were inspected, the roller moved freely and all components were found to function as intended when briefly tested.

#### **EXTERIOR STORAGE**

The hardware and/or seals on the vessel's exterior lockers and storage areas were inspected for normal operation/condition and found fit for their intended use.

## **EXTERIOR DECK ACCESS HATCHES**

Cored fiberglass deck hatches. All deck access hatches were clear and operational at the time of survey, except where noted.

## Finding A-2

The anchor chain locker hatch access hasp was corroded and could not operate/was not fit for its' intended use.

#### Recommendation

Repair in accordance with good marine practice, as necessary.

## **ESCAPE HATCHES**

One (1) escape hatch was installed over the forward VIP stateroom. One (1) escape hatch was installed over the main stateroom. The emergency escape/egress openings were clear of obstructions and operational at the time of survey.

#### **FENDERS**

Four (4) fenders were observed onboard.

#### MOORING LINES

The dock/mooring lines used to secure the vessel at the time of survey were adequately sized with no significant wear & tear or chafe damage observed.

#### **GROUND TACKLE**

#### **ANCHORS**

33lb. galvanized claw anchor. The anchor was ready to deploy and its shackle bolt was properly secured with safety wire (seizing wire) to prevent accidental anchor loss.



#### Finding A-3

The anchor-to-chain shackle was corroded/rusting.

## Recommendation

Replace the shackle.

## ANCHOR RODE TYPE

Reportedly, 20' of 1/4" Galvanized Hi-Test Chain, 200' of 1/2" New England stranded Anchor Line. No significant corrosion had developed on the anchor rode where sighted. It was securely fastened and ready for use at the time of the survey. Recommend measuring and marking the anchor rode.

#### **ANCHOR WINDLASS**

Lewmar 12V windlass. Windlass switch at navigation station. Demonstrated.

# **UNDERWATER EQUIPMENT & HULL INSPECTION**

#### **PROPELLERS**

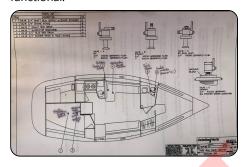
Reportedly, one (1) 3-blade 14x12 bronze alloy.

#### **RUDDER MATERIAL**

Reportedly, Fiberglass.

## BELOW WATERLINE THROUGH-HULLS

The below waterline intake/discharge through-hulls were visually inspected from inside the hull and all appeared well fit and functional.



## **HULL TRANSDUCERS**

The hull bottom mounted transducer was inspected from the bilge only, with no evidence of damage and was well secured. Demonstrated at helm.

## **PROPULSION & MACHINERY SPACE**

## **PROPULSION SYSTEM**

**ENGINE MODEL** 

Yanmar Diesel 3YM20

**ENGINE HORSEPOWER** 

21 hp

**NUMBER OF CYLINDERS** 

Three (3) in-line configuration.

**ENGINE HOURS** 

Total hours were not determined.

**ENGINE SERIAL NUMBERS** 

RCD-2YM15X1



#### **ENGINE LABELS & NOTICES**

The engine labels were in place and readable.



#### **ENGINE DISPLAYS**

Pedestal panel with tachometer, voltage, fuel gauge

#### **ENGINE INSTRUMENTATION**

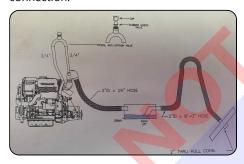
Engine instrument gauges were located at the helm.

#### **ENGINE ALARM SYSTEM**

Yanmar audible/visual electronic engine alarm system. Demonstrated.

#### **ENGINE EXHAUST SYSTEM**

Raw water cooled with raw water exhaust gas mixing riser to flexible hoses, to Aqua-Lift, to flexible riser hose, exiting to thru-hull connection.



#### **ENGINE COOLING SYSTEM TYPE**

Closed reservoir type cooling with raw water cooled exhaust.

## **ENGINE DRIVE BELTS**

Belt and pulley condition was hindered by belt guards, but the exposed part of the belt appeared fit for intended use with no excessive belt dust observed.

#### **THROTTLE & SHIFT CONTROLS**

Single lever shift and throttle control

#### **EMERGENCY ENGINE SHUTDOWN**

Engine shutdown button was located at the helms.

## **ENGINE BED MOTOR MOUNTS**

Adjustable motor mounts on cored fiberglass longitudinal engine bed stringers. No exceptions observed.



## **ENGINE BED SUMPS**

Integrated FRP drip sump was located under the engine and observed clean and dry.

#### MAIN ENGINE OIL LEVEL

Normal level was observed on the engine sump dipstick.

#### MAIN ENGINE COOLANT LEVEL

Normal levels were observed in the heat exchanger's header tank.

## Finding B-6

The engine's coolant recovery expansion tank level was low.

## Recommendation

Investigate further, and service the cooling system as necessary.

## TRANSMISSIONS/GEARS/DRIVES

DRIVE SYSTEM TYPE

Direct drive.

TRANSMISSIONS/GEARS
Yanmar Marine

GEAR SERIAL NUMBERS E03343



#### **GEAR FLUID LEVEL**

Normal level was observed on the transmission sump dipstick.

#### PROPELLER SHAFT SEALS

Tides Marine dripless shaft seals. No leaks were observed.

## **MACHINERY & BILGE SPACE EQUIPMENT**

## SEACOCKS/SEA-VALVES

Raw water seacocks were Marelon 3/4" plastic composite ball valve type.

#### **RAW WATER STRAINERS**

Spin-on type metal alloy strainer inline from the raw water seacock. Recommend monitoring and cleaning the strainer frequently.



#### **HOSES**

The hoses appeared serviceable where sighted.

## **HOSE CLAMPS**

The hose clamps appeared serviceable where sighted, except where noted.

Double clamped where sighted on fuel and raw water seacocks.



## Finding A-4

Several of the vessel's hose clamps on the shaft seal boot have developed general rust.

## Recommendation

Inspect all hose clamps and clean/treat or replace with doubled marine grade stainless steel clamps where appropriate, as necessary.

## STEERING SYSTEMS

#### STEERING SYSTEM TYPE

32" Destroyer wheel pedestal helm with sheaves and radial drive-controlled cable steering.

## STEERING SYSTEM MANUFACTURER

Edson International Mfg.

## NUMBER OF STEERING STATIONS

One (1). The helm station was demonstrated.

#### STEERING SYSTEM PULLEYS/CABLES

The cable and pulley system was well secured where sighted and operational during the survey.



## **UPPER RUDDER BEARINGS & RUDDER SUPPORT**

There was no excessive play in the helm when tested. FRP rudder log. The upper rudder bearing was just below the top of the rudder post, accessed by the emergency tiller cover plate, and was well secure where sighted.

#### **RUDDER STOCKS**

Stainless steel rudder stock.

## RUDDER POSITION INDICATOR

Raymarine ST60 rudder angle gauge. Demonstrated.

## **EMERGENCY STEERING SYSTEM**

Rudder tiller connection access under the aft helm seat. The tiller arm was sighted in the lazarette.

## **ELECTRICAL SYSTEMS**

## DC ELECTRICAL SYSTEMS

DC SYSTEMS VOLTAGE

12 volt systems.

## **BATTERIES**

Start: West Marine 12 volt sealed AGM battery.

House: West Marine 12V 198Ah AGM, PN # 15020266. Dated Oct 2022.



## Finding A-5

The start battery was not well secured.

## Recommendation

Properly secure the battery, per ABYC E-10.7.4 and 33 CFR 183.420 (each installed battery must not move more than one inch in any direction when a pulling force of 90 pounds or twice the battery weight, whichever is less, is applied through the center of gravity of the battery).

## **BATTERY SWITCHES**

One (1) Blue Sea Systems Marine rotary switch with parallel/combiner switch.

#### DC ELECTRICAL PANEL BREAKERS/FUSES

Individually switched DC branch breakers.

#### DC ELECTRICAL SYSTEM MONITORS

Analog DC voltage gauge was located in the main DC electrical panel.

#### **BATTERY CHARGERS**

ProMariner ProNautic 12•20P 12 volt / 30 amp. battery charger.

## MAIN ENGINE ALTERNATORS

One (1) 60 Amp, 12 volt, engine mounted and belt driven alternator.

#### Finding B-7

The engine alternators' analog voltage meter at the helm did not function properly for its intended use.

## Recommendation

Investigate further/trace, and service, repair or replace as necessary.

#### BONDING SYSTEM (ABYC E-2 & E-11)

There did not appear to be any bonding or grounding exceptions identified during the survey.

## DC ELECTRICAL/WIRING COMMENTS (ABYC E-11)

The wiring appeared to be well supported and secured where sighted.

#### AC ELECTRICAL SYSTEMS

## AC SHORE POWER SYSTEM VOLTAGE

110 Volt

#### AC SHORE POWER INLETS

30 amp./125 volt shore power inlet at the starboard transom.

## AC SHORE POWER CORDS

30 amp. vinyl shore power cord.



## **Finding A-6**

The AC shore power cord's inlet plug was pulled adrift at the boot.

## Recommendation

Repair (if this can be done in accordance with good marine electrical practice) or replace the shore power cord, as necessary.

#### MAIN AC SHORE POWER BREAKERS

120V 30A Master Breaker single pole switch located in cockpit starboard aft lazarette, inboard side of AC shore power outlet.

#### AC ELECTRICAL PANEL BREAKERS

AC branch breakers were located in the AC electrical panel.

#### AC ELECTRICAL SYSTEM MONITORS

Analog AC voltage gauge was located in the AC electrical panel.

## AC ELECTRICAL SOURCE SELECTOR SWITCHING

Located in the main electrical panel.

#### GALVANIC ISOLATION SYSTEM (ABYC A-28)

ProMariner ProSafe Zinc Saver 30 amp. galvanic isolator (complies with ABYC A-28).

#### AC ELECTRICAL POWER OUTLETS

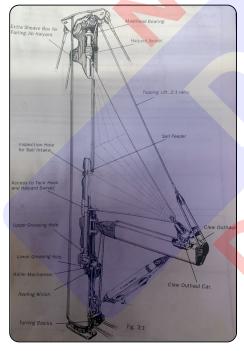
The AC outlets appeared to be conveniently located. Recommend providing ground fault circuit interruption protection at all outlets located in moisture prone areas.

## **RIGGING & SAILS**

#### STANDING RIGGING

#### **MAST**

48' 3" anodized aluminum mast by Selden.

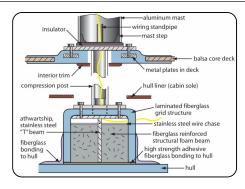


## MAST SPREADERS

Double spreader rig (anodized aluminum).

## MAST STEP

The mast was stepped to the deck with a compression post.





#### **BOOM**

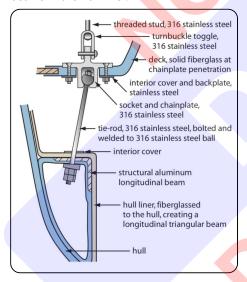
Anodized aluminum boom by Selden. The boom was well secured where sighted, and all of its accessible hardware and attachments points were found in working order. The gooseneck was inspected and found to be secure and fit for its intended use.

#### **BOOM VANG**

Anodized aluminum Selden Rodkicker. The boom vang was briefly demonstrated and found fit for its intended use.

#### RIGGING CHAIN PLATES

316 stainless steel chain plates with ball-and-socket joints connecting to tie-rods secured to structural aluminum longitudinal beams in the hull liner.



#### SHROUDS/STAYS/TERMINAL ENDS

Shrouds are set inboard next to the trunk cabin.

Forward and Aft Lowers, Intermediate, Upper, Forestay, Backstay.

Backstay: 7/32" 1 X 19, 816 stainless steel cable with eye top and 1/2" stud bottom fittings.

Forestay: 9/32" 1 X 19, 816 stainless steel cable with eye top and 1/2" stud bottom fittings.

Upper Shrouds: 9/32" 1 X 19, 816 stainless steel cable with T-bolt top and 1/2" stud bottom fittings.

Intermediate Shrouds: 3/16" 1 X 19, 816 stainless steel cable with T-bolt top and 1/2" stud bottom fittings.

Forward and Aft Lower Shrouds: 5/16" 1 X 19, 816 stainless steel cable with T-bolt top and 1/2" stud bottom fittings.

#### RIGGING TURNBUCKLES

Open design stainless steel turnbuckles. No significant corrosion had developed and no distortion was observed on the eight (8) turnbuckles. At least 1/2" of space was sighted at every threaded end inside the turnbuckle body. No broken or missing cotter pins were observed.

#### **RIGGING TOGGLES**

Stainless steel toggles. The condition of the toggles were visually inspected from deck level only, with no exceptions observed.

#### RIGGING CLEVIS PINS & COTTER PINS

All cotter pins sighted at the deck level were properly sized, had the head opposite gravity, and tires bent properly in a V-shape. The clevis pins sighted at the deck level were properly secured, except where noted.





## Finding B-8

The mainsheet starboard swivel block on the boom has a clevis pin with a ring that is separating.

## Recommendation

Replace ring.

## Finding C-1

Some of the turnbuckle tape was observed to be unravelling.

#### Recommendation

Remove or replace tape.

## **CONSIDERATIONS**

The age of the rigging was not verified. It is generally recommended to remove and inspect the standing rigging every four (4) years and replace the standing rigging every ten (10) years.

#### **RUNNING RIGGING**

#### MAIN SHEET TRAVELER

Lewmar ball-bearing mainsheet traveler with control line sheaves under the track on the port side leading to the cockpit. The mainsheet traveler and its attachment hardware were visually inspected with no exceptions observed.

#### **REEFING SYSTEM**

Mainsheet reefing winch at mast, PN #540-055. Demonstrated.

Selden Type RA

#### TOPPING LIFT

5/16" Y.B. line.

The boom's topping lift attachment points and line appeared fit for its intended use (observed from deck level only).

## **ROLLER FURLING GEAR**

Schaefer Marine headsail furling gear. Demonstrated.



## **HALYARDS**

Main: 5/16" HMPE (reportedly new 2024)

Jib: 3/8"

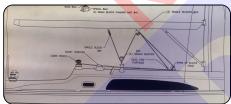
Halyards were braided and color coded lines. Halyards were observed from deck level only. Halyards were visually inspected only and appeared fit for their intended use.

#### **SHEETS**

Main: 7/16" Y.B.

Jib: 7/16" Y.B.

Sheets were braided and color coded. The sheets were visually inspected only and appeared fit for their intended use.



## TRACKS & CARS

The jib sheet tracks, cars, and blocks were demonstrated and found fit for intended use.



#### **BLOCKS & TURNING BLOCKS**

Deck mounted turning blocks directed the halyards/sheets/lines to the cockpit. The turning blocks were securely fit (while not under load) and the sheaves moved freely when tested.

#### **SWIVEL BLOCKS**

The swivel blocks were securely fastened where sighted and their roller sheaves moved freely when tested by hand.

## LINE CLUTCHES

Six (6) clutches for halyards, boom vang, main reefing and outhaul. The line stop clutches/jammers were operated by hand-weight only, no exceptions were observed.

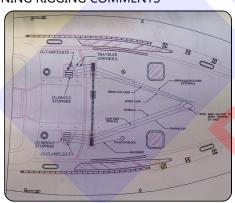
## **CAM CLEATS**

Port aft jib furler and two (2) traveler cam cleats. The cam locks and their springs were rotated by hand, no exceptions were observed.

#### **WINCHES**

Primary: Two (2) Lewmar #34 Chrome Bronze, Self-Tailing, Cockpit Halyard: Two (2) Lewmar #28 Chrome Bronze, Self-Tailing, Cabin Top

## **RUNNING RIGGING COMMENTS**



#### **CONSIDERATIONS**



#### Finding C-2

The mainsail outhaul shackle pin was not secured with seizing wire.

#### Recommendation

Recommend securing pin with seizing wire.

## **SAILS**

#### **MAINSAIL**

One (1) roller furling mainsail.

## **HEADSAIL**

Roller furling headsail.

#### SAIL INVENTORY

The following sail inventory was observed: One (1) furling mainsail and one (1) furling headsail.

## SAIL SEAMS

The main and jib were unfurled 100% and observed from deck only. No exceptions were observed, where sighted.

#### SAIL HEAD

Main and jib unfurled 100% and observed from deck only. No exceptions were observed, where sighted.

## SAIL TACK

No exceptions were observed, where sighted.

#### SAIL CLEW

No exceptions were observed, where sighted.

## **CABIN APPOINTMENTS**

## INTERIOR

## SALON ARRANGEMENT

Salon L-sofa dinette to port and bench sofa to starboard.

#### **GALLEY ARRANGEMENT**

The U-shaped galley was located in the port aft salon. The single basin sink faces forward with stowage below and stowage beneath the countertop lid athwartship. The 2-burner propane stove/oven faces outboard with overhead sliding door cabinets. Facing aft is a wide counter with an access hatch to the lazarette above and refrigerator/freezer below.

## ACCOMMODATION ARRANGEMENT

One (1) double forward, one (1) double aft, one (1) convertible dinette double, one (1) single.

#### **HEAD ARRANGEMENT**

One (1) Jabasco manual twist and lock head (demonstrated), reportedly new 2023. Portlight, light, mirror and sliding mirrors with stowage, faucet/sink (demonstrated), shower (demonstrated).

#### SHOWER ARRANGEMENT

Integral shower in the head. Demonstrated. Par-Max3 Shower Drain Pump. Model # 31610-0592.

## Finding B-9

There was water accumulation in the shower sump. The shower sump pump was powered up and demonstrated.

## Recommendation

Investigate further, and service as necessary.

#### **INTERIOR CABINETRY & TRIM**

Satin finished teak cabinetry and trim were built into the vessel's interior. No significant wear & tear was observed on the interior cabinetry and trim.

#### **INTERIOR STORAGE**

The cabinets, lockers, and drawers were operational at the time of survey.

#### INTERIOR BULKHEADS

The interior plywood teak veneer bulkheads were well-fit and properly secured where sighted. A complete inspection was not possible due to limited access.

#### **INTERIOR DOORS**

Satin finished teak cabin doors. The interior doors opened/closed suitably during the survey.

#### Finding C-3

The head door lock mechanism was not functional.

## Recommendation

Refit or repair, as necessary.

#### INTERIOR MIRRORS

No desilvering was observed on the interior mirror's reflective coatings.

#### **WALL-LINERS**

Teak-veneered joiner panels. The interior wall-liners were generally well-fit with no visible tears and no significant staining.

#### **FLOORING**

Simulated teak & holly laminate cabin sole flooring.

## **CABIN SOLE FOUNDATION**

Sandwich composite cored fiberglass cabin sole foundation.

#### **GENERAL INTERIOR & SOFTGOODS CONDITION**

The vessel's interior was generally well maintained.

#### GENERAL INTERIOR FURNISHINGS & SOFT-GOODS CONDITION

The vessel's interior soft-goods were generally well maintained.

## INTERIOR JOINER WORK COMMENTS

The interior joiner work was well fit where sighted, except where noted.



## Finding B-10

The stateroom berth's aft teak veneer bulkhead liner was saturated at its base and showed signs of rotting.

#### Recommendation

Investigate further, and refit, refinish or replace the joinery as necessary.

## WATER INTRUSION COMMENTS

There were no signs of water intrusion observed at the vessel's interior at the time of survey.

## **INTERIOR SYSTEMS & EQUIPMENT**

#### LIGHTING

All interior lights illuminated when tested.

#### CABIN HEATING SYSTEM

Diesel furnace heater. Diesel supplied from engine diesel tank. Ball valve at tank moved freely when tested. Not tested/demonstrated.

## **GALLEY EQUIPMENT**

#### REFRIGERATION

Nova Kool refrigerator/freezer. Demonstrated.

Model # R3000 AC/DC

SN # 287278



#### STOVE

LPG 2-burner Hillerange stove/oven.

#### **GALLEY SINK**

Stainless steel single basin sink. The galley sink was properly fit where sighted, the faucet fixture was operational and the sink drained appropriately.

# **ELECTRONICS & NAVIGATION EQUIPMENT**

#### **VHF RADIOS**

ICOM IC-M422. Demonstrated.

#### **COMPASSES**

5" Ritchie FN-201 Flush Mount

#### MULTI-FUNCTIONAL NAVIGATION DISPLAYS

Raymarine C-80 multi functional navigation display with GPS chartplotter.

#### **AUTOPILOT**

Raymarine Smart Pilot ST6001+ linear drive. Powered up.

## **MULTI-INSTRUMENTS**

Raymarine ST60 Tridata multi-instrument with depth, speed, wind, navigation, heading, and ST6002 autopilot. Demonstrated.



## MARINE RADAR

Raymarine mast mounted closed array antenna with C-80 display at helm.

#### **DEPTH DISPLAY**

Raymarine ST60 digital depth display.

#### SPEED DISPLAY

Raymarine ST60 digital speed display.

#### WIND INSTRUMENT

Raymarine ST60+ true/apparent wind speed/direction display.

#### **ANTENNAS**

The antennas were well mounted where sighted.

## **FUEL SYSTEMS**

#### **FUEL SYSTEM TYPE**

Diesel.

## **FUEL TANK MATERIAL**

5052 Aluminum. No obvious fuel tank leakage was observed; however, the tanks were not full at the time of inspection.

#### NUMBER OF FUEL TANKS

One (1).

#### **FUEL TANKAGE CAPACITY**

25 gallons (per data tag).

## FUEL LEVEL MONITORING

The analog fuel gauge was located at the helm station. Demonstrated.

#### FUEL TANK MANUFACTURER LABELING

The ABYC required fuel tankage labels were sighted on the fuel tanks.

## EZELL PN # 32137



## **FUEL TANKAGE SECURING**

The fuel tankage appeared to be adequately secured where sighted.

#### **FUEL TANKAGE LOCATION**

Under the starboard stateroom berth, outboard access panel.

#### **FUEL FILL LOCATION**

Port aft side deck.

#### **FUEL FILL MARKING**

The deck fuel fill fitting was clearly marked as to fuel type.

#### **FUEL TANK VENTILATION**

Port hull side below the fuel fill.

#### FUEL TANKAGE & FUEL FILL GROUNDING

Appeared to be properly grounded where sighted.

#### **FUEL FILL HOSE/PIPE**

USCG Approved Type A2 fuel hoses where sighted.

#### **FUEL LINES/HOSES**

USCG Approved Type A1 fuel lines/hoses where sighted.

#### **FUEL SHUT-OFF VALVES**

Ball valve located at the fuel tank. The valve moved freely when tested.

#### MAIN ENGINE PRIMARY FUEL FILTERS

Omeidke R20T spin on canister type fuel filter/water separators.

## **WATER SYSTEMS**

#### FRESHWATER SYSTEM

#### WATER TANKAGE MATERIAL

Polyethylene (complies with ABYC H-23.5).



## NUMBER OF FRESHWATER TANKS

One (1).

#### WATER TANKAGE CAPACITY

35 gallons (per owner's manual).

#### WATER TANKAGE SECURING

The water tankage appeared to be well secured where sighted.

#### WATER TANKAGE LOCATION

Under the V-berth.

## WATER FILL LOCATION

In the chain locker.

#### WATER FILL MARKING

Properly marked for water (ABYC 23.7.5.3).

## FRESHWATER TANKAGE VENTILATION

Starboard forward hull side below the second stanchion from the bow.

## FRESHWATER PUMPS

ShurFlo 12 volt demand type freshwater pump.

#### FRESHWATER PIPE/HOSE PLUMBING

1/2" Red and blue SeaTech Uniflex reinforced hose with hot/cold water manifold system.

#### **HOT WATER SYSTEM**

#### WATER HEATER

Electric and Engine Heat Exchanger. Seaward 120V C-06, SN # 925659. Demonstrated.



#### WATER HEATER TYPE

Marine grade 120 volt.

#### WATER HEATER CAPACITY

6 gallons, (per owners manual)

#### WATER HEATER PRESSURE RELIEF VALVE

Relief valve installed at the tank.

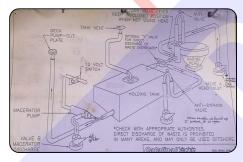
#### WATER HEATER HEAT EXCHANGER SYSTEM

Engine mounted heat exchanger.

#### **BLACKWATER SYSTEM**

#### MSD (MARINE SANITATION DEVICE) SYSTEM (33 CFR 159)

Type I MSD waste treatment system (utilizes an on-board treatment device using a physical/chemical based system that relies on maceration and chlorination. After treatment the waste can be discharged). Shurflo 13gpm Macerator, model # 3200-000.



## **BLACKWATER TANKAGE**

17 gallons (per owner's manual), located under the port settee.

## **BLACKWATER TANKAGE SECURING**

The blackwater tankage appeared to be well secured where sighted.

## **BLACKWATER TANKAGE VENTILATION**

The blackwater tank's vent fitting was plumbed overboard at the hull side.

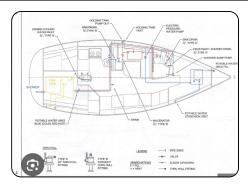
#### **BLACKWATER SYSTEM DISCHARGE**

Y-valve with port midship deck pump-out fitting.

#### **GREYWATER SYSTEM**

#### **GREYWATER TANKAGE**

Individual greywater sump tank was installed in the head.



## **GREYWATER DISCHARGE SYSTEM**

The galley and head sinks discharge overboard, as well as the shower sump pump.

## PLUMBING FIXTURES

There was no significant pitting/corrosion observed on the interior plumbing fixtures.

#### HEAD SINKS

Porcelain sink was installed in the head. Demonstrated.

## SAFETY EQUIPMENT

## **SAFETY EQUIPMENT (U.S.C.G.)**

#### WEARABLE PERSONAL FLOTATION DEVICES (33 CFR 175)

Ten (10) Type II U.S.C.G. approved PFDs were observed onboard the vessel.

#### THROWABLE PERSONAL FLOTATION DEVICES (33 CFR 175)

Six (6) Type IV U.S.C.G. approved throwable devices (cushions), and one (1) type IV U.S.C.G. approved throwable device (ring) with approximately 20' nylon line was observed onboard the vessel.

#### FIRE EXTINGUISHERS (33 CFR 175.310)

Two (2) Kidde Type ABC-I 2.5 lb. dry chemical and one (1) Kidde type BC-I 2.5 lb. dry chemical located in Port lazarette (no data tags).

One (1) type ABC-I 2.5 lb. dry chemical located in starboard aft lazarette, and one (2) type ABC-I 2.5 lb. dry chemical located in cabin. Current annual inspection tags were observed.

#### VISUAL DISTRESS SIGNALS (33 CFR 175.110)

Day/night visual distress signals were handheld incendiary flares (current dated).

#### SOUND PRODUCING DEVICES (33 CFR 83)

Two (2) handheld compressed air horns.

#### **NAVIGATION LIGHTS (33 CFR 83)**

All navigation lights illuminated when tested.

## "NO OIL DISCHARGE" PLACARD (33 CFR 151/155)

The required "oil discharge prohibited" placard was found properly displayed in the machinery space.

#### "TRASH DISPOSAL" PLACARD (33 CFR 151/155)

The "Trash Disposal" placard was found properly displayed in the galley.

#### U.S.C.G. NAVIGATION RULE BOOK (33 CFR 83) VESSELS OVER 39'4"

The U.S.C.G. International and Inland Navigation Rule handbook was observed onboard.

## GASOLINE ENGINE SPACE VENTILATION (33 CFR 175/183, 46 CFR 25)

The engine/machinery space appeared to have adequate ventilation as built.

## **CONSIDERATIONS**

Additional Scotty safety equipment kit with whistle, flashlight, and heaving line sighted onboard.

## **AUXILIARY SAFETY EQUIPMENT**

#### BILGE HIGH WATER ALARMS

One (1) bilge high water alarm with alarm speaker at the helm and a light at the main fuse panel. Test sounded/illuminated.

#### E.P.I.R.B.

None sighted. Highly recommended if cruising offshore.

## MAN OVERBOARD SYSTEM (MOB)

U.S.C.G. Type IV throwable ring with rescue throw rope.

## FIRST AID SUPPLIES

A first aid kit was observed onboard.

#### CARBON MONOXIDE DETECTORS (ABYC A-24)

One (1) carbon monoxide detector. Test sounded.

## SMOKE DETECTORS (NFPA 302)

One (1) smoke detector. Test sounded.

#### **CONSIDERATIONS**

Aluminum Folding Radar Reflector sighted onboard.

#### **BILGE PUMPING SYSTEMS**

#### **ELECTRIC BILGE PUMPING SYSTEMS**

Rule-Mate 1100gph at keel bolts.

#### MANUAL BILGE PUMPING SYSTEMS

A manually operated hand bilge pump was located in the port-side cockpit. The handle is stowed in the port lazarette. The intake hose runs from the keel stub under the main cabin sole. Demonstrated.

#### **AUXILIARY GAS SYSTEMS**

#### **GAS TYPE**

LPG (Liquid Petroleum Gas).

#### GAS TANKAGE LOCATION

One (1) tank in the port cockpit aft hatch.

#### GAS TANKAGE SPACE VENTILATION

Vented by a lower drainage hose overboard. Appeared adequate.

#### **GAS SHUT-OFFS**

ASCO Shut-off solenoid valve was located at the gas tank and an electric gas shut-off solenoid was located in the galley.

#### GAS TANKAGE MOUNTING

The tank was properly secured.

## **GAS LINES & FITTINGS**

Reinforced rubber LP gas lines where sighted.

#### **GAS REGULATOR**

A gas regulator was installed inline at the tank.

#### GAS PRESSURE GAUGE

A gas pressure gauge was installed inline at the tank.

## LPG GAS FUME DETECTORS

None sighed. Highly recommended.

## Finding C-4

Although ABYC recommends compliance with Standard A-14 for vessels manufactured after July 31st, 2021, it is good marine practice to upgrade vessels to current standards.

## Recommendation

Recommend installation of propane gas fume detector as low and near the appliance (stove) as possible.

The Findings & Recommendations section is only one section of the "XXXX" survey report. If received on its own, this section should not be mistaken as this vessel's full survey report. PLEASE BE ADVISED THAT SOME DEFICIENCIES, OBSERVATIONS AND SUGGESTIONS MAY ALSO BE CONTAINED IN THE BODY OF THE REPORT.

Deficiencies noted under "FIRST PRIORITY/SAFETY FINDINGS" should be addressed before the vessel is next underway. These findings could represent an endangerment to personnel and/or the vessel's safe operating condition. Findings may also be in violation of U.S.C.G. Regulations, ABYC Voluntary Safety Standards & Recommended Practices or NFPA Codes & Standards.

Deficiencies noted under "SECONDARY PRIORITY/FINDINGS NEEDING TIMELY ATTENTION" should be corrected in the near future, so as to maintain and adhere to certain codes, regulations, standards or recommended practices (and safety in some cases) and to help the vessel to retain its value.

Deficiencies noted under "SURVEYOR'S GENERAL FINDINGS, NOTES AND OBSERVATIONS" are lower priority or cosmetic findings, which should be addressed in keeping with good marine maintenance practices and in some cases as a desired upgrade.

Deficiencies will be listed under the appropriate heading:

- A. FIRST PRIORITY/SAFETY FINDINGS
- B. SECOND PRIORITY/FINDINGS NEEDING TIMELY ATTENTION
- C. SURVEYOR'S GENERAL FINDINGS, NOTES AND OBSERVATIONS

## A: FIRST PRIORITY / SAFETY AND COMPLIANCE DEFICIENCIES

#### Finding A-1 Deck Railings

The upper walk-through transom wire gate shackle pin was missing its pull-ring, and could not be opened

#### Recommendation

Refit pin with pull ring.

## Finding A-2 Exterior Deck Access Hatches

The anchor chain locker hatch access hasp was corroded and could not operate/was not fit for its' intended use.

## Recommendation

Repair in accordance with good marine practice, as necessary.

#### Finding A-3 Anchors

The anchor-to-chain shackle was corroded/rusting.

## Recommendation

Replace the shackle.

#### Finding A-4 Hose Clamps

Several of the vessel's hose clamps on the shaft seal boot have developed general rust.

## Recommendation

Inspect all hose clamps and clean/treat or replace with doubled marine grade stainless steel clamps where appropriate, as necessary.

## Finding A-5

**Batteries** 

The start battery was not well secured.

#### Recommendation

Properly secure the battery, per ABYC E-10.7.4 and 33 CFR 183.420 (each installed battery must not move more than one inch in any direction when a pulling force of 90 pounds or twice the battery weight, whichever is less, is applied through the center of gravity of the battery).

## Finding A-6

**AC Shore Power Cords** 

The AC shore power cord's inlet plug was pulled adrift at the boot.

#### Recommendation

Repair (if this can be done in accordance with good marine electrical practice) or replace the shore power cord, as necessary.

## **B: SECONDARY PRIORITY / FINDINGS NEEDING TIMELY ATTENTION**

#### Finding B-1

**Boarding Swim Ladder** 

The swim ladder has developed slight corrosion (rust).

#### Recommendation

Refinish or replace the ladder, as necessary.

## Finding B-2 Exterior Seating

The transom walk-through helm seat was removed due to the missing port side support.

#### Recommendation

Repair/replace, as necessary.

#### Finding B-3 Exterior Lighting

The deck light on the mast did not illuminate when tested.

## Recommendation

Investigate further/trace, and service, repair or replace as necessary.

## Finding B-4 Exterior Shower

The shower nozzle had broken/missing hardware.

## Recommendation

Investigate further/trace, and service, repair or replace as necessary.

#### Finding B-5 Windows

The port window had a small crack at the forward fastener.

## Recommendation

Refit, repair or replace, as necessary.

## Finding B-6 Main Engine Coolant Level

The engine's coolant recovery expansion tank level was low.

## Recommendation

Investigate further, and service the cooling system as necessary.

## Finding B-7 Main Engine Alternators

The engine alternators' analog voltage meter at the helm did not function properly for its intended use.

#### Recommendation

Investigate further/trace, and service, repair or replace as necessary.

## Finding B-8 Rigging Clevis Pins & Cotter Pins

The mainsheet starboard swivel block on the boom has a clevis pin with a ring that is separating.

#### Recommendation

Replace ring.

## Finding B-9 Shower Arrangement

There was water accumulation in the shower sump. The shower sump pump was powered up and demonstrated.

#### Recommendation

Investigate further, and service as necessary.

## Finding B-10 Interior Joiner Work Comments

The stateroom berth's aft teak veneer bulkhead liner was saturated at its base and showed signs of rotting.

#### Recommendation

Investigate further, and refit, refinish or replace the joinery as necessary.

## C: SURVEYOR'S GENERAL FINDINGS, NOTES AND OBSERVATIONS

## Finding C-1 Rigging Clevis Pins & Cotter Pins

Some of the turnbuckle tape was observed to be unravelling.

## Recommendation

Remove or replace tape.

#### Finding C-2 Considerations

The mainsail outhaul shackle pin was not secured with seizing wire.

#### Recommendation

Recommend securing pin with seizing wire.

#### Finding C-3 Interior Doors

The head door lock mechanism was not functional.

## Recommendation

Refit or repair, as necessary.

#### Finding C-4 LPG Gas Fume Detectors

Although ABYC recommends compliance with Standard A-14 for vessels manufactured after July 31st, 2021, it is good marine practice to upgrade vessels to current standards.

## Recommendation

Recommend installation of propane gas fume detector as low and near the appliance (stove) as possible.

## **SUMMARY**

## **SUMMARY OF CONDITION & VALUATION**

#### **VESSEL CONDITION**

It is the surveyor's experience that develops an opinion of the OVERALL VESSEL RATING OF CONDITION, after the survey has been completed and the findings have been organized in a logical manner.

The grading of condition determines the adjustment to the range of base values for a similar vessel sold within a given time period, as a consideration to determine the Market Value.

The following is the accepted Marine Grading System of Condition:

"EXCELLENT (BRISTOL) CONDITION": a vessel that is new or maintained like new, with all systems and units fully functional.

"ABOVE AVERAGE CONDITION": a vessel that has above average care and is well equipped and in better average condition for her age and class.

"AVERAGE CONDITION": a vessel ready for sale, requiring normal maintenance work and comparably equipped to other similar vessels on the market.

"FAIR CONDITION": a vessel that is in need of a fair amount of maintenance work and some systems are due to be serviced or replaced.

"POOR CONDITION": a vessel that requires substantial work to be fit for its intended purpose (may require structural repairs, extensive refit and replacement of several systems).

"RESTORABLE CONDITION": a vessel with extensive structural deficiencies that is in need of major work on most systems and hull integrity to be fit for its intended purpose.

As a result of my survey, as shown in the REPORT OF MARINE SURVEY & FINDINGS AND RECOMMENDATIONS sections of this report and by virtue of my experience, my opinion is:

## **AVERAGE CONDITION**

#### APPRAISAL METHODOLOGY

The following method of valuation was used to obtain the FAIR MARKET VALUE of the vessel:

Similarly equipped, same, or similar model vessels that have been verified as recently sold on soldboatprice.com were adjusted for differences in model year, length, quality, condition, upgrades/equipment, date of sale, etc, were used as a reference point and compared to the BUCValuPro Fair Market Valuation and NADA boattrader.com Market Valuation.

#### SIMILAR VESSEL(S) CURRENTLY ON THE MARKET

2007 Catalina 309 listed for \$75,900 and located in South Haven, MI

2007 Catalina 309 listed for \$79,900 and located in Island Heights, NJ

2007 Catalina 309 listed for \$85,000 and located in Traverse City, MI

2007 Catalina 309 listed for \$66,000 and located in Port Charlotte, FLA

#### SIMILAR VESSEL(S) RECENTLY SOLD

2006 Catalina 309 listed for \$79,990 and sold for \$68,000 in 2016 (TX)

2006 Catalina 309 listed for \$90,000 and sold for \$87,000 in 2015 (FLA)

2005 Catalina 34 MKII listed for \$61,200 and sold for \$52,000 in 2022 (RI)

2008 Catalina 28 MKII listed for \$68,000 and sold for \$57,000 in 2022 (NE)

2005 Catalina 28 MKII listed for \$46,000 and sold for \$45,000 in 2020 (MD)

#### ADDITIONAL REFERENCES

BUCValuPro™ Retail Price Range: \$63,800- \$70,000

BUCValuPro™ Adjusted for Region & Condition Range: \$66,400 - \$73,000

BUCValuPro™ Replacement: \$200,500

NADA Guide: Low: \$69,000 Average: \$82,207 High: \$104,000

#### STATEMENT OF VALUATION/ADJUSTMENTS

#### **ADJUSTED ESTIMATES**

The surveyor has included the BUCValuPro™ Fair Market Value adjusted for condition & region with the range of \$66,400- \$73,000 (averaged to \$69,700) as well as sold boat comparisons for the subject vessel's Fair Market Value.

#### VALUATION CONCLUSION

The definition of Fair Market Value, as used in this report, is the estimated amount, expressed in terms of money, that may be reasonably expected for a property in an exchange between a willing buyer and a willing seller, with equity to both, neither under any compulsion to buy or sell, and both fully aware of all relevant facts, as of the specific date stated above. Valuations are the opinion of the surveyor(s) and are intended to be used for insurance or financing purposes only; they are not intended to influence the purchase or purchase price of the subject vessel. The surveyor(s) have no interest in the vessel, financial or otherwise. Valuation is primarily determined by comparison to comparable vessels listed in the SoldBoats.com database, but may also be derived from consultation with manufacturers or knowledgeable boat brokers, personal experience, current listings of boats available for sale, and commercial boat value guides such as the BUCValuPro™ and NADA online price guides. Current local market values may vary widely from such valuation resources due to current local market conditions. The term "Market Value" is defined by Uniform Standards for Professional Appraisal Practice (USPAP) standards. Implicit in this definition are the consummation of a sale as of a specified date and the passing of a 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 each acting in what they consider 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 U.S. dollars or in terms of financial arrangements comparable thereto &
- 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.

This report is subject to the limiting conditions and assumptions stated. Values are based on the whole and possessory interests of the owner of the property, undiminished by liens, fractional interest or other encumbrances.

Therefore, after consideration of the reliability of the data, the extent of the necessary adjustments and condition of the vessel, it is the surveyor's opinion that the "FAIR MARKET VALUE" of the subject vessel is:

#### \$69,700 per BUCValuPro™

Sixty-Nine Thousand, Seven Hundred US Dollars (USD)

The "ESTIMATED REPLACEMENT COST" indicates the retail cost of a new vessel if the same make/model with similar equipment offered by the same manufacturer. The "ESTIMATED REPLACEMENT COST" of the vessel is:

#### \$200,500 per BUCValuPro™

Two Hundred Thousand, Five Hundred US Dollars (USD)

#### **SUMMARY**

In accordance with the request for a Marine Survey of "XXXX", for the purpose of evaluating its present condition and estimating its Fair Market Value and Replacement Cost, I herewith submit my conclusion based on the preceding report. The subject vessel was personally inspected by the undersigned on January 16, 2024. Subject to correction of deficiencies listed in sections A and B, the vessel is considered to be reasonably suitable for its intended use. Other deficiencies listed should be attended to in keeping with good maintenance practices or as upgrades. The vessel's valuation is subject to the hypothetical condition that the deficiencies listed in sections A and B are corrected, and this survey is also made subject to the extraordinary assumption that the vessel's uninspected areas/components (due to inaccessibility) are in reasonable condition with no substantial defects.

#### 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 favors the cause of the client, the amount of the value estimate, the attainment of a stipulated result or the occurrence of a subsequent event. I have made a personal inspection of the vessel that is the subject of this report.

This report should be considered as an entire document. No single section is meant to be used except as part of the whole.

This report is submitted without prejudice and for the benefit of whom it may concern. This report does not constitute a warranty, either expressed, or implied, nor does it warrant the future condition of the vessel. It is a statement of the condition of the vessel at the time of survey only.

Mark Van der Vliet, USCG licensed 100t Captain, Power/Aux Sail

Signed and submitted on: January 19, 2024

# **PHOTO ADDITIONS**

# PHOTO LIBRARY











