



**OFFSHORE**  
MARINE SURVEY, LLC

---

**1980 39'9" Irwin Citation 39 Shoal**  
**"Archipelago"**



**Membership with the Society of Accredited Marine Surveyors (Surveyor Associate) and the American Boat & Yacht Council (Certified Advisor).**

---



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

Of the Vessel

**"Archipelago"**

**1980 39'9" Irwin Citation 39 Shoal**

**CONDUCTED BY**

John VanTol

OFFSHORE MARINE SURVEY, LLC

**PREPARED FOR**



Inspection performed on: 11/18/22

# Report of Condition & Value Marine Survey

---

---

## INTRODUCTION

### PURPOSE & SCOPE

The Surveyor attended aboard the 1980 Irwin Citation 39 Shoal "Archipelago", at the request of [REDACTED] [REDACTED] Inspection performed on: 11/18/22. The out of the water Survey was requested to determine the physical condition and value of the vessel for donation.

There was no mechanical/engine survey performed. It is highly recommended and understood that all propulsion and auxiliary power systems (engines, transmissions, gears, drives, generators) be inspected by their respective manufacturer's certified technician to determine their condition.

A Tramex Skipper 5 moisture meter was NOT used to measure conductivity levels as temperatures were too low and it was snowing during the survey.

A limited trial run was NOT performed at the time of the survey.

Electrical and electronic equipment was powered up and some electrical equipment may have been tested for basic and/or limited function only. The wiring (conductors) was inspected from a general perspective where accessible. A significant amount of wiring could not be observed due to the wiring looms and conduits that transit areas which would require dismantling and removals 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 ABYC Certified Marine Electrical Engineer be engaged.

Vessel tankage was visually inspected where accessible. No obvious leakage was observed, unless otherwise noted; however, the tanks were not confirmed to be full at the time of inspection. The tankage was not opened or internally inspected unless otherwise noted. If a more thorough assessment is desired, the tanks should be filled and checked under full tank status or pressure tested to attest to their condition.

The vessel standing rigging was inspected from eye level down only.

The vessel was surveyed without the removal of any parts, including fixed partitions, fastened panels, fittings, headliners & wall-liners, heavy furniture, tacked carpeting or other fixed flooring material, appliances, electrical equipment or electronics, instruments, anchors line & 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, covers and tops. Locked compartments or otherwise inaccessible areas would also preclude inspection. Survey requester 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. Complete compliance with, identification of, and reporting on all standards, codes and regulations is not guaranteed.

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 or dates and is the unbiased opinion of the undersigned, but it is not to be considered an inventory, warranty or guarantee, either specified or implied. 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.

## Report of Condition & Value Marine Survey

---

---

### 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.

# Report of Condition & Value Marine Survey

---

---

## DEFINITION OF TERMS

The terms and words used in this report have the following meanings as used in this report of survey:

**ABYC:**

American Boat and Yacht Council

**AMIDSHIPS:**

In towards the middle of the vessel, midway between bow and stern.

**ATHWARTSHIPS:**

Across the vessel, from side to side.

**BULWARKS:**

Fore and aft vertical structure or extension of the vessel's sides above the level of the deck.

**CFR:**

Code of Federal Regulations

**FIBER REINFORCED PLASTIC (FRP):**

A general term for fiberglass composite reinforced with cloth, mat, or strands.

**GUNWALE:**

The upper edge of a vessels side.

**LAZARETTE:**

A compartment below the deck in the aft end of the vessel.

**LONGITUDINAL:**

A frame or stiffener parallel to the vessel's keel, fore and aft.

**PFD:**

Personal Flotation Device

**POWERED UP:**

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

**SERVICEABLE:**

Fulfilling its function adequately (usable at the time of survey).

**STEM:**

An extension of the keel at the forward end of the vessel.

**TOPSIDES:**

The area of the hull of a vessel between the waterline and the gunwale.

**TRANSVERSE:**

At right angles to the keel.

**USCG:**

United States Coast Guard.

**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.

Unless specifically noted otherwise, there were no measurements or calculations performed during the Survey. 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.

## HIN (HULL IDENTIFICATION NUMBER) VERIFICATION COMMENTS

The vessel HIN (Hull Identification Number) was illegible and painted over. The HIN (XYM39189M80H) was pulled from State of Michigan registration and USCG documentation.

# Report of Condition & Value Marine Survey

---

---

## GENERAL VESSEL INFORMATION

TYPE OF SURVEY REQUESTED: Condition and Value  
VESSEL BUILDER/TYPE: Irwin Yachts International, Inc.  
MODEL YEAR: 1980  
HOME PORT: St. Clair Shores, Michigan  
U.S.C.G. DOCUMENTATION NUMBER: 652496 (no longer active)  
STATE REGISTRATION NUMBER: MC 7335 LK - Displayed on either side of the vessel, just below the gunwale.  
  
State registration decal is expired (March 31st, 2022)  
LENGTH OVERALL (LOA); LENGTH WATER LINE (LWL): 39'9" LOA, as reported by BUCValuPro™  
BEAM: 12'2", as reported by vessel owner.  
DRAFT: 4'3", as reported by BUCValuPro™  
DISPLACEMENT: 16,890 lbs., as reported by the vessel owner.  
LOCATION OF SURVEY INSPECTION: [REDACTED] St Clair Shores, MI 48080  
  
The vessel owner was NOT present at the time of survey.  
VESSEL OWNER: [REDACTED]  
PERSONS IN ATTENDANCE DURING SURVEY: John VanTol  
WEATHER CONDITIONS PRESENT: Light snow and 30 degrees.

## RATING & VALUATION

VESSEL OVERALL RATING: **AVERAGE**  
ESTIMATED MARKET VALUE: **\$27,250**  
ESTIMATED REPLACEMENT COST: **\$171,500**

# Report of Condition & Value Marine Survey

---

---

## **VESSEL CONSTRUCTION HULL ARRANGEMENT**

### VESSEL DESCRIPTION AND LAYOUT

Shoal draft sloop with lifting centerboard.

### HULL MATERIAL/CONSTRUCTION

The hull is reportedly constructed with a gelcoat outer layer, hull and hand-laid fiberglass and resin.

### EXTERIOR FINISH

The exterior finish of the vessel is an off-white gelcoat with maroon boot and gunwale stripe. The surveyor visually inspected the exterior finish and no major deficiencies were observed. Recommend cleaning, compounding and waxing finish at regular intervals moving forward.

### TRANSOM

Reverse transom reportedly, cored. The transom was visually inspected and some exceptions were observed (see findings section).

#### **FINDING C-1**

### BOARDING SWIM LADDER

Folding stainless steel boarding ladder installed at the transom of the vessel. The ladder was visually inspected and found in serviceable condition with no exceptions found.

### BULKHEADS

The vessel's athwartships reinforcement was enhanced by bulkheads, bonded and tabbed to the hull with FRP (fiber reinforced plastic). The bulkheads were visually examined by the surveyor where accessible and some exceptions were observed (see findings section).

#### **FINDING C-2**

### STRINGERS/TRANSVERSALS

Wood stringers used for the engine bed.

### KEEL

Centerboard keel with stub box.

### BILGES

A painted surface was used in the bilges. Recommend cleaning the bilges and keeping them clean and dry.

## **DECK ARRANGEMENT**

### DECK MATERIAL

The decks are constructed of cored FRP (fiber reinforced plastic) with non-skid. Inspection of the decks were limited due to snow during the survey. Where sighted, no exceptions were observed.

### HULL-TO-DECK / RUBRAIL

The hull to deck joint is an internal flange type joint. The joint is fastened with an aluminum toe rail and fasteners.

## **EXTERIOR EQUIPMENT**

# Report of Condition & Value Marine Survey

---

---

## GENERAL EXTERIOR HARDWARE EQUIPMENT

No significant corrosion was observed on the vessel's hardware. There were horn type cleats found throughout the vessel. All cleats were securely mounted, serviceable and fit for their intended use. The vessel was equipped with a stainless steel anchor roller which was inspected and found functional.

## CABIN VENTILATION

Cabin ventilation and lighting was provided by four deck hatches, porthole windows, and a companionway hatch.

## DECK RAILINGS

Teak railings ran along the cabin top and were found in serviceable condition.

## SAFETY RAILING

Stainless steel stanchion with PVC coated wire lifelines. Some exceptions were observed.

### **FINDING B-1**

## DECK DRAINAGE

The scupper hoses in the cockpit had age dry cracking observed (see findings section).

### **FINDING B-2**

## FENDERS

Various fenders were observed onboard (amount included unknown).

## **CABIN APPOINTMENTS** ***INTERIOR***

### HEAD ARRANGEMENT

The vessel is equipped with one head with a Raritan toilet with manual pump handle. All plumbing was inspected where sighted and no exceptions were found.

### SHOWER ARRANGEMENT

Stall shower in the head. Plumbing was inspected and no exceptions were observed.

### INTERIOR CABINetry & TRIM

The interior cabinetry and trim was visually inspected and found in serviceable condition.

### CABIN SOLE FOUNDATION

Teak and holly cabin sole foundation. The cabin sole was visually inspected. Slight wear was observed on the finish.

## ***INTERIOR SYSTEMS & EQUIPMENT***

### LIGHTING

12 volt DC and 110 volt AC lighting fixtures throughout the cabin of the vessel. No power was available to test.

## ***AUDIO/VISUAL EQUIPMENT***

### STEREO SYSTEM

JVC KD-R980BTS marine receiver and Pioneer speakers. No power was available to test.



# Report of Condition & Value Marine Survey

---

## ***GALLEY EQUIPMENT***

### REFRIGERATION

Ice box with top loading style hatch cover.

### GRILL

Gimballed triple burner propane stove and oven combination by Brown. The unit was not tested.

### GALLEY SINK

Double basin stainless steel sink in the galley. No exceptions were observed.

## **PROPULSION & MACHINERY SPACE** ***PROPULSION SYSTEM***

### ENGINE MODEL

The vessel's main propulsion is a single Yanmar 30 HP Diesel Engine.



### ENGINE HORSEPOWER

30 horsepower.

### ENGINE HOURS

Unknown. No meters observed.

### ENGINE SERIAL NUMBERS

Unknown (data tag was not located).

### ENGINE EXHAUST SYSTEM

Raw water cooled, with a horizontal underwater fiberglass exhaust muffler. The exhaust hose was visually examined where accessible and some exceptions were observed (see findings section).

Recommend monitoring all hoses and hose clamps at regular intervals moving forward.

### **FINDING B-3**

## Report of Condition & Value Marine Survey

---

---

### ENGINE BED MOTOR MOUNTS

Adjustable motor mounts on cored fiberglass longitudinal engine bed stringers. Motor mounts were visually observed where accessible from the engine compartment and some exceptions were observed (please see findings in the appendix section).

#### **FINDING B-4**

## ***MACHINERY & BILGE SPACE EQUIPMENT***

### SEACOCKS/SEA-VALVES

The vessel's seacocks were a bronze alloy ball valve type. The surveyor visually examined the seacocks and was able to cycle (open and close) all that were located during the survey.

The surveyor recommends performing maintenance on all seacocks and sea-strainers annually (disassemble, inspect, clean and lubricate). It is also recommended that all below the waterline and near the waterline thru-hulls have a proper sized wooden plug attached to function as an emergency plugging device.

### RAW WATER STRAINERS

Perko & Grocco type (ARG-755-S) bronze alloy with sight glass. Recommend monitoring and cleaning the sea-strainer frequently.

## ***TRANSMISSIONS / GEARS / DRIVES***

### DRIVE SYSTEM TYPE

Marine Gear Direct Drive, model: KH18

### GEAR SERIAL NUMBERS

AR 1749

## Report of Condition & Value Marine Survey

---



### PROPELLER SHAFT SEALS

Rubber coupling with four stainless steel hose clamps. No exceptions were observed. Recommend frequent monitoring.

## FUEL SYSTEMS

### FUEL SYSTEM DESCRIPTION

Diesel. The vessel's fuel tank was sighted below the salon bunk. Inspection was limited, however where sighted no exceptions were observed.

### FUEL TANK MATERIAL

5052 Aluminum.

### NUMBER OF FUEL TANKS

One (1).

### FUEL TANKAGE CAPACITY

31 gallons (per data tag).

### FUEL FILL HOSE/PIPE

Type A2 USCG Approved Fuel Hose, where sighted. The hose was double clamped at the deck fill and the tank. No exceptions were observed where sighted.

# Report of Condition & Value Marine Survey

---

---

## MAIN ENGINE PRIMARY FUEL FILTERS

One (1) Racor 500-FG Primary fuel filter/water separator with sight glass. Monitor frequently.

## **ELECTRICAL SYSTEMS** ***DC ELECTRICAL SYSTEMS***

### DC SYSTEMS VOLTAGE

The DC system is a 12 V system. The distribution panel was located in the salon on the side of the galley cabinet.

### BATTERIES

Two batteries were not installed on the boat at the time of survey.

### BATTERY SWITCHES

One switch located at the distribution panel.

### BATTERY CHARGERS

Charge Pro Mode 2611 10 AMP Battery Charger.

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

Some exceptions were observed (see Findings Appendix).

**FINDING B-5**

## ***AC ELECTRICAL SYSTEMS***

### AC SYSTEMS

The vessel is equipped with 120 volt AC system with one 30 amp shore power input. No power was available to test the AC system.

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

Some exceptions were observed (see Findings Appendix).

**FINDING B-6**

## **WATER SYSTEMS** ***FRESHWATER SYSTEM***

### WATER TANKAGE MATERIAL

The vessel has a new water bladder installed on the starboard side. The total capacity is unknown. No exceptions were observed where sighted.

### FRESHWATER PUMPS

A 110V pump was located below the salon berth. Some exceptions were observed (see finding section).

**FINDING C-3**

## ***HOT WATER SYSTEM***

### WATER HEATER

The vessel is equipped with an electric hot water heater. Total capacity is unknown. Where sighted, no exceptions were observed.

# Report of Condition & Value Marine Survey

---

---

## **BLACKWATER SYSTEM**

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

The vessel is equipped with a type III MSD waste system (utilizes a holding tank or similar device that prevents the overboard discharge of treated or untreated sewage). Total capacity is unknown. Inspection was limited, however where sighted hoses were serviceable, and no defects or dry cracking was observed. The overall system was not tested at the time of survey.

## **STEERING SYSTEMS**

### STEERING SYSTEM TYPE

The vessel is with cable steering system with a quadrant drive wheel. Inspection was limited, however where sighted no exceptions were observed.

### RUDDER LOG SEALS

The rudder seal is a rubber coupling with four stainless steel clamps. No exceptions were observed.

## **GROUND TACKLE**

### ANCHORS

One Danforth style anchor with nylon anchor rode and chain was observed at the time of survey and found serviceable.

One hinged plow anchor (galvanized) observed and found serviceable.

## **ELECTRONICS & NAVIGATION EQUIPMENT**

### VHF RADIOS

Standard Horizon VHF unit at the navigation station. No power was available to test.

### COMPASSES

Ritchie compass observed at the binnacle. Recommend having the compasses swung, providing current deviation cards.

### GPS (GLOBAL POSITIONING SYSTEM)

Garmin GPSmap 182C observed. No power was available to test.

### DEPTH DISPLAY

Raymarine ST60 Digital Depth Display. No power was available to test.

### SPEED DISPLAY

Raymarine ST60 Digital Speed Display. No power was available to test.

### WIND INSTRUMENT

Two (2) Raymarine ST60+ True/Apparent Wind Speed & Direction Display. No power was available to test.

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

## Report of Condition & Value Marine Survey

---

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

- Four (4) Type II U.S.C.G. Approved PFD's.
- Four (4) Type III U.S.C.G. Approved PFD's.
- Four (4) Type V U.S.C.G. Approved PFD's.

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

- One (1) Type IV - U.S.C.G. Approved Throwable Device (horseshoe ring).
- Lifesling M.O.B. Rescue Slings.

### FIRE EXTINGUISHERS (46 CFR 25)

- One (1) Type ABC-II 15 lb. Dry Chemical.
- One (1) Type BC-I 2.5 lb. Dry Chemical.

### VISUAL DISTRESS SIGNALS (33 CFR 175.101)

Expired.

#### **FINDING B-7**

### SOUND PRODUCING DEVICES (33 CFR 83)

- Hand-held compressed air horns observed.
- Ship's Bell.

### NAVIGATION LIGHTS (33 CFR 83)

The navigation lights were not tested (no power available).

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

Observed onboard, but not properly displayed. Properly display in the engine space.

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

Observed onboard, but not properly displayed. Properly display as necessary.

### "WASTE MANAGEMENT" PLAN (33 CFR 151) VESSELS OVER 39'4"

Observed onboard, but not properly displayed. Properly display as necessary. Vessels over 39'4" are required to have a written Waste Management Plan onboard.

### 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 not observed onboard. This official government rulebook is required on all vessels over 39'4" in length. Also known as Nav-Rules CG169, contains the International Regulations for Preventing Collisions at Sea, 1972 (72 COLREGS).

#### **FINDING C-4**

## **AUXILIARY SAFETY EQUIPMENT**

### FIRST AID SUPPLIES

A small First Aid kit was observed onboard.

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

None sighted. Highly recommend installing Carbon Monoxide Detectors inside all of the accommodation spaces.

#### **FINDING B-8**

### SMOKE DETECTORS (NFPA 302)

None sighted. Recommend installing smoke detectors inside the accommodation spaces.

# Report of Condition & Value Marine Survey

---

## ***BILGE PUMPING SYSTEMS***

### ELECTRIC BILGE PUMPING SYSTEMS

The vessel is equipped with one bilge pump with float switch. The pump was not tested (no power available). Some exceptions were observed (see findings section).

**FINDING B-9**

## **UNDERWATER EQUIPMENT & HULL INSPECTION**

### PROPELLERS

One (1), two bladed propeller. Some exceptions were found (see findings section).

**FINDING C-5**

### PROPELLER SHAFT STRUTS

Stainless steel type propeller shaft strut. No exceptions observed.

### SHAFT STAVE BEARINGS (CUTLESS BEARINGS)

The shaft strut's Cutless Bearings had some wear/play.

**FINDING C-6**

### RUDDER MATERIAL

Cored fiberglass rudder. The rudder was visually inspected and sounded with a Lexan hammer. Some exceptions were found (see findings section).

**FINDING C-7**

### CENTERBOARDS

The vessel contains a lifting centerboard. The centerboard was not able to be inspected due to access.

### HULL GROUNDING PLATES/EARTHING PLATES

A grounding plate was sighted on the bottom of the vessel in serviceable condition. Some galvanic corrosion was observed near grounding plate as the vessel's bottom paint was painted onto the grounding plate. Upon recoating the vessel with bottom paint, it is advisable that a small gap is left between the bottom paint and grounding plate as dissimilar metals will react and cause corrosion in this area.

### SACRIFICIAL ANODES

The underwater shaft anode was inspected and found serviceable. Recommend anode replacement once anode reaches 50% depletion.

### ANTIFOULING PAINT

The antifouling bottom paint was found in serviceable condition.

## **AUXILIARY GAS SYSTEMS**

### GAS TYPE

The vessel is equipped for LPG (Liquified Petroleum Gas/Propane). A tank storage locker was inspected near the transom of the vessel. Two tanks were on board at the time of survey. A drain hole was located at the bottom of the locker and vented properly. Some exceptions were observed (see findings section).

**FINDING B-10**

# Report of Condition & Value Marine Survey

---

---

## GAS SYSTEM COMMENTS (ABYC A-1)

A pressure test was not performed as part of the survey. Recommend a pressure test after the solenoid valve has been replaced.

## **RIGGING & SAILS** ***STANDING RIGGING***

### MAST

Aluminum Mast. No exceptions observed.

### MAST STEP

Keel stepped on steel brace. Some exceptions were observed (see findings section).

**FINDING C-8**

### BOOM

Aluminum boom. The boom was visually inspected and no exceptions were observed.

### BOOM VANG

Newer stainless steel rigid vang. No exceptions found.

### RIGGING CHAIN PLATES

Four internal chain plates visually inspected. Where sighted, no exceptions were observed.

### SHROUDS/STAYS/TERMINAL ENDS

Stainless steel wire cable inspected from eye level down. No exceptions were observed.

### RIGGING TURNBUCKLES

Open stainless steel turnbuckle. No significant staining was observed.

## ***RUNNING RIGGING***

### ROLLER FURLING GEAR

Harken Furling gear inspected and found in serviceable condition.

### HALYARDS

New braided halyards were observed in the cabin of the vessel.

### TRACKS & CARS

All tracks and cars were visually inspected and found serviceable.

### TURNING BLOCKS

All turning blocks were visually inspected and found serviceable.

### LINE CLUTCHES

Three Spinlock PXR clutches mounted to the cabin top. The clutches were visually inspected by the surveyor and found in serviceable condition.

**FINDING C-9**



## Report of Condition & Value Marine Survey

---

---

### WINCHES

Two newer stainless steel Anderson 52ST Two Speed self tailing primary winches.

Two Barlow winches.

One cabin top winch and two mast mounted winches. All winches were found in serviceable condition.

### ***SAILS***

### SAIL INVENTORY

Mainsail and Headsail. Sails were not on board at the time of survey and not inspected.

## Findings & Recommendations

---

The Findings & Recommendations section is only one section of the "Archipelago" 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

### B: SECOND PRIORITY/FINDINGS NEEDING TIMELY ATTENTION

#### **FINDING B-1 SAFETY RAILING**

Some stanchions had wobble/play when pressure was applied by the surveyor. The bow pulpit and stern pushpit bases had some wobble/play when pressure was applied by the surveyor. Some stainless steel fittings were missing at the bases. In addition, the wire lifelines, especially on the starboard side, need to be tightened.

#### **RECOMMENDATION**

Repair in accordance with good marine practice as necessary.  
Rebed stanchion bases with marine sealant in the future.  
Tighten lifelines as necessary.

#### **FINDING B-2 DECK DRAINAGE**

The cockpit deck drain hoses were very aged and had significant dry cracking observed.

#### **RECOMMENDATION**

Replace hoses as necessary.

## Findings & Recommendations

---

---

### **FINDING B-3** ENGINE EXHAUST SYSTEM

Age dry cracking was observed on the engine's exhaust hose.

### **RECOMMENDATION**

Replace exhaust hose as necessary.

### **FINDING B-4** ENGINE BED MOTOR MOUNTS

Both aft motor mount securing nuts were loose and need tightening.

### **RECOMMENDATION**

Service motor mounts as necessary.



### **FINDING B-5** DC ELECTRICAL/WIRING COMMENTS (ABYC E-11)

Proper wire connector were not used for wiring in the V-berth storage locker all the way forward. In addition, the wiring was not secured properly.

### **RECOMMENDATION**

Replace connections with Marine Grade insulated butt connections (wire nuts are approved for solid household type wiring only).

Secure wiring every 18 inches as advised by ABYC 11.15.4.1.9: "Conductors shall be supported throughout their length or shall be secured at least every 18 in..."

## Findings & Recommendations

---

---

### **FINDING B-6** AC ELECTRICAL/WIRING COMMENTS (ABYC E-11)

The water pump was installed with household twist on connectors (wire nuts).

#### **RECOMMENDATION**

Per ABYC 11.15.3.7: "Twist-on connectors (i.e., wire nuts) shall not be used."  
Replace wire nuts with Marine Grade butt connectors.

### **FINDING B-7** VISUAL DISTRESS SIGNALS (33 CFR 175.101)

The visual distress signals were expired.

#### **RECOMMENDATION**

Provide current dated visual distress signals to comply with USCG regulations.

### **FINDING B-8** CARBON MONOXIDE DETECTORS (ABYC A-24)

Carbon Monoxide Detectors were not observed onboard the vessel.

#### **RECOMMENDATION**

(ABYC A-24.7) A carbon monoxide detection system shall be installed on all boats with enclosed accommodation compartment(s). Carbon monoxide is a toxic, odorless, colorless, tasteless gas produced by the burning of carbon-based fuels. Carbon monoxide in high concentrations can be fatal in a matter of minutes. Unless the symptoms are severe, carbon monoxide poisoning is often misdiagnosed as seasickness; however, lower concentrations must not be ignored because the effects of exposure to carbon monoxide are cumulative and can be just as lethal.

### **FINDING B-9** ELECTRIC BILGE PUMPING SYSTEMS

The bilge pump's floatswitch was not properly secured.

#### **RECOMMENDATION**

Secure the bilge pump's floatswitch to ensure proper operation of the bilge pump, as necessary.

### **FINDING B-10** GAS TYPE

The solenoid shutoff valve in the LPG locker was heavily rusted and deteriorated.

#### **RECOMMENDATION**

Replace the solenoid valve as necessary.

## C: SURVEYOR'S GENERAL FINDINGS AND OBSERVATIONS

## Findings & Recommendations

---

---

### **FINDING C-1**    **TRANSOM**

A minor gelcoat chip was observed on the starboard side of the transom. Gelcoat cracking was observed near the exhaust exit at the transom.

### **RECOMMENDATION**

Repair in accordance with good marine practice, as necessary.

### **FINDING C-2**    **BULKHEADS**

Fiberglass tabbing separation was observed on the bulkhead under the v-berth sleeping bunk (starboard side only).

See photo below.

### **RECOMMENDATION**

Repair in accordance with good marine practice, as necessary.



## Findings & Recommendations

---

---

### **FINDING C-3** FRESHWATER PUMPS

The freshwater pump was not properly secured to its bulkhead.

#### **RECOMMENDATION**

Secure pump as necessary.

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

A U.S.C.G. International and Inland Navigation Rules Handbook was not observed onboard. This official government rulebook is required on vessels 12M or 39'4" and larger. Also known as Nav-Rules CG169, it contains the International Regulations for Preventing Collisions at Sea, 1972 (72 COLREGS).

#### **RECOMMENDATION**

Provide the latest version of the Navigation Rulebook to comply with USCG Regulations. Fine for non-compliance.

### **FINDING C-5** PROPELLERS

The propeller's compression and lock/jammed nuts were installed in reverse order.

#### **RECOMMENDATION**

Properly refit the propeller nuts to comply with ABYC Standards as necessary. ABYC P-6 Ap. 6.2, SAE J755 (thin nut in front and thick nut behind).

### **FINDING C-6** SHAFT STAVE BEARINGS (CUTLESS BEARINGS)

The shaft strut's Cutless Bearings had some wear/play. Age dry cracking was observed when inspected by the surveyor.

#### **RECOMMENDATION**

Replace the bearing, as necessary.

## Findings & Recommendations

### FINDING C-7 RUDDER MATERIAL

Some exceptions were observed while inspecting the rudder:

Some blistering was observed on the rudder from dime to quarter size.

The rudder had a some linear bulging on the starboard side. This is the possible location where an internal rib may be located.

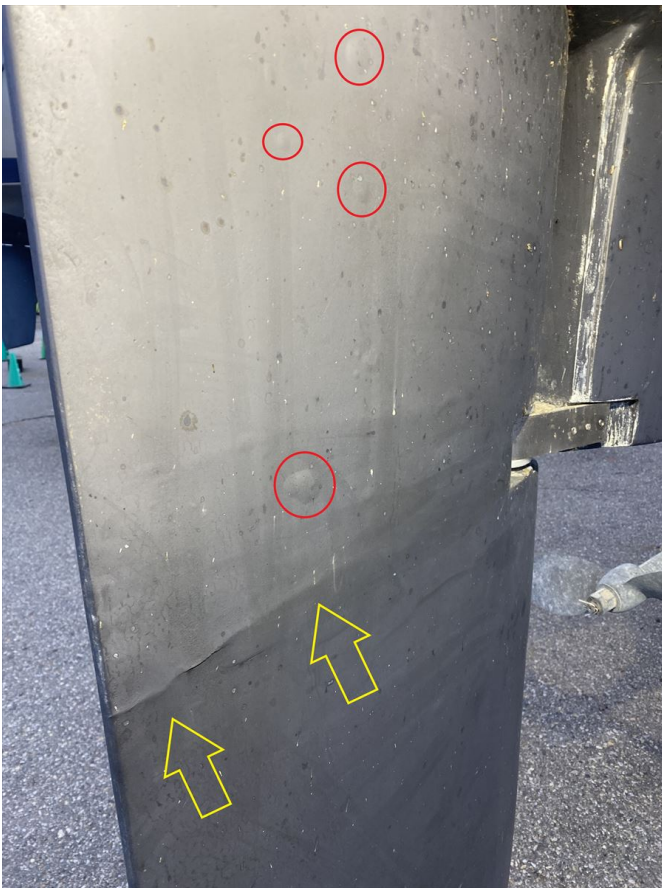
The rudder's stainless steel gudgeon had some wiggle/play where it was mounted against the skeg when pressure was applied by the surveyor.

Please see photos below. Blister are circled in red, bulging location is indicated by yellow arrows.

### RECOMMENDATION

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

Tighten gudgeon fittings as necessary.



### FINDING C-8 MAST STEP

Corrosion was observed on the steel mast step (see photo below).

### RECOMMENDATION

Investigate and repair in accordance with good marine practice, as necessary. Scrape, clean and paint mast step to prevent further corrosion.

## Findings & Recommendations

---



### **FINDING C-9** LINE CLUTCHES

The three Spinlock PXR line clutches have a safe working load of 308 pounds, per Spinlock. The vessel is currently using these clutches for the centerboard, outhaul and boom vang. The clutches may be undersized for this size vessel and potential working loads under high winds (vang especially).

### **RECOMMENDATION**

Consider upgrading to higher strength clutches.



## Report Summary

---

---

### SUMMARY

#### 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 developed by BUC RESEARCH and accepted in the marine industry for a vessel at the time of Survey determines the adjustment to the range of base values in the BUC USED BOAT PRICE GUIDE 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", is a vessel that is maintained in mint or bristol fashion (usually better than factory new, loaded with extras, a rarity).

"ABOVE AVERAGE CONDITION", has had above average care and is equipped with extra electrical and electronic gear.

"AVERAGE CONDITION", ready for sale requiring no additional work and normally equipped for her size.

"FAIR CONDITION", requires usual maintenance to prepare for sale.

"POOR CONDITION", substantial yard work required and devoid of extras.

"RESTORABLE CONDITION", enough of hull and engine exists to restore the boat to usable condition.

As a result of the 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

#### STATEMENT OF VALUATION

The "FAIR MARKET VALUE" is the most probable price in terms of money which a vessel should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller, each acting prudently, knowledgeably and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and 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 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; 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.

#### SIMILAR VESSELS RECENTLY SOLD (SoldBoats.com)

None available within the last 12 months.

#### SIMILAR VESSELS ON THE MARKET

## Report Summary

---

---

1982 Irwin Citation 40 listed for \$33,504 and located in Iroquois, Ontario, Canada  
1981 Irwin Citation 40 listed for \$42,000 and located in Fall River, Massachusetts  
1981 Irwin Citation 40 listed for \$49,900 and located in Beverly, Massachusetts

NADA Guide Low Retail: No data available for this model  
NADA Guide Average Retail: No data available for this model

BUCValuPro™ Retail Price Range: \$25,000-\$27,800  
BUCValuPro™ Adjusted for Region & Condition Range: \$25,800-\$28,700  
BUCValuPro™ Replacement: \$171,500

### ADJUSTED ESTIMATES

The surveyor has chosen to consider the valuation from BUCValuPro™ for the subject vessel's Fair Market Value as there are a lack of comparable sales from SoldBoats.com from the last 12 months. The surveyor used the median value from the BUCValuPro™ Adjusted for Region & Condition Range. The result of this equation was used for the subject vessel's fair market value.

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:

After consideration of the reliability of the data, it is the Surveyor's opinion that the "FAIR MARKET VALUE" of the subject vessel is:

**\$27,250**

*Twenty-Seven Thousand, Two Hundred Fifty US Dollars*

2. 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. The "ESTIMATED REPLACEMENT COST" of the subject vessel is:

**\$171,500**

*One Hundred Seventy-One Thousand, Five Hundred US Dollars*

\*Note, all values listed above are in United States Dollars.

# Report Summary

---

---

## SUMMARY

In accordance with the request for a Marine Survey of the "Archipelago", 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. Inspection performed on: 11/18/22. 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.

## 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 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 is submitted without prejudice and for the benefit of whom it may concern.



John VanTol, SAMS SA & ABYC Certified Advisor

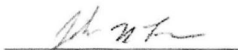
Signed: 11/22/2022



**SOCIETY OF ACCREDITED  
MARINE SURVEYORS®**

This is to certify that

**John Stephen VanTol, Surveyor Associate**  
is a member in good standing  
EXPIRES: 31 DECEMBER 2022

  
SAMS® PRESIDENT  
SIGNATURE

# Photos



# Photos

