



SURVEY REPORT VESSEL: *Better Days*

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Society of Accredited Marine Surveyors

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SURVEY BASIC DETAILS

SURVEY PURPOSE: condition & valuation
FILE #: 2024-02-16 Catalina 28 Wing 1991

REQUESTED BY: [REDACTED]
REPORT DATE: xx

OWNER INFORMATION: [REDACTED]

SURVEY DATE: February 16, 2024
SURVEY LOCATION: [REDACTED] Fernandina Bch., FL
ATTENDING: surveyor was unaccompanied
ENGINE SURVEYOR: basic external checks by hull surveyor
RIGGING SURVEYOR: deck level by hull surveyor

VESSEL & MACHINERY DATA

Vessel identification numbers (source: stbd hull side at stern & hull sides near bow)

Hull ID #: CTYE0129J091 Registration #: FL 9894 HG

CTYE0129J091 **FL 9894 HG**

Vessel type and dimensions (source: sailboatdata.com & Catalina 28 Brochure)

Manufacturer: Catalina Yachts Model: 28 Wing Model year: 1991 Length: 28'6" Beam: 10'2"
Draft: 3'10" Weight lbs.: 8,600 Ballast lbs.: 3,500 Hull composition: fiberglass

Engines (source: sailboatdata.com)

Type and #: single inboard Horsepower: 18@3,600 rpms Fuel type: diesel Manufacturer: Universal
Model: M3-20 Serial #: unknown Hours: unknown

Transmissions (source: stamped on case & M3-20 parts manual)

Manufacturer: Hurth Model: HBW50 Ratio: 2.0 Serial #: unknown

RECOMMENDATIONS

(Items on this list should be addressed on a priority basis)

- 1. Unexpired visual distress and/or electronic distress signals & flags not found aboard; put aboard at least three unexpired USCG approved day/night visual distress signals or other type USCG Approved system that satisfies the requirement (certain battery powered beacons accompanied with day signal are now approved).**
- 2. Propane system is non-compliant for several reasons; attend to the following or remove the system from service:**
 - a. Propane locker lid not found; locate/replace and reinstall propane locker lid.**
 - b. Install a pressure gauge on the propane system as required by ABYC A-1: 1.5.2**
Each system shall be fitted with a pressure gauge. The gauge shall read the cylinder pressure side of the pressure regulator. *NOTE: The purpose of the gauge is to provide a quick and easy way to test the system for leakage*
 - c. Perform leakage test on LPG system after installation of pressure gauge and service if necessary** (excerpt from ABYC A-1: With the appliance valves off, open the cylinder supply valve. Close the cylinder supply valve. Observe the pressure gauge reading. The pressure indicated should remain constant for not less than three minutes. If any leakage is indicated by a drop in pressure, check the entire system with a leak detection fluid or detergent solution to locate the leak.

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Test solutions shall be non-corrosive and non-toxic. Repairs shall be made before retesting and operating the system).

- 3. Vessel is not equipped with CO alarm; install at least one CO/smoke alarm in main cabin area.
- 4. Propeller shaft coupling is missing two of four bolts that attach it to the transmission; replace missing bolts.

(In addition, see Summary Remarks and Notes section at end of survey where the above are also cited)

This vessel was surveyed using the USCG 33CFR requirements and NFPA and ABYC standards and recommendations in effect today for guidance. This survey addresses those items thought to be necessary for safety but does not suggest complete compliance with current regulations or standards and recommendations.

INTENDED USE: recreational

SUITABLE FOR INTENDED USE: yes (upon completion of recommendations cited above)

NAVIGATIONAL LIMITS (as equipped): warm coastal waters

*****For regular use more than 12 miles offshore suggest carrying Epirb and offshore type lifejackets*****

*****Warm water means water where the monthly mean low water temperature is normally more than 59 degrees Fahrenheit*****

VALUATION

Subject vessel was found to be in overall fair to average condition. It has normal age-related wear and tear and appears to have received adequate care and maintenance. In the valuation determination, cost and market comparison approaches to value were considered on February 16, 2024. In the sales comparison approach Yachtworld.com and the subscription website Soldboats.com was reviewed. Current listings and actual reported sales figures were taken into consideration. Price Guide “Book” values were also taken into consideration. In the opinion of the undersigned the following values should apply:

Estimated current fair market value: \$18,500

Market value assumes correction of significant survey findings and normal function of engine

Replacement cost: \$97,000 (Bucvalupro.com)

Values are dependent on the limiting conditions and assumptions noted in the report.

These values are statements of opinion. No guarantee can be given that these opinions of value will be sustained or that they will be realized in an actual transaction.

Specific references

Pricing guides

Abos.com.....\$8,501 to \$10,856 (\$13,070 retail)

Bucvalupro.....\$19,500 to \$21,700

Jdpower.com.....\$15,200 to \$21,700

(Options not added to guide values unless noted otherwise)

Current listings

Yachtworld.com..... \$19,900 to \$29,500

(6 results – searched the USA for Mark I models)

Reported sales

Soldboats.com.....\$12,500 to \$30,000

(15 results – searched the Eastern USA since January 2022)

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APPROVAL

This survey may be used for valuation, insurance, or mortgage requirements. This survey checks for compliance with U.S. Coast Guard regulations and American Boat and Yacht Council, Inc. Recommended Standards and Practices. In addition, the general structural condition of the vessel and suitability for its intended service will be examined.

The undersigned has conducted this survey and issued this report for the sole use of the specified requesting party for an agreed fee based upon the intended use of the report; accordingly, others are not to use this report and not rely upon the contents of this report without payment to the Company of an additional agreed fee based upon the reevaluation of the same factors.

The survey contains opinions and observations based on my skill, experience and training as a marine surveyor and consultant. Acceptance and use of this report by the client acknowledges the client's understanding that the report has been composed of information that is believed to be true after reasonable investigation and inquiry but is not warranted to be so. The information was obtained without drilling, diving, ultrasonic testing, cleaning, or opening up to expose parts or conditions ordinarily concealed. There were no tests for tightness or soundness conducted other than the conditions noted visually.

Acceptance and use of this report acknowledges the client's understanding that no determination of stability or structural strength has been made and no opinion is expressed. Acceptance and use of this report acknowledges the client's understanding that Gladding Marine Surveying and Consulting, LLC does not accept any responsibility for damage or deterioration not found or discovered during the course of survey, nor for consequential damage, deterioration, or loss due to any error or omission.

The Client hereby undertakes to keep the Surveyor/Consultant and its employees, agents and subcontractors indemnified and to hold them harmless against all actions, proceedings, claims, demands or liabilities whatsoever or howsoever arising which may be brought against them or incurred or suffered by them, and against and in respect of all costs, loss, damages and expenses (including legal costs and expenses on a full indemnity basis) which the Surveyor/Consultant may suffer or incur (either directly or indirectly) in the course of the services under these Conditions.

Notwithstanding the above clause, in the event that the Client proves that the loss, damage, delay or expense was caused by the negligence, gross negligence or willful default of the surveyor/Consultant aforesaid, then, save where loss, damage, delay or expense has resulted from the Surveyor's/Consultant's personal act or omission committed with the intent to cause same or recklessly and with knowledge that such loss, damage, delay or expense would probably result, the Surveyor's/Consultant's liability for each incident or series of incidents giving rise to a claim or claims shall never exceed a sum calculated on the basis of ten times the Surveyor's/Consultant's charges.



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SCOPE OF SURVEY

The vessel was inspected in the water without making removals or opening parts normally concealed and without making borings to ascertain thickness or condition of structural members. Because of this, some areas were not reached behind cabinetry, under decks and other areas not readily accessible. Fixtures and appliances were powered up and exercised where indicated. Locker doors and drawers were worked and examined for proper function. Potential leak sources such as portlights and deck hatches were examined for evidence of water stains or other indications of leakage. The hull exterior was inspected visually for defects. In addition, other non-destructive methods may have been used such as tap testing or employing moisture detection equipment.

Key to highlighted comments as follows:

- Positive comment related to safety or functionality
- Informational comment no finding generated
- High priority finding related to safety, utility, or reliability
- Moderate to low priority finding related to utility or reliability

Test equipment that may be referenced in the report:

- Tramex Skipper or GE Aquant moisture meter
- Flir® C3 infrared camera
- AC electrical circuit analyzer
- AC electric three light plug in tester
- Non-contact digital tachometer
- Multi-meter electrical tester
- Assorted hammers and measuring devices
- Loos gauges to check rigging tension

VESSEL GENERAL DESCRIPTIONS

Exterior arrangement – mono-hull sailboat noted the following:

- Hull – displacement type with wing keel and fin rudder; stem is raked, straight sheer is nearly level from bow to stern; transom has reverse rake and integral swim platform
- Decks and superstructure – flush main deck from the bow aft around the cabin and recessed cockpit to the stern
- Helm(s) – cockpit aft end

Sailing rigging - basic elements as follows:

- Keel – bolted lead wing on keel stub
- Rig type – masthead sloop
- Rigging brand - unknown
- Spars – aluminum:
 - Main is deck stepped with single straight spreaders
 - Boom
- Chain plates – stainless-steel:
 - Forestay (flat bar bolted on stem)
 - Shrouds (pad eyes bolted to main deck and anchored into hull below)
 - Backstay (flat bar bolted on transom)
- Standing rigging:
 - Wire (1 x 19 stainless-steel)

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- Terminals (swaged stainless-steel)
- Toggles (stainless-steel)
- Turnbuckles (bronze open type)
- Running rigging – braided synthetic
- Furlers:
 - Jib (Harken Cruising 1)
- Winches:
 - Main cabin aft end port side (Lewmar 16.2)
 - Main cabin aft end stbd side (Lewmar 16.1 self-tailing)
 - Cockpit coamings (2 x Lewmar 30.2 self-tailing)
- Sails:
 - Jib (furling type)
 - Main (standard type)

Interior arrangement – single level with head enclosure noted the following:

- Staterooms – V-berth forward and full size aft
- Heads – main cabin aft end port side
- Galley – main cabin aft end stbd side
- Dinette – main cabin
- Saloon – main cabin
- Helm(s) – n/a
- Other – navigation table

Structural elements

- Hull skin material and type cosmetic finish – solid molded fiberglass, gelcoat cosmetic finish
- Hull grid system layout and materials – molded fiberglass liner fiberglassed to hull
- Hull deck joint – overlapping flanges mechanically fastened
- Continuous transverse bulkheads locations and materials – fiberglassed plywood at anchor locker, partial bulkheads and partitions between
- Decks and superstructure materials and type cosmetic finish – solid and cored (typically balsa), gelcoat cosmetic finish

SURVEY FINDINGS

UPGRADES/REBUILDS

Including but not limited to as noted during survey:

- New(er) jib furler
- New(er) VHF radio
- Foredeck hatch lens changed
- Propeller shaft packing gland hose replaced
- Exhaust riser/mixing elbow and blanket replaced
- Cockpit engine instruments replaced
- New(er) electric dewatering bilge pump
- New(er) Group-31 AGM batteries

HULL ABOVE WATERLINE AND RELATED

Structural elements

Condition: above average

Condition of structural elements such as stringers, transverse framing, bulkheads, partitions, and other similar type hull supports based upon visual inspection to insure they are maintaining their proper shape and remain securely attached, tap tested to insure they are not delaminated or deteriorated and in some cases examined using a moisture meter

Topsides

Structural condition: above average

Structural assessment based upon visual examination of hull's shape for damage, distortions, sagging, hogging or other signs structure is failing or is not adequately supported; moisture testing to locate areas where abnormal readings may indicate deterioration of laminates or cores; and tap testing areas that are suspect because of abnormal indications from visual inspection and readings from moisture meter

Cosmetic condition: average

Cosmetic condition of paint, gelcoat and varnish based upon surveyor's opinion of appearance compared to similar type vessels considering factors such as gloss, extent of oxidation, flaking, discoloration, wear and tear or other factors

Condition other features: fair to average

- Chaffing gear – hull deck joint (plastic with rubber insert)
- Swim platform - integral
- Permanently installed means for reboarding – folding stainless-steel ladder

Comments - Reboarding ladders should be secured in a way they can be deployed by passengers who may find themselves in the water unexpectedly, so they may reboard unassisted.

Deck drainage

Primary drainage system: direct overboard

Decks & superstructure

Structural condition: above average

Structural assessment based upon visual examination of hull's shape for damage, distortions, sagging or other signs structure is failing or is not adequately supported; moisture testing to locate areas where abnormal readings may indicate deterioration of laminates or cores; and tap testing areas that are suspect because of abnormal indications from visual inspection and readings from moisture meter

Cosmetic condition: average

Cosmetic condition of paint, gelcoat and varnish based upon surveyor's opinion of appearance compared to similar type vessels considering factors such as gloss, extent of oxidation, flaking, discoloration, wear and tear or other factors

Exterior soft goods

Condition/appearance: average Wear & tear: moderate Serviceable: yes

Location & type (installed at time of survey):

- Jib UV strip (canvas)
- Mainsail cover (canvas)
- Bimini (canvas on stainless-steel frame)

Exterior hardware

Condition/appearance: above average Anchoring & bedding appeared adequate: yes

Location & type – stainless-steel except as noted below:

- Bow pulpit
- Side deck stanchions
- Push pit
- Handrails (natural teak)
- Lifelines (vinyl coated stainless-steel)

Tie-up gear

Condition/appearance: average or better Anchoring & bedding appeared adequate: yes

Location & type:

- Bow & stern (4 x horn cleats)

Anchoring gear

Condition/appearance: average or better Function: appeared serviceable

Descriptions:

- Anchor pulpit – n/a
- Chute(s) – single stainless-steel (rubber roller)

Glazing materials

Condition/appearance: fair to average Gaskets and seals: appeared serviceable

Location & type:

- Main cabin sides – fixed windows (frameless plexiglass)

Exterior hatches, portlights and doors

Condition/appearance: average or better Function: appeared serviceable

Gaskets and seals: appeared serviceable

Location & type:

- **Secondary egress (escape) - foredeck**
- Foredeck & cockpit – hinged locker lids (molded fiberglass)
- Foredeck – hinged hatch (aluminum frame, plastic lens)
- Cabin sides – portlights (aluminum frame, plastic lens)
- Companionway – sectional & sliding with turtle (molded fiberglass & wood)
- Cockpit – portlight (plastic)

Rigging sailing

Inspection type - deck level unless noted otherwise

Overall condition - average

Rigging brand - unknown

Age of rigging as reported by vessel owner – standing rigging appears original

Examinations and comments regarding the following:

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- Keel integral (inspected for spider cracking or other hull defects indicative of structural infirmity) – normal (as viewed from hull interior)
- Keel bolted (inspected for spider cracking or other hull defects indicative of structural infirmity, hull joint and fasteners examined for tightness & excessive corrosion) – normal (as viewed from hull interior)
- Mast and spars (examined for cracks, gouges, dents, bends and if standing in column) - normal
- Mast support:
 - Step (examined for deformation or other evidence of failure) - normal
 - Compression post (examined for condition & anchoring) - normal
 - Deck (examined for deformation or other evidence of failure) – normal
 - Chain plates (examined for corrosion, cracks & deformation) - normal
- Hardware & fittings (condition & function) - normal
- Standing rigging (examined for corrosion, cracks, fishhooks & deformation) – normal
- Standing rigging tension (checked for tension and uniformity) – tension too light
- Running rigging (examined for condition & function) - normal, appeared serviceable
- Furling systems (examined & function tested) - normal, appeared serviceable
- Winches (examined & function tested) - normal
- Sails (material & stitching examined for wear; rigged sails shape observed) – sails appeared serviceable but not rolled out or raised

HULL BELOW WATERLINE AND RELATED

Hull below the waterline

Structural condition: average or better (as viewed from hull interior)

Structural assessment based upon visual examination of hull's shape for damage, distortions, sagging, hogging or other signs structure is failing or is not adequately supported; tap testing for purposes of comparing variations in tap sound indicative of previous repairs, delaminating, moisture intrusion or blistering; and moisture testing if hull is sufficiently dried and does not have coatings that interfere with moisture meter function to locate areas where abnormal readings may indicate deterioration of laminates or cores

Cosmetic condition: average

Cosmetic condition based upon surveyor's opinion of hull appearance compared to similar type vessels considering factors such as paint build-up, smoothness of hull, blistering and other features that affect its appearance

Underwater gear

Condition/appearance: average Exceptions noted: **yes** (see summary remarks & notes)

- Propellers – not sighted
- Shafting – 1” stainless-steel
- Shaft support – not sighted (typically single bronze I-type strut)
- Bearings – not sighted (typically rubber Cutless® type)
- Shaft log – integral fiberglass
- Shaft seal – self-aligning bronze packing gland
- Fasteners – appeared secure
- Test performed – rotated propeller shaft by hand and checked packing for leakage

Rudders & linkages

Condition/appearance: average Exceptions noted: none

- Rudder description – composite fin, stainless-steel stock
- Thru-hull seal – fixed bronze packing gland
- Supports – rudder port & cockpit sole bearings
- Linkages – aluminum radial
- Steering components – appeared serviceable
- Emergency tiller – **not found**
- Test performed – examined linkages for excessive slack and packing for leakage

Thru-hulls, seacocks, transducers

Condition/appearance: average Exceptions noted: none

- Underwater – Marelon® or similar fitted with ¼ turn valves with stainless-steel clamps on hoses connections at the following bilge locations:
 - Galley sink cabinet – **galley sink drain**
 - Head vanity – **inlet for toilet, head sink drain & blackwater tank overboard discharge**
 - Aft berth – **engine inlet**
- Topsides - plastic
- Transducers – not sighted

ACCOMMODATIONS, HOUSEHOLD SYSTEMS & COMFORT SYSTEMS

Interior spaces

Bulkheads, partitions, and cabinetry were found to be solid and in good condition, locker and cabinet doors and drawers found to be in average condition and working order. Interior décor was found to be in overall fair to average condition with normal age-related wear and tear descriptions as follows:

- Doors - hinged
- Decks – molded fiberglass, wood inlays
- Cabinetry – molded fiberglass
- Bulkheads and partitions – molded fiberglass & oiled teak
- Ceilings – molded fiberglass
- Counters – teak trimmed Formica
- Cushion covers – fabric skins
- Natural ventilation – opening appliances
- Powered ventilation – not found
- Fixtures – appeared serviceable
- Test performed – operated doors, drawers and fixtures as required to perform inspection

Entertainment equipment

Condition/appearance: average Exceptions noted: none

Locations/descriptions:

- Main cabin – TV (LG 22”)

- Test performed – not operated

Galley & household equipment

Condition/appearance: average Exceptions noted: none

Locations/descriptions - Located in galley except as noted:

- Single sink & faucet (stainless-steel)
- 2-burner range (Hilleraange by Seaward LPG)
- Built-in icebox (integral molded fiberglass)
- Test performed - none

Sanitary system

Condition/appearance: average Exceptions noted: none

Locations/descriptions:

- Quantity - one
- Manufacturer - Jabsco
- Type – manual marine toilet, raw-water rinse
- Y-valves (direct overboard discharge) - none
- Vented loops (if required) – n/a
- Test performed – not operated

TANKS, PIPING AND RELATED

(Capacities listed in this section are based upon published specifications for this model unless stated otherwise. Accuracy of tank level monitors should be verified prior to relying upon their readings.)

Fuel

Found the following to be in average condition without significant corrosion or evidence of leakage to level filled where accessible for inspection:

- Tanks – 19-gallon capacity aluminum secured in lazarette stbd side
- Fills – stbd side deck aft end (1)
- Vents – hull side
- Plumbing materials – flexible fuel hose
- Shut-off valves – anti-siphon valve at tank outlet
- Filters – inside aft berth (Racor R24P)
- Pumps – inside aft berth (general purpose 12-volt)
- Level gauges – engine panel
- Test performed – not operated

Potable water

Found the following to be in average condition without evidence of leakage to level filled where accessible for inspection:

- Tanks – 43-gallon capacity plastic secured in forward berth (25) and main cabin stbd side settee (18)
- Fills – anchor locker stbd side deck by cockpit

- Vents – hull sides
- Plumbing materials – plastic hose
- Shut-off valves – not found
- Filters – screen at pump inlet
- Pressure pump – inside aft berth (Amarine AMDPI-030-055-42)
- Accumulator tank – not found
- Water heater – not found (appears to have been removed)
- Dock water connection – not found
- Level gauges – not found
- Test performed – verified pressure water pump runs

Black water

Found the following to be in average condition without evidence of leakage to level filled where accessible for inspection:

- Tanks – 15-gallon capacity plastic secured in main cabin port side settee
- Deck fitting – port side deck near cockpit
- Vents – hull side
- Plumbing materials – plastic and rubber hose
- Y-valves – none
- Overboard valve – inside head vanity
- Discharge pump – inside head vanity (12-volt macerator)
- Vented loop (if required) – not found
- Treatment device - none
- Level gauges – full indicator main cabin port side by navigation station
- Test performed – not tested

LPG/CNG system

Condition/appearance: average Exceptions noted: yes (see summary remarks & notes)

- Storage locker – cockpit aft end port side locker (no lid)
- Tank quantity, material & capacity – 1 x steel 10-lb. capacity
- Solenoid valve, regulator, pressure gauge and control – no pressure gauge
- Leakage test (should hold steady pressure for three minutes) – unable to test

Comments - Periodic leak testing of LPG system is recommended: (excerpt from ABYC A-1: With the appliance valves off, open the cylinder supply valve. Close the cylinder supply valve. Observe the pressure gauge reading. The pressure indicated should remain constant for not less than three minutes. If any leakage is indicated by a drop in pressure, check the entire system with a leak detection fluid or detergent solution to locate the leak. Test solutions shall be non-corrosive and non-toxic. Repairs shall be made before retesting and operating the system).

ENGINES, AND ENGINE AND VESSEL CONTROLS

Engines

Condition/appearance: average Exceptions noted: none

- Location – main cabin aft end
- Type/description – diesel 4-cycle 3-cylinder naturally aspirated

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- Cooling system – closed loop freshwater, raw-water cooled heat exchanger
- Power transmission – close coupled straight-drive
- Mounting:
 - Foundations & beds – molded fiberglass liner
 - Mounts – adjustable vibration isolator type
- Cleanliness - average
- Fluid levels and condition – visual inspection of the following (full/low/add):
 - Engine oil – full/normal
 - Engine coolant – full/normal
 - Transmission oil – not checked
- Accessibility - good
- Test performed – not operated

Exhaust systems

Condition/appearance: average Exceptions noted: none

- Exhaust manifolds – freshwater cooled aluminum
- Riser/mixing elbow – stainless-steel with insulated riser section and raw-water sprayed discharge
- Exhaust fittings – n/a
- Muffler – fiberglass can
- Exhaust outlet – port hull side at stern
- Straight runs – black rubber hose
- Connection of fittings – black rubber hose
- Hose connection clamps – double stainless-steel
- Test performed – inspected for evidence of damage

Engine ventilation

Condition/appearance: average Exceptions noted: none

Location & type:

- Thru-hull vents - transom
- Powered – not found
- Test performed - none

Engine controls

Condition/appearance: average or better Exceptions noted: none

- Locations – cockpit on binnacle
- Manufacturer/model - Edson
- Description – dual lever type sleeved cable manual system
- Neutral safety interlock (prevents starting in gear) – n/a
- Test performed – operated throttle and shifter

Engine instrumentation

Condition/appearance: average or better Exceptions noted: none

- Manufacturer – Faria or similar

- Type – analog electric
- Locations – cockpit aft end port side:
 - RPMs & hours
 - Coolant temperature
 - Fuel level
 - Volts
- Alarms – unknown
- Test performed – not operated

Steering

Condition/appearance: average or better Exceptions noted: none

- Locations – helm binnacle
- Manufacturer/model - Edson
- Description – wheel type cable over pulley manual system
- Test performed – operated lock to lock several times

EQUIPMENT

Pumps dewatering and utility

Condition/appearance: above average Exceptions noted: none

Type & location – DC electric unless noted otherwise:

- Keel sump – dewatering (Rule 1100 gph)
- Cockpit aft end port side – dewatering (manual diaphragm type [lever by navigation station])
- Test performed – verified function of electric pump

ELECTRICAL SYSTEMS

Galvanic corrosion protection

Condition/appearance: average Exceptions noted: none

Descriptions:

- Anodes (zinc unless noted otherwise) – not sighted
- Bonding system – n/a
- Galvanic isolators/Isolation transformers – not sighted
- Test performed - none

AC electrical system

Condition/appearance: average Exceptions noted: none

Locations & descriptions of significant components:

- Voltage - 120
- Inlet types & locations – transom port side (1 x 30-amp)
- Inlet circuit protection location (within ten feet unless noted otherwise) – main panel
- Main panel:
 - Location – navigation station
 - Instrumentation - none

- Source selector switches – n/a
- Reverse polarity indicator - yes
- Condition of shore cord – not sighted
- Condition of shore cord inlet - average
- GFCI protection – yes
- Tests and examinations:
 - Shoreline output – not operated (boat is not plugged in)
 - Generator output – n/a
 - Inverter output – n/a

DC electrical system

Condition/appearance: fair to average Exceptions noted: none

Locations & descriptions of significant components:

- Voltage - 12
- Panel locations – navigation station
- Panel instrumentation - voltmeter
- Branch circuit protection – breakers
- Main disconnect switch – navigation station
- Primary circuit protection – main panel
- Test performed – operated some DC equipment

Battery charging devices

Condition/appearance: average Exceptions noted: none

Locations/descriptions:

- AC electric:
 - Inside head vanity (Guest 2610A)
 - Aft berth area (portable Noco Genius Gen5X2)
- Alternators – engine (51-amp standard)
- Renewable – not found
- Controllers – n/a
- Test performed – not operated

Storage batteries

Condition/appearance: above average Exceptions noted: yes (see summary remarks & notes)

- Batteries – lazarette centerline (2 x Group-31 AGM)
- Disconnects – main DC panel
- Test performed – voltage checked using main panel meter

Comments:

- **Battery disconnects or primary circuit protection for high amperage DC systems such as engine & AC generator cranking, windlasses, capstans, bow & stern thrusters and davits should be toggled off when not in use to prevent them from energizing unexpectedly due to failed components or short circuits that can lead to equipment damage or fire while vessel is not in use or unattended**

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ELECTRONICS AND NAVIGATION EQUIPMENT

Condition/appearance: average Exceptions noted: yes (see summary remarks & notes)

- Binnacle:
 - Magnetic compass (Aqua Meter Gemini)
 - Chart plotter (Garmin GPSmap 440S)
- Navigation station:
 - VHF radio (Standard Horizon Matrix AIS/GPS)
 - Handheld VHF (Cobra Marine HH350)
- Test performed – powered up VHF radios

SAFETY EQUIPMENT

(Items in this section checked for compliance with Code of Federal Regulations & ABYC Standards)

Fire safety equipment

Equipment types and quantities USCG compliant yes:

- Fixed - none
- Fixed fire system indicator – n/a
- Fixed fire system manual activator – n/a
- Portable handheld USCG Approved Sizes located as follows – (indicated fully charged/<12 years old):
 - Main cabin aft end (2 x BCI)

ABYC recommends compliance with this standard (A-4) for all boats, associated equipment, and systems manufactured after July 31, 2009:

- 4.5.1 Fire extinguishing equipment (portable or fixed) shall be U.S. Coast Guard approved and listed or approved by a recognized independent testing laboratory. The installation and use of such fire extinguishing equipment shall be in accordance with the manufacturer's instructions.
- 4.5.2 Inboard and stern-drive boats with engine compartments shall have either:
 - 4.5.2.1 a fixed fire extinguishing system installed to protect the engine compartment (see A-4.7), or
 - 4.5.2.2 a single suitably sized clean agent portable fire extinguisher provided and installed in proximity to a port to permit discharge directly into the engine compartment without opening the primary access. (See Table IV for determination of the minimum portable clean agent fire extinguisher size for this usage).

Gas detection systems

Equipment types and quantities compliant no:

- CO – not found
- Smoke – yes
- LPG – not found
- Test performed - none

Emergency bilge pumps and high-water alarms

Configuration compliant yes:

- Dewatering pumps – electric & manual types
- Audible alarms – not found
- Test performed – verified function of electric pump

Signaling devices

Equipment types and quantities compliant **no**:

- Distress signals – one of the following required:
 - Pyrotechnics – **expired**
 - Electronic & flag – not found
- Sound signaling devices – one of the following required:
 - Hull mounted sound – not found
 - Handheld sound - yes
- Epirb – main cabin stbd side (ACR ResQLink battery: 11/2026)
- Test performed - none

Navigation lights

Configuration defects: **none** Function: **appeared serviceable**

- Side – bow pulpit
- Steaming – front of mast
- Stern – stern rail port side
- Anchoring – top of mast
- Test performed – not operated

Flotation devices

Condition/appearance: **average** Equipment types and quantities compliant **yes**:

- Lifejackets – 6 x Type III & 2 x Type II adult
- Throwables – horseshoe & cushion types
- Liferafts – not found
- Immersion suits – not found

Ground tackle

Condition/appearance: **average or better** Equipment types and quantities compliant **yes**:

Locations/descriptions:

- Ready anchors & rodes – in chute:
 - Fortress FX-16, chain lead & laid nylon rode
- Back-up anchors & rodes – **not found**
- Bridles – not found

Additional required (non-safety)

Equipment types and quantities compliant **yes**:

- Pollution placards (Vessels 26 feet and over with a machinery compartment) – main cabin aft end
- Marpol Trash Placard (Vessels 26 feet and over) – main cabin aft end
- Vessel identification locations:
 - HIN – stbd hull side at stern below rub rail
 - Registration # - hull sides at bow
 - Name – hull sides at stern

SUMMARY REMARKS AND NOTES

Items on the following lists are grouped into several categories according to the surveyor's opinion of their importance:

- **Items in bold face are also listed in the Recommendations section at the beginning of this report and should be addressed on a priority basis.**
- Underlined items should be considered for timely action at your convenience.
- Remaining items on the lists that follow will likely not interfere with the safe and reliable function of the vessel but may improve its utility, and/or convenience, and value.

REGULATORY AND/OR STATUTORY DEFICIENCIES

Items on this list may not affect vessel safety but if ignored may result in fines and/or penalties:

1. **Unexpired visual distress and/or electronic distress signals & flags not found aboard; put aboard at least three unexpired USCG approved day/night visual distress signals or other type USCG Approved system that satisfies the requirement (certain battery powered beacons accompanied with day signal are now approved).**

STANDARDS DEFICIENCIES

ABYC Standards and Technical Information Reports are advisory only; their use is entirely voluntary. They are guides to achieving a specific level of design or performance, and are not intended to preclude attainment of desired results by other means:

2. **Propane system is non-compliant for several reasons; attend to the following or remove the system from service:**
 - a. **Propane locker lid not found; locate/replace and reinstall propane locker lid.**
 - b. **Install a pressure gauge on the propane system as required by ABYC A-1: 1.5.2**
Each system shall be fitted with a pressure gauge. The gauge shall read the cylinder pressure side of the pressure regulator. *NOTE: The purpose of the gauge is to provide a quick and easy way to test the system for leakage*
 - c. **Perform leakage test on LPG system after installation of pressure gauge and service if necessary (excerpt from ABYC A-1: With the appliance valves off, open the cylinder supply valve. Close the cylinder supply valve. Observe the pressure gauge reading. The pressure indicated should remain constant for not less than three minutes. If any leakage is indicated by a drop in pressure, check the entire system with a leak detection fluid or detergent solution to locate the leak. Test solutions shall be non-corrosive and non-toxic. Repairs shall be made before retesting and operating the system).**
3. **Vessel is not equipped with CO alarm; install at least one CO/smoke alarm in main cabin area.**
4. Vessel is not equipped with bilge high-water alarm; install level switch in keel sump that sounds audible alarm when excess water is present.

SUGGESTED REPAIRS AND/OR CHANGES

Items based upon surveyor's observations or experience that may improve the vessel's reliability, utility, or longevity:

5. Rigging & related:
 - a. Backstay turnbuckle cotter pins are missing; replace missing cotter pins.

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- b. Standing rigging tension is too loose; tune standing rigging, replace wire if found to be too long to achieve adequate tension.
- 6. Hull above waterline & related:
 - a. Companionway washboards are in poor condition; repair or replace as necessary.
 - b. Forward edge of Bimini top canvas is worn through from the boom rubbing it; repair canvas and install chaff strip to protect it.
 - c. Lifelines are rusty; replace with new.
 - d. Cabin windows and portlight lenses are serviceable but crazed; replace with new to improve their cosmetic finish.
- 7. Hull below waterline & related:
- 8. **Propeller shaft coupling is missing two of four bolts that attach it to the transmission; replace missing bolts.**
- 9. Tanks, piping & related:
 - a. Tanks deck fittings are not clearly labeled; install labels or fittings that clearly identify the purpose of each.
- 10. Electrical systems & related:
 - a. Battery wiring is not well organized or secured; rewire cables attached to batteries using ABYC E-11 for guidance.
- 11. Navigation equipment & related:
 - a. Chart plotter chip door is damaged; repair/replace chart plotter as necessary.
- 12. Safety equipment & related:
 - a. Vessel is not equipped with back-up anchor and rode; suggest putting aboard at least one additional anchor and rode to replace primary in the event it becomes lost or fouled in anchor locker or if additional holding power is required.

(End of report photo pages to follow)

PHOTOS



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