

III. SYSTEMS

HULL DECK AND SUPERSTRUCTURE

HULL CONSTRUCTION

EXTERIOR HULL: Off White gelcoat over FRP (Fiber reinforced plastic). Gel coat was in good condition with scratches and scuffs consistent with the age of vessel. Blue painted stripe was in fair condition. Prior repair noted at port side hull side approximately 8' from stern and 4' up from waterline. Area sounded serviceable. The hull sides were tested with a moisture meter and phenolic hammer. No abnormal signs of moisture or delamination was noted. PVC rubrail with stainless steel insert was in good overall condition.

BULKHEADS: Athwartships reinforcement enhanced by wood bulkheads bonded to the hull and stringer system with adhesives. Appears serviceable where sighted.

STRINGERS: Hull stiffness provided by Fiberglass longitudinal stringers. Complete inspection not possible due to limited access. Appears serviceable where observed.

BILGE: A smooth grey coating was used in bilge area, condition was clean and free of dirt and debris.

* **CHAIN LOCKER (DRAINAGE): [C1]** The chain locker is forward and accessible through an access hatch at the foredeck. Anchor locker hatch was removed to accommodate anchor.

DECK CONSTRUCTION

* **TYPE: [B1, C2]** FRP composite construction reportedly cored. Molded non-skid surface. Decks were tested with a moisture meter and sounded with a phenolic hammer. No elevated moisture readings were noted and decks sounded serviceable with the exception of: Coring failure/delimitation noted at Fly bridge aft deck overhang. Area appeared to radiate approximately 2' from middle Fly bridge rail base. Coring failure/delimitation noted at base of Fly bridge table base radiating out approximately 1' from base. Elevated moisture noted at the bases of Fly bridge railing bases at aft hardtop deck and Satellite television mount. Stress cracks noted at port and starboard side fiberglass fuel fill flange bases. Areas sounded serviceable. No elevated moisture readings were noted.

DECK FITTINGS

* **BOW PULPIT (BOW RAIL): [A1]** Stainless steel stanchions and rail system extending from aft portion of cabin trunk forward. Appeared secure and serviceable with the exception of: Fastener at port side forward bow rail stanchion broken/corroded. Fasteners unsecured at starboard side bow rail aft first and third bases aft.

SCUPPERS: Cockpit scupper to drains to port and starboard aft. Hoses and clamps appeared serviceable.

CHOCKS AND CLEATS: Six stainless steel cleats were sighted. Two forward, two mid and two aft. Cleats appeared well secured and in good condition.

GRAB RAIL: Various stainless steel grab rails sighted throughout vessel. In good condition and appeared properly secured.

NOTE: Aluminum anchor mast was supplied and appeared properly secured. Two aft facing halogen lights were operable.

* **SWIM PLATFORM: [C3]** A Full beam FRP swim platform was provided. Swim platform appeared properly secured and serviceable. Stress cracks sighted at swim platform radius.

BRIDGE DECK

SEATS: Vinyl for seating was in good overall condition with wear consistent with the age of the vessel.

CANVAS: Bimini style top was provided. Blue. Stainless steel support structure was in good condition and appeared properly secured. Canvas and clear panels were provided to allow for enclosure of helm and adjoining seating areas. Canvas for panels was in good overall condition. Clear panels were in fair overall condition with tears/cracks/wear noted.

ADDITIONAL EQUIPMENT AND ACCESSORIES

DINGHY/TENDERS: Achilles Rigid bottom inflatable HIN number: ACH00212A515 was supplied and appeared to be in good overall condition. Tohatsu 9.8 Horsepower motor was to be included in the sale. Outboard appeared to be in good overall condition. Dinghy was not deployed and outboard was not tested for proper operation. Weaver dinghy davit and motor lift was supplied. Appeared in good condition. Not tested for proper operation.

III. SYSTEMS

CABIN APPOINTMENTS

INTERIOR DESCRIPTION:

CABIN BRIGHT WORK: The finish of the interior woods/veneers was in good overall condition with wear consistent with the age of vessel.

WATER INTRUSION SIGNS: None Sighted.

* **STORAGE AREAS: [B2]** Latches, and hinges were operable with the exception of: Latch for lower drawer below island berth was inoperative.

HEADLINERS: Headliner material in the cabin was a light colored vinyl and in good condition.

* **DOORWAYS: [B3]** Cabin and head doors were operable with the exception of: Forward head door to stateroom was not properly aligned and would not close.

* **FABRIC AND CUSHIONS: [C4]** Fabric for berthing and seating areas was in good overall condition with wear consistent with the age of the vessel. Salon convertible settee was in fair condition. Large tear/stitching noted at back of salon convertible sofa back seat cushion.

* **FLOOR AND WINDOW COVERINGS: [B4]** Tan carpeting throughout the vessel and wood floor at galley. Good overall condition with wear consistent with the age of vessel. Port side salon blinds were in good condition and were operable. Starboard side salon blind was inoperative.

SHOWERS: 12 volt shower sump assembly was installed in the forward bilge area to remove shower water. Water was allowed to run in shower until shower sumps were activated. Hoses and clamps appeared serviceable where sighted.

FAUCET FIXTURES: The faucet fixtures were operable in the head and the galley. Transom shower was provided and was operable.

* **LIGHT FIXTURES: [B5]** 12 volt lights throughout the vessel were operable with the exception of: Aft bilge port side light and Starboard side and center forward engine space lights were inoperative.

* **VENTILATION: [B6, B7, C5]** Bomar style hatch forward was operable and in good condition. Ocean Air screen/shade assembly was provided for Bomar style hatch and was in serviceable/fair condition. Side and forward salon windows were operative. Screen assembly for starboard side salon sliding window was not installed/provided. Salon entry sliding screen assembly was torn at the inboard side. Sliding port side forward salon window lock was broken.

GALLEY

REFRIGERATION: A Compact Nova Kool Refrigerator was installed at the galley and was in good condition and operable. Refrigerator was operable at both voltages. Edgewater chest type refrigerator/freezer was supplied at the salon. Refrigerator was in good condition and powered up.

MICROWAVE: Sharp compact microwave was provided at the galley, was in good condition, and was operable at the time of survey.

PROPULSION

MAIN ENGINES

MANUFACTURER: Yanmar

MODEL: 4LHAM-STPC

SERIAL NUMBERS:

Port: 56836

Starboard: 56838

LABELS AND NOTICES: Engines ID tags were legible.

HORSE POWER: Reportedly 240 horsepower each for a combined 480 horsepower.

INDICATED HOURS:

Port: 848.4

Starboard: 846.5

THROTTLE CONTROLS: ZF electronic controls were operational. Mechanical linkages at engines and transmissions appeared properly secured.

III. SYSTEMS

PROPULSION

MAIN ENGINES (continued)

HOSES AND CLAMPS: Hoses, clamps appeared serviceable where sighted.

* **ENGINE MOUNTS AND BED: [B8]** Main engine beds are heavy FRP longitudinal stringers inboard and outboard. In conjunction, Rubberized adjustable motor mounts are bolted to the stringers and are used to adjust the propshaft alignment as well as secure the engines to the hull stringer structure. Appeared serviceable with the exception of: Port side aft inboard, port side forward outboard, starboard side forward, and port side outboard forward mounts appeared to have reached the end of their service life and require replacement.

* **LUBRICATION: [C6]** Level indication is normal. Fram filters sighted. Note: The surveyor recommends that all engine fluids and filters be renewed in order to start accurate service routine.

VENTILATION: One electric blower was supplied in the engine space. 4" 12 Volt. Blower appeared properly secured. Flexible hose appeared in good condition and properly routed. Blower was operable. Natural, flow ventilation provided by hull vents. Appears adequate.

EXHAUST SYSTEM: Raw water Cooled exhaust utilizing FRP mufflers. Fiberglass Mufflers appeared secure and in acceptable condition. Hoses appeared serviceable and properly double clamped where sighted.

INSULATION: Sound deadening insulation was noted in engine room. Appears serviceable.

ENGINE ALARMS: Alarms were heard when the ignition was switched to the On/Acc. position.

* **STUFFING BOX: [B9]** Dripless style stuffing box. Hoses and clamps for stuffing boxes appeared in acceptable condition. Port and starboard Dripless bearings were leaking at the time of sea trial. Starboard 1 drip every 3 seconds and port one drip every second at cruise speed.

COOLING SYSTEM

TYPE: Closed reservoir type cooling with raw water cooled exhaust.

* **COOLANT LEVEL: [B10]** Main engine coolant below normal both port and starboard. The surveyor recommends changing the fluid with new in accordance with the manufactures suggested specification.

BELTS AND PULLEYS: Belt condition appears serviceable.

SEACOCKS AND STRAINERS: Thru hull/ball valves for main engine raw water intake were located in the engine space. Valve was found in the open position, closed and returned to the open position. A bronze Alloy sea strainer assembly with sight glass appeared clear and serviceable. Hoses and clamps appeared serviceable.

TRANSMISSIONS

MANUFACTURER: ZF

MODEL: 63A

GEAR RATIO: 5.54:1

DRIVE TYPE: Straight drive.

FLUID LEVEL AND CONDITION: Normal level indicated on dipsticks. Appears serviceable. Note: The surveyor recommends that transmission fluids and any associated filters be renewed in order to start accurate service routine.

FUEL SYSTEM

MAIN ENGINE(S) FUEL SYSTEM

FUEL TYPE: Diesel.

FUEL TANKS: One Fuel tank was installed in the vessel. Fuel Tanks were made of aluminum. Located in the engine space forward. The tank appeared properly secured. Tank manufactured: 8/2005

TANKS CAPACITY: 300 Gallons As per tank ID tag.

FILL PIPE: Port and starboard side decks marked for fuel. Type A2 USCG approved hose. Appears serviceable. Fuel fill gaskets were serviceable.

FUEL LINES AND FITTINGS: Grade USCG type A1. Appears serviceable where sighted.

SHUT-OFF VALVE: Shut off valves at tanks appeared serviceable.

III. SYSTEMS

FRESH WATER SYSTEM

FRESH WATER SYSTEM (HOT WATER SYSTEM)(continued)

CAPACITY: 6 gallons.

PRESSURE RELIEF VALVE: Pressure relief valve was provided at the hot water heater. Tested ok. Test frequently and ensure valve operates freely. Pressure relief valve appeared to be plumbed overboard to conform with ABYC H-23 7.4 standards.

SANITATION

SANITATION (BLACK WATER)

MANUFACTURER: Jabsco

MANUAL OR ELECTRIC TYPE: Electric macerating. Raw water flush. System was operable at the time of survey.

NUMBER OF HEADS: Single head installed on vessel.

M.S.D TYPE USCG SYSTEM: Certification Type: MSD U.S.C.G. Type III. (Holding tanks)

RAW WATER SUPPLY AND CLAMPS: Raw water intake valve was installed in the forward bilge space. Valve was found in the open position, closed and returned to the open position. Hoses and clamps appeared serviceable where sighted.

DISCHARGE HOSES AND CLAMPS: Discharge hoses and clamps appeared serviceable where sighted.

PUMP-OUT LOCATION: Starboard side deck marked for waste.

* **MACERATOR: [A6]** Vessel was equipped with a 12 volt holding tank discharge pump. Overboard discharge thru/ball valve was located in the forward bilge area. Valve was found in the closed position, opened, and returned to the closed position. Hoses and clamps appeared serviceable. Discharge laws prevented the testing of pump. Appeared properly secured and in good condition. Macerator Overboard discharge valve was unsecured.

HOLDING TANK: Holding tank located in the mid bilge area. Tank material was plastic. Tank appeared properly secured and serviceable. Tank level gauge provided in head space. Appeared operational. Level not verified.

STEERING SYSTEM

STEERING SYSTEM

TYPE: Hydraulic

Stainless steel wheel was in good condition.

MANUFACTURER: Sea Star

NUMBER OF STATIONS: Single station.

LINES AND FITTINGS: Reinforced flexible hose, with metallic fittings. Appeared serviceable where sighted.

* **ACTUATOR CYLINDER: [A7]** Bolts securing rudder connection arm to steering piston and rudder arms were not of the appropriate length. Bolts were recessed/not protruding thru nylon locking nuts as required by hardware manufacturer.

RUDDER POSITION INDICATOR: Rudder position indicator for autopilot system appeared properly secured and information was displayed from autopilot display. Calibration was not tested or verified.

* **PACKING GLAND: [B17]** Drip less type. Starboard rudder gland appeared serviceable. Port side rudder gland was leaking.

GROUND TACKLE

GROUND TACKLE

ANCHORS: A single galvanized fluke style anchor was provided at anchor pulpit. The anchor was secured to length of chain spliced to a length of nylon line. A stainless steel swivel was provided at the anchor to chain connection. The Anchor and rode appeared in good condition and serviceable. A chain stop is provided to prevent accidental deployment of anchor. The bitter end of the rode appeared to be secured to the vessel. The anchor swivel was properly seized.

* **WINDLASS: [B18]** 12 volt windlass was installed. Stainless steel. Lewmar Brand. Momentary switch at helm station was operable. Deck switches were provided and were operable. Windlass was momentarily operated in both directions. Main breaker sighted at main battery switch. Windlass line tensioner broken.

III. SYSTEMS

ELECTRONICS AND NAVIGATION EQUIPMENT

ELECTRONICS AND NAVIGATION EQUIPMENT

- * **VHF: [C8]** Ray 215 VHF was provided, in good condition and powered up. 8' Fiberglass antenna with stainless steel mount was provided and appeared in poor condition. Weather station was heard. Ensure VHF is properly interfaced with GPS and registered to new owner in order to ensure proper operation of DSC function.
- RADAR:** Raymarine dome array antenna was installed. Radar Information viewed via Raymarine display. Radar was operable at the time of survey.
- * **CHART PLOTTER: [B19, C9]** Raymarine C-80 display was provided. Display powered up. C-80 Display back lighting dim/illegible. Back lighting adjustment was turned to its highest setting. C-80 did not acquire GPS satellites. Ensure electronic charts are current for intended cruising areas.
- AUTOHELM:** Raymarine autopilot system was installed on the vessel. Autopilot powered up, held and responded to course change request during sea trial. Remote control powered up. Motor/pump installed below helm was in good condition with no leaks sighted.
- * **DEPTH SOUNDER: [B20]** Depth from C-80 display. Depth finder was inoperative.
- * **COMPASSES: [B21]** 4" Danforth compass was provided. Compass low on fluid.

ELECTRONICS (ENTERTAINMENT)

- * **STEREO SYSTEM: [B22, B23]** Kenwood 12 volt CD stereo was supplied at the upper helm station. Two poly planer speakers were supplied at the Fly bridge. Fly bridge speakers were not properly installed and were protruding from mounting location. Fly bridge stereo was inoperative.
JVC CD player stereo was installed at the salon. Two speakers were supplied in the salon. Starboard side salon aft stereo speaker was inoperative. Salon stereo was inoperative/intermittent.
- * **TELEVISION(S): [B24, B25]** 15" Protron television was provided at the forward stateroom. Forward stateroom television was unsecured. 27" Samsung Smart television was supplied at the salon. Television Powered up. Television appeared properly secured. 120 Volt Sony DVD player at the salon was operative. KVH Satellite television system was installed. Dome at flybridge appeared properly secured. Receivers sighted in the salon and forward stateroom. KVH System powered up but no signal was received and system was not tested for proper operation.

SAFETY EQUIPMENT

SAFETY EQUIPMENT (UNITED STATES COAST GUARD)

- NUMBER AND TYPE OF PFD'S:** Eight Type II adult U.S.C.G approved P.F.Ds were sighted and appeared serviceable. Six type III U.S.C.G approved P.F.Ds were sighted and appeared serviceable.
- NUMBER OF THROWABLE PFD'S:** Lifesling type was sighted and appeared serviceable.
- * **FIRE EXTINGUISHERS: [A8]** One B-I extinguisher was sighted in the cabin. One B-I extinguisher was sighted in the Forward stateroom locker. One B-I extinguisher was sighted in the galley locker. The extinguisher/s have been recalled by Kidde.
- VISUAL DISTRESS SIGNALS:** Flares were 12 gauge Day/night type. Expiration date: 5/2022
- * **SOUND DEVICES: [A9]** Dual electric horn with momentary switch at helm station. Horn was inoperative/intermittent.
- NAVIGATION LIGHTS:** Navigation lights were operative at time of survey.
- * **"NO OIL DISCHARGE" PLAQUE: [A10]** Found in salon. Not properly displayed in Engine space.
- * **TRASH DISPOSAL PLACARD: [A11]** Not found prominently displayed.

AUXILIARY SAFETY EQUIPMENT

- LIFE RAFT:** None Sighted. But highly recommended.
- E.P.I.R.B.:** None Sighted. But highly recommended.
- * **SMOKE DETECTOR: [A12]** Smoke detector in cabin was inoperable at the time of survey.
- * **BILGE WATER ALARM AND SAFETY SWITCHES [A13]** High water alarm system was installed in the vessel. A rule 3500 GPH bilge pump with float was mounted in the engine space forward. The float was mounted in a location as to activate during a high water situation. Hoses and clamps appeared serviceable where sighted. Pump was operative. No alarm was heard when float was raised. High water light and buzzer at helm were inoperative. ←

III. SYSTEMS

SAFETY EQUIPMENT

AUXILIARY SAFETY EQUIPMENT(continued)

- * **FIXED FIRE EXTINGUISHING SYSTEM[A14, B26]** Fixed fire extinguisher system was installed in the engine space. Proper size not verified. Fixed fire extinguisher inspection tag was not sighted/current. Seafire module below helm was unsecured.
- * **FIRST AID KIT: [C10]** A small first aid kit was sighted.
- * **CARBON MONOXIDE MONITORS:[A15]** Carbon monoxide detectors in berth and salon were inoperable.

BILGE PUMPS

BILGE PUMPS: Three Bilge pumps were sighted. 12 volt. 1500 GPH. One pump was located in the forward bilge space. One pump was located in the engine space forward. One pump was located in the aft bilge space. Automatic floats were provided for the pumps and were operable. Pumps and floats were properly secured. Manual switches at the breaker panel were operable.

OUT OF WATER INSPECTION

BELOW WATERLINE MACHINERY

PROPELLER(S): Two Bronze alloy propellers were installed. 4 Blades. Approximately 20" in diameter. Propellers appeared in good condition. Propellers appeared properly secured.

PROPELLER SHAFT(S): Stainless Steel. 1 3/4" in diameter. Appeared in good condition and properly secured.

- * **SHAFT BEARING (CUTTLESS BEARING)[B27]** Gaps were sighted and play was noted at cuttless bearings. Cuttless bearing rubber material deteriorated.

STRUTS: Dual cast bronze alloy I-beam struts appeared properly secured and serviceable.

RUDDER(S) MATERIAL:Two Bronze alloy rudders appeared properly secured and serviceable.

TRIM TABS: Single piston Bennett hydraulic trim tabs were installed. The planes and pistons appeared properly secured. The planes appeared true. Reservoir located in aft bilge was properly secured. Fluid appeared to be at the appropriate level with the trim tabs retracted. No leaks were sighted where visible.

- * **THRUSTERS: [A16]** Bow thruster was provided. 12 Volt. Sidepower brand. 5 Bladed plastic propellers were in good condition. Bow thruster was operated in both directions. Cabinetry prevented inspection of thruster assembly. Side shift stern thruster was provided. Stern thruster propellers appeared properly secured. Stern thruster was inoperative. Stern thruster control was not properly installed. Stern thruster assembly at transom was loose/not properly secured. Bow thruster battery switch was not properly installed. Bow thruster batteries appeared to be wired in series to provide 24 volts with a switch installed between the negative leg of one battery and the positive post of the second. Bow thruster wiring had exposed main DC connections at solenoids and switches.

STRAINERS/SCOOPS/SCREENS:South Bay style strainers were installed. Appeared clear and properly secured.

- * **SACRIFICIAL ANODES: [B28]** Shaft, tab, thruster, and transom anodes require replacement.

CONDITION OF HULL (WETTED SURFACE)

CONDITION OF BOTTOM PAINT:Bottom painted with anti fouling paint. Fair condition. Accumulation of bottom paint was noted. Wetted surfaces were tested with a phenolic hammer for de lamination. No de lamination was detected. No blisters were sighted. Note: Osmotic Blistering dries and recedes in vessels which have been removed from the water, even for a short period of time making them undetectable without destructive testing. Multiple layers of paint may conceal blisters.

AIR CONDITIONING AND HEAT (AIR CONDITIONING)

AIR CONDITIONING AND HEAT (AIR CONDITIONING)

- * **TYPE: [B29]** Self contained reverse cycle with digital control. Freezing water temperatures prevented proper operation/testing of Air conditioner units. Units powered up but not tested for proper operation.

NUMBER OF UNITS:One Marine Air brand 7,000 BTU Air conditioner was installed below the forward berth. One Webasto unit of unknown size was installed below the salon sole to starboard aft. Unit appeared to have been recently replaced.

III. SYSTEMS

AIR CONDITIONING AND HEAT (AIR CONDITIONING)

AIR CONDITIONING AND HEAT (AIR CONDITIONING) (continued)

- * **RAW WATER COOLING PUMP: [B30]** 110 volt raw water circulating pump was installed in the aft bilge area. Raw water intake thru hull/ball valve was in the same location. Valve was found in the open position, closed and returned to the open position. A bronze Alloy sea strainer assembly with sight glass appeared clear and serviceable. Pump was operable. Hoses and clamps appeared serviceable where sighted with the exception of: Clamps and valve for bleeding of air conditioner pump/winterization located below the air conditioner raw water sea strainer were corroded, leaking, and require replacement. Air conditioner raw water intake ball valve stem was leaking. ←

SEATRIAL REPORT

INTRODUCTION

INTRODUCTION: The Independence was operated in the great south bay on 1/23/2021. There were four adults on board. The sea state was normal. Fuel tank read 3/4. Fuel and water tanks read 0/4.

OBSERVATIONS

- * **OBSERVATIONS: [B31]** The engines started without excessive cranking. The engine exhaust appeared normal. The engine instruments appeared to operate within normal operating limits at idle, cruising speed, and maximum throttle. Manufacturer's recommended max RPM is 3300 RPM. The Engines reached 3250 RPM Port and 3250 RPM Starboard. Vibration noted at back down test. See cuttless bearings and mounts. The transmission/s operated normally/smoothly. The trim tabs operated normally. ↗

TRIAL RUN DATA

PORT ENGINE:

S, 15.2 knots, 3000 RPM
N, 16.3 knots, 3250 RPM
N, 13.4 knots, 2900 RPM
S, 17.5 knots, 3250 RPM

STARBOARD ENGINE:

S, 15.2 knots, 3000 RPM
N, 16.3 knots, 3250 RPM
N, 13.4 knots, 2900 RPM
S, 17.5 knots, 3250 RPM

IV. FINDINGS AND RECOMMENDATIONS

Deficiencies noted under "SAFETY" should be addressed before vessel is next underway. These findings represent an endangerment to personnel and/or the vessel's safe and proper operating condition. *Findings may also be in violation of U.S.C.G. regulations.*

Deficiencies noted under "OTHER DEFICIENCIES" should be corrected in the near future so as to maintain standards and to help the vessel to retain its value.

Deficiencies will be listed under the appropriate heading:

- A. SAFETY DEFICIENCIES
- B. OTHER DEFICIENCIES NEEDING ATTENTION
- C. SURVEYORS NOTES AND OBSERVATIONS

A. SAFETY DEFICIENCIES:

FINDINGS	RECOMMENDATIONS
A.1 (PAGE 4) BOW PULPIT (BOW RAIL): Fastener at port side forward bow rail stanchion broken/corroded. Fasteners unsecured at starboard side bow rail aft first and third bases aft.	Secure rail.
A.2 (PAGE 7) NOTE: Reinforced water line tubing was used for fuel level sight tube. Sight tube valves were in the open position.	Replace with fuel rated hose in accordance with ABYC and USCG requirements. Close and keep valves in the closed position after checking fuel level.
A.3 (PAGE 7) BATTERIES: Forward 8-D battery positive terminal was not properly protected.	Ensure all positive battery terminals are properly protected to comply with ABYC E-10.7.7 Requirements.
A.4 (PAGE 7) CHARGING SYSTEM (BATTERY CHARGER): Extension cord was routed and used to power stern thruster charger.	Wire charger in accordance with ABYC E-11 Standards.
A.5 (PAGE 7) JUNCTION BOXES: 120 volt junction box cover was not installed at the air conditioner raw water pump location in aft bilge. Neutral wire exposed.	Supply and install box cover.
A.6 (PAGE 9) MACERATOR: Holding tank Macerator Overboard discharge valve was unsecured.	Secure discharge handle in accordance with U.S.C.G 40 CFR 140.3 requirements.
A.7 (PAGE 9) ACTUATOR CYLINDER: Bolts securing rudder connection arm to steering piston and rudder arms were not of the appropriate length. Bolts were recessed/not protruding thru nylon locking nuts as required by hardware manufacturer.	Replace hardware.

IV. FINDINGS AND RECOMMENDATIONS

A. SAFETY DEFICIENCIES:

FINDINGS

RECOMMENDATIONS

A.8 (PAGE 10) FIRE EXTINGUISHERS:

The extinguisher/s have been recalled by Kidde.

Replace extinguishers. Go to www.kidde.com for more information on recall.

A.9 (PAGE 10) SOUND DEVICES:

Horn was inoperative/intermittent.

Restore operation to horn and Comply with USCG regulations for Sound Devices.

A.10 (PAGE 10) "NO OIL DISCHARGE" PLAQUE:

Found in salon. Not properly displayed in Machinery space.

Provide USCG "No Discharge of Oil" placard - CFR 155.770. A ship, except a ship of less than 26 feet in length, must have a placard of at least 5 by 8 inches, made of durable material fixed in a conspicuous place in each machinery space, or at the bilge and ballast pump control station

A.11 (PAGE 10) TRASH DISPOSAL PLACARD:

Not found prominently displayed.

Provide and display in **prominent** location a trash placard in order to comply with U.S.C.G 33 CFR 151.59 Federal requirements.

A.12 (PAGE 10) SMOKE DETECTOR:

Smoke detector in cabin was inoperable at the time of survey.

Restore operation to smoke detector.

A.13 (PAGE 10) BILGE WATER ALARM AND SAFETY SWITCHES:

High water light and buzzer at helm were inoperative.

Restore operation to high water alarm system to comply with ABYC H-22.7.3

A.14 (PAGE 11) FIXED FIRE EXTINGUISHING SYSTEM:

Fixed fire extinguisher inspection tag was not sighted/current.

Comply with manufacturers recommendations and inspect system every 6 months. Record findings on supplied tag. Annually a full maintenance check should be made by a qualified fire extinguishing system service facility in accordance ABYC A-4 AP.6 Standards.

A.15 (PAGE 11) CARBON MONOXIDE MONITORS:

Carbon monoxide detectors in berth and salon were inoperable.

Restore operation to Carbon monoxide detectors.

A.16 (PAGE 11) THRUSTERS:

Stern thruster was inoperative. Stern thruster control was not properly installed. Stern thruster assembly at transom was loose/not properly secured. Bow thruster battery switch was not properly installed. Bow thruster batteries appeared to be wired in series to provide 24 volts with a switch installed between the negative leg of one battery and the positive post of the second. Bow thruster wiring had exposed main DC connections at solenoids and switches.

Further investigate by ABYC certified electrical technician and advise as to proper installation in accordance with ABYC E-11 Standards.

IV. FINDINGS AND RECOMMENDATIONS

B. OTHER DEFICIENCIES NEEDING ATTENTION:

FINDINGS

RECOMMENDATIONS

*Adhesive
silicone*

B.1 (PAGE 4) TYPE:

Coring failure/delimitation noted at Fly bridge aft deck overhang. Area appeared to radiate approximately 2' from middle Fly bridge rail base. Coring failure/delimitation noted at base of Fly bridge table base radiating out approximately 1' from base. Elevated moisture noted at the bases of Fly bridge railings at aft hardtop deck and Satellite television mount. Areas sounded serviceable.

Further investigate by fiberglass/paint technician and advise as to repair.

B.2 (PAGE 5) STORAGE AREAS:

Latch for lower drawer below island berth was inoperative.

Repair/replace/ensure proper operation.

B.3 (PAGE 5) DOORWAYS:

Forward head door to stateroom was not properly aligned and would not close.

Further investigate and ensure proper operation.

B.4 (PAGE 5) FLOOR AND WINDOW COVERINGS:

Starboard side salon blind was inoperative.

Restore proper operation/replace blind.

B.5 (PAGE 5) LIGHT FIXTURES:

Aft bilge port side light and Starboard side and center forward engine space lights were inoperative.

Restore proper operation/function to light fixtures.

B.6 (PAGE 5) VENTILATION:

Salon entry sliding screen assembly was torn at the inboard side.

Repair or replace.

B.7 (PAGE 5) VENTILATION:

Sliding port side forward salon window lock was broken.

Repair or replace.

B.8 (PAGE 6) ENGINE MOUNTS AND BED:

Port side aft inboard, port side forward outboard, starboard side forward, and port side outboard forward mounts appeared to have reached the end of their service life and require replacement.

Replace mounts.

Barry mounts

B.9 (PAGE 6) STUFFING BOX:

Port and starboard Dripless bearings were leaking at the time of sea trial. Starboard 1 drip every 3 seconds and port one drip every second at cruise speed.

Replace seals.

B.10 (PAGE 6) COOLANT LEVEL:

Main engine coolant below normal both port and starboard.

Top off to recommended levels and monitor.

B.11 (PAGE 7) BATTERIES:

8-D batteries and stern thruster batteries were not properly secured.

Secure batteries in accordance with USCG CFR 183.420 NFPA 302 7-43 and ABYC 10.7.4 recommendations.

IV. FINDINGS AND RECOMMENDATIONS

B. OTHER DEFICIENCIES NEEDING ATTENTION:

FINDINGS

RECOMMENDATIONS

B.12 (PAGE 7) MAIN/AUXILIARY BEAKER PANELS:

Numerous indicator lights inoperable at the main A/C and DC panels in salon.

Replace lights.

B.13 (PAGE 7) ROUTING/SUPPORT:

Unsecured thruster wiring noted at forward engine bilge area and aft engine space bulkhead forward of generator. Generator battery charging positive lead improperly routed around air conditioner intake thru hull allowing chafing.

Secure wiring in accordance with ABYC E-11 standards.

B.14 (PAGE 7) VOLTAGE/AMPERAGE METERS:

No starboard side battery voltage displayed at the main panel meter.

Restore proper operation to gauge.

B.15 (PAGE 8) FLUID LEVELS:

Generator coolant reservoir was low. Generator oil filter dated 11/2017. Surveyor recommends that all generator fluids be renewed according to the manufactures recommended specifications in order to ensure accurate service routine.

Renew all generator fluids according to the manufactures recommended specifications as soon as possible to start and ensure accurate service routine.

B.16 (PAGE 8) NOTE:

Handle for fresh water spigot in engine space forward to starboard was not installed.

Supply and install handle.

B.17 (PAGE 9) PACKING GLAND:

Port side rudder gland was leaking.

Replace seal.

B.18 (PAGE 9) WINDLASS:

Windlassline tensioner broken.

Restore proper operation to windlass.

B.19 (PAGE 10) CHART PLOTTER:

C-80 Display back lighting dim/illegible. Back lighting adjustment was turned to its highest setting. C-80 did not acquire GPS satellites.

Restore operation to GPS/Chart plotter.

B.20 (PAGE 10) DEPTH SOUNDER:

Depth from C-80 display. Depth finder was inoperative.

Restore proper operation of depth finder.

B.21 (PAGE 10) COMPASSES:

Compass low on fluid.

Top off fluid and monitor.

B.22 (PAGE 10) STEREO SYSTEM:

Starboard side salon aft stereo speaker was inoperative. Salon stereo was inoperative/intermittent.

Replace/restore operation to speaker. Replace/restore operation to stereo.

IV. FINDINGS AND RECOMMENDATIONS

B. OTHER DEFICIENCIES NEEDING ATTENTION:

FINDINGS

RECOMMENDATIONS

B.23 (PAGE 10) STEREO SYSTEM:

Fly bridge speakers were not properly installed and were protruding from mounting location. Fly bridge stereo was inoperative.

Properly install speakers. Replace/restore operation to stereo system.

B.24 (PAGE 10) TELEVISION(S):

KVH System powered up but no signal was received and system was not tested for proper operation.

Ensure proper operation of KVH system.

B.25 (PAGE 10) TELEVISION(S):

Forward stateroom television was unsecured.

Secure television.

B.26 (PAGE 11) FIXED FIRE EXTINGUISHING SYSTEM:

Seafire module below helm was unsecured.

Secure module.

B.27 (PAGE 11) SHAFT BEARING (CUTTLESS BEARING):

Gaps were sighted and play was noted at cuttless bearings. Cuttless bearing rubber material deteriorated.

Propulsion
Replace bearings.

B.28 (PAGE 11) SACRIFICIAL ANNODES:

Shaft, tab, thruster, and transom anodes require replacement.

Replace anodes

B.29 (PAGE 11) TYPE:

Freezing water temperatures prevented proper operation/testing of Air conditioner units. Units powered up but not tested for proper operation.

AC
Ensure proper operation of air conditioner systems when weather/conditions permit.

B.30 (PAGE 12) RAW WATER COOLING PUMP:

Air conditioner raw water intake ball valve stem was leaking.

Replace/repair valve.

B.31 (PAGE 12) OBSERVATIONS:

Vibration noted at back down test. See cuttless bearings and mounts.

Replace effected mounts and bearings. Retest.

C. SURVEYOR'S NOTES AND OBSERVATIONS:

FINDINGS

RECOMMENDATIONS

C.1 (PAGE 4) CHAIN LOCKER (DRAINAGE):

Anchor locker hatch was removed to accommodate anchor.

Supply and install hatch.

C.2 (PAGE 4) TYPE:

Stress cracks noted at port and starboard side fiberglass fuel fill flange bases. Areas sounded serviceable. No elevated moisture readings were noted.

Further investigate by fiberglass/paint technician and advise as to repair.