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Marine Survey Report

Date of Report: 11/7/2016 Date of Survey: 9/7/2016 File #: 01566

Survey Requested By: John Reynolds 336/650-6931

Owner of Vessel: Liberator, LLC Survey Purpose: Condition & Valuation

Survey Location: Beaufort & Harkers Island, NC Afloat / Ashore: Both

Vessel Name: Cape Island Queen Hailing Port: Beaufort, NC

HIN Number: SCZF2817L163 Vessel Document Number: NC-0386-DF

Builder: Egg Harbor

Place of Construction: New Jersey Completion Date: 1963

Length: 37.0 ft Beam: est. 11.0 ft Depth: est. 3.0 ft Draft: 4.0ft

Gross Tonnage: est. 8 Net Tonnage: est. 6 Weight: Not Known

Vessel Type: Sportfish Hull Configuration: Mod V Vessel Use: Recreational

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This survey has been prepared and submitted in good faith. It is a description of the condition as then found, examined and visible. Andrews Surveying assumes no responsibility for any defects and shall be held harmless for any subsequent conditions arising, including liability for damages of any description, loss of life, loss of any profits or any other business damages by use of this survey. This survey does not guarantee either expresses or implied the condition of the above surveyed vessel. All observations are limited to the accessible areas of the vessel and these observations are also limited to the external condition of the vessel's systems, engines and wiring. The inspections, findings and opinions expressed in this report are not intended to be construed as an extended warranty or protection against failure from wear and tear, deteriorations or construction. This report is the sole opinion of the surveyor and intended to be used solely by the party or firm listed above with no other uses expected than that listed above.

**Vessel Description:** The vessel is a custom constructed sportfishing vessel. It has been constructed in the plank on frame fashion using diagonal Mahogany planking with fiberglass coating on the exterior. It is currently being used for recreational cruising and fishing trips. The vessel can accommodate passengers with a stateroom, berths, galley, head and cockpit. There are twin Mercruiser engines with attached Velvet Drive transmissions installed. The vessel is equipped with fishing amenities and is designed with fishing in mind. Overall, this is an older vessel that has had many recent upgrades performed and is an average vessel in better than average condition of like vessels.

**Vessel Condition:** The vessel has had excellent maintenance performed since it was purchased by the current owner and appears very good on the exterior and interior. The vessel has recently had the port side engine replaced with a rebuilt engine and both engines and transmissions are fully operable. The running gear has been removed from the vessel and new blocking installed along with some new hull planking installed as well. The interior has undergone a refurbishment with new furnishings installed and new sealer applied. In the past year, the electrical systems have also had numerous upgrades installed to make them compliant with ABYC standards. Overall, the vessel is still solid and in good condition for its age.

**Waters to be Navigated:** The vessel is designed and equipped for nearshore waters and has been operating there since constructed. It is well suited for these waters due to the design of the hull and carries all gear necessary for this type of use. This vessel can be operated in many sea conditions if vessel is operated within the builder's specifications. The vessel has an estimated cruising range of roughly 200 miles. The future operating location of the vessel is likely to be in the waters in the North Carolina near Beaufort Inlet.

**Vessel Docking Arrangements:** The vessel is currently docked at a Private Marina in Morehead City, NC. The docks have ample water depth for this vessel to operate and the docks are sheltered from open water. There are wooden pilings and bulkheads that all appear to be ample to support the vessel along with the docks being covered by a sturdy roof. Numerous similar vessels are present at the location along with limited security personnel. The vessel has been docked at this location for the past year. An emergency hauling plan in case of hurricanes is not known at this time.

**Vessel Operating Condition:** The vessel can be operated during all hours of the day. It is normally used during the daylight hours, but has some electronics and navigation lights for nighttime and adverse weather use. The vessel will likely have a crew of 2 for operations and maintenance. It licensed to carry up to six (6) passengers along with the crew but will not likely be operating any charters. The vessel can operate year-round in the North Carolina area waters if desired.

**Experience of Operator:** Mr. John Reynolds is the owner and operator of this vessel. He has been operating this vessel for numerous years in the same capacity. It is not known if he is licensed by the USCG for charter operations. He appears to have a good knowledge of the vessel as he has performed many of the upgrades himself.

## **Survey Outline:**

The vessel was surveyed at a private docking location in Harkers Island, NC and while hauled several weeks earlier in Beaufort, NC. I was asked to survey the vessel for the purpose of obtaining condition and value of the vessel for possible insurance coverage. The surveyor requestor and current owner, John Reynolds, was not present during the inspection. All systems were inspected and some tested for operation. The hull, helm area, cockpit, cabin, engine room, aft compartments and accessible bilge were inspected. All of the findings are listed in the survey. The vessel was not sea-trialed for this inspection and the engines were not inspected by a mechanic at this time. Photos of the vessel were taken of the vessel and are included in this report.

This vessel has been surveyed using the standards of the United States Coast Guard (USCG), American Boat & Yacht Council (ABYC), and the National Fire Protection Association (NFPA). These standards & practices have been used as guidelines for surveying vessels for some time and are respected by this surveyor. Additional information received by product manufactures has also been used in preparing this survey. All information used from these references is believed to be correct and Andrews Marine Surveying assumes no responsibility for any errors due to their use.

The valuation of the vessel in this survey has been prepared by using numerous references. Among them, but not limited to, are the guidelines listed by the Power Boat Guide, ABOS Marine Blue Book, NADA Guidelines, numerous brokerage listings and local knowledge. These references are considered to be a good practice in accurately determining the valuation of any vessel, but the final value is to be considered the opinion of this surveyor.

## **Definition of Terms & Conditions:**

**Excellent:** This description is for new or like new vessels or systems in pristine condition.

**Good:** This description is for like new vessels or systems with only slight problems or cosmetic blemishes. Most problems can be easily repaired or resolved.

**Fair:** This description is for vessels or systems in average condition with normal maintenance. These vessels may be older with minor problems, outdated systems but operational and in need of cosmetic rejuvenation.

**Poor:** This description is for vessels or systems that have had little to no maintenance, damaged, systems not functioning, structural problems and major repairs necessary.

## **Hull & Structure Composition :**

Hull Construction Method : Plank on frame with longitudinal stringers and bulkheads.

Hull Materials: The hull appears to have multiple layers of Mahogany planking with the appearance of fiberglass coating on the exterior. The linier planking is attached to the hull frames and the planking on the hull bottom appears to be thicker. The exterior of the hull bottom is likely coated in fiberglass but the hull sides appeared to be sealed with resin.

Superstructure Materials: The super structure is constructed with marine grade plywood with Mahogany blocking. The structure is coated with fiberglass with epoxy resins being used.

Frame Description: The vessel has Heart Pine frames set on roughly sixteen (16) inch centers. Many of the frames have additional supports in certain locations in the engine compartment. There are wooden batten supports throughout the hull as well. There are additional wood supports and blocking throughout the hull along with Garbor and Chine blocking. Most are located to support systems in the vessel as well as giving structural support to the hull & superstructure. The aft section of the bilge has had upgrades performed in the recent past.

Bulkhead Materials: Marine Grade Plywood # of: 4 Securing Method: Fasteners

Hull / Deck Joint: The hull & decks are joined with FRP and thickened epoxy. There is also stainless steel or bronze fasteners used.

Hull & Bottom Fasteners : Bronze or Stainless Steel Deck Materials: Plywood w/ FRP

Moisture Meter Readings : The vessel's hull was not tested with the meter in any locations due to the vessel being in the water at the time of inspection. No excessive amount or serious moisture was noted on the interior of the hull but it is likely that some moisture is present in some locations below the water line.

Rhythmical Soundings: The vessel was sounded on the cabin, hull and decks. The hull bottom was repaired while it was hauled and the remaining portions of the hull appeared solid. All areas tested appeared good with no indications of delaminating or major water intrusion. The cabin and topside decks also appeared good with areas of major concern. Overall, the structure appears solid with some limited issues.

Hull & Structure Condition : The hull & superstructure are in good condition for its age. The cabin is securely mounted to the hull with limited or no cracks or water related issues noted. All frames and planks were found to be in solid condition with no serious cracks noted. Overall, this vessel appears to be strong with limited structural problems.

**Paint & Finishes:**

Hull Paint Type: Enamel                      Paint Color: White                      Age: Not Known

Cabin Paint Type: Enamel                      Paint Color : White                      Age: Not Known

Deck Paint Type: Enamel                      Paint Color: Lt. Blue                      Age: Not Known

Bottom Paint Type: Anti-Fouling                      Paint Color: Blue                      Age: 2016

Overall Paint Condition: The paint on the hull and cabin are in good condition. The paint appears to have been applied within the past few years. The hull, cabin, bridge and cockpit have a good gloss coating of paint and appear to be sealed well. The bottom paint was applied when the vessel was hauled for bottom repairs.

Date of Last Haulout: 2016                      Location: Bock Marine in Beaufort, NC

Purpose of Haulout: Maintenance

Overall Appearance of Vessel: The vessel has a good overall appearance. It has a good layout and appears well for its age. The vessel was constructed for the purpose of nearshore fishing trips and is well suited for this operation. There is ample room for passengers in both the cabin and cockpit. All gear and tackle is secured properly and the interior is neat and clean.

**HIN Number Tracing:**

The vessel does appear to have been issued a standard HIN number when constructed. The usual location of this number is the aft, upper corner of the transom on the starboard side. The number was located on the USCG document but not the vessel. The USCG requires this number on all vessels under 65ft. A photo of the number is usually taken during the survey and included in the survey report.

**Safety Equipment :**

Life Jackets: # of Adult: 5 / Type I      # of Child: None

Throwable Devices: Type IV ring      Sound Devices: Horn & Bell

Epirb: None      Expiration Date: N/A      Type: N/A

Visual Distress Signals Type: Smoke      # of: 6      Expiration Date: 11/2015

Navigation Lighting: Red & Green side lights & 360\* White light      Status: Operational

Vapor / Smoke Detectors: Yes      Type: Smoke & CO2      # of each: 1 per      Status: Good

Life Rafts: None      Type: N/A      Certification Date: N/A

Other Survival Equipment: First Aid Kit

Does Vessel Comply with USCG Minimum Requirements: Yes

**Safety Features:**

Bow Railing: None      Exterior Cabin Railings: Yes      Interior Cabin Railings: None

Cockpit Railings: None      Helm Railings: Yes      Pulpit: Yes

Windshield Wiper: None      Bridge Ladder: Yes      Bridge Railings: Yes

Tower Ladder: N/A      Tower Railings: N/A      Bow Deck Egress Hatch: Yes

Reboarding Means: Yes      Swim Platform: None      Safety Plaques: Yes

Other Safety Features: Non-Skid texture on decks & Deck Lights

**Fire Systems:**

Number of Extinguishers: 3      Type: ABC sz I      Status: Good

Engine Room System: Fireboy      Type: Halon 1301      Condition: Fair

Status of System: The fire suppression system has recently been serviced and appears to be compliant with NFPA standards.

Does Vessel Comply With NFPA & USCG Standards for Fire Systems: Yes

## **Bilge Pumps & Systems:**

Bilge Pump Manufacture: Seachoice    Number of Pumps: 2    High Water Alarms: Yes

Automatic Switches: Yes    Manual Switches: Yes    Pump Discharge: Hull Side

System Condition: The bilge pumps are operational and more than adequate for the vessel. They are quality pumps and limited standing water was noted in the bilge. No high-water alarms were found in the vessel and are highly recommended.

Number of Seacocks: est. 5    Seacock Material: Bronze    Valve Type: ¼ turn ball & Gate

Valve Manufacture: Various    All Valves Working: Yes    Strainer Type: Scoops & Baskets

Strainer Material: Bronze    Hoses Double Clamped: Yes    ABYC Approved Hoses: Yes

Below Waterline Condition: The thru hulls appear to be solidly mounted in a hull located in the engine compartment. The valves are a little stiff and will require service. All attached hoses appear to be good.

## **Sanitation System:**

Toilet Manufacture: Sealand    Number of Toilets: 1    Type: Electric / Macerated

Holding Tank Material: Plastic    Number of Tanks: 1    Total Capacity: est. 6 gallons

System Macerator Pump: Jabsco    Voltage: 12 VDC    “Y” Valve Operational: Yes

System Configuration: The toilet is an electrically operated unit. It appears that the waste flows directly overboard or into a holding tank. The tank can be emptied by a topside deck plate or inline discharge pump.

System Condition: The toilet appears to be operable. No leaks were detected in the system. All components of the system appear to have been installed within the past few years.

Sump System: A sump system was located in the forward bilge of the vessel.

**Propulsion System:**

Engine Manufacture: Mercruiser      Number of Engines: 2

Engine Model: Not Known      Engine Serial #: (P) Not Located (S) Not Located

Year: Not Known      Horsepower: est. 350 per      Engine Hours: Not Known

Engine Condition: The port engine was rebuilt in 2016 while the starboard engine has little information. The engines reportedly operate well and power the vessel adequately. The engines appear to be in good condition and maintenance appears to have been performed properly.

Transmission Manufacture: Velvet Drive      Number of: 2

Transmission Model: Not Known      Transmission Serial #: (P) Not Located (S) Not Located

Year: Not Known      Ratio: est. 1.50 to 1      Transmission Hours: Not Known

Transmission Condition: The transmissions appear to have been installed in the vessel along with the engines. They appear to be in good condition with no significant problems noted or reported.

Engine Bedding Configuration: Steel engine mounts are connected to the wooden stringers with stainless steel bolts. The stringers appear to be solid with no problems noted.

Engine Cooling System: Raw water cooled thru heat exchangers with expansion tanks

Engine Exhaust Configuration: The dry exhaust mixes with water inside of the engine exhaust risers. All of the wet and dry exhaust is discharged thru dual Bronze and FRP tubes and mufflers. The tubing discharges thru the transom.

Engine Control Type: Cable      Control Manufacture: Morse      Number of Stations: 2

Engine Alarms: Yes      Type: Audible      Gauge Type: Electric

Flame Arrester: Installed Properly      Compartment Ventilation: Vented hullside & cockpit vents

Oil Analysis: Oil samples were not taken or requested for this survey

Engine Reports: An in depth engine survey was not performed.

Seatrial Report: The vessel was not seatrialed for this inspection.



### **Running Gear:**

Prop Size: est. 17 x 17    # of Blades: est. 3    Material: Bronze    Spare Prop: None  
Shaft Size: 1 ¼ inch    Material: Stainless Steel    Length: est. 10 ft  
Shaft Log: Bronze Packing Gland    Shape of Strut: "V"    Material: Bronze  
Shaft Tubes: None    Tube Material: N/A    Cutlass Bearing: Rubber in bronze sleeve  
Rudder Ports: Bronze Packing Gland    # of Rudders: 2    Rudder Material: Bronze  
Steering Type: Cable / Chain    Manufacture: Not Known    # of Stations: 2

### **Fuel System:**

Fuel Type: Gasoline    Tank Material: Monel    Total Gallons: est. 200 total    # of: 2  
Location: Outboard of Engines    Shape: Rectangle    Vent Location: @ hull side  
Installation: Tanks are blocked in place    Condition: Good  
Fuel Line Type: A-1 Rubber    Condition: Good    Filter Type: Canisters    # of: 1 per  
Filter Location: Engine Compartment    Fuel Shut-off Valve: ¼ turn ball    Location: Filters  
Does Vessel Comply with NFPA & USCG Standards for Fuel Systems: Yes

### **Freshwater System:**

Water Tank Material: Not Known    Total Gallons: est. 30    # of Tanks: 1  
Tank Location: Aft Bilge    Dockside Connection: None  
Water Pump Manufacture: Jabsco    Size of Pump: 3.5 gpm    Voltage: 12 VDC  
Water Heater Manufacture: Raritan    Number of Gallons: 10    Voltage: 120VAC

System Condition: The freshwater system in the vessel was not fully tested. All of the components were present and the pump produced ample pressure. The heater was not tested but is believed to be operational.

## **Electrical Systems**

### **VAC System:**

Type of Shorepower : 30A / 120 VAC      Number of Connections : 2

Location: Port Cabin Side      Manufacture : Marincó      Phone &/or TV: Yes

Number of Cables: 2 – 50ft      Cable Condition: Good

Type of 120/240 Volt Wiring: 600 VAC thermoplastic boat cable

Wiring Condition : Where visible, all wiring appears good. It is supported very well with most of the wiring being bundled and properly secured. Some of the wiring appears to have been replaced with new in recent years.

Vessel Fitted with GFIC Receptacles : Yes      Number of : 2      Operational: Yes

VAC System Distribution: An electrical panel is located in the forward cabin of the vessel. All voltages are distributed through this panel. The panel is marine related and compliant with ABYC standards. The panel was installed along with much of the wiring recently.

Circuit Protection: There is a 30 amp main breaker located in the electrical panel

Type of Breakers: Magnetic      Number of : 6 for all VAC voltages

Monitoring System: None

Does Vessel Comply with ABYC Standards for VAC Electrical Systems: Yes

### **Auxiliary Electrical Generator:**

Manufacture: None      Number of Generators: 0      Year: N/A      Hours: N/A

Model #: N/A      Serial #: N/A      Number of KW: N/A

Sound Shield : N/A      Remote Start & Stop: N/A

Mounting Description: N/A

Generator Condition: The vessel does not contain an auxiliary generator. There is also a power inverter present however it is small and very limited.

### **VDC System:**

Battery Type: 8D & 31M      Battery Manufacture: NAPA      Number of: 3 total

Battery Age: est. 4 years      Battery Location: Engine Compartment

Battery Stowage Method: Plastic Boxes      Ventilation: Batteries not enclosed

Battery Switch Manufacture: Blue Sea      Number of Switches: 4

Circuit Protection: The system has some fuses installed for the house systems along with several other fuses present. An overall system breaker was located as required by ABYC standards.

VDC System Distribution: A VDC panel is located in the cabin of the vessel which has the majority of the system controls. There are some individual switches located in the bridge.

Type of Breakers: Push Type Breakers      Number of: 18 total

Monitoring System: None

Battery Charging: Engine mounted alternators / VAC charger

### **Vessel Grounding System:**

Bonding Materials: Plastic Coated Copper Cable & Flat Copper Strap

Bonding Description: The vessel has some bonding wires connected to the running gear, electrical systems and other related systems. These systems are connected to the running gear for grounding. The connections for the fuel system were not installed. The vessel is bonded in typical fashion for this age of vessel. Numerous binding wires were found not connected and other systems were found in need of connection due to the metal components used.

Cathodic Protection Description: The propulsion shaft has several zinc anodes attached

Condition of Zincs: The zincs were replaced when the vessel was last hauled.

Lightning Protection System: None

### **Electronics & Navigation Equipment :**

- 1) VHF Radio - Cobra - DSC
- 2) VHF Radio - Icom - IC-M304
- 3) Sounder - Lowrance - X52
- 4) GPS/Sounder - Garmin - 740s
- 5) Compass - Ritchie - 4 inch

### **Additional Hardware / Systems:**

- 1) Propane System
- 2) Canvas Shade Top w/ Stainless Steel frame
- 3) Cockpit Deck Box
- 4) Helm Seating
- 5) Cabin Helm Seating
- 6) Cobra Inverter
- 7) Cabin Fans
- 8) Honda Generator

### **Interior Appliances & Furnishings:**

- 1) Princess Stove & Oven
- 2) Sony DVD Player
- 3) Insignia TV
- 4) Alpine Stereo
- 4) Cabin Heater
- 5) Keurig Coffee Pot

### **Ground Tackle:**

- 1) Danforth Anchor
- 2) Nylon Line
- 3) Anchor Chain

### **Deck Hardware:**

- 1) 6 – 12 inch Stainless Steel Cleats
- 2) 2 – Sampson Post in cockpit

### **Surveyors Recommendations:**

- 1) The vessel has a portable generator located in the cockpit. The use of portable generators is not recommended on vessel due to the possibility of harmful CO<sub>2</sub> and exhaust gases. This unit should not be used on the vessel and removed.
- 2) There is a gasoline can located in the aft bilge. Due to the high flammability characteristics of the gasoline, this is a fire hazard. The gasoline can should be removed from the aft bilge.
- 3) The propane system does not have an electrical shut down switch as required by ABYC standards. The system is required to have an electrical shut down switch which is located near the galley appliance. Installing of this switch is required.
- 4) The galley stove has an installed cover but does not have a shutoff switch on the cover as required by ABYC standards. The cover is required to have a shutoff switch in the event that the cover is closed while the stove is on. This switch should be installed or the cover removed from the stove.
- 5) There are some of the exhaust hoses for the engines have only single clamps to retain them. ABYC standards require that all exhaust hoses have two (2) clamps to retain all hoses. Additional clamps will need to be installed along with replacement of some of the severely rusted clamps.
- 6) The positive terminals on the batteries are exposed. ABYC standards require that these terminals be covered to prevent any accidental contact. A rubber boot or box lid will need to be installed to comply with this standard.
- 7) The fuel tanks are not bonded as required by ABYC standards. A suitable bonding wire will need to be attached to the bonding tab and connected to the bonding system.
- 8) There are several gate valves that are used as below waterline thru hull valves. ABYC standards recommend that these type valves be changed out to ¼ turn ball type valves. The next time the vessel is hauled, the gate valves should be changed to the more dependable ¼ turn valves.
- 9) There are numerous bonding wires that are not connected and several other systems that will need to be bonded. The existing bonding wires should be reconnected and other systems, especially copper metals, should have a wire connected and be properly bonded.
- 10) The shorepower cable has a burnt and melted terminal on the plug. This is an indication that a short or poor connection has occurred. The plug will need to be replaced and the terminals cleaned of all corrosion to ensure a proper connection.

**Appraisal & Valuation:**

Original Cost: Not Known

Actual Cash Value: \$75,000.00 to \$78,000.00

Market Value: \$80,000.00 to \$85,000.00

Replacement Cost: Not Known

After surveying this vessel, I have come to these figures. I have compared like vessels, the current markets, the availability of these vessels and feel that they are accurate figures. I have taken into consideration that this vessel has had very good maintenance since it was built and has had many upgrades installed in recent months. This vessel is plank on frame constructed using quality materials and the hull appears to still be in solid condition. The systems have been upgraded along with the port engine which all appear to be fully operable. The interior of the vessel is also newly refurbished. The current economic downturn has caused all vessel values to fall in worth, including older wooden vessel. The values for this vessel have increased slightly due to the recent upgrades along with the overall good condition. The vessel and its systems are more than adequate for its intended use. The vessel is in very good condition for its age. Very few comparison vessels were located to try and determine its worth. The above listed values are a reflection of the condition of this vessel as found at the time of the survey. I feel that all of these factors make the above figures inline with the boating markets in this area, for this type of vessel. Should there be any questions concerning this vessel or its subsequent survey, please feel free to contact me.



Michael Andrews  
Surveyor



SAMS / AMS Surveyor # 945  
ABYC / Standards Proficient  
Y, SC & FV Designations  
FEMA & NC Adjuster  
USCG / 100 ton Master