

Ulrick Marine  
MARINE SURVEYOR AND CONSULTANT

48 Maritimo

**"Sample"**



MEMBER OF SOCIETY OF ACCREDITED MARINE SURVEYORS

528 Sugar Tree Road Holland, PA 18966  
(215) 396-7996 Fax (215) 331-7624

# Report of Marine Survey

Of The Vessel

***"Sample"***

48 Maritimo

Conducted by  
Charles Ulrick

INDEPENDENT (SAMS # 906) MARINE SURVEYOR

PREPARED FOR:

Sample

October 04, 2014

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# I. INTRODUCTION

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## SCOPE OF SURVEY

Acting at the request of Sample, the attending surveyor did attend onboard the 48 Maritimo, "Sample" beginning on August 19, 2014 where an "in-the-water-survey" was conducted at Annapolis, MD. The ship's papers were on board and appeared to be in order. The Hull Identification Number OE048 was verified from the transom. A sea trial was performed. An out-of-the-water inspection of underwater machinery and the exterior of the hulls wetted surface area was performed. The reason for the survey, was to ascertain the physical condition and value of the vessel. Moisture readings taken and referenced throughout the body of the report, were taken with the Tramex Skipper and Aquant moisture meters. AC and DC power was used to check operation of the electrical systems specified in this report only. No reference or information should be construed to indicate evaluation of the internal condition of the engines or the propulsion system's operating capacity. Electronic equipment was checked for "power up" only.

This vessel was surveyed without removals of any parts, including fittings, tacked carpet, screwed or nailed boards, anchors and chain, fixed partitions, instruments, clothing, spare parts and miscellaneous materials in the bilges and lockers, or other fixed or semi-fixed items. Locked compartments or otherwise inaccessible areas would also preclude inspection. Owner is advised to open up all such areas for further inspection. Further, no determination of stability characteristics or inherent structural integrity has been made and no opinion is expressed with respect thereto. This survey report represents the condition of the vessel on the above dates, and is the unbiased opinion of the undersigned, but it is not to be considered an inventory or a warranty either specified or implied.

NOTE: It is recommend and understood that all DIESEL engines be surveyed by a qualified Engine Surveyor to determine the condition of the engines, gears and pumps, heat exchangers, coolers, etc.

### CONDUCT OF SURVEY:

THE MANDATORY STANDARDS PROMULGATED BY THE UNITED STATES COAST GUARD (USCG), UNDER THE AUTHORITY OF TITLE 46 UNITED STATES CODE (USC); TITLE 33 AND TITLE 46, CODE OF FEDERAL REGULATIONS (CFR), AND THE VOLUNTARY STANDARDS AND RECOMMENDED PRACTICES DEVELOPED BY THE AMERICAN BOAT AND YACHT COUNCIL (ABYC) AND THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAVE BEEN USED AS GUIDELINES IN THE CONDUCT OF THIS SURVEY.

The use of the word "appears" is intended to indicate that a close or complete inspection was not possible or it was not deemed appropriate at the time of this survey. The deficiencies reported herein reflect the conditions observed at the time the survey was conducted.

Use of asterisks \* in the body of the report will indicate that a finding will be listed in the Findings and Recommendations section pertaining to the asterisked item, following the body of the report.

# I. INTRODUCTION

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This vessel was manufactured prior to enactment of some of the current USCG CFR regulations and NAPA and ABYC standards . Compliance with those currently in force through necessary for the safety of the vessel and those on board results in entries in Section IV A and/or Section IV B of the Findings and Recommendations Section of this report. Others left to the discretion of the owner are in Section IV C. Thus the report does not suggest complete compliance with all current requirements, standards or practices.

# I. INTRODUCTION

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## VESSEL DESCRIPTION

Introduction to the Maritimo 48 Long Range Cruiser:

The Maritimo M48 is a genuine long-range luxury motoryacht with a great number of unique features. The moment you step on the boat you will realize the possibilities of three staterooms, two saloons, two aft decks, two designer-styled bathrooms and two helm stations. You will be hard pressed to find many cruisers with so many luxurious appointments woven seamlessly into its design. She is easy to drive like every Maritimo and it is also incredibly frugal on fuel without compromising performance. With an advanced hull design, engines mounted forward and fuel tanks positioned amid ships, the 48 has superb balance and sea keeping abilities. Apply the power and you'll never bury the stern, ride bow high - or use fuel inefficiently.

## II. GENERAL INFORMATION

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### GENERAL INFORMATION

FILE NUMBER: .....	140819096
SURVEY PREPARED FOR: .....	Sample
<hr/>	
NAME OF VESSEL: .....	"Sample"
TYPE OF SURVEY: .....	Pre-Purchase for Buyer
OVERALL VESSEL RATING:.....	**** ABOVE AVERAGE
ESTIMATED MARKET VALUE: .....	\$735,000.00
ESTIMATED REPLACEMENT COST: .....	\$1,400,000.00
BUILDER: .....	*** Maritimo Offshore.
YEAR BUILT: .....	*** 2007
MODEL YEAR: .....	2008
DESIGNER: .....	Bill Barry-Cotter
MODEL OF VESSEL: .....	Enclosed Flybridge Motor Yacht
HULL IDENTIFICATION NUMBER (HIN): .....	0E048
USCG DOCUMENTED FOR: .....	Recreational
DATE/TIME OF SURVEY: .....	October 04, 2014
WEATHER: .....	Sunny and clear
HULL MATERIAL: .....	Solid FRP ( Fiber Reinforced Plastic) cored sides and decks
HULL TYPE: .....	Deep V
LENGTH OVER ALL (L.O.A.): .....	51' 6"
BEAM: .....	17' 1"
DRAFT: .....	4' 3"
DEPTH: .....	*** 9.1
DISPLACEMENT: .....	48,500 lbs
OVERHEAD CLEARANCE: .....	19' 8" with antennas 27'
GROSS TONS: .....	*** 54 Tons
NET TONS: .....	*** 43 Tons
PROPULSION SYSTEM: .....	Twin Inboard's
FUEL TYPE: .....	Diesel.
FUEL CAPACITY: .....	925 Gallons

## II. GENERAL INFORMATION

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AC POWER: .....	50amp/240volt
DC POWER: .....	24 and 12 volt system
FRESH WATER CAPACITY: .....	211 Gallons including water heater
HOLDING TANK: .....	80 Gallons
INTENDED USE/BUYER: .....	Recreational cruising
BUYER'S EXPERIENCE: .....	Owned previous boats. Has taken USCG Auxiliary Boating Skills and Seaman Ship course.
INTENDED CRUISING AREA: .....	Near coastal and inland water ways.



## II. GENERAL INFORMATION

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### DEFINITION OF TERMS:

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

#### APPEARS:

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

#### FIT FOR INTENDED USE:

Use which is intended by Survey Purchaser(present or prospective owner).

#### SERVICEABLE: ADEQUATE:

Sufficient for a specific requirement.

#### POWERS UP:

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

#### EXCELLENT CONDITION:

New or like new.

#### GOOD CONDITION:

Nearly new, with only minor cosmetic or structural discrepancies noted.

#### FAIR CONDITION:

Denotes that system, component or item is functional as is with minor repairs. (MONITOR OFTEN)

#### POOR CONDITION:

Unusable as is. Requires repairs or replacement of system, component or item to be considered functional.

#### USE OF \*:

Use of \* in the body of this report will indicate that a finding will be listed in the "Findings and Recommendations" section pertaining to the \* item.

Asterisks \* in this General Information section refers to the source of such information as follows:

\* Per Manufacturer's Specifications

\*\*Refer to Summary and Valuation Section

## II. GENERAL INFORMATION

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### DEFINITION OF TERMS: *(continued)*

\*\*\* Per USCG Documentation

\*\*\*\* Per Buc Book

# III. SYSTEMS

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## HULL DECK AND SUPERSTRUCTURE

### HULL CONSTRUCTION

**TYPE:**

Deep-V, planing type, with flared bow and sweeping sheer, reverse chine,s, and V- bottom with keel

**MATERIAL:**

FRP (fiber reinforced plastic). Assorted mats, Kevlar in areas, vinyl ester resin and gelcoat sides and decks cored with end grain Balsa with solid glass at hull penetrations.

**EXTERIOR HULL:**

White gelcoat with black boot stripe very good condition, no damage or repairs were observed.

**BULKHEADS:**

Athwartships reinforcement enhanced by encapsulated bulkheads and structural grid bonded to the hull with FRP (fiber reinforced plastic). Good condition where sighted.

**STRINGERS:**

Hull stiffness provided by FRP longitudinal stringers. Good condition. Low moisture readings no delamination was detected.

**STEM:**

Raked stem FRP with flared bow. No damage or repairs were observed.

**TRANSOM:**

\*B1

Curved transom with molded FRP swim platform (with in sole lockers with drains) port and starboard transom doors, hide away telescopic boarding ladder. Elevated moisture was detected at the locker hardware. The transom doors are not secured in the open position.

**BILGE:**

Deep below the salon. The bilge area contains most boat systems. Very clean!. Shallow bilge forward.

**CHAIN LOCKER (DRAINAGE):**

The anchor locker is located in the foredeck and is a single V-shaped locker with a divider drains over the port and starboard bow.

**KEEL:**

3/4 Length shallow FRP

**KEEL EXTERNAL:**

FRP Good condition part of hull layup.

**LIMBER HOLES:**

Limber holes are of adequate size and clear where sighted. The forward limber hole was blocked and condensation water was in the forward compartment, I cleared the hole and the water drained to the bilge pump.

**MOISTURE CONTENT:**

Low moisture readings and good soundings at topside's and transom.

# III. SYSTEMS

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## HULL DECK AND SUPERSTRUCTURE

### DECK CONSTRUCTION

TYPE:

Raised cabin and superstructure with enclosed flybridge

MATERIAL:

Molded fiberglass and gelcoat

NOTE:

Low moisture readings and good soundings. No damage or repairs were observed.

### HULL-TO-DECK JOINT

TYPE:

Visible from the aft bilge the hull to deck joint was of the deck overlap type.

FASTENERS:

Stainless steel screw type.

BEDDING COMPOUND:

Heavy duty marine adhesive.

REINFORCEMENT:

A rub rail with 1/4 round stainless steel molding surrounds most of the vessels hull joint and is in good condition

NOTE:

No leaks were sighted at the hull joint .

### DECK FITTINGS

STANCHIONS/BOW RAIL:

Stainless steel stanchions and welded bow rail well secured and bedded to the bulwark.

BULWARK:

Molded FRP, part of deck layup. Low moisture and good soundings

CLEATS:

\*B2

6 Stainless steel bollard cleats with stainless steel chafe protection well secured. Pop up horn type cleats in the swim platform. The starboard midship cleat has elevated moisture.

HAWSE PIPES:

Stainless steel hawse pipe fitting at the bow. Serviceable

DECK SURFACE:

\*B3

Molded non slip surface. Low moisture readings and good soundings over most of the decks no damage or repairs were observed. High moisture (no delamination) was detected at the windlass, the center support of the dingy cradle and the starboard aft deck hatch

HATCHES:

4 Flush mounted 20" hatches with screens and sunshades. Good condition.

GRAB RAIL:

Stainless hand rails at various locations on vessel. Adequate and secured.

# III. SYSTEMS

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## HULL DECK AND SUPERSTRUCTURE

### DECK FITTINGS (*continued*)

#### ANCHOR PLATFORM:

Stainless steel anchor roller. Serviceable.

#### DAVITS:

24 Volt ADC electric crane worked when tested.

### SUPERSTRUCTURE

#### MATERIAL:

Molded FRP with Safety glass windows.

#### WINDOWS/PORTS/DOORS:

Sliding glass windows port and starboard, sliding salon doors and starboard midship door. Good condition. The port salon door has a worn secondary latch.

#### FITTINGS AND HARDWARE:

All stainless steel in good condition through out the vessel.

#### SUPERSTRUCTURE HOUSE TO DECK JOINT:

Molded seamlessly no gel coat cracks were observed.

#### MOISTURE CONTENT:

Low moisture readings and good soundings. No damage or repairs were observed.

### FLYBRIDGE

#### MATERIAL:

Molded FRP. Low moisture and good soundings.

#### TYPE:

Enclosed, carpeted , air conditioned and heated flybridge with after deck and sunshade (throttle and shift controls worked ). Sliding glass windows port and starboard, Sliding aft glass door Hard top vent. Center windshield vent. White vinyl headliner, high gloss teak trim. Dinette aft of the helm with teak table and wet bar to port. Insignia flat screen TV (worked when tested). Domestic refrigerator worked when tested.

#### COCKPIT:

Large aft self bailing cockpit with inlaid teak, Access hatch with pneumatic struts, port and starboard lockers. Engine room access. Wet bar and freezer worked when tested. Hot and cold transom shower. Fresh water wash down. Stainless steel electric grill worked when tested. Raymarine E-80 and bow and stern thruster controls and Simrad auto pilot. Teak chairs and table. Low moisture, no loose bungs or teak. The teak runs up the port and starboard sides.

#### SEATS:

Stidd helm and mate, port settee and dinette ultra leather seats, in good condition.

#### HARD TOP:

Fiberglass hard top with vent. Low moisture and good sounding where reached.

#### WINDSHIELD:

Three piece forward windshield with working windshield wipers and washers. Good condition.

#### SAFETY RAIL SYSTEM:

Stainless steel tubular rail and stanchion system surrounds the aft bridge area.

# III. SYSTEMS

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## HULL DECK AND SUPERSTRUCTURE

### FLYBRIDGE (*continued*)

#### HELM:

Helm to starboard with Smart Craft package and electronics. Good field of vision.

#### NOTE:

\*B4

The after deck stainless steel antenna supports have high moisture and dripping water on the under side.

### ADDITIONAL EQUIPMENT AND ACCESSORIES

#### GENERAL EQUIPMENT:

Gariston washer and dryer combo, both powered up. Central vacuum system with flybridge and salon ports, worked when tested. Transom under water lights worked when tested.

#### ACCESSORIES:

Spare impeller and small parts, boat manuals, fold up deck chair in aft bilge

#### DINGHY/TENDERS:

2010 Rigid Boat hard bottom inflatable with a custom cradle and cover. HIN # WSX12004A010. Tohatsu 30 hp four stroke engine Serial 035156XK. Garmin 440 GPS and lifting harness and bilge pump. New battery installed at survey

#### CANVAS AND COVERS:

Black mess windshield and side window covers, aft cockpit curtains. Crane and dingy covers. Good condition.

#### FENDERS:

3 Fenders in aft bilge.

#### DOCK LINES:

4 Black braided lines.

### FISHING EQUIPMENT

#### ROD HOLDERS:

Bolt on rod holders.

## CABIN APPOINTMENTS

### INTERIOR DESCRIPTION:

#### JOINERY AND FINISH:

The joinery and finish of the teak interior was above average.

#### CABIN BRIGHT WORK:

High gloss varnish finish on all teak doors, cabinetry and trim. Excellent condition.

#### INTERIOR BULKHEADS:

The interior bulkheads fit well throughout the vessel.

#### WATER INTRUSION SIGNS:

After through visual inspection no water intrusion was sighted.

# III. SYSTEMS

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## CABIN APPOINTMENTS

### INTERIOR DESCRIPTION: *(continued)*

#### STORAGE AREAS:

\*C1

The cabinets, lockers, drawers, and shelving were well crafted and provide adequate storage. The support struts for the navigation top do not stay up.

#### HEADLINERS:

White vinyl headliner with teak battens

#### DOORWAYS:

All teak interior doors are in good condition.

#### FABRIC AND CUSHIONS:

Ultra leather and ultra suede in very good condition.

#### FLOOR COVERINGS:

Tan carpets with snap in runners in the salon in good condition

#### ACCOMMODATIONS:

The vessel sleeps six in three state rooms

#### HEADS:

2 Heads on vessel with working exhaust fans

#### SHOWERS:

Shower stalls in each head and transom shower. All operable.

#### FAUCET FIXTURES:

The faucet fixtures and decorative sinks were operable

#### LIGHT FIXTURES:

\*C2

12 Volt cabin lights throughout the vessel were operable. The lights below the master stateroom bed did not work when tested

#### SALON FURNISHINGS:

\*C3

Large salon with the galley aft, port and starboard L-shapes settee's, teak tables. U-line ice maker powers up did not make ice. TV, stereo system, VHF radio. Plenty of storage. Stair case to the flybridge

#### CABIN FURNISHINGS:

\*B5

Forward VIP cabin with island berth, hanging lockers, overhead hatch, reading lamps and entrance to the starboard head. (the bed cover is missing), Guest cabin with over and under berths, wash/dryer combo, reading lamps. Master cabin with queen berth private head with shower stall, TV, hanging lockers and drawers, overhead hatch. 2 Night stands

#### CABIN SOLE:

Tan carpets. Good condition.

#### VENTILATION:

Adequate ventilation using the forward hatches, Portlights, salon windows and salon doors.

# III. SYSTEMS

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## CABIN APPOINTMENTS

### INTERIOR DESCRIPTION: *(continued)*

#### CONDITION AND DEFICIENCIES:

The vessels interior is well kept and clean shows little use.

### GALLEY

#### LOCATION:

Starboard side aft of the salon

#### SINKS:

Rectangular stainless steel sink.

#### REFRIGERATION:

Liebherr refrigator with ice maker and freezer below. worked when tested

#### STOVE:

Contour three burner stove worked when tested.

#### MICROWAVE:

Tappan worked when tested

#### ACCESSORIES:

\*C4

Toaster, Dish washer (powered up). Overhead hood vent and light did not work when tested

#### NOTE:

Teak galley sole and Corian counter top.

## PROPULSION

### MAIN ENGINES

#### TYPE:

Twin fuel injected four cycle turbo charged with after cooler engines.

#### MANUFACTURER:

Cummins QSM11

#### SERIAL NUMBERS:

Port # 35189705 Starboard # 35190388

#### LABELS AND NOTICES:

All required labels appeared to be in place and readable.

#### HORSE POWER:

Approximately 660 rated hp. @ 2300 rpm

#### NUMBER OF CYLINDERS:

Six (6) in line configuration.

#### INDICATED HOURS:

Port hours 521 Starboard hours 518

#### THROTTLE CONTROLS:

Electronic controls at three stations all were tested and worked.



# III. SYSTEMS

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## PROPULSION

### MAIN ENGINES (*continued*)

#### AIR FILTERS:

The filters are clean

#### EMERGENCY SHUT DOWN:

Seafire automatic with override.

#### ENGINE MOUNTS AND BED:

Mounted to steel adjustable mounts with rubber isolators bolted to the main stringers.  
Good condition

#### DRIP PANS:

None Sighted. Engine fluid and loose debris falls into bilge area. a oil absorbing clothe is recommended to be USCG compliant.

#### LUBRICATION:

Internal oil pump with engine mounted spin off filter. The oil is full

#### VENTILATION:

Natural, flow ventilation provided by grill vents with washable filters.

#### EXHAUST SYSTEM:

Raw water cooled exhaust 8" approved type hoses and double clamps and marine FRP muffler exiting the port and starboard quarters. No leaks were sighted.

#### LUBE TRANSFER:

None sighted

#### INSULATION:

Sound deadening insulation was noted in engine room. Serviceable.

#### ENGINE SHUT DOWN:

Helm keys

#### ENGINE SYNCHRONIZER:

Glendinning electronic worked at all stations.

#### STUFFING BOX:

Rubber boot with double clamps. Serviceable

#### CONDITION AND DEFICIENCIES:

Good condition.

#### OTHER:

The vessel is equipped with Cummins Smart Craft technology ( engine temp, RPM, volts, depth oil pres, fuel scan ect..)

### COOLING SYSTEM

#### TYPE:

Closed fresh water reservoir type cooling system

#### COOLANT LEVEL:

The coolant is full

#### HOSES AND CLAMPS:

Reinforced rubber hose well clamped and well routed and supported.

# III. SYSTEMS

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## PROPULSION

### COOLING SYSTEM (*continued*)

#### BELTS AND PULLEYS:

The belts and pulleys are in serviceable condition.

#### SEACOCKS AND STRAINERS:

The strainers were enclosed type and valves operable.

#### NOTE:

I recommend changing the impellers and zincs as a maintenance item unless they were recently serviced.

### TRANSMISSIONS

#### TYPE:

Hydraulic transmissions

#### MANUFACTURER:

ZF transmissions Model 325 1A. Port serial # 20085448 and Starboard # 20086626

#### DRIVE TYPE:

Shaft drive with coupler no excessive corrosion was sighted.

#### GEAR RATIO:

Transmission tag states 2:037 ratio, for both port and starboard.

#### FLUID LEVEL AND CONDITION:

Normal level indicated on dipsticks. The port was slightly low from a filter change

#### CONTROLS:

Electronic controls at three stations all worked when tested.

#### PROP SHAFT:

2 1/4" Stainless steel

#### COUPLER (SAFETY WIRE):

Castle nut behind flange.

#### PACKING GLAND:

Dripless bearing type with spare seals. Serviceable

#### COOLER:

External engine mounted raw water heat exchanger. Serviceable condition.

## FUEL SYSTEM

### MAIN ENGINE(S) FUEL SYSTEM

#### FUEL TYPE:

Diesel.

#### MATERIAL:

Fiberglass fuel tank

#### NUMBER OF TANKS:

Single tank with sight tube in the bilge no fuel gauge.

#### TANKS CAPACITY:

925 allons

# III. SYSTEMS

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## FUEL SYSTEM

### MAIN ENGINE(S) FUEL SYSTEM (*continued*)

SECURED:

Well secured. Built into the vessel

LOCATION:

Athwartships forward of the engines.

MANUFACTURING LABEL:

None Sighted Due to Access.

FILL PIPE LOCATIONS:

Port and and starboard side decks marked Diesel.

FILL PIPE GROUNDED:

Not sighted due to access.

FILL PIPE MATERIAL:

Reportedly USCG A2 hose

FILL PIPE FITTINGS:

Stainless steel

FUEL LINES AND FITTINGS:

Grade USCG type A1. Swaged fittings. Good condition

VENT LOCATION:

Port and starboard topsides

SHUT-OFF VALVE:

Shut off valve at the tank.

FUEL FILTERS:

Racor 1000 and engine mounted secondaries.

FILTER/FUEL CONDITION:

Good condition no debris was sighted in the fuel bowls.

FUEL COOLER:

Engine mount fuel cooler. Serviceable condition.

OTHER:

The vessel is equipped with a ESI fuel polishing system

NOTE:

A complete inspection of the entire fuel tank was not possible due to access.

## ELECTRICAL SYSTEMS

### ELECTRICAL SYSTEM (D.C. SYSTEM)

VOLTAGE:

12 and 24 volt system

BATTERIES:

6 Batteries 8D lead acid properly installed. No date tag was sighted. One battery is reportedly new.

# III. SYSTEMS

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## ELECTRICAL SYSTEMS

### ELECTRICAL SYSTEM (D.C. SYSTEM) (*continued*)

#### MAIN BATTERY SWITCHES:

Nine rotary type switches at the main panel including parallel switches.

#### PANEL:

Main panel is at the port side of the salon with breakers and indicator lights.

#### BREAKERS/FUSES:

The vessel uses circuit breaker and fuse protection.

#### TYPE CONNECTORS:

\*B6

Round lugs. The starter lugs are not properly protected or covered.

#### ROUTING/SUPPORT:

Well supported and secured where sighted meets ABYC standards.

#### CHARGING SYSTEM (BATTERY CHARGER):

60 Amp marine charger in the engine space worked when tested.

#### CHARGING SYSTEM (ALTERNATOR):

Belt driven alternator estimated at 105 amps. Serviceable.

### ELECTRICAL SYSTEM (A.C. SYSTEM)

#### SHORE POWER INLET:

\*B7

Glendinning cable master port cockpit locker. Worked when tested. No label was sighted at the inlet.

#### SHORE POWER:

50amp/240volt power cord estimated at 50-60 ft.

#### AC SOURCE SELECTOR SWITCH:

Double pole breakers at the main panel.

#### MAIN BREAKER:

Triple pole breakers at panel.

#### BRANCH BREAKERS:

Well marked breakers with indicator lights.

#### CIRCUIT LOAD MONITORS:

Polarity lights and digital display.

#### WIRE TYPE (SIZE AND RATING):

Size and rating, where sighted, appears well routed and supported, serviceable for intended use. Meets ABCY standards

#### OUTLETS:

Various A.C. outlets throughout vessel, adequate and conveniently located.

# III. SYSTEMS

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## ELECTRICAL SYSTEMS

### ELECTRICAL SYSTEM (A.C. SYSTEM) (*continued*)

**POLARITY:**

\*C5

Checked: At A.C. outlets, polarity normal. GFCI protected. A outlet under the cockpit sink did not have polarity.

**GALVANIC ISOLATOR:**

None Sighted. Check with manufacture. Highly recommended to reduce accelerated zinc loss.

**OTHER:**

I recommend in stalling an ELCI in the AC electrical system per current ABYC standards  
See attached. 11.11 GROUND FAULT PROTECTION - AC

**SYSTEMS**

11.11.1

An Equipment Leakage Circuit Interrupter (ELCI) or Type A Residual Current Device (RCD) shall be installed with or in addition to the main shore power disconnect circuit breaker(s) or at the additional overcurrent protection as required by E-11.10.2.8.3 whichever is closer to the shore power connection.

**NOTE:**

\*B8

The residual current breaker tripped several times during the survey

### GENERATORS AND INVERTERS

**TYPE:**

Generator driven by diesel powered internal combustion engine,

**MANUFACTURER:**

Onan Serial # C0700301

**KILOWATT RATING:**

21.5 Kw.

**VOLTAGE RATING:**

120/240 AC.

**NUMBER OF CYLINDERS:**

4 Cylinders

**INDICATED HOURS:**

721 Hours

**LOCATION:**

Engine room, port side aft in hush box.

**FLUID LEVELS:**

Normal levels

**COOLING SYSTEM:**

Closed coolant with raw water cooled heat exchanger. I recommend changing the impeller unless it was recently serviced.

# III. SYSTEMS

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## ELECTRICAL SYSTEMS

### GENERATORS AND INVERTERS (*continued*)

FUEL SUPPLY:

Electric fuel pump with A1 hose.

FUEL FILTER:

Remote Racor filter/water separator and engine mount spin on/off type.

LUBRICATION SYSTEM:

Engine mounted mechanical oil pump with spin on/off type filter.

EXHAUST SYSTEM:

\*A1

Raw water cooled aqua lift type FRP (fiber reinforced plastic). Marine grade flex hoses are doubled clamped. Exits port quarter. The exhaust hose was leaking at several areas.

ACCESSIBILITY:

Good.

WARNING LABELS:

The required labels appeared to be in place and readable.

DC/AC INVERTER:

2 Kw inverter not tested

LOCATION & VENTILATION:

Not sighted

NOTE:

The generator started quickly, ran normally and handled a load and maintained voltage

## FRESH WATER SYSTEM

### FRESH WATER SYSTEM: (POTABLE WATER)

STORAGE TANKS:

2 Fresh water tanks

CAPACITY:

200 Gallons

ACCESS:

Good

LOCATION:

Under cockpit sole

MATERIAL:

Polyethylene tanks

FILL PIPE LOCATION:

Tank tops.

VENT PIPE LOCATION:

Port and starboard topside's.

PUMPS:

Shur Flo 12 volt on demand worked when tested.

# III. SYSTEMS

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## FRESH WATER SYSTEM

### FRESH WATER SYSTEM: (POTABLE WATER) (*continued*)

#### FILTERS:

One inline filter was sighted behind the starboard vent and one at the pump.

#### HOSES AND CLAMPS:

Reinforced plastic tubing at various areas throughout vessel. Serviceable where sighted.

#### DOCK SIDE PRESSURE REGULATOR:

Pressure regulator at dock side hose connection, in cockpit locker Not tested.

### FRESH WATER SYSTEM (HOT WATER SYSTEM)

#### TYPE:

220 Electric. Marine grade.

#### MANUFACTURER:

Appears to be Seaward. Powers up.

#### CAPACITY:

11 gallons.

#### PRESSURE RELIEF VALVE:

\*B9

Yes, copper pressure relief valve built into tank.

#### NOTE:

The water heater is located under the forward cabin step.

### FRESH WATER SYSTEM (WATER MAKING SYSTEM)

#### TYPE:

The vessel is reportedly rigged for a system, none sighted

## SANITATION

### SANITATION (BLACK WATER)

#### MANUAL OR ELECTRIC TYPE:

Both electric heads worked when tested.

#### NUMBER OF HEADS:

Two (2) heads on vessel.

#### LOCATION OF HEADS:

Port and starboard midships

#### M.S.D TYPE USCG SYSTEM:

Certification Type: MSD U.S.C.G. Type III. (Holding tank)

#### WATER SUPPLY AND CLAMPS:

Fresh water supplied. Serviceable condition. The vessel is equipped with optional raw water flush.

#### DISCHARGE HOSES AND CLAMPS:

White Santi type hoses. Serviceable.

#### PUMP-OUT LOCATION:

Starboard side deck marked for waste.

# III. SYSTEMS

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## SANITATION

### SANITATION (BLACK WATER) (*continued*)

MACERATOR:

Yes not tested

SYSTEM INSTALLATION:

Well installed with vent filter and tank monitor.

HOLDING TANK:

Polyethylene located under the cockpit

CAPACITIES:

80 Gallons

OTHER:

The heads are equipped with a working exhaust fan

NOTE:

THE CAPTAIN IS RESPONSIBLE FOR LOCAL ORDINANCE REGARDING SANITATION.

### SANITATION (GREY WATER)

BASINS, SHOWERS, HOSES AND CLAMPS:

The basins on the vessel drain to a central system exiting out the transom.

SUMP TANK LOCATION:

Midships bilge area, centerline.

MATERIAL:

Plastic

PUMPS:

Rule pump worked when tested

NUMBER OF TANKS:

One (1). Size appears adequate

DISCHARGE:

Port side transom

NOTE:

The sump is enclosed in a housing and was not closely inspected

## STEERING SYSTEM

### STEERING SYSTEM

TYPE:

Power assisted hydraulic steering

MANUFACTURER:

Maritimo

NUMBER OF STATIONS:

One (1) main helm station at the flybridge.

LINES AND FITTINGS:

Reinforced flexible hose, with metallic fittings. Good condition.



# III. SYSTEMS

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## STEERING SYSTEM

### STEERING SYSTEM (*continued*)

ACTUATOR CYLINDER:

Serviceable. No leaks were sighted.

RUDDER POSITION INDICATOR:

Part of the auto pilot system

UPPER RUDDER BEARING SUPPORT:

Serviceable condition.

PACKING GLAND:

Sealed bearing drip less type.

## GROUND TACKLE

### GROUND TACKLE

ANCHORS:

Stainless steel plow type anchor adequate size for the vessel.

RODE MATERIAL:

Estimated at 200 ft secured to the vessel.

RODE CONSTRUCTION:

Stainless steel swivel shackle

WINDLASS:

24 Volt Muir Windlass with helm and deck controls. Both worked when tested. Model # 10207/3500. Serial # 1050862C

WASH DOWN:

\*B10

The anchor wash down did not work when tested.

NOTE:

\*C6

Some minor corrosion was sighted at the windlass.

## ELECTRONICS AND NAVIGATION EQUIPMENT

### ELECTRONICS AND NAVIGATION EQUIPMENT

VHF:

Icom 302, 304 VHF with distress worked when tested

RADAR/GPS/CHART PLOTTER:

\*A2

2 Raymarine open array E-120 multifunction units with Navionics card. The radar stopped working during the sea trail.

GPS/CHART PLOTTER:

Raymarine E-80 in the cockpit. Worked when tested

AUTOHELM:

Simrad AP 26 at both stations worked when tested

# III. SYSTEMS

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## ELECTRONICS AND NAVIGATION EQUIPMENT

### ELECTRONICS AND NAVIGATION EQUIPMENT (*continued*)

SPEED LOG:

GPS

DEPTH SOUNDER:

Raymarine E-80 2 Raymarine E 120 and Raymarine ST 60. All worked when tested

FISH FINDER:

Raymarine

COMPASSES:

Danforth compass. Serviceable condition.

ANTENNAS:

Shakespeare VHF antennas .All antennas well mounted and serviceable. See findings

WATER TEMPERATURE GAUGE:

Part of Raymarine E 120

ENGINE ROOM CAMERA:

\*B11

The vessel is equipped with a engine room camera that I was not able to bring up on the E-120

NOTE:

\*B12

The vessels electronics communicate via NMEA 2000 including a Raymarine remote keyboard that did not work when tested

### ELECTRONICS (ENTERTAINMENT)

STEREO SYSTEM:

Bose system with CD and Sirius ready. Worked when tested. Several remotes.

SPEAKERS:

Bose weather proof speakers out side and bose speakers in the cabin. I did not test the outside speakers. (dead batteries in the remote)

TELEVISION(S):

Insignia at the flybridge, Sony in the salon, Insignia in the master cabin and VIP stateroom. All power up. Several remotes were sighted with dead batteries.

OTHER:

The vessel is fitted with cable. The connector is under the cockpit sink.

NOTE:

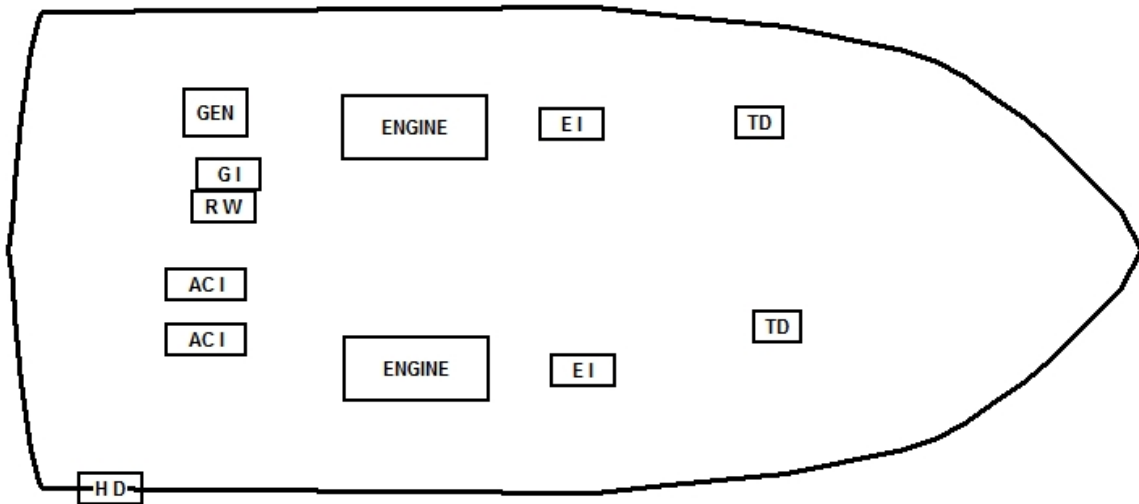
The vessel is equipped with Intellian SAT TV that is not active. Samsung HDTV tuner.

# III. SYSTEMS

## THRU-HULLS

THRU-HULLS:

THRU-HULLS BELOW WATER LINE (DIAGRAM):



Abbreviation	Description
AC I	ac intake
E I	engine intake
ENGINE	Engine
G I	generator intake
GEN	Generator
H D	head discharge
R W	raw water wash down
TD	Transducer

\*\*Red Icon(s) with white text indicates inoperable item.

MATERIAL:

Bronze

TYPE:

Ball valve

BONDED:

The thru hulls are bonded.

CONDITION:

Good condition, no corrosion was sighted.

OPERABLE:

The valves were operable

# III. SYSTEMS

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## THRU-HULLS

### THRU-HULLS: *(continued)*

MOUNTING FLANGE AND BOLTS:  
Well bedded and secured.

## BONDING SYSTEM

### BONDING SYSTEM

#### MAIN BONDING CONDUCTOR:

The bonding system is mostly well established where sighted. The bonding system is using individual green# 8 AGW insulated wire and appeared to be serviceable where sighted.

#### THRU-HULL FITTINGS:

All thru hulls are bonded

#### SHAFTS AND SHAFT LOGS:

The propeller shafts are not bonded. The propeller shaft logs are bonded.

#### RUDDER SHAFTS AND SHAFT LOGS:

Rudder shafts and rudder shaft logs are bonded.

#### SEA STRAINERS:

All sea strainers are bonded.

#### PUMPS AND MOTOR HOUSINGS:

All pumps and housings appeared to be bonded, where sighted.

#### ZINC (HULL ZINC):

Transom mounted zinc is serviceable.

## SAFETY EQUIPMENT

### SAFETY EQUIPMENT (UNITED STATES COAST GUARD)

#### NUMBER AND TYPE OF PFD'S:

1 Adult type III and three child type III

#### NUMBER OF THROWABLE PFD'S:

Meets USCG requirements. Life sling

#### FIRE EXTINGUISHERS:

\*B13

Three Kidde size one BC ( flybridge, master stateroom and VIP stateroom). The gauges are in the green. The fire extinguishers are not mounted, not currently inspected or tagged

#### VISUAL DISTRESS SIGNALS:

Meets USCG requirements.

#### SOUND DEVICES:

Electric horn (works)

#### NAVIGATION LIGHTS:

Properly located and power up.

# III. SYSTEMS

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## SAFETY EQUIPMENT

### SAFETY EQUIPMENT (UNITED STATES COAST GUARD) (*continued*)

INLAND NAVIGATION RULE BOOK (12M-39'4" OR LONGER):

\*C7

None sighted

"NO OIL DISCHARGE" PLAQUE:

Properly displayed in engine space.

TRASH DISPOSAL PLACARD:

Properly displayed

WASTE MANAGEMENT PLAN (OVER 40'):

\*C8

None Sighted.

### AUXILIARY SAFETY EQUIPMENT

E.P.I.R.B.:

None Sighted. But highly recommended.

SMOKE DETECTOR:

None Sighted. Highly recommended.

BILGE WATER ALARM AND SAFETY SWITCHES:

Yes, tested bilge high water alarm in engine room and forward bilge.

FIXED FIRE EXTINGUISHING SYSTEM (HALON TYPE):

\*B14

Sea Fire, Halon in engine room automatic and manual. The gauge is in the green. Not currently inspected.

SEARCH LIGHT:

\*B15

Hard top mounted powered up the bulb did not light.

FIRST AID KIT:

No. This is highly recommended.

FUME SNIFFER ALARM SYSTEMS:

Carbon monoxide fume detectors are highly recommended on all vessels

MAN OVERBOARD SYSTEM:

Part of the GPS system. Boarding ladder. IV Throwable

### BILGE PUMPS

LIST:

\*A3, A4

Rule 1100 with float switch forward the float switch did not work when tested the pump powered up. Rule 2000 with float switch forward and in engine space both worked when tested. Rule 1100 with float switch in aft engine space did not work when tested.

# III. SYSTEMS

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## OUT OF WATER INSPECTION

### BELOW WATERLINE MACHINERY

**PROPELLER(S):**

Nibral 5 blade bronze props stamped 30 x 37. Good condition. Properly installed.

**PROPELLER SHAFT(S):**

2 1/4" Stainless steel. Good condition no corrosion sighted.

**PROPELLER SHAFT (LOGS):**

Shafts are well centered.

**SHAFT BEARINGS:**

No movement was detected. Good condition.

**STRUTS:**

Cast bronze strut for each shaft well secured and bedded. No corrosion was sighted.

**RUDDER(S) MATERIAL:**

23" x 11 1/2" Cast bronze in good condition. No excessive movement. No corrosion.

**RUDDER(S) MOUNTING:**

Both rudders are mounted to the hull (typical stem mounting). No deflection was observed.

**TRIM TABS:**

42" x 12 " Bennett double piston trim tabs. No leaks, well secured.

**PROPELLER PROTECTION:**

The line cutters are missing parts.

**THRUSTERS:**

\*C9

Side power bow and stern thrusters 4 blade double props with flybridge and cockpit controls. Worked when tested. The remote did not work when tested.

**THRU-HULLS:**

Thru hulls are well installed and clear.

**TRANSDUCERS:**

Well installed and bedded.

**STRAINERS/SCOOPS/SCREENS:**

Slotted type screens are clear and well mounted.

**ZINCS:**

Zincs are serviceable on the trim tabs and transom.

### CONDITION OF HULL (WETTED SURFACE)

**BLISTERS:**

No blisters were sighted, this is not a guarantee that blisters won't form in the future.

**CONDITION OF BOTTOM PAINT:**

Black ablative bottom well painted (a little thin) . Condition good.

**NOTE:**

No moisture readings were taken the vessel was short hauled, the sounding were good. No damage or repairs were sighted.

# III. SYSTEMS

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## AIR CONDITIONING AND HEAT (AIR CONDITIONING)

### AIR CONDITIONING AND HEAT (AIR CONDITIONING)

TYPE:

Unitized self contained units.

MANUFACTURER:

Marvek

NUMBER OF UNITS:

4 Units. All power up.

LOCATION:

2 Units under flybridge console for salon and flybridge. Unit under port dinette seat, unit under forward berth.

BTU CAPACITY:

Not determined

THRU-HULL STRAINER:

1 Groco sight style Plastic strainer in the engine room. Clear of debris.

HOSES, CLAMPS AND CONNECTORS:

Appear to be adequately sized and serviceable for application.

RAW WATER COOLING PUMP:

\*B16

2 Custom plumbed 3/4 hr electric motors. Both power up. One pump is leaking slightly from its fittings both have minor corrosion.

DRIP TRAYS:

Drip tray under unit

CONDENSATE DRAIN:

The forward drains to the bilge the others were not determined, I suspect they drain to the shower sump.

OTHER:

The vessel is equipped with a spare AC control module

NOTE:

\*B17

The salon climate control did not work properly.

### AIR CONDITIONING AND HEAT (HEAT)

TYPE:

Reverse cycle.

## LIQUIFIED PETROLEUM GAS SYSTEM (LPG)

### LIQUIFIED PETROLEUM GAS SYSTEM (LPG)

TYPE:

None sighted.

# III. SYSTEMS

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## SEATRIAL REPORT

### INTRODUCTION

#### INTRODUCTION:

The "Sample" was operated on the Severn River and Chesapeake Bay between the hours of 1 pm to 2 pm on August 19, 2014. The vessel was operated by Captain Bill. Attending the sea trial were Ken and myself. There was no significant wind, the tide was running in at about 1 knot, the bay was calm and no boat traffic.

### OBSERVATIONS

#### OBSERVATIONS:

1. The engines started without excessive cranking.
2. The engine exhaust appeared normal.
3. The cooling water exhaust appeared adequate and normal.
4. The engine instruments operate within normal operating limits at idle, cruising speed, and maximum throttle.
5. Manufacturer's recommended max RPM is 2300  
Engines reached 2200 RPM at full throttle.
6. The steering system operated normally.
7. The throttles operated normally.
8. The transmissions operated normally/smoothly.
9. The back down test was satisfactory.
10. There were no excessive vibrations noted.
11. The engine synchronizer worked properly, autopilot responded normally, the trim tabs operated normally.
12. There were no oil or coolant leaks observed. (On main engines or in exhaust water)

The water temperature is in Fahrenheit. The oil pressure is in pounds per square inch. Revs refers to revolutions per minute. Batts are in volts of charge from the alternator. These figures are comprised of data read from the vessels gauges while underway on the above stated date and time of the sea trial.



# III. SYSTEMS

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## SEATRIAL REPORT

### TRIAL RUN DATA

#### PORT ENGINE:

RPM	OIL	VOLT	TEMP	TRANS	TRANS
1000	29-30	28-30	152	351lbs	102 degrees
2000	34	29-30	165	375lbs	118 degrees
2200	35	29-30	170	375lbs	121 degrees

#### STARBOARD ENGINE:

RPM	OIL	VOLT	TEMP	TRANS	TRANS
1000	30-31	29-30	152	351	103 degrees
2000	33	29-30	163	375	120 degrees
2200	36	29-30	170	374	121 degrees

### PERFORMANCE DATA

#### HEADLINE WORDS:

There was about 525 gallons of fuel on board, the water was full 200 gallons and 6 people on board, the boat was tested at several trim settings with and against the tide..

#### DETAILS:

The vessel cruised comfortable between 1800 and 2000 RPM at 18-21 knots with the bow tabbed down slightly.

#### SPEED DATA:

RPM	KNOTS
600	6
1000	7.5
1850	18.5-19.5
2000	20-21
2200	24.6 - 26.1

## ENGINE SURVEY SUMMARY

### ENGINE SURVEY

#### ENGINE SURVEY PERFORMED BY:

Joe from Cummins Power Systems

# 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 it's 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:

### A.1 (PAGE 19) EXHAUST SYSTEM:

Raw water cooled aqua lift type FRP (fiber reinforced plastic). Marine grade flex hoses are doubled clamped. Exits port quarter. The exhaust hose was leaking at several areas.	
FINDINGS	RECOMMENDATIONS
The exhaust hose was leaking at several areas	Repair with like kind materials in keeping with accepted marine repair practices.

### A.2 (PAGE 22) RADAR/GPS/CHART PLOTTER:

2 Raymarine open array E-120 multifunction units with Navionics card. The radar stopped working during the sea trail.	
FINDINGS	RECOMMENDATIONS
2 Raymarine open array E-120 multifunction units with card. The radar stopped working during the sea trail.	Consult a marine electronics expert for estimate and repairs.

### A.3 (PAGE 26) LIST:

Rule 1100 with float switch forward the float switch did not work when tested the pump powered up. Rule 2000 with float switch forward and in engine space both worked when tested. Rule 1100 with float switch in aft engine space did not work when tested.	
FINDINGS	RECOMMENDATIONS
Rule 1100 with float switch in aft engine space did not work when tested.	Investigate and repair to ABYC standards.

## IV. FINDINGS AND RECOMMENDATIONS

### A. SAFETY DEFICIENCIES:

#### A.4 (PAGE 26) LIST:

Rule 1100 with float switch forward the float switch did not work when tested the pump powered up. Rule 2000 with float switch forward and in engine space both worked when tested. Rule 1100 with float switch in aft engine space did not work when tested.	
FINDINGS	<i><b>RECOMMENDATIONS</b></i>
Rule 1100 with float switch forward the float switch did not work when tested the pump powered up.	

### B. OTHER DEFICIENCIES NEEDING ATTENTION:

#### B.1 (PAGE 8) TRANSOM:

Curved transom with molded FRP swim platform (with in sole lockers with drains) port and starboard transom doors, hide away telescopic boarding ladder. Elevated moisture was detected at the locker hardware. The transom doors are not secured in the open position.	
FINDINGS	<i><b>RECOMMENDATIONS</b></i>
Elevated moisture was detected at the locker hardware.	Consult a FRP expert for estimate and repairs.

#### B.2 (PAGE 9) CLEATS:

6 Stainless steel bollard cleats with stainless steel chafe protection well secured. Pop up horn type cleats in the swim platform. The starboard midship cleat has elevated moisture.	
FINDINGS	<i><b>RECOMMENDATIONS</b></i>
The starboard midship cleat has elevated moisture.	Consult a fiberglass expert for estimate and repairs.

#### B.3 (PAGE 9) DECK SURFACE:

Molded non slip surface. Low moisture readings and good soundings over most of the decks no damage or repairs were observed. High moisture (no delamination) was detected at the windlass, the center support of the dingy cradle and the starboard aft deck hatch	
FINDINGS	<i><b>RECOMMENDATIONS</b></i>
High moisture (no delamination) was detected at the windlass, the center support of the dingy cradle and the starboard aft deck hatch	Contact a marine fiberglass expert for estimate and repairs

#### B.4 (PAGE 11) NOTE:

The after deck stainless steel antenna supports have high moisture and dripping water on the under side.	
FINDINGS	<i><b>RECOMMENDATIONS</b></i>
The after deck stainless steel antenna supports have high moisture and dripping water on the under side.	Consult a fiberglass expert for estimate and repairs.

## IV. FINDINGS AND RECOMMENDATIONS

### B. OTHER DEFICIENCIES NEEDING ATTENTION:

#### B.5 (PAGE 12) CABIN FURNISHINGS:

Forward VIP cabin with island berth, hanging lockers, overhead hatch, reading lamps and entrance to the starboard head. (the bed cover is missing), Guest cabin with over and under berths, wash/dryer combo, reading lamps. Master cabin with queen berth private head with shower stall, TV, hanging lockers and drawers, overhead hatch. 2 Night stands	
FINDINGS	<i><b>RECOMMENDATIONS</b></i>
(the bed cover is missing)	Locate or replace bed cover.

#### B.6 (PAGE 17) TYPE CONNECTORS:

Round lugs. The starter lugs are not properly protected or covered.	
FINDINGS	<i><b>RECOMMENDATIONS</b></i>
The starter lugs are not properly protected or covered.	Comply with ABYC E 11 and properly cover the terminal to prevent a accidental short.

#### B.7 (PAGE 17) SHORE POWER INLET:

Glendinning cable master port cockpit locker. Worked when tested. No label was sighted at the inlet.	
FINDINGS	<i><b>RECOMMENDATIONS</b></i>
No label was sighted at the inlet.	Comply with ABYC standard and label the shore power inlet.

#### B.8 (PAGE 18) NOTE:

The residual current breaker tripped several times during the survey	
FINDINGS	<i><b>RECOMMENDATIONS</b></i>
The residual current breaker tripped several times during the survey	Consult a marine electrician for estimate and repairs.

#### B.9 (PAGE 20) PRESSURE RELIEF VALVE:

Yes, copper pressure relief valve built into tank.	
FINDINGS	<i><b>RECOMMENDATIONS</b></i>
No over board discharge.	Comply with ABYC standards H-23.7. Unrestricted flow overboard.

#### B.10 (PAGE 22) WASH DOWN:

The anchor wash down did not work when tested.	
FINDINGS	<i><b>RECOMMENDATIONS</b></i>
The anchor wash down did not work when tested.	Investigate further and repair or renew as necessary.

## IV. FINDINGS AND RECOMMENDATIONS

### B. OTHER DEFICIENCIES NEEDING ATTENTION:

#### B.11 (PAGE 23) ENGINE ROOM CAMERA:

The vessel is equipped with a engine room camera that I was not able to bring up on the E-120	
FINDINGS	<i><b>RECOMMENDATIONS</b></i>
The vessel is equipped with a engine room camera that I was not able to bring up on the E-120	Consult a marine electronics expert for repairs.

#### B.12 (PAGE 23) NOTE:

The vessels electronics communicate via NMEA 2000 including a Raymarine remote keyboard that did not work when tested	
FINDINGS	<i><b>RECOMMENDATIONS</b></i>
The vessels electronics communicate via NMEA 2000 including a Raymarine remote keyboard that did not work when tested	Consult a marine electronics expert for repairs.

#### B.13 (PAGE 25) FIRE EXTINGUISHERS:

Three Kidde size one BC ( flybridge, master stateroom and VIP stateroom). The gauges are in the green. The fire extinguishers are not mounted, not currently inspected or tagged	
FINDINGS	<i><b>RECOMMENDATIONS</b></i>
The fire extinguishers are not mounted, not currently inspected or tagged	Comply with ABYC and NFPA recommended standards for fire protection. Yearly inspection.

#### B.14 (PAGE 26) FIXED FIRE EXTINGUISHING SYSTEM (HALON TYPE):

Sea Fire, Halon in engine room automatic and manual. The gauge is in the green. Not currently inspected.	
FINDINGS	<i><b>RECOMMENDATIONS</b></i>
There is no currant inspection tag.	Have system inspected by a expert and properly tag.

#### B.15 (PAGE 26) SEARCH LIGHT:

Hard top mounted powered up the bulb did not light.	
FINDINGS	<i><b>RECOMMENDATIONS</b></i>
Hard top mounted powered up the bulb did not light.	Repair as necessary

#### B.16 (PAGE 28) RAW WATER COOLING PUMP:

2 Custom plumbed 3/4 hr electric motors. Both power up. One pump is leaking slightly from its fittings both have minor corrosion.	
FINDINGS	<i><b>RECOMMENDATIONS</b></i>
One pump is leaking slightly from its fittings both have minor corrosion.	Further investigate and repair with like kind materials in keeping with accepted marine repair practices.

## IV. FINDINGS AND RECOMMENDATIONS

### B. OTHER DEFICIENCIES NEEDING ATTENTION:

#### B.17 (PAGE 28) NOTE:

The salon climate control did not work properly.	
FINDINGS	RECOMMENDATIONS
The salon climate control did not work properly.	Investigate further and repair or renew as necessary.

### C. SURVEYOR'S NOTES AND OBSERVATIONS:

#### C.1 (PAGE 12) STORAGE AREAS:

The cabinets, lockers, drawers, and shelving were well crafted and provide adequate storage. The support struts for the navigation top do not stay up.	
FINDINGS	RECOMMENDATIONS
The support struts for the navigation top do not stay up.	Replace as necessary

#### C.2 (PAGE 12) LIGHT FIXTURES:

12 Volt cabin lights throughout the vessel were operable. The lights below the master stateroom bed did not work when tested	
FINDINGS	RECOMMENDATIONS
The lights below the master stateroom bed did not work when tested	Repair as necessary.

#### C.3 (PAGE 12) SALON FURNISHINGS:

Large salon with the galley aft, port and starboard L-shapes settee's, teak tables. U-line ice maker powers up did not make ice. TV, stereo system, VHF radio. Plenty of storage. Stair case to the flybridge	
FINDINGS	RECOMMENDATIONS
U-line ice maker powers up did not make ice.	Further investigate and repair as necessary.

#### C.4 (PAGE 13) ACCESSORIES:

Toaster, Dish washer (powered up). Overhead hood vent and light did not work when tested	
FINDINGS	RECOMMENDATIONS
Overhead hood vent and light did not work when tested	Further investigate and repair as necessary.

#### C.5 (PAGE 18) POLARITY:

Checked: At A.C. outlets, polarity normal. GFCI protected. A outlet under the cockpit sink did not have polarity.	
FINDINGS	RECOMMENDATIONS
A outlet under the cockpit sink did not have polarity.	Repair as necessary. Full service by an expert.

## IV. FINDINGS AND RECOMMENDATIONS

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### C. SURVEYOR'S NOTES AND OBSERVATIONS:

#### C.6 (PAGE 22) NOTE:

Some minor corrosion was sighted at the windlass.	
FINDINGS	RECOMMENDATIONS
Some minor corrosion was sighted at the windlass.	Further investigate and repair as necessary.

#### C.7 (PAGE 26) INLAND NAVIGATION RULE BOOK (12M-39'4" OR LONGER):

None sighted	
FINDINGS	RECOMMENDATIONS
No rule book sighted	Comply with USCG Safety Regulations.

#### C.8 (PAGE 26) WASTE MANAGEMENT PLAN (OVER 40'):

None Sighted.	
FINDINGS	RECOMMENDATIONS
No waste management plan sighted	Comply with 33 CFR sec. 151.57 waste management plan for vessels over 40'

#### C.9 (PAGE 27) THRUSTERS:

Side power bow and stern thrusters 4 blade double props with flybridge and cockpit controls. Worked when tested. The remote did not work when tested.	
FINDINGS	RECOMMENDATIONS
The remote did not work when tested.	Further investigate and repair as necessary.

NOTE: If cruising more than 25 nautical miles offshore it is also recommended that a USCG approved self-inflating life raft be fitted to the vessel. And a first aid kit and small manual watermaker be added to the ships safety gear.

## V. SUMMARY AND VALUATION

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### STATEMENT OF OVERALL VESSEL RATING OF CONDITION:

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

The grading of condition, developed by BUC RESEARCH, and accepted in the marine industry, for a vessel at the time of survey, determines the adjustment to the range of base values in the BUC USED BOAT PRICE GUIDE, ABOS, Yacht World.com, NADA, The Power Boat Guide and Internet listings for a similar vessel sold within a given time period, as a consideration to determine the Market Value.

The following is the accepted marine grading system of condition:

"EXCELLENT (BRISTOL) CONDITION", is a vessel that is maintained in mint or bristol fashion - usually better than factory new - loaded with extras - a rarity.

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

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

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

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

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

As a result of my investigation, as shown in the SYSTEMS AND FINDINGS AND RECOMMENDATIONS section of this REPORT OF SURVEY, and by virtue of my experience, my opinion is

OVERALL VESSEL RATING:

ABOVE AVERAGE



# V. SUMMARY AND VALUATION

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## STATEMENT OF VALUATION:

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

Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- a. Buyer and seller are typically motivated.
- b. Both parties are well informed or well advised, and each acting in what they consider their own best interest.
- c. A reasonable time is allowed for exposure in the open market.
- d. Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and
- e. The price represents a normal consideration for the vessel sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

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

\$735,000.00

Seven Hundred Thirty Five Thousand Dollars and Zero cents

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

\$1,400,000.00

One Million Four Hundred Thousand Dollars and Zero cents

# V. SUMMARY AND VALUATION

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## SUMMARY:

In accordance with the request for a marine survey of the "Sample", for the purpose of evaluating its present condition and estimating its Fair Market Value and Replacement Cost, I herewith submit my conclusion based on the preceding report. The subject vessel was personally inspected by the undersigned on August 19, 2014 and was found to be a well constructed, appointed and comfortable vessel. Subject to correction of deficiencies listed in section IV A. (Safety), the vessel is considered to be suitable for its intended use. Other deficiencies list should be attended to in a timely fashion.

## SURVEYOR'S CERTIFICATION:

I certify that, to the best of my knowledge and belief:

The statements of fact contained in this report are true and correct.

The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, unbiased professional analyses, opinions, and conclusions.

I have no present or prospective interest in the vessel that is the subject of this report, and I have no personal interest or bias with respect to the parties involved.

My compensation is not contingent upon the reporting of a predetermined value or direction in value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulate result, or the occurrence of a subsequent event.

I have made a personal inspection of the vessel that is the subject of this report.

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

ATTENDING SURVEYOR:



Charles Ulrich (SAMS Y,SC) # 906



## VI. PHOTOGRAPHS

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IMGP1314.JPG