



**41 North Marine, LLC  
2 William Schmid Dr.  
Wakefield RI 02879**

**REPORT OF MARINE SURVEY**

of the vessel

**"XXXXXXXXXXXXXXXXXXXX"**

**2014/Tiara/4800 Convertible**



**PREPARED EXCLUSIVELY FOR:**

**XXXXXXXXXXXXXXXXXXXX**

**CONDUCTED BY:**

**Barton P. Cerra SAMS SA**

**on**

**XXXXXXXXXXXXXXXXXXXX**

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## SURVEY SCOPE & GENERAL INFORMATION

### SURVEY REQUESTED BY

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**Client name:**

XXXXXXXXXXXXXXXXXX.

**Street address:**

XXXXXXXXXXXXXXXXXX.

**E-mail address:**

XXXXXXXXXXXXXXXXXX.

**Business phone:**

XXXXXXXXXXXXXXXXXX.

**Residence phone:**

XXXXXXXXXXXXXXXXXX.

### SCOPE OF SURVEY

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**Type of survey:** PRE-PURCHASE CONDITION & VALUE.  
**Vessel Yr/Make/Model:** 2014/Tiara/4800 Convertible.  
**Purpose of survey:** Assess the overall condition and value of vessel for pre purchase decision-making and, if purchased, use for insurance underwriting and/or financing.  
**Intended use:** Pleasure-Atlantic coast line cruising.  
**Vessel surveyed at:** XXXXXXXXXXXXXXXXXXXX.  
**Survey requested by:** Broker.  
**Inspection date:** XXXXXXXXXXXXXXXXXXXX.  
**Inspection time:** XXXXXXXXXXXXXXXXXXXX.  
**Conducted by:** Barton P. Cerra SAMS SA.  
**How survey conducted:** The vessel was surveyed in the water while resting in its assigned slip. The Hull and underwater machinery was inspected hanging in travel lift slings and blocked for complete bottom inspection.  
**Weather conditions:** Clear and dry.  
**Sea trial:** A sea trial was performed as part of this survey. The results are included in the Sea Trial section.  
**Electrical systems checked:** AC shore power was used to check AC electrical systems. DC power was used to check DC electrical systems. Onboard generator was also started to test AC power output.  
**Moisture / Delamination:** The Tramex Skipper Plus moisture meter was used for moisture readings referenced in this report. All moisture readings are comparative to surrounding areas with terms of normal or relatively dry, relatively moist or relatively wet. A percussion hammer was used to randomly test for delamination on all hull, transom and top deck surfaces where higher than normal moisture areas were detected.  
**Oil Analysis:** Oil samples were pulled from both engines and sent to a lab for analysis. Results should be available in 3-4 business days and will be sent via e-mail.  
**Other comments:**  
a. The Vessel will be examined by Surveyor or Surveyor's agents from all accessible areas of the interior without removal of secured panels, destructive testing or disassembly.  
  
b. The hull bottom laminate, plating, and/or planking as well deck areas and their supportive structures will be examined by percussion sounding, visual inspection and moisture content readings only and no destructive testing will be performed unless otherwise authorized by the client or representative to the client.  
  
c. Exterior hardware will be examined for corrosion damage and drive components will be tested by sight only.  
  
d. Client expressly acknowledges and understands that inspection of engines, generators, machinery and related mechanical systems is not within the scope of this Agreement or the marine survey contemplated hereby. Only a brief cursory

inspection of the machinery will be conducted and no opinion of their overall condition will be formed. Client shall retain the services of a qualified mechanic or engine surveyor or other expert to inspect such engines, generators, machinery and related mechanical systems.

e. Tankage will be inspected from visible surfaces only and no opinion will be rendered as to their overall condition.

f. On sailing vessels, the rig will not be inspected aloft, nor will sails be inspected unless they are visible during a sea trial. Client shall retain the services of a qualified rig surveyor or other expert to inspect such rigging and equipment.

g. The electrical system will be visually inspected where accessible, and electronic and electrical components powered only in the presence of the vessel's owner or agent. No in depth testing or examination of the electrical system schematic will be conducted.

h. Client warrants that the inspection and survey contemplated in this Agreement are authorized by the owner of the Vessel, and that the areas of the Vessel that are to be inspected will be accessible to Surveyor. If, in the sole judgment of Surveyor, inspection of the Vessel is not possible or practical because clutter from personal property, gear, or poor housekeeping render significant areas of the Vessel inaccessible, or because of poor maintenance of the Vessel, or because of the actions of the Client or the Vessel owner, the Marine Survey may, at Surveyor's option, be terminated prior to completion without the preparation of a Survey Report and with no refund or credit of the Survey Fee.

i. Reported specifications will be taken from published sources. No actual measurements or calculations will be made. The recommendations will be based on federal and state regulations, industry standards, and/or Surveyor's own personal experience. The market value will be based on research of available new/used vessel publications for the geographic area where the vessel is located and for comparable vessels, and it assumes that the recommendations listed in surveyor's report are completed. Industry statistical information of average selling prices may also be referenced.

j. This vessel is 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.

**Boating Education Note:**

*NOTE: When getting into a larger class of vessels, and regardless of boating experience, the United States Coast Guard Auxiliary and United States Power Squadrons offer boating safety classes that you may find very beneficial. In addition, many Insurance companies offer insurance premium discounts if you have a completion certificate from the USCG Auxiliary or US Power Squadron regarding their boating safety classes. Some of the topics covered are: -Anchoring*

-Basic Coastal Navigation -Boat Handling Under Power -USCG Regulations & CFR's -Marine Radar -How to Use a Chart -Onboard Weather Forecasting -Sail Trim and Rig Tuning -Trailer Your Boat -Knots, Bends and Hitches -Using VHF & VHF/DCS Marine Radio -Using a GPS.

## VESSEL CONDITION & VALUE

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**Condition rating:** ABOVE AVERAGE CONDITION.

**Estimated fair market value:** xxxxxxxxxxxxxxxxxxxx.

**Estimated replacement cost:** xxxxxxxxxxxxxxxxxxxx.

**NOTE:** *The overall vessel condition and value is for the vessel in its current condition at the time of survey prior to any repairs or maintenance and was established after a complete inspection of stated vessel, the results of which are included in this report of survey. The estimated fair market value and replacement cost includes all listed auxiliary equipment. See "Condition & Value Summary" section for additional details.*

## VESSEL INFORMATION

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**Vessel Yr/Make/Model:** 2014/Tiara/4800 Convertible.

**Vessel name:** xxxxxxxxxxxxxxxxxxxx.

**Hailing port:** xxxxxxxxxxxxxxxxxxxx.

**Hull ID number (HIN):** -xxxxxxxxxxxxxxxxxx, A true digital photograph of the hull ID number of the referenced vessel is shown here and was found.



**State registration no.:** xxxxxxxxxxxxxxxxxxxx.

**Manufacturer/Builder:** Tiara Yachts, Holland, MI.

**Month/Year built:** February 2013.

**Vessel Type:** Fiberglass, Planing, Modified Vee hull, Conventional sheer.

**Vessel Specifications:** LOA-Length Overall: 51' 5" // LWL-Load Length Water Line: 48' 5" // **Beam: 15' 11" // Draft: 4' // Weight/Displacement: 45,012 lbs // Overhead Clearance- 17' 5"** Vessel must be measured.

**Source of Specs:** BUC Research. ABOS Marine Blue Book, published manufacturer specifications, broker or owner.

**Vessel description:** The 2014 Tiara 4800 Convertible is a 48' sport fish yacht with a spacious flybridge powered by CAT™ C18 ACERT 1,015 H.P. Diesel engines. An 13.5 KW generator is also available. The interior features a spectacular salon, large galley, 3 private staterooms and she sleeps seven. The master stateroom is located on the port side with guest staterooms forward and on the starboard side. Two Vacuflush heads is on the port side and starboard side with stall showers. The galley has a side by side twin drawer refrigerator/freezer, three burner electric cooktop and a microwave convection oven. The main salon has ultra leather seating. Designed and rigged for

offshore adventure and onboard luxury, the Tiara 4800 Convertible features everything a serious angler could need with unmatched comfort and confidence standard.

## **SURVEY STANDARDS**

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### **Standards followed:**

*This survey was completed using as reference the federal regulations and amendments issued and enforced by the United States Coast Guard under the authority of Titles 33 and 46 of the United States Code of Federal Regulations (CFR's) in effect at the time of the survey inspection. In addition the American Boat and Yacht Council (ABYC) and National Fire Protection Association (NFPA-302) voluntary standards in effect at the time of the survey were used as reference. These ABYC and NFPA voluntary standard practices are generally followed by most vessel manufacturers today. 100% adherence is not guaranteed.*

## **SURVEY INSPECTION COMMENTS**

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### **Comments:**

- *All systems and components inspected and described herein apply only at Time of Survey and are considered serviceable and/or functional except as indicated in the survey report and listed in the Recommendations section. Electronic devices and instruments were checked for power up only - not for functionality. Areas not inspected include vessel structure areas which are covered, unexposed or inaccessible such as screwed down or false panels or bulkheads, moldings or any area that was not readily open for visual inspection. If a component is not identified in this report, it was not sighted/inspected or not installed.*
- *It is the nature of marine vessels that deterioration, wear and accidents do occur and as such, this report therefore represents the condition of the vessel only on the date the survey was conducted. It provides no guarantee and no prediction of the vessel's condition on any later date.*
- *"**Priority I Recommendations**" are related to Safety & Regulatory findings and are printed **RED** in the report.*
- *"**Priority II Recommendations**" are related to Maintenance & Standards findings and are printed **BLUE** in the report.*
- *"**Other Observations & Suggestions**" are items that are relatively minor in nature and are printed **GREEN** in the report.*

### **Report terms used:**

- *FRP: Fibre reinforced plastic-Also known as Fiberglass or Fibreglass. This is the typical construction material for most modern day yachts and small craft.*
- *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, behind screwed down panels, or requirements not to conduct destructive tests).*
- *FUNCTIONAL/OPERABLE: Functions as intended.*
- *POWERS UP: Device was tested for Power Up only, not for full design functionality.*
- *SERVICEABLE: Sufficient for a specific requirement.*
- *EXCELLENT CONDITION: New or like new.*
- *GOOD CONDITION: Shows minimal wear with possible minor cosmetic discrepancies.*
- *FAIR CONDITION: Denotes that system, component or item is functional as is with minor repairs. (MONITOR OFTEN)*
- *POOR CONDITION: Requires repair or replacement of system, component or item to be considered fully usable.*

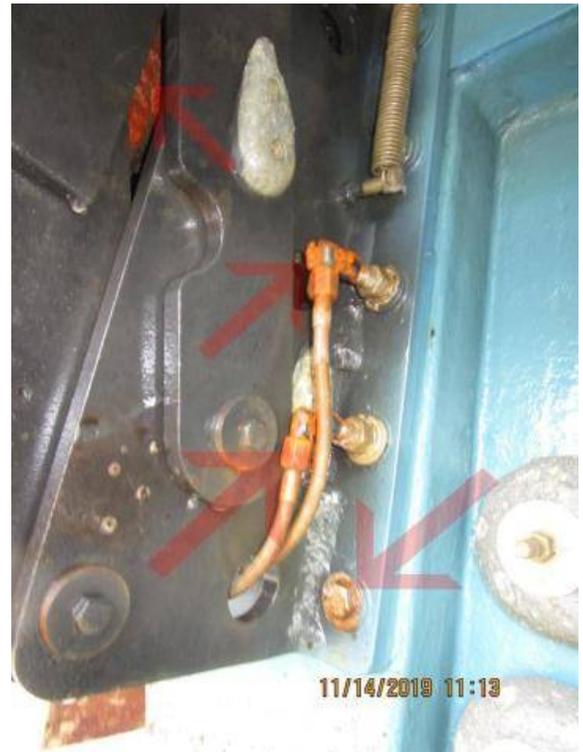
# EXTERIOR HULL & BOTTOM INSPECTION

## HULL EXTERIOR-SIDES

<b>Hull type/Construction:</b>	Hand-laid and molded fiberglass. Ice Blue Imron painted hull sides.
<b>Hull cosmetics:</b>	Excellent condition-well protected and no severe external scratches, chips or abrasions sighted.
<b>Moisture/Delamination:</b>	All moisture meter readings on hull sides and surrounding thru-hull fittings were relatively dry with normal comparative moisture meter readings.
<b>Stem:</b>	Solid, no cracks on external inspection. Moisture readings relatively dry.
<b>Side thru hull fittings:</b>	All thru-hull fittings are adequately secured and sealed to hull.
<b>Rub rail:</b>	Rub rail is stainless steel with backing of white plastic. Rub rail is in excellent condition. No gouges or dents observed.
<b>Engine room vents:</b>	Engine room vents are molded in and in excellent condition.

## TRANSOM

<b>Transom type:</b>	Conventional flat transom.
<b>Moisture/Delamination:</b>	All moisture meter readings on transom and surrounding thru-hull fittings were relatively dry with normal comparative moisture meter readings. No delamination discovered when randomly testing with percussion hammer.
<b>Transom cosmetics:</b>	Very good transom surface condition.
<b>Swim Platform/Step:</b>	Attached fiberglass swim platform is well secured to transom.
<b>Swim/Boarding ladder:</b>	The boarding ladder is stainless steel drop down that is mounted in swim platform pocket. The ladder rungs are stainless steel. The ladder is well secured and functional.
<b>Davit system:</b>	Freedom Lift. Functional Freedom lift davit system shows signs of incorrect bonding showing excessive corrosion.





**Transom shower:** Pull-out shower with hot/cold water. Tested OK. No leaks sighted.  
**Transom storage:** Storage areas molded in at transom.  
**Transom door:** Transom door on port side off swim platform. Well secured and functional.  
**Transom thru hull fittings:** All well secured and functional.  
**Trim tabs:** Bennett single ram hydraulic trim tabs. Well secured. Power up and function OK. No damage or leaks sighted. [Anodes missing.](#)  
**Transom anode:** Well secured and functional anode on lower transom.

Findings:	Recommendations:
Freedom lift davit system shows signs of incorrect bonding showing excessive corrosion. Trim tab anodes missing.	Have a qualified marine electrical technician further investigate davit corrosion and repair as necessary. Replace trim tab anodes.

## HULL BOTTOM

**Construction material:** Molded fiberglass, No cracks or separation sighted on any portion of hull bottom.  
**Bottom paint:** Antifouling bottom paint appeared fresh and in very good condition.  
**Stress cracks:** None sighted.  
**Osmotic blistering:** No evidence of blisters was found on hull bottom during bottom inspection.  
**Blister comments:** *Blisters are an unknown factor on all boats and if not currently present, there is no guarantee that they will not appear in the future. Blisters have a tendency to dry out over winter storage unless severe or large. Blisters (if any) best appear after vessel has been in water for an entire season. In addition, the symptomatic evidence of blistering can be obscured by bottom coatings, a dry storage period during which blisters spontaneously depressurize, bottom laminate sanding, and other conditions or actions. Recommend full inspection for blisters immediately after haul-out and power wash. Surveyor has no firsthand knowledge of the history of bottom maintenance, blistering, repairs or prophylactic coatings on this vessel.*  
**Moisture/Delamination:** All random moisture meter readings on hull bottom and surrounding thru-hull fittings were relatively dry with normal comparative moisture meter readings. No delamination discovered when randomly testing with percussion hammer.  
**Strainers/Scoops/Screens:** All strainers/screens are well secured to hull bottom. Clear of debris and marine

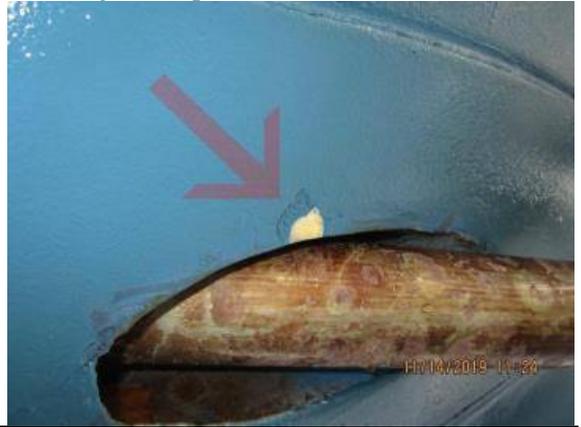
growth.

**Transducers:** Transducers for speed and depth are adequately sealed and bonded to the hull.  
NOTE: *Recommend not painting the speed or depth transducers. Paint can sometimes interfere with their proper function/readout.*

**Thru Hull fittings:** Mushroom-type bronze fittings for all below waterline sea cock locations. Well secured to hull bottom.

**Hull bottom drain plugs:** Bronze bottom mounted drain plug under engine. In place and secure.

**Damage sighted:** Minor FRP damage on port side where the prop shaft exits the vessel.



Findings:	Recommendations:
Minor FRP damage on port side where the prop shaft exits the vessel.	Have a qualified marine fiberglass technician further investigate the FRP damage and repair as necessary.

**KEEL**

**Keel type:** Keel is molded in with hull.

**Keel condition:** Moisture meter readings in keel were all relatively dry. Percussion hammer on keel was used and showed no delamination.

**PROPELLER(S)/SHAFT(S) / STRUT(S)**

**Prop(s) description:** Bronze 1015 LH/RH 30" x 45 4BL. Minor damage on 1 blade of port side prop.



**Shaft size / material:** Shafts are sized 2 1/4" and made of stainless steel. No pitting, cracks or corrosion sighted. Prop shaft(s) do not appear bent.

**Strut(s):** Single bronze P-Strut. Strut appears to be in line and is well secured to the hull bottom.

**Cutlass (shaft) bearing(s):** Good condition. No play found in cutlass bearing, NOTE: *Monitor condition of cutlass bearing(s) after each haul out and replace if play is excessive or if shaft vibrations are felt when underway.*

**Other notes:** Prop nuts are installed backwards.



**Damage sighted:** Minor damage on 1 blade of port side prop.

<b>Findings:</b> Prop nuts installed backwards.	<b>Recommendations:</b> Recondition port propeller.
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Reinstall propeller nuts to comply with ABYC standard P-6 and SAE standard J755, the thinner nut should be installed against the propeller and the thicker nut should be installed against the thinner nut with the cotter pin installed last.

*Prop nut installation note: The reason for this installation sequence is when the outer thicker nut is tightened it locks the two nuts in place partly releasing the pressure on the threads of the inner thinner nut, allowing the thicker nut, which has more thread surface, to be the nut carrying the load.*

**RUDDER(S)**

**Rudder type/condition:** Bronze, Well secured. Starboard: No abnormal horizontal or fore/aft movement in rudder. Port: Horizontal or fore/aft movement observed in rudder. No cracks or bending or damage sighted in either rudder.

**Rudder alignment/swing:** Full rudder swing to both port and starboard shows equal amount of travel. Rudder is not bent and in full alignment with the keel/props.

<b>Findings:</b> Port: Horizontal or fore/aft movement observed in rudder.	<b>Recommendations:</b> Have a qualified marine technician further investigate the excessive rudder play and repair as necessary.
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**STABILIZERS AND THRUSTER SYSTEMS**

**Bow thruster:** Lewmar model # 593001 300TT 24V SN # 16666668. Powers up and is functional.

**ANODES**

**Shaft:** Collar anode on shafts. Serviceable and secure. No deterioration sighted.

**Trim tabs:** Missing.



**Hull mounted:** Ground/anode securely mounted on transom. Good condition. No deterioration sighted.

**Replacement required?:** Trim Tabs.

**Anode notes:** *Monitor all anodes frequently on hull and underwater equipment and replace when they are no more than 50% wasted. Anodes are normal replacement items designed to help protect the running gear from electrolysis. Keep spares aboard vessel.*

## INTERIOR HULL & STRUCTURAL INSPECTION

### HULL INTERIOR & STRUCTURAL COMPONENTS

**Hull to deck joint:** Overlap (Shoebox type), not sighted due to no access. Fasteners were reported by manufacturer to be stainless steel screws spaced approximately 8" to 10". Elastomeric compound use reported by manufacturer in hull to deck joint. No leaks through any part of hull-to-deck joint area sighted.

**Bilge(s):** Clean and dry for areas open to inspection with exception of the **excessive corrosion to fittings and components sighted in the aft bilge (see Findings)**. *NOTE: Whenever you visit your boat, it's good practice to check the bilge area(s) for higher than normal levels of water and proper functionality of the bilge pump(s) or anything else that could be causing trouble.*





**Stringers:** Hull stiffness provided by FRP-covered wooden longitudinal stringers that run the length of the vessel. Complete inspection not possible due to limited access. Stringers were sighted in the engine compartment and under portions of cabin sole and are well glassed into hull where sighted. Stringers checked with Moisture meter where accessible and all readings were relatively dry. Stringers sounded with hammer where accessible and appeared very sound. No soft spots, separation, cracks, rotting or splitting sighted. Limber holes appear to be adequately sealed where sighted.

**Bulkheads:** Athwartships reinforcement enhanced by structural bulkheads bonded to the hull with FRP (fiber reinforced plastic). All tabbing appears serviceable and sound with no cracks or separation of tabbing sighted in any compartments. No visual evidence of movement sighted in any bulkhead.

**Stem:** Solid stem, no cracks or separation sighted inside.

**Inside of transom:** Reinforced. Secure-no cracks or separation sighted.

<b>Findings:</b>	<b>Recommendations:</b>
Excessive corrosion to fittings and components sighted in the aft bilge.	Have a qualified marine technician further investigate the excessive corrosion and repair as necessary.

## ALL THRU HULL FITTINGS

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<b>Sea valves:</b>	Bronze seacock ball valve(s) installed, Sea valves sighted are used for: Air Conditioner(s) raw water intake(s), Deck wash down inlet, Generator raw water intake.
<b>Sea valve condition:</b>	Sea valves are all functional.
<b>Sea strainers:</b>	Internal strainer(s) installed for engine raw water, generator raw water, air conditioner raw water pickup, Sea strainer(s) are clear of debris.
<b>Transducers:</b>	Depth transducer installed in area. No leakage sighted inside hull.
<b>Bottom drain plug:</b>	Bronze "T" type Drain plug below engine.

## TOP DECK & SUPERSTRUCTURE

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### MAIN DECK & FITTINGS

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<b>Deck Surface:</b>	Molded, cored fiberglass deck and side deck construction (core not sampled). White gel coat with molded in nonskid fiberglass surface. Good condition. Deck is solid under foot, no soft spots discovered and no visible cracks or chips sighted.
<b>Moisture/Delamination:</b>	Moisture meter readings on top and side decks and surrounding thru deck fittings were relatively dry with normal comparative moisture meter readings. No delamination discovered when randomly testing with percussion hammer.
<b>Anchor platform:</b>	Integrally molded FRP platform with attached anchor roller assembly. Well secured-no cracks sighted.
<b>Anchor/chain locker:</b>	Accessed from top deck with hatch lock. Functional.
<b>Windlass:</b>	V4 Gypsy 203 24 Volt SN # 2108935016.
<b>Bow pulpit/rail:</b>	Stainless steel, well secured.
<b>Stanchions/side rail(s):</b>	Stainless steel, well secured.
<b>Toe rail(s):</b>	Molded in, no cracks or separation sighted.
<b>Deck hatches:</b>	Well secured, seals in good condition, support arm(s) in place.
<b>Scuppers/deck drain(s):</b>	Drains are clear and drains overboard, Yes. Drains are clear, hoses secure and drains overboard.
<b>Cleats &amp; fairleads:</b>	Horn cleats are all well secured to deck and side deck and are functional.
<b>Fill Pipes:</b>	All fill pipes on top deck are properly marked as to purpose/use.
<b>Cabin (house) to deck joint:</b>	Molded in -- no stress cracks noted.
<b>Grab rail(s):</b>	Stainless steel, mounted on sides of flybridge and well secured.
<b>Cabin house window(s):</b>	Fixed side windows.
<b>Spotlight:</b>	ACR-100D 12V #1930.3 SN# 0213-12221.
<b>Horns:</b>	Dual horns, mounted on hard top.

### COCKPIT / AFT DECK

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<b>Cockpit area:</b>	140 square-foot lower cockpit is designed for sport fishing or cruising with walk-in engine room access, molded-in transom door and gate as well as sliding entry door to salon.
<b>Cockpit &amp; Helm seating</b>	Aft-facing mezzanine seating with padded cockpit seat cushions in excellent condition.
<b>Sole:</b>	FRP (fiber reinforced plastic) with molded in nonskid.
<b>Moisture/Delamination:</b>	All moisture meter readings on sole were relatively dry with normal comparative moisture meter readings.
<b>Scuppers/deck drain(s):</b>	Drains are clear, hoses secure.
<b>Cockpit equipment:</b>	Cockpit is designed to accommodate a fighting chair if desired (reported by manufacturer), rigging station/tackle storage, port/starboard rod holders, handheld shower installed. Not tested.
<b>Cabin entrance:</b>	Sliding FRP door for cabin entrance with lock.
<b>Storage:</b>	Insulated flush port and starboard floor storage boxes with split lids.

**Engine compartment access:** Walk-in engine room access.

**Shore fresh water inlet:** Located in cockpit. *NOTE: Be sure that dockside water pressure is turned off when the boat is unoccupied for any length of time. A burst hose or other water system malfunction could cause serious damage to the vessel or possibly sink the vessel at its assigned slip.*

**Wash down:** Water fixture(s) available in: cockpit area-not tested.

**FLYBRIDGE**

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**Construction material:** Large FRP command bridge with island helm station.

**Joinery stress:** None sighted.

**Accessed by:** Cruise-style molded-in fiberglass stairway off cockpit.

**Sole:** FRP (fiber reinforced plastic) with molded in nonskid.

**Moisture/Delamination:** All moisture meter readings on sole were relatively dry with normal comparative moisture meter readings.

**Helm station:** Wheel steering with full instrumentation(see Helm Section), helm console canvas cover available and in good condition.

**Seating:** Dual Release Marine captains chairs, forward center bench seat, port/starboard L-lounges all with weather covers in excellent condition.

**Canvas:** Full Canvas enclosure is in excellent condition.

**Storage:** Generous storage beneath flybridge dash and seating.

**Side rails:** Stainless steel. Well secured.

**Flybridge equipment:** Refrigerator(s)/ice maker(s): Isotherm 12 volt. AC/HEAT Marine Air Systems VTD16KZ-410A SN# 30698428. Full flush mount electronics, forward teak table, tournament-style hardtop.

**HELM & NAVIGATION ELECTRONICS**

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**NAVIGATION ELECTRONICS**

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**Helm station:** Flybridge helm station.

**Compass(es):** Mounted at main helm: 6" Ritchie appears functional.

**VHF radio(s):** Mounted at main helm: Garmin VHF 200 and Garmin VHF 300. Serial number not sighted, unit is built in.

**Autopilot(s):** Garmin GHC 10. Serial number not sighted, unit is built in.

**Depth sounder(s):** Mounted at main helm: Garmn GMI 10. Serial number not sighted, unit is built in.

**Speed instrument(s):** Mounted at main helm: Garmn GMI 10. Serial number not sighted, unit is built in.

**Multi-function instrument(s):** Mounted at main helm: Garmin 8215 (2 units) SN#'s -2VL000287 -2VL000298.

**Radar:** Mounted at main helm: Garmn 606 HD Full array. Serial number not sighted, unit is built in.

**AIS Receiver:** Garmin AIS 600. SN# 1SS009262.

**OTHER ELECTRONICS AND CONTROLS**

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**Antenna(s):** VHF, Radar, GPS, TracVision satellite TV antenna all securely mounted on FRP hardtop and in excellent condition.

**Bilge pump switches:** (See bilge pumps section for details on operational status.)

**Courtesy lights:** Functional.

**Horn:** Electric horn switch is fully functional.

**High water alarm:** Sighted-functional. High water float switch in engine compartment.

**Trim Tabs:** Trim tabs switches are operational and no leaks sighted.

**Thrusters:** Bow thruster, fully functional both port and starboard thrust.

**Windlass control:** Helm controlled switch is fully functional for both raising and lowering anchor.

**12 volt outlet:** Not tested.

## ENGINE INSTRUMENTS AND CONTROLS

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**Throttle and shift controls:** Digital control levers. Two levers for port/starboard engine throttle/shift control. Controls work smoothly.

**Engine room blowers:** Engine room blower(s) power up and fully functional.

**Engine alarm/shutdown:** Engine alarm. Tested and found functional.

**Engine status:** All engine information is displayed on Caterpillar CAT MPB Marine Power Display.

## CABIN INTERIOR APPOINTMENTS

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### MAIN SALON

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**Style:** Contemporary.

**Cabin steps:** Carpeted cabin entrance steps.

**Sole:** Teak & holly cabin sole installed and is in good condition.

**Bulkheads/Trim:** Cherry wood bulkheads and all interior trim.

**Headliner:** Padded vinyl. Clean and well fastened. No tears, splits or stains sighted.

**Water intrusion signs:** No evidence sighted.

**Doors:** Cherry veneer.

**Seating:** Ultra leather.

**Windows:** Also fixed windows. -- blinds for side windows. All curtains/blinds shades appear to be serviceable.

**Storage:** Storage drawers, hanging locker(s) storage cabinets.

**Central vacuum system:** Central Vacuum system built in. Dirt Devil #CV1500 9914 SN# 2108935016.

**Washer / Dryer:** Splendide washer and dryer, serial numbers's -ARWXF129WSP -TVM63XNA. Powers up OK.

**Overall interior condition:** Salon/dinette/galley greatroom has elegant curved surfaces that repeat and flow throughout the entire living quarters, large port L-lounge (with a pull-out sleeper), starboard lounge/dinette seating with storage below; includes table with fixed pedestal all in like new condition throughout.

### ENTERTAINMENT ELECTRONICS

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**Stereo(s):** Main salon: Bose Lifestyle V25 SN# 056608F30150236 Master stateroom: Clarion CMD6 SN# 0034598.

**Television:** Main salon: Samsung 40" LCD flat screen unit is built in and well secured. Powers up OK and appears functional. Master stateroom: Samsung 19" SN# ZB3FCRC17833 Guest stateroom: Samsung 19" SN# ZB3FCRC20566.

### GALLEY

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**Location:** Port side with quartz countertops and backsplash.

**Sink(s):** Single under mount stainless steel deep well, with pull-out faucet fixture.

**Water system:** Pressurized hot and cold, not tested. Water system was winterized. Re-test onboard fresh water system after filling water tank with water.

**Stove:** Kenyon B40509 three burner electric range with sea rails. Burners tested and are functional. Power indicator lights are functional. SN# 627143.

**Refrigeration:** Sub-Zero 700BCI drawer-style refrigerator/freezer units (one with icemaker) Powers up. SN# 3198630.

**Microwave oven:** Sharp R-820JS Convection oven, powers up and appears functional. SN# 62044.

**Galley lighting:** Recessed. All functional.

**Storage:** Very good. Cabinets above and drawers and storage areas below the galley.

### DINETTE

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**Table type:** Cherry wood laminate.

**Seating:** Starboard U shape lounge/dinette seating with storage below; includes table with

fixed pedestal. Clean and not worn.

## BERTHS / STATEROOMS

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<b>Berths:</b>	Three.
<b>Master stateroom:</b>	Mid cabin port side. Amenities include: Raised island bed with custom sized mattress (with storage below), private ensuite master head, separate controlled air conditioner night stands hull side storage cabinets, hanging locker, full frame stateroom entry door. TV/stereo: See entertainment electronics section for all details.
<b>Guest stateroom:</b>	V-berth area, amenities include: full frame entry door, double berth custom sized mattress (with storage below), night stand integrated into cedar-backed hanging locker, separate controlled air conditioner, TV: see entertainment electronics section for all details.
<b>Guest stateroom 2:</b>	Mid cabin starboard side. Amenities include: upper and lower bunks with inner spring mattresses, cedar-backed hanging locker, sliding entry door.

## HEAD(S)

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<b>Number/Location:</b>	Two heads, 1 on port side, 1 on starboard side.
<b>Toilet(s):</b>	Dometic/ Sealand, VacuFlush system, Powers up.
<b>Raw water supply:</b>	Self contained.
<b>Sink(s):</b>	Corian countertops with porcelain sinks.
<b>Shower(s):</b>	In both heads, full fiberglass showers with tempered glass doors/windows, tile flooring drains to sump tank.
<b>Medicine cabinet:</b>	Available vanity with mirror.
<b>Head lighting:</b>	Recessed lighting, all functional.
<b>Shower sump tank/ pump:</b>	Located in sump tank with auto float and automatic bilge pump. Not tested-Float inside sealed sump container.

## AIR CONDITIONING (A/C)

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<b>Manufacturer &amp; Type:</b>	Cruisair, 230 Volt A/C, Reverse Cycle.
<b>Locations / BTU Capacity:</b>	(2)16K main salon, dinette. Serial numbers 30499982, 30398284. 10K master stateroom. Serial number 30399974. 12K guest staterooms. Serial number 3039973. 12K helm. Serial number 30698428.
<b>Temp Controls:</b>	Cruisair SMX-ir digital temperature controls.
<b>Filter(s) Condition:</b>	Filters appeared clean. <i>Recommend that A/C filter(s) be checked and cleaned frequently to allow the A/C unit to operate at maximum efficiency.</i>
<b>Drip trays:</b>	Sighted, one for each condensing unit. Functional with drains.
<b>Condensate drain:</b>	Drains into sump tank.
<b>A/C Raw water:</b>	Bronze sea cock for A/C Raw water intake. Fully functional and hose is double clamped.
<b>Thru hull strainer:</b>	Strainer located at A/C raw water pump inlet seacock. Strainer is clear. Hoses are clamped and secure on all fittings sighted.
<b>Hoses &amp; connections:</b>	Hoses appear to be adequate size and serviceable for application. No cracks or hose damage sighted. Hoses are clamped and secure on all fittings sighted.
<b>Raw water cooling pump:</b>	220 Volt pump functioned well when testing A/C units.

# ELECTRICAL SYSTEMS

## D.C. ELECTRICAL SYSTEMS

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<b>D.C. Voltage system:</b>	12 and 24 Volt systems installed.
<b>Battery Set One:</b>	Battery set has a total of four 12 Volt sized that are type Group 31 Lead acid batteries that are located in the engine compartment port side forward. Batteries are Absorbed Glass Mat (AGM) type that provide service to House and engine start.
<b>Battery Set Two:</b>	Battery set has a total of four 12 Volt sized that are type Group 31 Lead acid

batteries that are located in the engine compartment starboard side forward. Batteries are Absorbed Glass Mat (AGM) type that provide service to House and engine start.

**Battery Set Three:** Battery set has a total of two 12 Volt sized that are type Group 31 Lead acid batteries that are located in the engine compartment port side forward. Batteries are Absorbed Glass Mat (AGM) type that provide service to windlass and bow thruster.

**Battery selector switch:** Two rotary switches are functional.

**Charging system:** Both engine mounted alternators. The battery charger is a Victron Energy 24/80 24V 80A SN# 12310200089. Vanner 65-100 100AMP battery equalizer SN# 13031-821415.

**Distribution panel:** Located in main salon.

**Battery monitor:** Switched analog gauge to test battery condition.

**D.C. usage meter(s):** Analog type, Amps, Volts.

**Breaker(s)/fuse(s):** All D.C. circuits are adequately protected by branch or switched breakers. 18 Single pole DC breakers.

**D.C. wiring:** All wiring runs are properly secured every 18" per ABYC E-11 recommendations. Ring spade or crimp on connectors sighted for wiring connections per ABYC recommendations. Anti Chafe protection sighted at all compartment pass through locations.

**DC wiring spark prevention:** All terminals sighted have spark protection covers.

**DC Electrical ground:** DC electrical system is properly tied into vessel's electrical ground system using the engine as a common ground.

**Other notes:** *Note: For 12 volt systems, a fully charged battery reads 12.7 Volts, 75% charged battery reads 12.4 Volts, 50% charged battery reads 12.2 Volts, 25% charged battery reads 12.0 Volts and a discharged battery reads 11.9 Volts or less. Check battery condition frequently.*

## **A.C. ELECTRICAL SYSTEMS**

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**A.C. Voltage system:** 50 Amp - 120/240 Volt system. Shore Power: One shore power inlet located on port side of cockpit.

**Shore power cord(s):** **NOTE:** *Doing a regular inspection of your power cords is a good way to ensure that they haven't incurred heat damage that could start a fire aboard your boat. When examining your cords, start at the ends and look for brown discoloration at the base of the blades - a clear indicator of excessive heat. (Blades with a worn nickel coating or pitting are another red flag). Next, identify what caused the damage and replace any overheated connections immediately before a cord is used again. Often, a damaged inlet is the culprit and just replacing the shore power connection will only damage the new one.*

**Shore power breaker:** Dual pole breaker for shore power at main power distribution panel.

**A.C. power selector switch:** AC/Generator manual break/make lever switch located in main AC panel.

**Distribution panel(s):** Stand alone panel in main salon.

**Branch breakers:** All AC circuits are adequately protected by branch breakers. 1 AC Triple pole breaker, 9 AC double pole breakers, 12 AC single pole breakers.

**Reverse polarity indicator:** Functional and outlets tested OK for proper polarity.

**GFCI protection:** GFCI protection is provided for galley and head and other wet locations. Test regularly to be sure functional. GFCI trips properly when tested in all wet locations.

**A.C. meter(s):** Analog type, Amps, Volts.

**A.C. wiring:** Stranded copper boat cable- size and rating, where sighted, appears correct and serviceable for intended use. All wiring runs are properly secured every 18" per ABYC E-11 and NFPA 302 recommendations. Anti Chafe protection sighted at all compartment pass through locations. AC wiring is properly terminated. No wire nuts

or loose connections sighted. Ring spade or crimp on connectors sighted for wiring connections per ABYC recommendations.

- A.C. Electrical ground:** A.C. electrical system is properly tied into vessels electrical ground system using the engine(s) as a common ground.
- Galvanic Isolator:** Failsafe+ 50/60 AMP SN# 266110127.

## GENERATOR

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- Manufacturer/Location:** Onan Marine, Generator installed in engine space starboard rear.
- Generator specifications:** Diesel powered 13.5KW 60HZ SN# B130452339.
- Hoses and clamps:** Good condition-No cracks sighted.
- Belts and pulleys:** Belts condition are serviceable. No cracks or splits sighted. Pulleys/belts appear to be in line.
- Cooling system(s):** Fresh water / heat exchanger cooled with water intake through lever action seacock -- coolant level is full and in good condition, Raw water cooled-engine driven pump. Water intake through lever action seacock Raw water strainer installed and is clear.
- Fuel pump(s):** Engine mounted. No leaks sighted.
- Fuel supply lines:** No cracks or soft spots.
- Fuel filter(s):** Engine mounted. No leaks sighted. Remote mounted. No leaks sighted. Racor water separator. No leaks sighted.
- Engine mounts and beds:** Engine mounts appear to be well secured to the support mounting.
- Engine ground cable:** Generator is properly grounded with a proper size conductor cable.
- Exhaust piping:** Transom exhaust, Flex hose and FRP elbow.
- Muffler:** Fiberglass in line muffler double clamped at both ends.
- Ventilation:** Blower and natural. Blower powers up OK.
- Warning labels:** Sighted.
- Accessibility:** Good.
- Generator performance:** Generator was tested under full load of A/C units and other AC powered devices. Generator started and ran properly and properly maintained voltage readings.
- Other notes:** Full generator survey were performed by a qualified Onan Marine technician.

## GROUND/BONDING SYSTEM

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- Main bonding conductor:** Twin engines are properly connected to each other by a common conductor circuit. The remaining ground/bonding system is well established where sighted; electrical system, seacocks, shaft logs, rudders, sea strainers, pumps, fuel system/tanks, hull zincs were all bonded. The bonding system is using individual green insulated wire or copper strips.
- Generator set(s) :** Generator engine ground bus.
- Through-hull(s) connected:** Sighted.
- Sea strainer(s) connected:** Sighted.
- Propeller shaft log(s) connected:** Sighted.
- Rudder(s) connected:** Sighted.
- Rudder shaft log(s) connected:** Sighted.
- Trim tabs connected:** Sighted.
- Grounding plate(s):** External-well secured to hull and ground wires well secured.
- Galvanic isolator(s):** See AC electrical section.

## ENGINE COMPARTMENT / PROPULSION SYSTEM

## MAIN ENGINE(S)

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<b>Engine specifications</b>	Two, Caterpillar C18 ACERT.
<b>Engine serial no(s):</b>	Port engine serial no: JKX01770 Starboard engine serial no: JKX01774.
<b>Engine(s) hours:</b>	Port hrs: 590 Starboard hrs: 589.
<b>Raw water hoses:</b>	Good condition-no cracks, soft spots or leakage sighted.
<b>Belts and pulleys:</b>	Belts condition are serviceable. No cracks or splits sighted. Pulleys/belts appear to be in line.
<b>Cooling system(s):</b>	Fresh water/heat exchanger cooled, coolant level is good and appears in good condition, Raw water cooled, raw water strainer(s) installed and, clear. <i>NOTE: It is recommended that water pump impeller(s) be changed every three years. Always keep spares aboard to use when necessary.</i>
<b>Engine ventilation:</b>	Natural ventilation for engine space is provided. Power exhaust ventilation blower(s) are installed. Power vents are fully operational.
<b>Engine ground cable:</b>	Engines are properly grounded together with a proper size conductor cable.
<b>Oil level and condition:</b>	Clean and full on dipstick(s). No evidence of water or cuttings in lube oil as sighted on dipstick(s).
<b>Fuel pump(s):</b>	Engine mounted. No leaks sighted.
<b>Fuel supply lines:</b>	USCG A1 flex. No leaks, cracks or soft spots sighted.
<b>Fuel filter(s):</b>	Engine mounted. Remote mounted, Racor fuel filter/water separator, No leaks sighted at fuel filter(s).
<b>Engine mounts and beds:</b>	Engine mounts appear to be well secured to the support stringers. NOTE: See Hull Interior section for condition of stringers themselves.
<b>Drip pad(s):</b>	Pads in place to catch fluid drippings. Pads are clean and show no evidence of leakage.
<b>Insulation:</b>	Sighted, excellent condition.
<b>Oil change system:</b>	U-Lube by Groco.
<b>Engine(s) operated:</b>	On sea trial. See sea trial section for details.
<b>Engine room summary:</b>	Full engine surveys were performed by a qualified CAT Marine technician. Surveys are attached.
<b>Other notes:</b>	<ul style="list-style-type: none"><li>• <i>It is good practice when buying a used vessel that all fluids (Engine/Transmission) be changed and the raw water cooling impeller(s) also be changed.</i></li><li>• <i>As stated in the Terms and Conditions agreement, It is understood that the attending surveyor is not an engine/transmission surveyor. As such, I recommend that all engines and transmissions be inspected by a qualified expert engine surveyor/mechanic who use sophisticated electronic tools specific to the make/model of engine(s) to determine the internal condition of engine performance and determine any repairs necessary of the engine(s), transmission gears, and pumps, heat exchangers, coolers, etc.</i></li></ul>

## EXHAUST SYSTEM

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<b>Exhaust manifold:</b>	Good condition- The exhaust system, including exhaust connection and hoses were inspected using an inspection mirror and no obvious cracks or leakage issues were noted.
<b>Muffler(s):</b>	No visible leaks or water tracks sighted.
<b>Piping/Clamps:</b>	Flex hose, securely double clamped as required. No cracks, soft spots or evidence of leaks sighted in exhaust system.
<b>Discharge location(s):</b>	Aft hull/transom corners.
<b>Condition summary:</b>	Full engine surveys were performed by a qualified CAT Marine technician. Surveys are attached.

## TRANSMISSION(S)

**Manufacturer/Model:** (2) ZF Marine, ZF510-1A, Hydraulic Gear driven utilizing transmission hydraulic fluid.

**Serial no(s):** Port: 20183306 Starboard: 20183307.

**Gear ratio:** 2.0.

**Fluid level and condition:** Good, Fluid levels show full, fluid is bright red and does not smell burnt.

**Propeller shaft(s):** No pitting, cracks or corrosion sighted. Couplers are properly safety wired.

**Stuffing box(es):** Starboard: Dripless shaft seal system that is raw water cooled. Boot, raw water hose and collar is secure and appears functional.  
Port: Dripless shaft seal system that is raw water cooled. Boot, raw water hose and collar is secure and appears functional.  
Excessive corrosion was sighted as well as water around the port side unit indicated the unit may be leaking.



**Other notes:** Full engine surveys were performed by a qualified ZF Marine technician. Surveys are attached.

<b>Findings:</b>	<b>Recommendations:</b>
Excessive corrosion was sighted as well as water around the port side shaft seal unit, indicating the unit may be leaking.	Have a qualified marine technician further investigate the corrosion and potential leaks on the port side shaft seal unit and repair as necessary.

## STEERING SYSTEM

### STEERING SYSTEM

**Type:** Sea Star-Teleflex power steering kit. SN# 13021.

**Mounting(s):** Cylinder & ram actuator well secured. Moderate leaking sighted at ram acuator.



**Steering tie bar:** Well mounted with rudder steering arms connected by a stainless steel lateral bar.  
**Lines and fittings:** No leaks sighted.  
**Packing glands:** Appear well sealed- no leaks sighted. *NOTE: Rudder packing glands should always be totally dry. Check frequently and adjust if necessary.*  
**Damage sighted:** Moderate leaking sighted at ram acuator.  
**Recommendations:** Have a qualified marine technician further investigate the leaking ram unit and repair as necessary.

## TANKAGE / PLUMBING

### FUEL TANK(S)

**No & Location:** Two tanks located In engine space forward center and under the cockpit sole.  
**Tank type & capacity:** Tank(s) are constructed of stainless steel. The tank(s) capacity is 500 gallons as sighted on each tank label.  
**Manufacturer' s label(s):** The USCG required label was sighted on fuel tanks.  
**Fuel supply lines:** USCG A1 flex hose from tank to fuel pump. Well secured and no cracks, soft spots or splitting sighted. Serviceable.  
**Diesel return line(s):** Engine uses grade USCG Type A1 return line. No cracks, soft spots or splitting sighted. Serviceable.  
**Shut off valve(s):** On tank top.  
**Vent line/location:** Vent located on hull side(s), with flame screens or cleanable vents in place and clear.  
 USCG A1 No cracks, soft spots or splitting sighted. Serviceable.  
**Fill line(s) located:** Port and starboard sides of open cockpit.  
**Fill pipe & condition:** USCG A1 flex type hose, No cracks, soft spots or splitting sighted. Serviceable. Fill hose is properly double clamped at both ends of fill hose.  
**Fuel fill grounded:** Fuel fills are properly grounded to the fuel tanks.  
**Tank(s) grounded:** Both tanks are properly grounded.  
**Tank(s) secured:** Tank(s) well secured. Not sighted due to no ready access for full tank inspection. Owner is advised to ensure that the fuel tank is properly secured so that the tank does not move at the mounting surface more than 1/4 inch.  
**Tank(s) on flat surface:** Could not sight bottom of tank to ensure it is properly ventilated. Owner advised to ensure the bottom of each fuel tank is adequately ventilated.  
**Inspection/cleaning access:** Good.  
**Tank(s) condition:** Visually good (where accessible)

### FRESH WATER TANK(S)

**No & locations of tanks:** One tank in engine compartment.  
**Tank(s) type & capacity:** Plastic with a total capacity of 150 gallons.  
**Tank(s) secured:** Tank is properly secured.

**Inspection/cleaning access:** Good.  
**Tank(s) condition:** Visually good (where accessible)  
**Water pump(s):** 24 volt Jabsco Dual-max VSD Model: 31765-0094 Pump powers up but system was not pressure tested- no water in tank/winterized. Partially fill water tank and test water system to be sure lines pressurize properly with no leaks or pump cycling.  
**Tank Monitor System:** Dometic, appears functional.  
**Supply lines:** Red and blue plastic piping is used for all water connections. No leaks sighted for areas open to inspection.  
**Shut off valve(s):** Manifold available and is functional.  
**Filling line(s) located:** Side decks clearly marked for water.  
**Vent(s) location(s):** Side hull.

**HOLDING TANK(S) - BLACK WATER**

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**No & Location of tanks:** One holding tank.  
**Marine Sanitation Device:** Certification Type: MSD USCG Type III (holding tank). Waste tank is connected to deck waste fitting for pump out. Overboard discharge lines and fittings are properly disabled to comply with USCG regulations for the Great Lakes and all inland waters.  
**Tank(s) type & capacity:** Plastic with a total capacity of 50 gallons.  
**Tank Monitor system:** Dometic, appears functional.  
**Tank(s) secured:** Tank is properly secured.  
**Tank(s) condition:** Visually good (where accessible)  
**Inspection/cleaning access:** Good.  
**Lines:** Lines are all well secured. No cracks or leaks sighted. Note: *If waste odors appear, consider changing all waste hoses to a higher grade sanitation hose which does not typically permeate with waste odors.*  
**Discharge line(s) located:** Deck pump out, The waste discharge hose is connected to a "Y" Valve fitting which one hose goes to holding tank with a bypass shutoff valve and another hose to a thru-hull overboard discharge with a functional sea valve. An operational waste overboard discharge system is illegal in Inland waters and the Great lakes and can result in major fines.  
**Y valve(s) installed:** In fwd bilge, serviceable.  
**Vent(s) location(s):** Side hull.  
**Macerator pump(s):** Appears to be integrated with power flush pump.

**WATER HEATER**

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**Tank location:** Master cabin under bed.  
**Manufacturer/capacity:** Seaward Model No. H-2050E-W SN: 853682. 20 gallons.  
**How powered:** 220V no heat exchanger installed.  
**Ignition protected:** Water heater is marine type and labeled as ignition protected.  
**Water heater test:** Not tested - water system appeared to be winterized. Test after filling water heater to be sure fully functional.  
**Pressure relief valve(s):** Drains into bilge area.  
**Drain fixture(s)/plug(s):** Appears functional.  
**Supply lines:** No leaks sighted.  
**Outer tank material:** Aluminum.  
**Tank(s) secured:** Tank is well secured.  
**Inspection/cleaning access:** Good.  
**Other notes:** NOTE: *Do not leave hot water heater AC switch on unless water is in the hot water tank or the heating element will burn out. Recommend turning off water heater whenever leaving the vessel.*

# SAFETY EQUIPMENT

## USCG REQUIRED

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<b>Navigation lights:</b>	All Navigation running lights were tested and found fully operational.
<b>Life Jackets(PFD's):</b>	No life jackets (PFD's) sighted on board. <b>RECOMMENDATION: One USCG approved personal flotation device (PFD Type I, Type II, Type III or Type V) must be available for each person on board. This is a Federal regulation as stated in 33 CFR 175.15. In addition it should be noted that children under 13 years of age must wear an appropriate PFD or remain below decks in an enclosed cabin.</b>
<b>Throwable type PFD's:</b>	USCG approved buoyant cushion(s), 1 to 5 sighted onboard.
<b>Visual Distress Signals:</b>	Handheld aerial type, <b>Visual distress signals are all expired.</b> <b>RECOMMENDATION: Replace expired visual distress signals to comply with USCG regulations 33 CFR 175.110 for visual distress signals prior to using vessel.</b> <i>NOTE: All visual distress signals have a printed expiration date 3 years from date of manufacture. It is recommended that expired signals be retained for backup. You must have at least three aerial or three red handheld signals that are current.</i>
<b>Sound devices:</b>	Ship air horn compressor and control at helm station is functional. Horn sound is very good.
<b>USCG placards:</b>	Both USCG mandated placards (oil & garbage) are properly posted.
<b>Engine ventilation:</b>	Natural ventilation for engine space is provided, Power exhaust ventilation blower(s) are installed and are fully functional.
<b>Inland Navigation Rule Book:</b>	A copy of the Inland Navigational Rules was not sighted as required for self propelled vessels over 39'4" (12M) or longer as required by USCG 33 CFR 88.05. <b>RECOMMENDATION: Ensure a copy of the Inland Navigation Rules is aboard for ready reference and be familiar with it's contents to comply with USCG regulations and to avoid a potential fine.</b>
<b>Waste Management Plan:</b>	A properly documented waste management plan was sighted on board and is in compliance with USCG regulations for vessels over 39'4" (12M).

## FIRE FIGHTING EQUIPMENT- U.S.C.G. Required

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<b>Dry Chemical Size I:</b>	USCG approved extinguisher(s) sighted at: bridge area, cockpit/aft deck area galley main salon master stateroom, guest stateroom, engine space.
<b>Fixed /Clean Agent:</b>	Clean agent FE241 One USCG approved located in the engine room.
<b>FIRE EQUIPMENT OBSERVATION:</b>	<i>NOTES:</i> <ul style="list-style-type: none"><li>• <i>Recommend at least one fire extinguisher be located in the galley area where fires are more likely to occur from cooking.</i></li><li>• <i>ABYC A-4 recommends that all fire extinguishers have a full maintenance check performed at least once per year by a qualified fire extinguishing service company a tag should be attached showing the date of the maintenance check.</i></li><li>• <i>Fire extinguisher pressure gauges should be checked monthly to assure that readings are full or in the green area.</i></li><li>• <i>NFPA recommends that dry chemical fire extinguishers be periodically shaken to ensure the dry chemical powder is loose and is not compacted. If in doubt, replace the extinguisher.</i></li></ul>

## BILGE PUMPS

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<b>ELECTRIC PUMPS:</b>	Three electric pumps. Located at: aft bilge midship / central bilge, forward bilge pumps sighted are: Rule 12 Volt, 2000 GPH.
<b>SHOWER &amp; SUMP PUMP(S):</b>	One pump. Pump powers up ok with float switch. Sealed sump tank with one pump and auto float switch. Pump is Atwood 750 GPH inside sealed sump tank, with auto float switch but was not tested due to inside sealed sump tank.
<b>Bilge Pump Comments:</b>	<b>CAUTION----</b> <i>Bilge pumps are high maintenance items. Bilge pumps are only the</i>

*initial part of a de-watering system, which may include a strum-box, check-valves or occasionally anti-siphon loops and valves, piping, a seacock if the exit is below waterline and a thru-hull tailpiece. This entire system must be understood and maintained. Bilge pumps may fail at any time. No warranty as to longevity can be expressed or implied at survey. Tapered wooden plugs tied to seacocks are an inexpensive safety item and highly recommended under current ABYC standards. Keeping bilges clean and free of debris is a vital part of insuring proper operation. It is also recommended that each bilge pump be periodically tested by filling the immediate bilge area with water, to ensure the pump(s) and float switch(s) and or high water alarms (if equipped) are operating as designed.*

## **AUXILIARY SAFETY EQUIPMENT**

<b>First aid kit:</b>	Not sighted. Highly recommended.
<b>Smoke detector(s):</b>	Sighted. Tested OK.
<b>Carbon monoxide detectors:</b>	Fireboy XINTEX Carbon Monoxide detector CMD-3M, <a href="#">CO Detector located in all staterooms and salon would not power up or test properly. RECOMMENDATION: Investigate and repair or replace CO detectors as necessary to make fully operational for safety of all aboard. NOTE: During the burning of any of fuels, Carbon Monoxide ( CO ) gas may be created due to incomplete combustion from propulsion systems, cabin heater or stove as well as nearby boats running generators. Adequate ventilation must be provided at all times while burning any of these fuels, but CO may also be drawn into the cabin through ventilation systems. This is especially true of boats running air conditioning. Unlike smoke, CO is odorless and colorless and can't be detected by a human. CO is a silent menace and kills without warning, Regular testing of installed CO detectors in any occupied spaces below decks is highly recommended. Also, remember that CO alarms have a limited life span - five years according to most manufacturers. Check the manufacture date on the CO detectors on board and replace as recommended by the manufacturer.</a>

## **GROUND TACKLE**

<b>Primary anchor:</b>	Fortress No. FX-37 with undetermined length of raw chain and 3/4" anchor line.
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## **SEA TRIAL RESULTS**

### **SEA TRIAL DETAILS**

<b>Date &amp; Time:</b>	November 14, 2019.
<b>Vessel operated from/to:</b>	Charles Cove to Long Island Sound.
<b>Attendees:</b>	Captain, broker, engine and hull surveyors.
<b>Vessel operated by:</b>	Captain.
<b>Sea water temperature:</b>	47 F.
<b>Ambient air temp:</b>	34 F.
<b>Other comments:</b>	Please note that the following sea trial data was obtained by the engine surveyor and not by the undersigned surveyors.

### **SEA TRIAL DOCKSIDE OBSERVATIONS**

<b>Engine alarms:</b>	Both engine alarms were fully functional with ignition key on before starting engines.
<b>Cranking:</b>	The engine(s) started without excessive cranking.
<b>Exhaust smoke:</b>	The engine(s) exhaust smoke was minimal at dock side.
<b>Cooling water:</b>	The cooling water exhaust appeared adequate and normal at dock side.
<b>Instruments:</b>	The engine instruments all operated and within normal operating limits at idle. ( See "Engine Instrument Readings" below. )
<b>Shaft Creep:</b>	There was NO noticeable shaft creep with engine(s) running and with gears in

neutral.

**Air Conditioner:** All air conditioners functioned properly in both heat and cooling modes when checked at dock side.

**Generator test:** Generator output was recorded at 120 Volts and maintained voltage with all air conditioners running during the generator test.

**Thrusters system:** Bow thruster worked properly backing out as well as entering the slip.

**Leaks sighted:** There were no oil, coolant or other leaks observed during or after the sea trial.

**UNDERWAY TESTS / OBSERVATIONS**

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**Shift/Throttle levers:** The shift/ throttles operated normally/smoothly.

**Instruments:** The engine instruments all operated and within normal operating limits at various speeds and at maximum throttle during the sea trial.(See "Engine Instrument Readings" below)

**Transmissions:** The transmissions operated normally/smoothly in both forward and reverse gears.

**Vibrations:** There were no excessive vibrations noted at any time during the sea trial run.

**Exhaust smoke:** The engine(s) exhaust smoke was minimal and appeared normal throughout the sea trial.

**Cooling water:** The cooling water exhaust appeared adequate and normal during the sea trial. Engine temperature gauge(s) also reflected a normal cooling temperature.

**Synchronizer:** The engine synchronizer operated properly during the sea trial.

**Compass:** Compass operated properly and appeared to continually show correct headings throughout the sea trial.

**Trim tabs:** Trim tabs were fully functional as vessel planed out at high speed.

**Auto Pilot:** Autopilot was tested and found fully functional, including port and starboard dodge tests.

**Steering:** The steering system operated normally/smoothly from stop to stop in wide sweeping turns.

**Backdown:** The back down test was satisfactory. Engine mounts secure and no unusual movement of the engine(s) was sighted.

**Start in gear:** The engine(s) properly would not start while in forward or reverse gears. *Note: This was tested in open water in case of failure.*

**Max Throttle:** Manufacturer's recommended max RPM is 2400 - Both Engines reached 2326 RPM and a speed of 35 knots at full throttle while under load.

**SEA TRIAL ENGINE INSTRUMENT READINGS**

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**RPM:** Port/Stbd= IDLE: 600 / 600 CRUISE: 1800 / 25.4 WOT: 2302/ 2302.

**VOLTS:** Port/Stbd= IDLE: 29.1 / 29.2 CRUISE: 29.1 / 29.2 WOT: 29.1/ 29.2.

**WATER TEMP:** Port/Stbd= IDLE: 183 / 181 CRUISE: 183 / 181 WOT: 183 / 181.

**OIL PRESSURE:** Port/Stbd= IDLE: 72 / 73 CRUISE: 72/ 73 WOT: 72/ 73.

**OIL TEMP:** Port/Stbd= IDLE: 162 / 161 CRUISE: 162/ 161 WOT: 162 / 161.

**GEAR PRESSURE:** Port/Stbd= IDLE: 441 / 440 CRUISE: 441 / 440 WOT: 441 / 440.

**PHOTO PAGES**

**PHOTO PAGE(S)**

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**Inspection Photo's:**





















# INSPECTION RECOMMENDATIONS SUMMARY

## **PRIORITY I - SAFETY & REGULATORY RECOMMENDATIONS:**

*(MAY BE MANDATORY)*

The items listed are required by state laws or federal laws and USCG. regulations or are considered by the attending surveyor to represent unsafe operating conditions. Recommend these items be corrected before next use of vessel.

### **SAFETY EQUIPMENT**

#### **USCG. REQUIRED**

*Life Jackets(PFD's):*

No life jackets (PFD's) sighted on board. **RECOMMENDATION:** One USCG approved personal flotation device (PFD Type I, Type II, Type III or Type V) must be available for each person on board. This is a Federal regulation as stated in 33 CFR 175.15. In addition it should be noted that children under 13 years of age must wear an appropriate PFD or remain below decks in an enclosed cabin.

*Visual Distress Signals:*

Handheld aerial type, Visual distress signals are all expired. **RECOMMENDATION:** Replace expired visual distress signals to comply with USCG regulations 33 CFR 175.110 for visual distress signals prior to using vessel. **NOTE:** All visual distress signals have a printed expiration date- 3 years from date of manufacture. It is recommended that expired signals be retained for backup. You must have at least three aerial or three red handheld signals that are current.

*Inland Navigation Rule Book:*

A copy of the Inland Navigational Rules was not sighted as required for self-propelled vessels over 39'4" (12M) or longer as required by USCG 33 CFR 88.05. **RECOMMENDATION:** Ensure a copy of the Inland Navigation Rules is onboard for ready reference and be familiar with its contents to comply with USCG regulations and to avoid a potential fine.

## **PRIORITY II - MAINTENANCE & STANDARDS RELATED RECOMMENDATIONS:**

*(NOT NORMALLY MANDATORY)*

These are important maintenance items sighted which in this firm's opinion should be performed. They may also include recommendations to conform to current ABYC and NFPA-302 voluntary standards which may not have been in effect or may not have been adhered to by the builder when the vessel was constructed. Some of these, if not addressed, could lead to a Priority I safety issue and/or may result in a reduced vessel market value.

### **HULL & STRUCTURAL COMPONENTS**

#### **BILGES**

Excessive corrosion to fittings and components sighted in the aft bilge. **RECOMMENDATION:** Have a qualified marine technician further investigate the excessive corrosion and repair as necessary.

### **TRANSOM**

#### **DAVIT SYSTEM**

Freedom lift davit system shows signs of incorrect bonding showing excessive corrosion.

Trim tab anodes missing. **RECOMMENDATION:** Have a qualified marine electrical technician further investigate davit corrosion and repair as necessary.

#### **TRIM TABS**

Trim tab anodes missing. **RECOMMENDATION:** Replace trim tab anodes.

## HULL BOTTOM

### DAMAGE SIGHTED

Minor FRP damage on port side where the prop shaft exits the vessel. RECOMMENDATION: Have a qualified marine fiberglass technician further investigate the FRP damage and repair as necessary.

## PROPELLER(S)/SHAFT(S) / STRUT(S)

### PROPS

Minor damage on 1 blade of port side prop. RECOMMENDATION: Recondition port propeller.

Prop nuts installed backwards. RECOMMENDATION: Re install propeller nuts to comply with ABYC standard P-6 and SAE standard J755 the thinner nut should be installed against the propeller and the thicker nut should be installed against the thinner nut with the cotter pin installed last.

*Prop nut installation note: The reason for this installation sequence is when the outer thicker nut is tightened it locks the two nuts in place partly releasing the pressure on the threads of the inner thinner nut allowing the thicker nut which has more thread surface to be the nut carrying the load.*

## RUDDER(S)

### RUDDER CONDITION

Port: Horizontal or fore/aft movement observed in rudder. RECOMMENDATION: Have a qualified marine technician further investigate the excessive rudder play and repair as necessary.

## SAFETY EQUIPMENT

### AUXILIARY SAFETY EQUIPMENT

*Carbon monoxide detectors:*

Fireboy XINTEX Carbon Monoxide detector CMD-3M, CO Detector located in all staterooms and salon would not power up or test properly. RECOMMENDATION: Investigate and repair or replace CO detectors as necessary to make fully operational for safety of all aboard. NOTE: During the burning of any fuels, Carbon Monoxide ( CO ) gas may be created due to incomplete combustion from propulsion systems, cabin heater or stove as well as nearby boats running generators. Adequate ventilation must be provided at all times while burning any of these fuels, but CO may also be drawn into the cabin through ventilation systems. This is especially true of boats running air conditioning. Unlike smoke, CO is odorless and colorless and can't be detected by a human. CO is a silent menace and kills without warning, Regular testing of installed CO detectors in any occupied spaces below decks is highly recommended. Also, remember that CO alarms have a limited life span - five years according to most manufacturers. Check the manufacture date on the CO detectors onboard and replace as recommended by the manufacturer.

## OTHER OBSERVATIONS:

These are other less significant maintenance items or observations that, if not addressed, could lead to more important priority issues and/or could lead to a reduced vessel market value. The cost of addressing these recommendations is generally minimal.

## CABIN INTERIOR APPOINTMENTS

### GALLEY

*Water system:*

Pressurized hot and cold, not tested. Water system was winterized. Retest onboard fresh water system after filling water tank with water.

## TANKAGE / PLUMBING

### FUEL TANK(S)

*Tank(s) secured:*

Not sighted due to no ready access for full tank inspection. Owner is advised to ensure that the fuel tank is properly secured so that the tank does not move at the mounting surface more than 1/4 inch.

*Tank(s) on flat surface:*

Could not sight bottom of tank to ensure it is properly ventilated. Owner advised to ensure the bottom of each fuel tank is adequately ventilated.

FRESH WATER TANK(S)

*Water pump:*

Pump powers up but system was not pressure tested- no water in tank/winterized. Partially fill water tank and test water system to be sure lines pressurize properly with no leaks or pump cycling.

WATER HEATER

*Water heater test:*

Not tested - water system appeared to be winterized. Test after filling water heater to be sure fully functional.

**SAFETY EQUIPMENT**

AUXILIARY SAFETY EQUIPMENT

*First aid kit:*

Not sighted. Highly recommended.

# CONDITION & VALUE REPORT SUMMARY

**DECLARATION:**

Rating of vessel condition was determined upon completion and review of all reported survey information including recommendations and comparing vessel to the same or similar age models. Possible vessel condition ratings are as follows:

- **EXCELLENT** - Essentially as new or bristol in appearance.
- **ABOVE AVERAGE** - Has had above average care with no obvious defects or limitations.
- **AVERAGE** - Ready for sale but needs some maintenance or repairs, updates or cleaning.
- **BELOW AVERAGE** - Needs significant maintenance, repair or service.

Estimated fair market value was determined by cross referencing data from Soldboats.com, BUC, ABOS, NADA, Powerboat Guide and other brokerage listings or local dealers. Adjustments are then made for condition or equipment as necessary. The fair market value is for the vessel in it's current condition prior to any repairs or maintenance.

Estimated replacement cost was determined using information obtained from BUC, ABOS or local dealer prices using the same or similar make and model with similar equipment options.

- **RATING OF VESSEL CONDITION.....ABOVE AVERAGE CONDITION**
- **ESTIMATED FAIR MARKET VALUE.....\$ xxxxxxxxxxxxxxxxx**
- **ESTIMATED REPLACEMENT COST.....\$ xxxxxxxxxxxxxxxxx**
- **INTENDED USE OF VESSEL..... Pleasure-Atlantic coast line cruising**
- **SUITABILITY FOR INTENDED SERVICE: Vessel IS considered fit for it's intended use and upon correction of all listed Priority I recommendations.**

**NOTE:** All "Priority II" and "Other Recommendations" should be thoroughly reviewed to bring vessel up to current standards and or improve the value of the vessel.

## CONDITION & VALUE REPORT SUMMARY

### CLOSING STATEMENT & SIGNATURE:

This report is submitted in confidence for the exclusive use of xxxxxxxxxxxxxxxx without prejudice to the rights and/or interests of other concerned parties and may not be used for any other purpose or relied upon by any other person.

ATTENDING SURVEYOR:



Barton P. Cerra SAMS®-SA Marine Surveyor