Timothy Simms A.M.S **SAMS** Marine Surveyor Martin County, FL 561-676-6990

22-8765432

Report of Survey

18 March 2022



22-8765432

SURVEY Information:

-Name of Vessel:xxxxxx-Date of Survey Inspection: xxxx2022-Vessel: 1999 80' Ferretti-Owner/Seller: XXX-Buyer:xxxx-Address: xxxxxx-Purpose of survey: pre-purchase-By Request of: buyer-Prepared exclusively for: buyer-By Request of: buyer-In Attendance: surveyor, buyer & wife xxxx, seatrial captain, Buyer & sellers brokers & xxxxx

Scope of Survey Inspection:

This survey was conducted by means of visual and aural inspection and non-destructive testing, such as "tapping" a laminate and listening for acoustic anomalies. (a.k.a. "percussion testing.") (It should be noted that given the nature of materials, the vessel may have undergone minor or significant fiberglass repair which is hidden at time of survey.) Electronic, electrical, mechanical and other equipment was energized or activated if possible, and observed in operation. Any damage, malfunctions or deficiencies are described in the "**RECOMMENDATIONS**" and "**NOTES**" sections of this report.

All areas accessible without the opening or removal of locked compartments and breaker panels, paneling, screwed or nailed boards, bulkheads, tacked carpet, clothing, spare parts, miscellaneous materials in the bilges, lazarette and lockers or other portions of her structure, anchors and anchor chain and without the testing of or opening up of propulsion or auxiliary machinery, or disassembly of valves, were tested and/or inspected. The undersigned does not attest to the absolute condition of wood concealed by paint fiberglass or other materials. Wiring is not fully accessible for inspection over its entire length; surveyor cannot speak as to its condition in inaccessible areas. Tanks are not fully accessible for inspection, and surveyor cannot speak as to the condition of hidden surfaces. Liquid leakage above the tank level cannot be detected in slack tanks. Propeller shafts and rudder stocks were not sighted where they pass through the glands, Pedro hoses, logs, rudder ports and cutlass bearings; surveyor cannot speak as to their condition.

This report is not an engine survey; a brief cursory inspection of the machinery was conducted and no opinion of its overall condition has been formed. The engines and generators were operated during survey. Engine zincs were not removed, fluid samples were not taken, and compression testing was not conducted. An engine survey was being conducted concurrently by Mr. Frank Robbins of Cat Tech Diesel Inc

No determination of stability characteristics has been made and no opinion is expressed with respect thereto.

<u>CITATIONS</u>: The following publications have been used as guidelines in conducting this survey:

- -- USCG Minimum Equipment Requirements for Recreational Vessels
- -- The mandatory standards of the Code of Federal Regulations (CFR) Title 33 and Title 46.
- -- The voluntary standards and recommended practices developed by the American Boat and Yacht Council (ABYC) and the National Fire Protection Association (NFPA). Note that new NFPA or ABYC standards may have gone into effect since this vessel was built. Some of these standards have significant impact on personal or vessel safety, and are cited herein.

Survey condition definitions:

Excellent (Bristol) – As new or new condition. Repairs not required. Additional and/or custom equipment. Minimal or no wear.

Very Good –Exceeds average condition, with extra equipment and/or well maintained. Slight repairs may be required.

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Good (average) – . Average condition and/or equipment. No major repairs are required. May require normal scheduled maintenance.

Serviceable: Noticeably used but still fit for its intended purpose

Fair–One step below good or average and requires additional maintenance and repairs to bring into average condition.

Poor–System requires maintenance and significant repair in all areas in order to be put back into usable or serviceable condition

SURVEY CONDITIONS:

-Weather: sunny 80°F -Afloat: on xx xxxx, 2022 atxxxxxx, Ft. Lauderdale, FL -Hauled: on xx xxxxx, 2022 at xxx xxxx Ft. Lauderdale, FL

-The vessel was seatrialed on The ICW & Atlantic Ocean for a period of approximately 1.5 hours. At that time a maximum of 2200 RPM and 28 knots was maintained for approximately one minute, after which the vessel was operated at various rpms and performed as general usage would demand. Estimated cruising speed is approx. 22 knots at 1800 RPM.

VESSEL INFORMATION:

-This vessel is a 1999, twin diesel inboard fly bridge motor yacht, of deep vee bottom, full keel, transom-ended design and fiberglass reinforced plastic construction, with salon and flybridge helm steering and engine controls.

-This vessel is considered of suitable type for Florida coastal and similar waters with respect to seasonal weather, conditions and fuel range.

-Builder: Ferretti Yachts-At: Forli, Italy-Year: 1999-Type/Model: F80 (vessel serial #:XXX/XX)-Built: 1999-Vessel build #: xx-Accommodations: sleeps 10-Color: white-Trim: white-Bahamas Off. No.: XX XXXXX (sighted)-Color: white-Hailing Port: XXXXXX XX

-The hull was properly labeled with the name and homeport on the transom and the vessel registration numbers on the port and stbd bow.

DIMENSIONS:

-LOA: 80'6" LOD: 78'8" Beam: 19'8" Draft: 6'1" -Displacement: 119,070 lbs. (specs: <u>BucValuPro.com</u> / Yachtworld listing)

CONSTRUCTION:

-Fiberglass reinforced plastic -Fastenings: fiberglass & resin

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-Structure: the vessel has FRP longitudinal stringers, transverse supports and wooden bulkheads located throughout, bonded to the hull with FRP tabbing. Where sighted, these were found to be sound, with no sign of rot or water damage.

-Hull-to-deck joint: flanged hull-to-deck joint bonded with mechanical fasteners and adhesive. They appear to be in good condition

-Decking: cored FRP with, cockpit with teak overlay Condition: serviceable -Built-in fiberglass swim step with lazzarette. Condition: serviceable

INTERIOR:

-Decking: carpet over painted plywood Condition: serviceable -Overhead: textile headliner thru-out Condition: good -Windows/Ports: safety glass, EU Force 5 rated Condition: good with no active leakage noted.

THROUGH HULL FITTINGS:

-Valve type: cast bronze ¹/₄ -turn ball type, (9) at or below waterline

Condition: Good, operated and found in working order.

-Hoses appear to be in serviceable to fair condition and adequately clamped where they were attached to the through hull fittings unless otherwise described in **recommendations** or **notes** towards the end of this report.

NAVIGATION EQUIPMENT:

-Compass: (1) spherical 4" Riviera Genoa Condition: good
-Colregs Nav. Lights: yes Condition: serviceable, operative
-VHF radios: (2) Garmin 315 salon & bridge helm stations Condition: good
-Radar: Garmin GMR 424, open array Condition: good
-Multi-function nav. Instruments : Garmin 8616 & Garmin 7610 XSV Condition : very good, operative
-Autopilot: Garmin Reactor 40 w/ (2)- Garmin GHC 20 control units salon & bridge Condition: good, operative (see recs)
-ACR Remote-operated spotlight Condition: serviceable

MACHINERY:

The engines were operated during survey. From external examination, the engines and the equipment in the engine room appear to be in serviceable condition. However, engine surveyor noted and recommended repair procedures for both port & starboard engines.

-Specific engine/ and generator related concerns should be addressed in engine surveyors report

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-Engine mounted, analog engine hour meters show 01886.9 hours port, and 05875 hours stbd.
-Actual engine hours unknown, meters are believed to be in-accurate.
-Engine re-builds were reported to have occurred in the Bahamas in the past few years, but no verification via records or receipts were provided.
-Rebuild or extent of rebuild could not be verified.

-Pumps, ventilation, and other auxiliary machinery were in operable condition, unless otherwise reported in the **recommendations** or **notes** towards the end of this report.

Engines: (2) Caterpillar, 3412 DITA, fresh raw water cooled Type: diesel, 12-cylinder, 4-cycle Rated HP: 1350 each 2840 total (rptd.) Serial Numbers: Port:XXXXXX Stbd: XXXXXX Foundation & mounts: apparently serviceable Hoses/ clamps: serviceable to fair - several appear aged (see recs) Exhaust: wet riser, broker reported recent repairs/replacement of exhaust- no paperwork available for verification

-Drive: inboard, vee drive, (2) ZF Marine, direct drive Ratio: 2:1 (reported by engine surveyor) Serial Numbers: Port: unable to observe Stbd: unable to observe

-Engine Controls: single-lever electronic Mathers Micro Commander, operational Engine synchronizer: CAT operational Locations: Flybridge and salon Engine alarm: operational

-Panel Instrumentation: (2 salon, 2 fly bridge) Caterpillar electronic engine status monitors at helm stations. Analog engine and transmission oil temp, oil pressure water jacket pressure mounted, aft of each main engine.

-Pumps:Electric: (4) bilge, (2 total) 1-220V/AV. 1-24V/DC)fresh water, (1) macerator, (1) shower sump,
-Engine Room Ventilation: natural & blower Cobdition: blowers operative
-Bilge cleanliness: clean
-Bronze sea strainers: yes, main engines, generator engines & air cond. Condition: serviceable
-Fuel filters: Racor, remote mounted 30 micron (see recs)
-Propeller shaft glands: Tides, dripless Condition: appear serviceable
-Rudder glands: Condition: serviceable
-Steering: Hynautic hydraulic (see recs)
-Oil Change System: manual pump
-RO watermaker: Idromar, hour meter reads: 01728.78 hours (water maker not tested)
-Bow thruster: Mannesman Rexroth, with 3 control stations Condition: operational
-Engine synchronizer: Caterpillar

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HULL BOTTOM:

Trim tabs: (2) hydraulic Condition: serviceable
Propellers: (2) bronze, 5 blade, 39.5mm x 59.90mm. Condition : serviceable

(2) spares, in transom lazzarette, Condition: fair, size not determined
Tailshafts: 3½" stainless steel Condition: appear serviceable covered in Propspeed
Transom anodes- 2 Condition serviceable
Shaft anodes: port -2 anodes – 1 in fair condition, 1-in poor condition (not secure on shaft) stbd: 1- anode, 1 missing (see recs)
Thruster anode: missing/wasterd- replace
Exhaust tunnel anodes: fair- replace
Rudders: (2) stainless steel, w/ Propspeed
-Rudder ports: good (see recs)
Struts: bronze, covered w/ Propspeed
-Cutlass bearings: Condition: serviceable

-Bottom paint condition: appears to be in serviceable condition

ELECTRICAL SYSTEM:

220V/AC- 24V/DC

-The vessel was built in Italy, to European standards so the ability to test items was limited due to voltage differences between typical North American 120V/60Hz and European 240/V 50Hz systems.

-Buyers indicate that they have plans to convert vessels' electrical system over to the 120V/60Hz North American electrical configuration.

-Other than the difference in voltage- the 240V/AC electrical items that were tested on both shore power and generator power appear to be operational.

-The generators were load tested for approx. 120 minutes.

-Circuits appear to have proper circuit protection with circuit breakers labeled.

-The AC panel has digital system status meters

-The DC panel has digital system status meters

-Batteries are not secured, ventilated, contained, and terminals are not covered. (see recs)

-Batteries were not load-tested during survey; however, at the time of the survey 24VDC systems were operational as general usage would demand, unless noted in the recommendations.

-Batteries do not have circuit protection within a distance of seven inches of the battery.

-Bonding wires and connections appear to be intact.

-Wiring is non-metallic sheathed copper, generally well supported and organized.

-2-110V/AC outlets in galley and in mechanical room proved to have an open ground when tested (see recs)

-Typical N.American style GFCI outlets are not installed in required places (see recs) -No isolation transformer or galvanic isolator was sighted or reported to be installed.

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Breaker distribution panels: (2) 24V/DC 1- in mechanical room, 1 near salon helm station, 2-240V/AC shore/generator 1-salon helm station, 1- mechanical room
Batteries: (8) Deka Intimidator, Group 31,12V for house and 24V engine starting Location: engine room Battery Dates: reported recently installed new
Battery chargers/inverters: Mastervolt MASS 24/100 C model, 24V, 100amp Victron Energy Atlas Combi, 24/1800 24V/ 1800 watt inverter
Shore power connection: single phase, 100 amp with Cable Master located on in the stbd. side of transom

-Generator: (1) Kohler 18KW/120V Model: 18CCF0Z Engine: diesel, 4-cylinder, 4-stroke

Serial No.: port: xxxxxx stbd: xxxxxx

The generators were load tested for approx. 60 minutes each, ran well, supported loads and kept up with demand.
The analog hour meters on the generator reads: 3296.1 & 3339.0 hours
Generator hours are believed to be in-accurate- the vessels assigned Captain reported to selling broker that the generators may have as many as 15,000 hours each.

-Auxiliary generation: (2) engine mounted alternators

TANKS AND HEADS:

-Tank deck fill fittings are on port gunwale and are properly labeled.
- Liquid leakage above the tank level cannot be detected in slack tanks.
-Tanks are not accessible for inspection, and surveyor cannot speak as to their condition, no signs of fuel leakage or fuel odor detected at time of survey.

-Fuel tank: (1) aluminum	Capacity: 1849 gallons total		
(broker reported tank info)			
Located: engine			
Vented: to atmosphere	Filling Lines: to deck		
-Fuel supply plumbing: (see recs)			
-Water tanks: (1) plastic	Capacity: 317 gallons total (owner's man.) (on tank)		
(rptd.) (online info)			
Located: under			
-Holding tanks: (1) black water, (1) grey wa	ter Capacity: not determined		
-Heads: (4) Vacuflush marine sanitation dev			
-Other Tanks: (2) electric water heater Co			
Located: one aft, near crews' quarters, one fwd			

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GROUND TACKLE:

-(2 total) 1-Bruce 50kg anchor & 1 plow style stowed on bow, with 3/8" all chain rode length of chain unknown, appears to be adequate Condition: anchors: serviceable, Chain: fair Bitter end: not observed (see notes)

-(2)- Lofrans, Albatros model, 2000 watt, 24V electric vertical anchor capstan winches on bow with helm station controls

*port- electric motor housing significant rusting noted Stbd; some rusting noted -Chain counter: bridge and salon, inoperative

-Stainless steel double anchor roller. Condition: good

GALLEY EQUIPMENT:

-Galley equipment runs off of 240V power, Owner reports all galley equipment to be replaced after electrical conversion. Equipment not tested
-Cooktop: 4-burner electric Area Protected: adequate clearance
-Refrigeration: built-in Frigidaire freestanding refrigerator / freezer
-Stainless steel double sink w/ garbage disposal
-Miele dishwasher
-Granite countertops Condition: good

SAFETY & POLLUTION:

 Portable Fire Extinguishers: (8) mix of rechargeable & non-rechargeable BI Test Date: current, gauges in green

Mounted conspicuously:(see recs)

-Fixed System: Sea Fire FD 1500M, FM200 clean agent Test Date: system new in 2022 Release: automatic and manual Condition: excellent *Reminder:*

-Fixed fire extinguishing systems must be inspected monthly per ABYC A-4 Ap.6.2 and serviced and tagged annually, per ABYC A-4 Ap.6.3.

-The following pertains to the handheld dry chemical fire extinguishers onboard.

-They must be conspicuously installed, and located as described in ABYC 4.6.3

-They must be inspected monthly per ABYC A-4 Ap.5.4.1.

-They must be serviced annually per ABYC A-4 Ap.5.4.2.

-Rechargeable extinguishers (usually have red body, metallic head) must be recharged or replaced after discharge, or each 6 years

per NFPA 10/7.3.3.1.

-Nonrechargable (usually white body, black plastic head) handheld dry chemical extinguishers as defined by NFPA 10/A.3.4.2.

must be replaced after discharge, or every 12 years per NFPA 10/7.3.6.3.

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-Safety railing: stainless steel bow deck grabrails Condition: serviceable

-Fiberglass swimstep Condition: serviceable

--Personal Flotation Devices:

Throwable: none sighted- (see recs)

Wearable: PFD's reported by broker but never sighted (see recs) -Life Rafts & EPIRBS: No life raft or EPIRB was carried or required

-EPIRB: Global fix pro 406 mhz – w/ hydrostatic release
 Uin: 2DCCA0034AFFBFF Battery date 08/2025
 Condition: appears serviceable Mounted near flybridge,
 -Liferaft: (2) Brand: Eurovinil Capacity: (8)-person,

Next Service: 10/2020- over due (surveyor suggests service asap) *There are no service interval requirements for liferafts on pleasure vessels. Most manufacturers recommend service at one-year intervals. Most servicers recommend an interval of not greater than three years.

-Distress Signal Kit: yes Expiration: (see recs)

-Horn / Sound Signal: not observed (see recs)

-First Aid Kit: Carrying a first aid kit is suggested, but not required. There was none on board.

-Oil placard present: not sighted (see recs)

-Garbage (MARPOL Annex V) placard present: not sighted (see recs)

-Escape hatches: (1) alloy and acrylic fwd Condition: appears serviceable

-Smoke/CO detectors: none sighted (see recs)

TENDERS:

-2016 Mercury rigid inflatable dingy
-Hull ID no. USA58643F616
with Mercury model 2-cyl. 4-stroke, 40 HP engine,
-Davit- Benzoni 400kg davit and wood dingy cradle
Condition: all appear serviceable, davit operative,
outboard motor not tested - no due to probable bad fuel

In addition to the above listed equipment, the vessel is also fitted with:

*Condition of items listed below is good unless specified otherwise

-Arch Lights -Swimstep shower -Stainless steel, canvas and eisenglass dodger -Flybridge venturi

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-Stainless steel and canvas bimini -Electric retractable passerelle starboard transom (in-operative, needs service) -Flybridge table w/ seat cushions -(2) Dometic air cond. chiller units & 7 air handlers -Manual oil exchange pumps -Automatic entry doors midship -Fore and bridge deck sun pads -Flybridge grill station with fridge sink -2- Lofrans electric mooring winchws -1-port & 1-stbd cockpit -Cockpit sink station -Raritan Icerette icemaker (in-operative, needs service) -Panasonic CO Dash CX16u stereo -Panasonic dfx355 stereos in berths -2- engine room CCTV monitors -Underwater lights -Whirlpool laundry equipment -Deck washdowns

OPERATIONAL TESTS:

No indicates that the item was not tested. **Yes** indicates the item was tested and operational, unless there is an associated recommendation or note. "**Yes**" items listed in this report were tested for proper operation at time of survey ONLY. Surveyor's report of the operability of machinery, auxiliaries and subsystems is not a warranty of the continued operation or durability of the equipment tested. Operability testing does NOT include calibration, adjustment or repair of equipment. Only the items listed in this section of the report were tested for operation.

VHF – yes	Davit – yes
Bilge pumps – yes	Check for window leaks? – yes
Horn – no	Check for hatch leaks? – yes
Machinery space blower – yes	Stereo Entertainment electronics- no
Anchor winches – yes	Appliances – no
Navigation lights – yes	Icemaker – yes
Cabin lights – yes	Water heaters – yes
Arch lights – yes	Watermaker – no
Cockpit Foredeck floodlights – yes	Laundry equip – no
Remote operated spotlight – yes	Head flush – yes
Mooring Winches – yes	Showers- yes
Air conditioning – yes	Accessible through-hull valves – yes
GPS – yes	Shower sump pump – yes
Radar – yes	Electric fresh water pumps – yes
Depth sounder – yes	
Autopilot – yes	
Trim tabs – yes	
Bow thruster – yes	

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CONCLUSIONS, NOTES, SUGGESTIONS AND RECOMMENDATIONS:

-The vessel's overall condition is **good**, as described below:

Good (average) – May require normal scheduled maintenance. Average condition and/or equipment. No major repairs are required.

-Housekeeping and general appearance are very good.

-The vessel is normally equipped for her size and type.

-The hull topsides weather deck has areas of scratching scuffing and small gelcoat nicks and chipping.

-The hull and deck are oxidized and need buffing and polishing.

-The fore & bridge decks were tested by percussion testing (as appropriate) with no soft deck noted. (cockpit deck not percussion tested- teak covered prevents adequate testing)

-The hull bottom was tested by percussion testing only, no delamination was noted (*Note that the hull bottom cannot be tested in the way of the lifting slings.*) -The hull bottom is noted to have scattered numerous several small blisters.

VALUES:

MARKET: \$750,000.00 to \$850,000.00 REPLACEMENT: \$5,000,000.00

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Boat Detail Sheet

FERRETTI YACHTS, 47100 FORLI, ITALY					
Model Year	1999	Hull Material	Fiberglass		
Model	FERRETTI 80	Hull Configuration	Deep Vee		
Length Overall	80' 6"	Draft	6' 1"		
Length On Deck	78' 8"	Beam	19' 8"		
Boat Type	Motor Yacht w/Cockpit Flybridge	Weight	119070 lbs.		

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The information presented here is believed to be reliable but not guaranteed. For various reasons, including the subjective nature of vessel evaluations and the possibility of incomplete or inaccurate information regarding comparable vessels and sales thereof, we do not make any warranties whatsoever regarding this report, and WE EXPRESSLY DISCLAIM ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. BUC does not provide expert witness testimony.

Current Retail Value Range	\$807,000-\$886,500 Price changed after 122nd edition.
Fair Market Value Adjusted for <u>BUC Condition</u> in the South Atlantic & Florida	\$760,000-\$835,000
Replacement Value	\$5,095,000

If you notice any errors or omissions, or if the values listed are inconsistent with the results you expected, please submit a <u>Price Discrepancy Report</u> to the BUCValu Professional database managers. We will examine your report, and if your information is accepted it will be included in a future update.

All prices in US Dollars.

VALUATIONS ARE THE OPINION OF THE SURVEYOR, AND ARE INTENDED TO BE USED FOR INSURANCE OR FINANCING PURPOSES ONLY; THEY ARE NOT INTENDED TO INFLUENCE THE PURCHASE OR PURCHASE PRICE OF THE

SUBJECT VESSEL. The surveyor has no interest in the vessel, financial or otherwise. Valuation is primarily determined by comparison to comparable vessels listed in the SoldBoats.com database, but may also be derived from consultation with manufacturers or knowledgeable boat brokers, personal experience, current listings of boats available for sale, and commercial boat value guides such as the BUC ValuPro and NADA online price guides. Current local market values may vary widely from such valuation resources due to current local market conditions. The term Market Value" is defined by Uniform Standards for Professional Appraisal Practice (USPAP) standards.

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NOTES and DEFICIENCIES:

1. The following notes are the hull surveyors' observations regarding the engines. *Refer to the engine surveyors report for precise findings, recommendations and course of action.

-While on sea trial, the engines heated up to 208 degrees- these engines should run between 185 and 195 degrees- it is likely that heat exchangers are in need of service as well as the aftercoolers,

-The starboard engine appeared to be lagging behind the port engine- the turbos may be in need of inspection/service

- The head gaskets on both port and starboard engines appear to be leaking
- The port engine oil pan appears to have silicone applied- this is not appropriate and an appropriate gasket should be utilized.
- 2. The condition of the dockside water pressure internal regulator/housing is not known; it could not be tested. In the event that shore water pressure is utilized on the vessel, it is suggested that the fresh water at the dock be turned off and the hose removed from the vessel when the vessel is not attended.
- 3. The holding tank discharge pump and through-hull valve were not tested, due to the vessel's position in MARPOL-restricted waters.
- 4. The bitter end of the anchor rode should be verified as being connected to the vessel.
- 5. The cockpit icemaker is inoperative.

<u>SUGGESTED UPGRADES (at the owner's discretion, not required)</u>:

- 1. Surveyor recommends replacing current 30 micron (red label) Racor fuel filters with 10 micro (blue label) Racor 500MA fuel filters with heat shielding bowls (see pic on last page of report.)
- 2. Replace salon helm station engine status meters with updated CAT digital engine status meters.
- 3. Bottom restoration blister removal and bottom paint renewal in < 1 year.
- 4. Repair/replace chain counters.
- 5. The anchor chains are only in fair condition. They may be able to be reconditioned. If restoration is not an option, replacement should be considered.
- 6. Oil absorbent pads should be placed in the bilge under main engines.
- 7. A set of soft wood plugs should be maintained on board to plug any damaged through hull fittings in an emergency.
- 8. Batteries should have circuit protection within a distance of seven inches of the battery per ABYC 11.10.1.1.1.

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<u>RECOMMENDATIONS</u>:

- 1. Only Two 110V/AC electrical outlets were reported to have been installed on the entire vessel (one in galley and one in mechanical room near the starboard crew quarters) Both of these outlets were tested with a circuit tester and both tested to have an open ground. These outlets and any other 110V outlets found on the vessel should NOT be used. Have an electrical expert diagnose and repair or remove outlets.
- 2. Since the vessel was built in Europe, some of the flexible fuel distribution lines do not comply with the ABYC (American Boat & Yacht Counsel) H-33 guidelines and do not meet the SAE J-1527 standard. The fuel lines servicing the remote mounted Racor fuel filters appear not to be of the approved type. Investigate further and replace these lines and any other flexible fuel distribution lines not in compliance with these standards. (refer to ABYC- H-33.6.1)
- 3. Both engines and generators Racor fuel filters are not equipped with the required heat shielding bowls. ABYC standards for inboard fuel filter installations for gasoline or diesel engines require that filters installed within the engine space must be able to pass a two and one-half minute heat test as defined by ANSI/UL 1105. Fuel filters that meet this requirement are generally equipped with a metal bowl. Filters with plastic sight bowls must be equipped with a metal heat shield to pass the test. Install heat shielding bowls under all remote mounted fuel filters.

-In addition, the port fuel filter bonding wire is not connected to fuel filter mounting assembly. Restore connection.

- 4. Tubular fuel level site gauge fitted to diesel fuel tanks, must be of heat resistant materials, adequately protected from mechanical damage, and provided at the tank connections with devices that will automatically close in the event of rupture of the gauge or gauge lines, per 46 CFR 182.440(a)(7).
- 5. Surveyor recommends that electrical system conversion be performed by an certified ABYC electrician.
- 6. As part of the electrical system conversion from European standard 240V/AC, 50Hz to North American standard 110V/AC,60Hz- Be aware that 110v/AC powered outlets must be upgraded to GFCI (ground fault circuit interrupter) outlets in the head, galley, machinery spaces and/or on weather deck (exterior outlets) or any potentially wet locations per NFPA 302 section 8-11.1 recommendations.
- 7. The steering gear assembly located in the swim step lazarette appears to be corroded and in need of service. Clean and inspect components. Repair/replace

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- 8. Some non- structural wood located on the port side lazarette was found to be rotten and is in need of removal. In addition, high moisture meter readings were taken in other areas of the lazarette- interior transom and on portions the lazarette stringers and forward lazarette bulkhead. These readings may have been caused by the presence surface condensation typically found in closed compartments. However, surface condensation was removed with a dry cloth prior to moisture testing these areas. Surveyor recommends letting this compartment dry in the open air for a couple days and re-testing with moisture meter. If high readings still exist, core samples should be taken to verify condition. Remedy if necessary.
- 9. The air conditioning in the master stateroom appeared to have been working during the first few hours of the survey then when actually tested was inoperative. Surveyor did not determine the cause-(maybe an issue with the digital thermostat?) Diagnose condition and repair
- 10. Some of the valves on the water distribution sea chest manifolds are green/rusted and should be cleaned free of oxidation. Repair or replace valves if deemed necessary. In addition, when air conditioning units are running, a couple of the air conditioning water distribution valves are leaking at their knobs. Located in mechanical room, (vertically mounted, near bulkhead separating engine room-knobs in question are red in color) valves are moderately corroded. Repair/replace as deemed necessary.
- 11. Several hoses and clamps throughout the engine room appear to be the originals installed in 1999- making them over 20 years old. (If engine repairs are performed, have same technician make determination which need to be replaced with new.)
- **12.** The port digital engine status meter and analog tachometer on the flybridge is inoperative. Diagnose and repair.
- 13. There must be a means of re-boarding a man overboard (such as a swim ladder) aboard per ABYC H-41 sec. 41.9.
- 14. Prop shaft anodes are either missing, (stbd shaft missing one of 2) loose (slide (move freely on the shaft) of partially wasted.

-The anodes on the ends of the prop shafts, covering the prop nuts appear to be moderately wasted. These anodes are not typical may be special order from Ferretti. Investigate and replace as necessary.

-The wetted surface exhaust tunnel anode on the port side of the vessel is soft and disintegrating. Replacement of both port and starboard anodes will soon be needed.

-The bow thruster anode is wasted/missing and is in need of replacement.

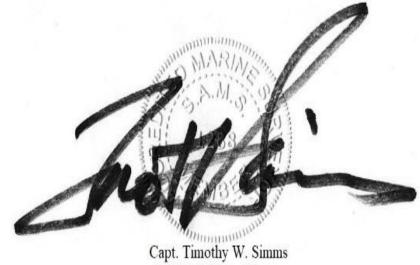
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- 15. The autopilot was slow to engage/activate when waypoint was set. Investigate further, repair if necessary.
- 16. Batteries must be secured and contained in a liquid-tight, acid-proof container with terminals covered per NFPA 302 7-3.4 and 7-3.5 recommendations.
- 17. Flares are good for 42 months. The distress signal kit (flare kit) aboard is outdated, and must be replaced to comply with 33 CFR 175.130.
- **18.** Some of the handheld fire extinguishers are stowed unmounted, in a locker or on a shelf. Fire extinguishers must be conspicuously mounted.
- **19.** No horn / sound signaling device was observed for testing. Provide to comply with COLREGS Annex III.
- 20. One type I, type II or type III PFD must be onboard for each person on board in accordance with 33CFR175.15.
- 21. PFDs on board must be stowed where they are ready for immediate use in accordance with 33CFR175.15.
- 22. A throwable floatation device (type IV PFD) must be onboard to comply with 33CFR175.15.
- 23. No smoke or carbon monoxide detectors were sighted onboard. Smoke detectors are required in spaces intended for sleeping per NFPA 302 Section 12.3 recommendations. Surveyor recommends the installation of combination CO/smoke alarms.
- 24. The MSD overboard discharge valve is in need of a locking mechanism. Comply with 33CFR 159.7. (A waste discharge valve handle in the closed position secured with a zip tie is acceptable)
- 25. Title 33 CFR 151.57 requires all oceangoing vessels 40 feet or more in length equipped with a galley and berthing to have a written waste management plan.
- 26. In addition, 33 CFR 151.59 requires that all vessels 26 feet or greater in length have a MARPOL Annex V placard prominently displayed for the crew and passengers.
- 27. The Federal Water Pollution Control Act requires that a "Discharge of Oil Placard" be posted "in a conspicuous place in the machinery space" per 33 CFR 154.450
- 28. A copy of the Navigation rules (COLREGS) is required on vessels 12 meters (40 feet) and over.

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This survey report is issued without prejudice subject to the conditions that I, the individual surveyor, am under no circumstances to be held responsible for error, omission, negligence or misstatement. It constitutes a statement of my opinion based upon the conditions as I found them. It is **not a warranty** of the condition of the vessel or its hull or machinery.

tws 3/19/22



Capt. Timothy W. Simms USCG 100 Ton Master SAMS Accredited Marine Surveyor #1288

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