



CLASSIC YACHT MARINE SURVEYORS

1999 37' Bayliner 3587 Aft Cabin Motoryacht

"Home Office"



Condition & Value Report of Marine Survey

Of the Vessel

"Home Office"

1999 37' Bayliner 3587 Aft Cabin Motoryacht

Conducted By

Ia [REDACTED] M.Sc, Surveyor

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1 INTRODUCTION

1.1 Purpose & Scope

Acting at the request of Mr. J B [REDACTED], [REDACTED] did attend onboard the 1999 37' Bayliner 3587 Aft Cabin Motoryacht "Home Office" on 01/13/2024 for in water and 01/30/2024 for hull inspection. to conduct a Condition & Value Report of Marine Survey.

The weather during the survey did not hinder completing any portion of the inspection.

The Hull Identification Number BL2 [REDACTED] was verified.

The reason for the survey was to ascertain the physical condition and value of the vessel. A limited trial run was performed as well as an in water inspection of the exterior of the hull and running gear. After haul out a hull inspection was performed.

AC and DC power was used to power up the electrical systems specified in this report only, unless otherwise noted. Electrical and electronic equipment was powered up and some systems may have been tested for basic and/or limited function only. The wiring was inspected where accessible and was found to be in generally serviceable condition, unless otherwise noted. A significant amount of wiring could not be observed due to the wiring looms and conduits that transit areas which would require dismantling and removal for their inspection. If a detailed report as to the condition and capacities of the wiring and electrical components is desired, it is recommended that a qualified marine electrical engineer be engaged.

No reference or information should be construed to indicate evaluation of the internal condition of engines, transmissions, drives or generators, nor the propulsion system's or the auxiliary power system's operating capacities, as this machinery and related mechanical systems are not within the scope of this inspection. An oil check for the engines was performed and will be separately emailed to Mr. Breazeal when available. Vessel tankage was visually inspected where accessible. No obvious leakage was observed, unless otherwise noted; however, the tanks were not confirmed to be full at the time of inspection. If a more thorough assessment is desired, the tanks should be filled and checked under full tank status or pressure tested to attest to their condition.

This vessel was surveyed without the removal of any parts, including fixed partitions, fastened panels, fittings, headliners and wall liners, heavy furniture, tacked carpet, appliances, electrical equipment or electronics, instruments, anchors line and chain, spare parts, personal gear, clothing, miscellaneous items in the bilges, cabinets, lockers or other storage spaces, or other fixed or semi fixed items. Only installed items were inspected, including but not limited to enclosures, covers and tops. Locked compartments or otherwise inaccessible areas would also preclude inspection. Survey requester (client) is advised to open up all such areas for further inspection. A visual inspection was conducted only on accessible structures and no destructive testing was performed. Naval architecture and engineering analysis were not a part of this survey. Furthermore, no determination of stability characteristics or inherent structural integrity has been made, and no opinion is expressed with respect thereto. The surveyor has noted in this survey report any adverse conditions and deficiencies observed during the inspection of the subject vessel. Unless otherwise stated in this report, the surveyor has no knowledge of any hidden or unapparent physical deficiencies or adverse conditions of the vessel (such as, but not limited to, undisclosed past incidents, needed repairs, deterioration, the presence of hazardous or toxic substances, etc.) that would make the vessel less valuable, and has assumed that there are no such conditions. The surveyor will not be responsible for any such conditions that do exist or for any engineering or testing that might be required to discover whether such conditions exist. Because the surveyor is not an expert in the field of Naval engineering/marine construction, marine electrical, nor marine mechanics, this survey report must be considered a general assessment of the overall vessel. The surveyor will not be responsible for matters of a legal nature that affect either the vessel being surveyed or the Title to it, except for information that they became aware of during the research involved in performing this survey. The surveyor assumes that the Title is good and marketable and will not render any opinions about the Title. The surveyor will not give testimony or appear in court because they made a survey of the vessel in question, unless specific arrangements to do so have been made beforehand, or as otherwise required by law. Additionally, the surveyor will only make a predetermined court appearance if located within the surveyor's county of residence. If the surveyor has based their survey report and valuation conclusion on an appraisal that is "subject to the satisfactory completion of any repairs or alterations" it is on the hypothetical condition that the completion of these repairs or alterations will be performed in a professional and workmanlike manner. This survey is subject to the condition that the deficiencies listed in sections A and B are

corrected in order for the vessel to be considered reasonably suitable for its intended use. This survey is also made subject to the extraordinary assumption that the vessel's uninspected areas/components (due to inaccessibility) are average to good in condition with no substantial defects.

This signed report represents the findings of the survey and supersedes any and all conversations, statements and representations, whether verbal or in writing. This survey report represents the condition of the vessel on the above date or dates and is the unbiased opinion of the undersigned, but it is not to be considered an inventory, warranty or guarantee, either specified or implied, nor does it warrant the future condition of the vessel. The survey report is for the exclusive use of the client and those lenders and underwriters that will finance and insure the vessel for this client only, and is not assignable to any other parties for any purpose.

1.1.1 CONDUCT OF SURVEY

THE MANDATORY STANDARDS PROMULGATED BY THE UNITED STATES COAST GUARD (USCG), UNDER THE AUTHORITY OF TITLE 46 UNITED STATES CODE (USC); TITLE 33 AND TITLE 46 CODE OF FEDERAL REGULATIONS (CFR), AND THE VOLUNTARY STANDARDS AND RECOMMENDED PRACTICES DEVELOPED BY THE AMERICAN BOAT AND YACHT COUNCIL (ABYC) AND THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAVE BEEN USED AS GUIDELINES IN THE CONDUCT OF THIS SURVEY. COMPLETE COMPLIANCE WITH, IDENTIFICATION OF, AND REPORTING ON ALL STANDARDS, CODES AND REGULATIONS IS NOT GUARANTEED.

1.1.2 DEFINITION OF TERMS

The terms and words used in this report have the following meanings as used in this Condition & Value Report of Marine Survey:

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

SERVICEABLE: Sufficient for a specific requirement. Or; Fulfilling its function adequately (usable at the time of survey). Or; Provides service as intended by the manufacturer.

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

DEMONSTRATED: The system or equipment was operated as intended for its use.

SUITABLE FOR INTENDED USE: The vessel, or its individual specified component(s), can be utilized for the purpose indicated by the manufacturer/builder or end-user (present or prospective owner or operator).

SUBJECT: The object of the survey being discussed, described, or dealt with; the vessel being surveyed herein. Or; Dependent or conditional upon.

ABYC: The American Boat and Yacht Council creates the standards within the boating industry that have become the authoritative reference for evaluating issues of design, construction, maintenance, safety, and product performance.

CFR: Code of Federal Regulations is a codification of the general and permanent rules that were published in the Federal Register by the Executive departments and agencies of the Federal Government. It is divided into 50 titles that represent broad areas subject to Federal regulation.

NFPA: National Fire Protection Association is a global self-funded nonprofit organization, established in 1896, devoted to eliminating death, injury, property and economic loss due to fire, electrical and related hazards.

USCG: United States Coast Guard - The United States Coast Guard (USCG) is the maritime security, search and rescue, and law enforcement service branch of the United States Armed Forces, and one of the country's eight uniformed services. The Coast Guard is a maritime, military, multi-mission service unique among the U.S. military branches for having a maritime law enforcement mission with jurisdiction in both domestic and international waters and a federal regulatory agency mission as part of its duties.

DELAMINATION: Separation into constituent layers.

PHENOLIC SOUNDING: Phenolics are the result of polymerization between layers of materials (e.g. fiberglass) impregnated with synthetic thermosetting resins. The purpose of a "phenolic hammer" is to use the percussion of the hammer to identify sound anomalies caused by any disbonding in the layers of materials.

CONDUCTIVITY: Electronic moisture meters are designed to detect the 'conductivity' of substrates; including moisture, among various other conductive materials, and their ability to detect conductivity can be limited by many factors, such as the depth of the conductive material, air space present in between the laminate, the conductivity of the material, etc. Boat builders utilize various construction materials, fasteners, coatings, fairings and composites, many of which have been proven to trigger higher conductivity readings and false positive readings for moisture on moisture meters.

PROPERLY SECURED: Stowed and/or fastened in an acceptable or suitable way free from risk of loss or physical damage.

ACCESSIBLE: Capable of being reached for inspection without removal of installed fixtures, cabinetry, equipment or structure.

READILY ACCESSIBLE: Capable of being reached quickly and safely for effective use under emergency conditions without the use of tools.

Unless specifically noted otherwise, the surveyor determined the subject vessel's details based on official documentation, manufacturer/builder information, or a reliable source indicated herein, and no physical measurements were taken by the surveyor. The specifications listed within the report are believed to be correct; however, accuracy is not guaranteed. Recommend obtaining accurate measurements and performing calculations as desired, or verifying all vessel specifications and capacities with the vessel's builder.

1.1.3 USE OF "A" "B" OR "C"

Use of the letters "A", "B" or "C" in the body of this report will indicate that a finding will be listed in the "Findings and Recommendations" Section, pertaining to the lettered item. *PLEASE BE ADVISED THAT SOME DEFICIENCIES, OBSERVATIONS AND SUGGESTIONS MAY ALSO BE CONTAINED IN THE BODY OF THE REPORT.*

Deficiencies noted under "A" findings are deemed "FIRST PRIORITY/SAFETY FINDINGS" and should be addressed before the vessel is next underway. These findings could represent an endangerment to personnel and/or the vessel's safe operating condition. Findings may also be in violation of U.S.C.G. Regulations, ABYC Voluntary Safety Standards & Recommended Practices or NFPA Codes & Standards.

Deficiencies noted under "B" findings are deemed "SECONDARY PRIORITY/FINDINGS NEEDING TIMELY ATTENTION" and should be corrected in the near future, so as to maintain and adhere to certain codes, regulations, standards or recommended practices (and safety in some cases) and to help the vessel to retain its value.

Deficiencies noted under "C" findings are deemed "SURVEYOR'S GENERAL FINDINGS, NOTES AND OBSERVATIONS" and considered lower priority or cosmetic findings, which should be addressed in keeping with good marine maintenance practices and in some cases as a desired upgrade.

2 GENERAL INFORMATION

2.1 General Survey Information

2.1.1	FILE NUMBER	202401/B
2.1.2	TYPE OF SURVEY REQUESTED	Condition & Value Report of Marine Survey
2.1.3	SURVEY REPORT PREPARED FOR	Mr. J
2.1.4	SURVEY DATE/TIME	Survey inspection performed on 01/13/2024 for in water and 01/30/2024 for hull inspection. from 9am - 5pm. Bottom survey carried out 01/30/2024 12.30pm to 4pm.
2.1.5	LOCATION OF SURVEY INSPECTION	Lake Marina (Hudson Bend) for inwater survey. Capital marine, Hiline road for haul out hull survey.
2.1.6	PERSONS IN ATTENDANCE	Attending the survey was the surveyor, the client, the broker Mr. Mr., a colleague certified surveyor of Mr. assisted in the limited test run and engine checks.
2.1.7	VESSEL OWNER	
2.1.8	CLIENT ADDRESS	San Antonio, Tx 78209

2.2 General Vessel Information

2.2.1	VESSEL BUILDER	Bayliner Marine Corp.
2.2.2	HIN	BL2
2.2.3	MODEL YEAR	1999 (per Hull Identification Number)
2.2.4	YEAR BUILT	1998 (per Hull Identification Number)
2.2.5	STATE REGISTRATION NUMBER	TX (the affixed decal was current)
2.2.6	STATE REGISTERED VESSEL OWNER	
2.2.7	VESSEL MATERIAL	Fiberglass
2.2.8	LENGTH OVERALL (LOA)	39' 9" (per owner's manual)
2.2.9	REGISTERED LENGTH	37'3" (per TX registration)
2.2.10	LENGTH ON DECK (LOD)	34'8" (per owner's manual)
2.2.11	LENGTH WATERLINE (LWL)	34'8" (per manufacturer)
2.2.12	BEAM	13'1" (per owner's manual)
2.2.13	DRAFT	3'9" (per owner's manual)
2.2.14	OVERHEAD CLEARANCE	16' (per owner's manual) Note: The height of the boat is from the top of the radar arch to the keel which is Draft (3'6") plus Air draft (15'4") = 18'10" . No fittings e.g. anchor light included.
2.2.15	DISPLACEMENT	22,000lbs (2016 Powerboat guide)

2.3 Rating & Valuation Summary

2.3.1	VESSEL OVERALL RATING	AVERAGE CONDITION
2.3.2	ESTIMATED MARKET VALUE	\$63,711 per BUCValuPro™ averaged with derated listing prices and soldboat limited data.
2.3.3	ESTIMATED REPLACEMENT COST	\$420,000 per BUCValuPro™

3 SAFETY EQUIPMENT

3.1 *Safety Equipment (U.S.C.G.)*

3.1.1 **WEARABLE PERSONAL FLOTATION DEVICES (33 CFR 175)**

2 off Type II U.S.C.G. approved PFDs, 3 off type III U.S.C.G. approved PFDs were sighted.

3.1.2 **THROWABLE PERSONAL FLOTATION DEVICES (33 CFR 175)**

2 off type IV U.S.C.G. approved throwable devices were sighted wedged behind the storage locker located on the aft deck.

3.1.3 **FIRE EXTINGUISHERS (33 CFR 175.310)**

2 off type ABC-I 2.5 lb. dry chemical were easily accessible; one over the stove (mfr date 1999) and the other (mfr date 2000) adjacent to the salon helm station. Both were expired and need replacing.

Finding A-1

3.1.4 **VISUAL DISTRESS SIGNALS (33 CFR 175.110)**

None sighted. Required in U.S. waters.

Finding A-2

3.1.5 **SOUND PRODUCING DEVICES (33 CFR 83)**

12 volt electric air horn. Powered up.

3.1.6 **NAVIGATION LIGHTS (33 CFR 83)**

All navigation lights illuminated when tested.

3.1.7 **"NO OIL DISCHARGE" PLACARD (33 CFR 151/155)**

None sighted. Required in U.S. waters. The no trash placard was also not sighted.

Finding A-3

3.1.8 **"TRASH DISPOSAL" PLACARD (33 CFR 151/155)**

Sighted in each head.

3.1.9 **GASOLINE ENGINE SPACE VENTILATION (33 CFR 175/183, 46 CFR 25)**

Provided by a power blower in the engine compartment, and by cowl vents.

3.1.10 **GASOLINE ENGINE SPACE BLOWERS (33 CFR 175/183, 46 CFR 25)**

A single bilge blower was located and powered up, ABYC require a bilge blower for each propulsion engine. Highly recommend operating the blower each time before starting the engines, as well as after each fueling for a minimum of four (4) minutes or as long as necessary to evacuate any possible gasoline fumes.

Finding A-4

3.1.11 **BACKFIRE FLAME CONTROL (46 CFR 25/58)**

U.S.C.G. Approved were sighted on each engine.

3.2 *Auxiliary Safety Equipment*

3.2.1 **BILGE HIGH WATER ALARMS**

The vessel did not appear to have a bilge high water alarm installed. Highly recommended if not installed.

Finding C-1

3.2.2 **FIRST AID SUPPLIES**

None sighted. Highly recommend a full medical kit and the periodic renewal of any outdated medical supplies.

3.2.3 **CARBON MONOXIDE DETECTORS (ABYC A-24)**

Two (2) Xintex Marine carbon monoxide detectors were sighted. One in the forward cabin (sounded on test) and the other in the aft cabin (did not sound on test). No CO detector was sighted in the midships cabin beneath the dinette.

Finding A-5

3.2.4 SMOKE DETECTORS (NFPA 302)

None sighted. Highly recommend installing smoke detectors in all of the accommodation spaces.

Finding C-2

3.2.5 GASOLINE FUME DETECTORS (ABYC A-14)

None sighted. Highly recommend installing a gas fume detector inside the fuel tankage space.

Finding B-1

3.3 Bilge Pumping Systems

3.3.1 ELECTRIC BILGE PUMPING SYSTEMS

Rule 2000, 12 volt bilge pump 2000g/h with floatswitch pumps were sighted. The float switches, where accessible were tested good. The aft bilge pump manual switch indication did not illuminate although the sound of a pump was observed.

Finding C-3

3.3.2 CONSIDERATIONS

Highly recommend frequent testing of bilge pump operation, adequate dewatering ability and removal of any bilge pump debris.

4 VESSEL CONSTRUCTION

4.1 Hull Arrangement

4.1.1 HULL DESIGN TYPE

Shallow to medium V with amidships deadrise is 12.5" which flattens further aft to 10" ref: Boat report from the International Institute of Marine Surveying - Bayliner 3587

4.1.2 HULL MATERIAL

FRP (fiber reinforced plastic). Marine composite construction techniques using different fiberglass mats. See attachment.

4.1.3 EXTERIOR FINISH

White gelcoated hull with black boot stripe and matching gelcoat above the sheer-line.

4.1.4 GENERAL EXTERIOR CONDITION

The exterior of the vessel required general cleaning. There is an amateur repair mid ships on the stbd side kick rail with some stress cracking in that area. No significant moisture was observed throughout the deck, transom and accessible hull.

4.1.5 TRANSOM

Same construction as the hull with starboard transom passageway with steps to aft deck

4.1.6 SWIM PLATFORM

The FRP swim platform appeared to have been repaired / replaced recently. It was solidly attached to the transom with no movement discernable when "bounced". Moisture readings were low and no delamination was detected by percussion testing. The swim ladder was mounted securely on a plate of unidentified material. Two fasteners attaching the swim ladder were rusted and need replacing.

Finding B-2

4.1.7 BOARDING SWIM LADDER

A folding 4 step stainless steel boarding ladder was installed at the swim platform. The lower rung was significantly dented from a likely collision.

Finding C-4

4.1.8 BULKHEADS

Athwartships reinforcement provided by bulkheads, bonded/tabbed to the hull with FRP (fiber reinforced plastic). A complete inspection was not possible due to limited access.

4.1.9 STRINGERS/TRANSVERSALS

Hull stiffness was reportedly provided by sandwich cored fiberglass longitudinal stringers and athwartships transversals. A complete inspection was not possible due to limited access. where access was available, percussion testing and moisture readings were normal.

4.1.10 BILGES

A coated surface was used in the bilges. Recommend keeping the bilges clean and dry.

4.1.11 GENERAL BILGE CONDITION

The bilges were mostly clean and dry during the survey.

4.1.12 CHAIN LOCKER DRAINAGE

Overboard at the starboard lower bow. When sighted the locker was full of water. The drain was blocked by an unopened "package" of 300ft of nylon rode. When cleared the locker drained as expected.

4.1.13 BILGE LIMBER HOLES

The limber holes appeared to be appropriately sized and clear where sighted.

4.1.14 VESSEL LIST

The vessel did not have any significant listing during the survey (a nearly straight waterline was observed).

4.1.15 MOISTURE COMMENTS

The decks, accessible hull area, internal stringers, bulkheads etc were tested by the percussion method using a phenolic hammer approx. every 3 ft, with particular emphasis where there were likely to be attachments which could loosen and allow moisture ingress e.g. stanchion bases. Other areas focused on were where there were significant chips in the gelcoat or crazing. Moisture was tested using an Electrophysics Marine moisture meter which was calibrated before use. For tight spaces a Klein Tools ET140 was used. No significantly elevated conductivity readings (possible moisture intrusion or other conductive material) or delamination indicators around the hull, deck and superstructure penetrations were recorded.

4.2 Deck Arrangement

4.2.1 DECK MATERIAL

FRP. Marine composite construction techniques using different fiberglass mats. See attachment. Final layer is white gelcoat and textured nonskid.

4.2.2 BULWARKS

Molded fiberglass bulwarks and toe rails (part of the deck's layout).

4.2.3 TOE-RAILS

Molded fiberglass toe-rails were part of the deck's layout. An amateur repair was sighted but the moisture reading was low. In the same area slight gelcoat crazing was sighted.

Finding C-5

4.2.4 RUB-RAILS

PVC plastic composite compression rail with stainless steel striker strip. No significant wear & tear was observed along the rub-rails except where noted.

Finding C-6

4.2.5 HULL-TO-DECK JOINT TYPE

Overlapping 'shoe box' type joint.

4.2.6 HULL-TO-DECK JOINT FASTENERS

Stainless steel through bolted and screwed where sighted.

4.2.7 HULL-TO-DECK JOINT REINFORCEMENT

The hull-to-deck joint was fiberglass tabbed internally where sighted in the chain locker.

4.3 Superstructure Arrangement

4.3.1 SUPERSTRUCTURE MATERIAL

FRP (fiber reinforced plastic).

4.3.2 SUPERSTRUCTURE-TO-DECK JOINT TYPE

The deck house and deck were fastened and epoxy fiberglassed seamlessly with no visible joint.

4.4 Bridge Arrangement

4.4.1 BRIDGE TYPE

The flybridge bridge provided a second helm station and crew seating areas.

4.4.2 BRIDGE TOP

The flybridge bimini top was Sunbrella type fabric material with stainless steel support piping. The piping was sturdy and there were no loose fittings.

4.4.3 RADAR ARCH

Fiberglass radar arch. The radar dish was removed and sighted in the salon.

5 EXTERIOR EQUIPMENT

5.1 Exterior Hardware/Equipment

5.1.1 COCKPIT/AFT DECK EQUIPMENT

The aft deck included two teak unsecured chairs.

5.1.2 EXTERIOR SEATING

Two (2) helm chairs and bridge bench seating with vinyl cushions.

5.1.3 GENERAL EXTERIOR SOFTGOODS CONDITION

The vessel's exterior softgoods had some general weathering and wear.

5.1.4 GENERAL HARDWARE CONDITION

No significant corrosion was observed on the vessel's interior, exterior and bilge hardware. Recommend coating metallic components with Collinite Metal Polish, Corrosion X, Boeshield T 9, LPS 3 or similar corrosion inhibitor.

5.1.5 GENERAL CAULKING/SEALANT CONDITION

Typical common weathering was observed on the vessel's exterior caulking sealants with no apparent areas of significant separation or deterioration except where noted.

5.1.6 EXTERIOR LIGHTING

All exterior lights illuminated when tested.

5.1.7 CABIN VENTILATION

Provided by the foredeck hatch, the portholes and the main companionway door.

5.1.8 DECK HATCHES

The Lewmar hatch was operational and fit for use with no significant UV crazing in the hatch glass. Monitor frequently for signs of leakage.

5.1.9 PORTHOLES/PORTLIGHTS

Six portholes were sighted. Two in the fwd cabin on port and stbd; two in the aft cabin, one in the head on the port side, and the other on the stbd side. The portholes did not easily open and were therefore not forced. Signs of water leakage were visible at all portholes, but no significant moisture was recorded. The aft stbd porthole when sighted from outside had moved and was not bedding correctly. A gap was observed which could lead to water ingress and possible delamination and soft furnishing damage. This needs to be rectified asap.

Finding B-3

5.1.10 EXTERIOR DOORS

Sliding companionway door with reported acrylic glass insert. The lock hasp was damaged and therefore the door could not be secured. The door did not run smoothly on the track.

Finding B-4

5.1.11 WINDOWS

Tinted and tempered, fixed windshield and sliding side windows. Caulking was missing in several areas, but drain holes were free. Insects had built nests under the winter windshield cover.

Finding B-5**5.1.12 WINDSHIELD**

Tempered glass windshield with three (3) windshield wipers/washers which functioned when tested. The glass was in good condition.

5.1.13 DECK RAILINGS

Stainless steel deck railings with stainless steel top railing and cable lifelines in the center strung between the stanchions ran around the aft deck. From the aft deck to the pulpit the deck railings consist of a stainless steel top rail. All stanchions were secure with no signs of corrosion apart from where noted and there was no significant moisture around the stanchions deck attachment. The aft port stanchion showed some corrosion although no significant moisture was detected. The cable lifelines were not sighted with rust.

Finding C-7**5.1.14 HANDRAILS**

The handrails were found to be secure.

5.1.15 DECK DRAINAGE

The drains were clear and unobstructed where sighted.

5.1.16 CLEATS

Eight off 10" Stainless steel horn type cleats were sighted. They were all securely mounted. The aft stbd cleat showed cracking around its fitting. No significant moisture was detected, and it was sound and holding the vessel to the dock with no sign of fatigue.

Finding B-6**5.1.17 ANCHOR PLATFORM**

The anchor fairlead chute and its associated hardware were inspected. The support for the chute was damaged and a chip was sighted in the gel coat to the aft of the chute on the port side. Aft and on the stbd side of the anchor feed is a secondary anchor locker. The anchor locker when opened was full of water. When a sealed package of anchor rode was moved the locker completely drained.

Finding B-7**5.1.18 EXTERIOR STORAGE**

The aft deck storage is a large box on the port side under the flybridge with a horizontal removeable plate estimated at 15" from the top. Below the plate was a location for propane tanks if that option had been fitted. The locker was functional.

5.1.19 FENDERS

3 off 16 inch fenders and 3 estimated 10"x24" fenders were observed onboard. 5 off 10"x24" fenders were used to protect the boat in the slip.

5.1.20 MOORING LINES

The dock/mooring lines used to secure the vessel at the time of survey were adequately sized with no significant wear & tear or chafe damage observed.

5.2 Ground Tackle**5.2.1 ANCHORS**

The main anchor is estimated as a 25lb Danforth style anchor attached securely to estimated 3/8" chain. The chain is attached to a Lewmar winch and feeds into a chain locker accessed in the fwd cabin behind the mirror in the bow area. The Lewmar electric winch is operated by foot switches which were tested and functioned. The shaft of the anchor is bent and did not mount correctly on the anchor chute. The anchor locker on the stbd side of the winch contained a Seasense SS10 anchor, an estimated 20ft of chain and 300 ft of 7/16th polyester rode. This spare anchor is rated by the manufacturer as suitable for a 17' to 20' boat.

Finding A-6**5.2.2 ANCHOR WINDLASS**

Lewmar 12 volt windlass. The winch shows signs of corrosion on its forward edge. Although, the anchor locker was generally clean there was evidence of water intrusion from the winch which was leading to the stbd shelf where water staining was visible in the carpet lining the shelf.

Finding B-8**5.2.3 CONSIDERATIONS**

In summary, the anchors need replacing, the anchor shute needs refitting or replacing, the winch needs rebedding and there is gelcoat work required fwd of the winch.

6 CABIN APPOINTMENTS**6.1 Interior****6.1.1 SALON ARRANGEMENT**

A sliding door gives access from the aft deck to an open plan salon. The aft end houses the galley to port and a simple two seater settee to stbd, while the dinette area is fwd of the galley, opposite the helm with its free standing pilot chair. The dinette can be converted into a 5' 6" occasional berth.

6.1.2 MAIN CABIN ARRANGEMENT

The aft cabin is the master stateroom with a walkaround double berth, vanity, and a private head (electrically operated) and a separate shower stall. The second cabin is in the bow and offers a double berth with access from the port side. The midship cabin is under the dinette and is accessed either from a door opposite the head or from the second stateroom. It features a double berth with access from the fwd side to half of the length of the bed. There is a useful hanging cupboard on the port side. The shared forward head is accessed from the passageway to the salon.

6.1.3 GALLEY ARRANGEMENT

The galley has full size Norcold freezer / fridge (tested working) on the stbd side aft of the galley. The Princess brand electric cooktop / oven is located to the port of the fridge. The rings heated up when tested. Above the cooktop is a Kenwood microwave which also worked when tested. The formica worksurfaces incorporate a double sink and benefit from a fiddled edge. Underneath the sink and to the center of the vessel are numerous draws and cupboards.

6.1.4 HEAD ARRANGEMENT

The master head is a Jabsco quiet flush 12 volt DC electric head which was tested and functioned. The fwd head is a Jabsco manual head which was tested and functioned.

6.1.5 INTERIOR CABINETRY & TRIM

No significant wear & tear was observed on the interior cabinetry and trim.

6.1.6 INTERIOR BULKHEADS

The interior bulkheads were well-fit and properly secured where sighted. A complete inspection was not possible due to limited access.

6.1.7 INTERIOR DOORS

The interior doors opened/closed suitably during the survey.

6.1.8 INTERIOR MIRRORS

No desilvering was observed on the interior mirror's reflective coatings. A break in the glass mirror on the aft wall in the aft cabin was noted.

6.1.9 CEILING HEADLINERS

The interior headliners were generally well fit with no visible tears and no significant staining.

6.1.10 WALL-LINERS

The interior wall-liners were generally well-fit, except where noted. The portholes all had indications of water intrusion on the interior wall liners but were dry when tested by the moisture meters.

6.1.11 FLOORING

The floor in the galley is "easy to mop" strip wood finish in very good condition. The rest of the boat is carpeted which is functional but is showing its age!

6.1.12 CABIN SOLE FOUNDATION

Plywood cabin sole foundation.

6.1.13 GENERAL INTERIOR & SOFTGOODS CONDITION

The vessel's interior was functional but the vinyl surfaces need deep cleaning and in some areas were cracked. All the soft furnishings showed wear and tear but were functional.

6.1.14 INTERIOR ODOR COMMENTS

No significant interior odor was observed at the time of survey.

6.2 Interior Systems & Equipment

6.2.1 LIGHTING

All interior lights illuminated when tested.

6.2.2 HVAC/AIR CONDITIONING SYSTEM

Two air conditioning systems reportedly 12000BTU Cruisair units were sighted. One under the master stateroom berth and the other in the engine compartment. Both systems were demonstrated and heated and cooled as expected. The aft unit showed brown rusty water in the drip tray.

Finding C-8

6.3 Audio/Visual Equipment

6.3.1 TELEVISION SYSTEM

The estimated 15" flat screen Sansui television in the forward cabin powered up and required an HDMI input. The Symphonic combined TV audio center in the aft cabin did not power up.

6.3.2 STEREO SYSTEM

The JVC audio components powered up but required a full test/prove for all functionality.

6.4 Galley Equipment

6.4.1 GALLEY SINK

The galley sink was properly fitted where sighted, the faucet fixture was operational and the sink drained appropriately.

7 PROPULSION & MACHINERY SPACE

7.1 Propulsion System

7.1.1 PROPULSION OVERVIEW

Twin Mercruiser 8 cylinder in a V configuration 7.4L MPI gas engines with direct drives, raw water cooled were sighted. The engine starter voltage was 12V and according to broker listing engines are rated at 160HP however, Bayliner literature implies 340HP. The port engine recorded 524 hrs and the stbd engine 549 hrs on the analog meters. The engine serial numbers as per title are port 06008892 / stbd 060008893

7.1.2 ENGINE HOURS

Port engine 524 and stbd 549 hrs engine analog meter hours

7.1.3 ENGINE INSTRUMENTATION

All instruments powered up both at the bridge and in the salon and the readings were as expected. The tachos were reading different values although it was reported both engines were running at about the same speed. Note there is no synchronization system fitted.

Finding C-9

7.1.4 ENGINE EXHAUST SYSTEM

Raw water cooled with hard-coat insulated stainless steel raw water exhaust gas mixing risers, and flexible connection hoses to fiberglass surge pipes and mufflers, exiting through transom mounted discharges.

7.1.5 ENGINE DRIVE BELTS

Engine drive belt guards were not installed. Serpentine belts were functional

7.1.6 THROTTLE & SHIFT CONTROLS

Morse mechanical lever/cable type throttle & shift controls.

7.1.7 ENGINE SYNCHRONIZER

No engine synchronization gauge was present at the survey.

7.1.8 MAIN ENGINE BACKFIRE FLAME CONTROL (46 CFR 25/58)

USCG Approved.

7.1.9 ENGINE BED MOTOR MOUNTS

Adjustable motor mounts on cored fiberglass longitudinal engine bed stringers.

7.1.10 CONSIDERATIONS

It is recommended that the engine is flushed regularly to remove "standing" saltwater and reduce corrosion. The oil analysis came back indicating that the engines needed a good oil flushing and with a suspicion that the exhaust risers need replacing.

Finding C-10

7.2 Transmissions/Gears/Drives

7.2.1 DRIVE SYSTEM TYPE

The vessel has 2 velvet drive transmissions with a 2.48:1 ratio. The transmissions are located in the engine compartment to the rear of the engine blocks. They performed as intended. The transmission serial numbers were not sighted. The propeller shafts are 1 3/8th in diameter and are made of stainless steel with dripless packing. The dripless packing water supply is fed from the end of the port manifold with a 3/8th inch pipe. The hoses and clamps were serviceable along with the dripless packing which was dripping as expected.

7.3 Machinery & Bilge Space Equipment

7.3.1 SEACOCKS/SEA-VALVES

Raw water seacocks were bronze alloy ball valve type. The valves moved freely when tested. Lubricate, exercise and monitor frequently.

Recommend performing maintenance on all seacocks and strainers annually (disassemble, inspect, clean and lubricate). It is also recommended that below the waterline and near the waterline thru hulls have a proper sized wooden plug attached to function as an emergency plugging device.

7.3.2 RAW WATER STRAINERS

Monitor and clean the strainers frequently.

7.3.3 HOSES

The hoses appeared serviceable where sighted. Monitor frequently for dry cracking, degradation or damage and recommend a thorough inspection for any hose chafing and reroute hoses or install chafe guards.

7.3.4 HOSE CLAMPS

Double clamped where sighted. Recommend installing corrosion resistant marine grade stainless steel T-bolt type hose clamps and/or solid banded (non open slotted) hose clamps where appropriate. Note: Although double clamping is viewed as being safe, ABYC only recommends double clamping for exhaust fitting and tank fuel fill and distribution hoses.

8 LIMITED TRIAL RUN

8.1 Trial Run Information

8.1.1 TRIAL RUN CONDITIONS

An inshore trial run was performed in choppy/windy conditions. The temperature was approx. 46 degrees with humidity of 60% and a wind of 14mph.

8.1.2 VESSEL LOADS

Reportedly, approximately 30% fuel load, 30% water load, low/medium gear load and four people onboard.

8.1.3 ENGINE STARTUP

The stbd engine started without excessive cranking or excessive exhaust smoke. The port engine started with some difficulty but again without excessive exhaust smoke. Both engines gave off steam while running but there was no fuel sheen in the water.

8.1.4 VIBRATION COMMENTS

No significant hull, engine or running gear vibrations were observed while underway.

8.1.5 ENGINE BACKDOWN TEST

The engine motor mounts were observed while the engine was placed in forward and reverse gear several times under load without exception.

8.1.6 ENGINE CONTROL STATION OPERATION

The engine controls were operated at all helm stations without exception, except the shifters were somewhat tight at the upper helm station.

8.1.7 STEERING TEST

The steering components were observed while the helm was turned hard over several times without exception.

8.1.8 ENGINE PERFORMANCE

Wide open throttle range was 3800 to 4000 rpm. The engines performed as expected through the trial run. 4000 RPM was the maximum put on the vessel. Port and stbd voltmeters both read 13v. Port and stbd temperature gauges were approx. 165 degrees.

8.1.9 ENGINE SPACE COMBUSTION AIR VOLUME

The engines appeared to have adequate combustion air during the trial run, with no excessive negative air pressure observed when the engine space access was closed off.

9 STEERING SYSTEMS

9.1 STEERING SYSTEM TYPE

Hynautic hydraulic steering system with two helm stations was sighted. Steering system components in overall good condition and serviceable. Steering system lines are non metallic where sighted, in good condition and fit for the intended use. The steering ram was securely mounted and in good serviceable condition.

9.2 UPPER RUDDER BEARINGS & RUDDER SUPPORT

Rudder and associated equipment to be checked on haul out

9.3 STEERING SYSTEM COMMENTS

The bilge mounted steering reservoir fluid level appeared to be satisfactory, per the integrated sight glass. The helm operated as expected with 5.5 turns from lock to lock.

10 FUEL SYSTEMS

10.1 FUEL SYSTEM TYPE

The Gasoline fuel tanks are located port and stbd of the engines adjacent to the hull. The combined tankage per owners manual is reported as 220 gallons. Where sighted they were securely mounted. There was no evidence of either Aluminum or stringer degradation (note: the fuel tanks were mostly inaccessible). The fuel fill fittings were clearly marked and were sighted midships port and stbd. The vents are located on the hull sides below the fuel fills.

10.2 FUEL LEVEL MONITORING

The fuel gauges were located at the helm stations and activated.

10.3 FUEL TANKAGE & FUEL FILL GROUNDING

Appeared to be properly grounded where sighted. Recommend verifying grounding.

10.4 FUEL FILL HOSE/PIPE

SCG Approved Type A2 fuel hoses where sighted.

10.5 FUEL LINES/HOSES

USCG Approved Type A1 fuel lines/hoses where sighted. The fuel shut off valves where sighted moved easily.

10.6 MAIN ENGINE PRIMARY FUEL FILTERS

Racor primary fuel filter / water separators. The secondary filters are Engine mounted spin on canister type.

10.7 GENERATOR PRIMARY FUEL FILTERS

Racor primary fuel filter/water separator. The condition of the fuel filter was not sighted.

10.8 FUEL TANKAGE SPACE IGNITION PROTECTION

lectrical items in the fuel tankage space are ignition protected, where sighted.

10.9 FUEL ODOR COMMENTS

There were no significant gasoline fumes observed inside the fuel tank space.

11 ELECTRICAL SYSTEMS**11.1 DC Electrical Systems****11.1.1 DC SYSTEMS VOLTAGE**

12 volt systems.

11.1.2 BATTERIES

2 off Group 24, AC Delco Marine Voyager 12 volt flooded lead acid batteries were sighted aft in the engine space port side. Code was M071R indicating battery was manufactured in 2021. A DEKA 708D (1100 CCA) battery was sighted on the stbd side aft of the stbd engine. The date of manufacture had not been inscribed on the label on top and the code supposedly on the side was not sighted. The battery terminals where sighted did not have insulating boots protecting the terminals and in the case of the port batteries the battery covers were not installed. Further, the order of wire size attached to a terminal is largest wire nearest the battery and smallest nearest the nut. The port side battery bank needs the wires reordered. No overcurrent protection was sighted within 7 inches of the batteries and the feeds from the batteries were not sheathed.

Finding A-7**11.1.3 BATTERY SWITCHES**

Three (3) Guest rotary switches and a Perko selector switch were sighted on the stbd side of the salon helm station. All operated as expected.

11.1.4 MAIN DC BREAKERS

The main DC breaker was located in the main DC electrical panel.

11.1.5 DC ELECTRICAL PANEL BREAKERS/FUSES

DC branch breakers were located in the main salon DC electric panel.

11.1.6 DC ELECTRICAL SYSTEM MONITORS

Powered up.

11.1.7 MAIN ENGINE ALTERNATORS

The voltage was observed to increase at the engine's voltmeter gauges while running underway.

11.1.8 BONDING SYSTEM (ABYC E-2 & E-11)

The bonding system where sighted on thru hulls was secure and showed minimal corrosion.

Finding C-11

11.1.9 DC ELECTRICAL/WIRING COMMENTS (ABYC E-11)

The wiring appeared to be well supported and secured where sighted. Always recommend installing chafe gear at all key friction points where wires/cables and hoses transit the vessel against sharp edges. Also recommend waterproofing all wiring connections that may be exposed to moisture.

11.2 AC Electrical Systems**11.2.1 AC SHORE POWER SYSTEM VOLTAGE**

Two 30 amp 120 volts AC @ 60Hz shore power cables were sighted connected to the vessel. The cables were partly running through the water and will need cleaning before stowing. The on board meters indicated 120v available.

11.2.2 AC SHORE POWER INLETS

Two (2) 30 amp./125 volt inlets were sighted on the stb side midships. When investigated the inlets showed no sign of overheating or arcing.

11.2.3 MAIN AC SHORE POWER BREAKERS

The main AC breakers were located in the main electrical panel.

11.2.4 AC ELECTRICAL PANEL BREAKERS

AC branch breakers were located in the AC electrical panel.

11.2.5 AC ELECTRICAL SYSTEM MONITORS

Powered up.

11.2.6 AC ELECTRICAL SOURCE SELECTOR SWITCHING

Manual rotary type 'make-or-break' switches were located in the salon AC electrical panel.

11.2.7 AC ELECTRICAL POWER OUTLETS

An Ideal Suretest model #61 164 microprocessor controlled test instrument was used to check the AC system. All AC outlets were wired correctly and the GFCI tripped when tested. The resistance of the interconnecting wiring was tested by applying a short duration 12, 15, 20 amp currents and the wiring was within spec. The AC outlets were conveniently located.

11.2.8 AC ELECTRICAL/WIRING COMMENTS (ABYC E-11)

Recommend periodic maintenance of the vessel's AC and DC wiring by checking the security of all electrical conductor terminations (destructive testing), cleaning any corrosion off of the electrical conductors and applying a corrosion inhibitor where appropriate. The wiring was only checked on shore supply and not with the generator. There was no galvanic isolator installed or ELCI (Earth Leakage Circuit Interrupter) which is required to meet latest ABYC E11 electrical standards.

Finding C-12**12 GENERATORS/AUXILIARY POWER****12.1 Generators****12.1.1 GENERATOR MODEL**

A gasoline powered Westerbeke 7.2kW generator was sited and powered up under load during the survey. The label was illegible and the serial number could not be read. The starter voltage rating is 12v. Voltage and frequency were tested and were in specification. An hour meter was not sighted.

12.1.2 GENERATOR DRIVE BELT

The generator drive belt(s) were well fit with no visible indication of excessive wear at the time of survey.

12.1.3 GENERATOR OIL LEVEL

The oil level stick was not accessible

12.1.4 GENERATOR COOLING SYSTEM TYPE

Closed coolant and raw water exhaust type.

12.1.5 GENERATOR FUEL SYSTEM

Engine mounted fuel pump.

12.1.6 GENERATOR BACKFIRE FLAME CONTROL (46 CFR 25/58)

USCG Approved as required per CFR for gasoline engines.

12.1.7 GENERATOR EXHAUST SYSTEM

Raw water cooled with fiberglass water lift type muffler. No leaks were sighted.

12.1.8 GENERATOR LOCATION

Port aft engine room.

12.1.9 GENERATOR ACCESSIBILITY

Fair (an acceptable amount of access was provided to the primary areas of the machinery requiring service). To reach the fwd side of the generator access is only available from the bilge.

12.1.10 GENERATOR LOAD TEST INFORMATION

The generator operated with 120 volts @ 60 Hz under the load of the two HVAC units and cabin lights with no detectable issues.

12.1.11 GENERATOR COMMENTS

Where sighted no leaks or drips were observed although some coolant was sighted in the generator drip pan.

Finding C-13**13 WATER SYSTEMS****13.1 Freshwater System****13.1.1 WATER TANKAGE MATERIAL**

One 79 gallon (per manufacturers label) Aluminum (5052 H32) water tank is located in the aft stateroom bilge on the stbd side under the berth. The water tankage appeared to be well secured where sighted and there was no movement when rocked.

13.1.2 WATER FILL LOCATION

Starboard amidships side deck and is properly marked. The tank vent is on the stbd hull side below the water fill pipe.

13.1.3 FRESHWATER PUMPS

Demonstrated. Where sighted no leaks were observed at the freshwater system's hose/pipe connections.

13.1.4 FRESHWATER FILTRATION

None sighted. Highly recommended.

13.1.5 WATER LEVEL MONITORING

The water level gauge appeared operational. Recommend verifying the water tankage level gauge's accuracy.

13.2 Hot Water System**13.2.1 WATER HEATER**

Unknown due to access (the data tags were inaccessible). The unit powered up.

13.3 Blackwater System**13.3.1 MSD (MARINE SANITATION DEVICE) SYSTEM (33 CFR 159)**

One (1) Jabsco 12 volt DC electric raw water head with Type III MSD waste system (utilizes a holding tank or similar device that prevents the overboard discharge of treated or untreated sewage) was located in the aft head. Powered up. One manual Jabsco type III MSD waste system (utilizes a holding tank or similar device that prevents the overboard discharge of treated or untreated sewage) was sighted in the fwd head. Neither area had any bad odor, and the hose and joints were serviceable with no leaks sighted.

13.3.2 BLACKWATER TANKAGE VENTILATION

The aft holding tank vent was located on the aft stbd side of the aft deck. The fwd holding tank vent was located midship on the port side.

13.3.3 BLACKWATER SYSTEM DISCHARGE

The aft head discharge had been replumbed directly to the holding tank. The fwd head Y valve was sighted directing waste to the holding tank.

13.4 Greywater System

13.4.1 GREYWATER TANKAGE

Grey water drains overboard. The sinks drain by gravity and the showers have sumps with float actuators to pump (Sahara s500 pump was sighted) the water overboard. The showers were not tested.

13.4.2 PLUMBING FIXTURES

There was no significant pitting/corrosion observed on the interior plumbing fixtures.

14 ELECTRONICS & NAVIGATION EQUIPMENT

14.1 VHF RADIOS

The VHF radios were not tested as the aerial had been damaged.

14.2 MULTI-FUNCTIONAL NAVIGATION DISPLAYS

The Raymarine chart plotter powered up but the screen was seriously "burnt" to be virtually unusable. The radar mast had been taken down to clear an obstruction so the radar was not tested. The VHF aerial was broken so couldn't be tested.

Finding C-14

15 UNDERWATER EQUIPMENT & HULL INSPECTION

15.1 PROPELLERS

Two (2) four bladed 22" x 22" pitch Nibral propellers were visually inspected and rotated with no exceptions or play. Note: The nuts on the propeller are reversed with larger nut closest to the propeller hub.

Finding B-9

15.2 PROPELLER SHAFTS

The stainless steel propeller shafts were measured as 1 3/4", were rotated, ran true and no exceptions noted.

15.3 PROPELLER SHAFT LOGS

he shaft logs were bronze mounted to the hull and aligned with no exception..

15.4 PROPELLER SHAFT STRUTS

The shaft struts were visually inspected with no significant corrosion or visible signs of damage. Also, the strut's internal securing bolts and backing plate(s) were inspected (where accessible) with no excessive corrosion or evidence of leakage. The corrosion around the bolts are possibly the result of the wasted anode plate.

15.5 SHAFT STAVE BEARINGS (CUTLESS BEARINGS)

he cutless bearings showed no signs of significant wear.

15.6 RUDDER MATERIAL

Appeared to be Manganese Bronze (the coatings prevented a definitive determination of the material).

15.7 RUDDER MOUNTING

Mounted in dripless rudder seal carrier bearings. Manufacturer "Marine Hardware MH 51251". Exterior rudder stock bearings mounted to transom.

15.8 TRIM TAB SYSTEM

wo Bennett Marine 12 volt electro hydraulic trim tabs were powered up and demonstrated with no exceptions.

15.9 HULL SEA-STRAINERS

The hull bottom mounted raw water pickups were serviceable. Monitor/clean often. Limited corrosion was observed which should be cleaned when bottom is sanded.

15.10 DRAINAGE THROUGH-HULLS

The hull side's discharge/drainage through-hulls were visually inspected and all appeared well fit and functional. Moisture tests were performed around all the through hulls and no elevated moisture was observed.

15.11 BELOW WATERLINE THROUGH-HULLS

The below waterline intake/discharge through-hulls were serviceable. Moisture readings could not be taken as the hull was still wet after power wash.

15.12 HULL GROUNDING PLATES/EARTHING PLATES

The anode grounding plate located on the transom was wasted and needs replacing.

15.13 SACRIFICIAL ANODES

The shaft anodes and transom anode need replacing urgently.

Finding C-15**15.14 ANTIFOULING PAINT**

The antifouling bottom paint and running gear coatings appeared to be nearing the end of their serviceable life and were thinned or worn off in several areas with general marine growth observed along the hull's wetted surfaces.

Finding C-16**15.15 OSMOTIC HULL BLISTERS**

No significant osmotic blistering was observed in the hull bottom laminates; however, several antifouling paint blisters were observed on the wetted surface which dried rapidly. A small area of blister repair was observed on the keel which had been repaired successfully.

15.16 HULL SURFACE COMMENTS

A phenolic hammer percussion sounding was performed on the accessible areas of the hull bottom and hull sides with no abnormalities noted. A small area of the vessel could not be checked as it was resting on the trailer beds. No elevated moisture readings were observed on the non wetted sides of the vessel.

15.17 HULL INSPECTION COMMENTS

Electronic moisture testing was limited during the short-haul. Antifouling bottom paints retain moisture and the antifouling bottom paint's metal oxide content triggers a false positive for high conductivity on the electronic FM Wave or capacitive type moisture meters. Further, boat builders utilize various construction materials, fasteners, coatings and composites, many of which will trigger a false positive for moisture. In order to perform an electronic moisture test on a hull's wetted surfaces, the vessel must be dry docked for a minimum of 48 hours and the vessel's antifouling bottom paint & all coatings must be completely removed in the areas to be tested for moisture. It must be understood that moisture meters are designed to detect the "conductivity" of substrates; including moisture, among various other conductive materials, and their ability to detect conductivity can be limited by many factors, such as the depth of the conductive material, air space present in between the laminate and the conductive material, etc.

The Findings & Recommendations section is only one section of the "Home Office" survey report. If received on its own, this section should not be mistaken as this vessel's full survey report. **PLEASE BE ADVISED THAT SOME DEFICIENCIES, OBSERVATIONS AND SUGGESTIONS MAY ALSO BE CONTAINED IN THE BODY OF THE REPORT.**

Deficiencies noted under "FIRST PRIORITY/SAFETY FINDINGS" should be addressed before the vessel is next underway. These findings could represent an endangerment to personnel and/or the vessel's safe operating condition. Findings may also be in violation of U.S.C.G. Regulations, ABYC Voluntary Safety Standards & Recommended Practices or NFPA Codes & Standards.

Deficiencies noted under "SECONDARY PRIORITY/FINDINGS NEEDING TIMELY ATTENTION" should be corrected in the near future, so as to maintain and adhere to certain codes, regulations, standards or recommended practices (and safety in some cases) and to help the vessel to retain its value.

Deficiencies noted under "SURVEYOR'S GENERAL FINDINGS, NOTES AND OBSERVATIONS" are lower priority or cosmetic findings, which should be addressed in keeping with good marine maintenance practices and in some cases as a desired upgrade.

Deficiencies will be listed under the appropriate heading:

- A. FIRST PRIORITY/SAFETY FINDINGS
- B. SECOND PRIORITY/FINDINGS NEEDING TIMELY ATTENTION
- C. SURVEYOR'S GENERAL FINDINGS, NOTES AND OBSERVATIONS

A: FIRST PRIORITY / SAFETY AND COMPLIANCE DEFICIENCIES

Finding A-1 Fire Extinguishers (33 CFR 175.310)

The hand-held fire extinguishers did not have current annual inspection tags.

Recommendation

Provide fire extinguishers and mount in prominent locations to comply with ABYC and NFPA recommended standards for fire protection.

Finding A-2 Visual Distress Signals (33 CFR 175.110)

There were no visual distress signals observed onboard.

Recommendation

Provide current dated visual distress signals to comply with USCG regulations.

Finding A-3 "No Oil Discharge" Placard (33 CFR 151/155)

USCG "No oil discharge" placard was sighted.

Recommendation

Display the approved placard to comply with USCG regulations. Fine for non-compliance.

Finding A-4 Gasoline Engine Space Blowers (33 CFR 175/183, 46 CFR 25)

There is only 1 bilge blower. Latest ABYC standard H2 recommends 1 blower for each propulsion engine.

Recommendation

Add an extra bilge blower to provide peace of mind! and to meet standards.

Finding A-5 Carbon Monoxide Detectors (ABYC A-24)

The carbon monoxide detector did not power up when tested. No detector was sighted in the midships cabin.

Recommendation

Carbon monoxide detectors can be very important safety equipment. Install carbon monoxide detectors in all accommodation spaces to comply with ABYC Standards and NFPA Regulations. (ABYC A-24.7) A carbon monoxide detection system shall be installed on all boats with enclosed accommodation compartment(s). Carbon monoxide is a toxic, odorless, colorless, tasteless gas produced by the burning of carbon-based fuels. Carbon monoxide in high concentrations can be fatal in a matter of minutes. Unless the symptoms are severe, carbon monoxide poisoning is often misdiagnosed as seasickness; however, lower concentrations must not be ignored because the effects of exposure to carbon monoxide are cumulative and can be just as lethal.

Investigate further, and address as necessary (detectors may require new batteries). Check both detectors for expiry date and replace them if expired. Locate and test if sighted the detector in the midships cabin. If not located then fit detector designed for marine use. Note: the thresh-hold levels of marine detectors are generally set differently from household detectors which should not be used.



Photo 1: Xintex CO detector in aft cabin was not powered up and did not test

Finding A-6 Anchors

The main anchor shaft is bent. The reserve anchor is too small for the size of vessel.

Recommendation

Since the extent of damage to the main anchor cannot be ascertained it is recommended that both anchors are replaced, sized to the size of boat and purpose for which they are required.



Photo 2: Note bend to port in the shaft as it enters the center of the anchor.



Photo 3: Reserve Seasense SS10.

Finding A-7 Batteries

The batteries did not appear to have over-current protection installed within the appropriate distance from the battery terminals. The battery terminals did not have protective insulation covers installed. A small conductor terminal ring was installed below the larger conductors on the positive terminal of the house battery. The port side battery box covers were not installed.

Recommendation

Investigate further/trace, and service, repair or replace as necessary.



Photo 4: Port battery bank. No covers on terminals and on stbd battery a small black wire is sighted under large cable. No overcurrent protection within 7 inches.



Photo 5: Battery cover not in place

B: SECONDARY PRIORITY / FINDINGS NEEDING TIMELY ATTENTION**Finding B-1 Gasoline Fume Detectors (ABYC A-14)**

No fume detector sighted in the engine compartment.

Recommendation

Investigate further, service, repair or replace or install as necessary.

Finding B-2 Swim Platform

Two fasteners attaching the swim ladder were rusted.

Recommendation

Replace with marine grade stainless steel fittings.



Photo 6: Rusted fasteners need replacing with marine grade stainless steel

Finding B-3 Portholes/Portlights

The porthole fitting on the aft stbd side needs reseating and re-caulking as there is evidence of water ingress which can lead to delamination and interior soft furnishing damage.

Recommendation

Investigate all portholes for seating / leakage and service / repair as necessary.



Photo 7: water staining from aft stbd porthole



Photo 8: Moisture meter shows low moisture

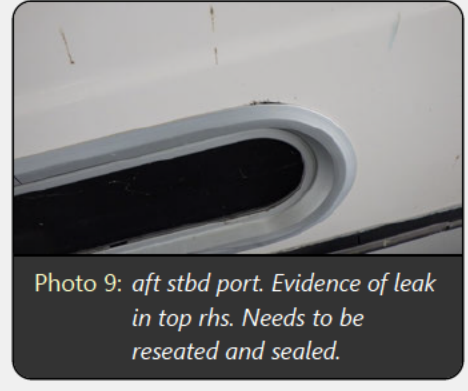


Photo 9: aft stbd port. Evidence of leak in top rhs. Needs to be reseated and sealed.

Finding B-4 Exterior Doors

Door could not be secured as the clasp was bent. It did not run smoothly on the tracks.

Recommendation

Investigate further, and service, repair or replace as necessary.

Finding B-5 Windows

The window frames were weathered, and the weather strip and caulking was missing in several areas.

Recommendation

The area is currently protected by the windshield cover and the fiberglass has no significant moisture but, when the cover is removed it is the surveyor's opinion that water intrusion is highly likely. This will lead to potentially serious fiberglass issues. Strongly recommend to replace / repair the trim and recaulk as required as a matter of urgency.

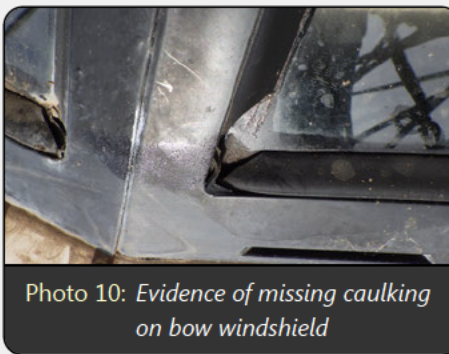


Photo 10: Evidence of missing caulking on bow windshield

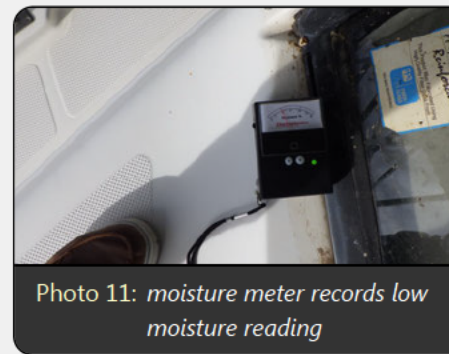


Photo 11: moisture meter records low moisture reading

Finding B-6 Cleats

Fiberglass around cleat mounting cracked. Unless addressed moisture could penetrate and weaken the cleats mounting.

Recommendation

Investigate further, and repair in accordance with accepted marine practice as necessary.



Photo 12: *corrosion on the stanchion mounting.*



Photo 13: *Cleat showing signs of cracking.*

Finding B-7 Anchor Platform

Damage to shute and chip in fiberglass

Recommendation

Refinish or replace the anchor chute, as necessary. Repair chip in fiberglass.



Photo 14: *Chip in gelcoat and damage to support for shute.*

Finding B-8 Anchor Windlass

The winch shows slight corrosion on the fwd edge where there is a significant chip in the gelcoat.

Recommendation

Repair gelcoat and reseal winch.



Photo 15: *Note slight corrosion to fwd edge and damage to gelcoat.*

Finding B-9 Propellers

The propeller's compression and lock/jammed nuts were installed in reverse order.

Recommendation

Properly refit the propeller nuts to comply with ABYC Standards as necessary. ABYC P 6 Ap. 6.2, SAE J755 (thin nut in front and thick nut behind).



Photo 16: *General view of props and rudders showing good condition of props and rudders. Note: smallest nut should be closest to prop as per ABYC.*

C: SURVEYOR'S GENERAL FINDINGS, NOTES AND OBSERVATIONS**Finding C-1 Bilge High Water Alarms**

A bilge high water alarm was not sighted

Recommendation

Install the appropriate recommended alarm, as necessary. On boats with an enclosed accommodation compartment, an audible alarm shall be installed indicating that bilge water is approaching the maximum bilge water level (ABYC H 22.7.3). Maximum bilge water level: the level above which electrical or mechanical systems will be adversely affected by bilge water, with the vessel in the static floating position or underway (ABYC H 22.4.7).

Finding C-2 Smoke Detectors (NFPA 302)

Smoke detectors not sighted.

Recommendation

Recommend smoke detectors can be very important safety equipment. Install smoke detectors in all accommodation spaces to comply with ABYC Standards and NFPA Regulations. NFPA 302 CHAPTER 12 SECTION 12.3. All vessels 26' or more in length with accommodation spaces intended for sleeping shall be equipped with a single station smoke alarm that is listed to UL 217 Standard for single and multiple station smoke alarms for recreational vehicles and is to be installed and maintained according to the device manufacturer's instructions.

Finding C-3 Electric Bilge Pumping Systems

The aft bilge pump manual light indication did not illuminate.

Recommendation

Investigate and repair/service the reason for the manual light for aft bilge pumps not illuminating.

Finding C-4 Boarding Swim Ladder

The swim ladder had a dented lower rung. It was mounted to the swim platform on a custom fitting. It was secure and could take a person's weight with no unexpected flexing.

Recommendation

When the boat is hauled, investigate further, and service or repair to ensure safe use in case of an emergency.

Finding C-5 Toe-Rails

Poor quality repair and slight crazing

Recommendation

Investigate further/monitor, and repair in accordance with good marine practice as necessary.



Photo 17: *Poor quality repair but no water intrusion at this stage. Note slight crazing on toe rail on LHS of photograph*

Finding C-6 Rub-Rails

Exposed gelcoat area on the rub rail fwd of amidships on stbd side

Recommendation

Refinish, refit the rub rails, as necessary.



Photo 18: *Exposed gelcoat area.*

Finding C-7 Deck Railings

The port aft stanchion over the transom was slightly corroded.

Recommendation

Investigate further, and re bed/refit the stanchion as necessary.

Finding C-8 HVAC/Air Conditioning System

The aft unit showed brown rusty water in the drip tray.

Recommendation

investigate further/trace, and service, repair or replace as necessary.



Photo 19: Rusty water building up in the HVAC drip tray

Finding C-9 Engine Instrumentation

There was a discrepancy between the tacho readings on the two engines when it was reported that they were running at about the same speed.

Recommendation

Investigate further/trace, and service, repair or replace as necessary.



Photo 20: Instrument display during trial run. Note rev difference between engines.

Finding C-10 Considerations

Engine oil contaminated and suspicion exhaust risers need servicing / replacing.

Recommendation

Perform oil flush by changing oil once, running for 5 hours and changing. Replace / service exhaust risers. Note: Transmission oil and generator were not checked. Strongly recommend that transmission oil is changed and generator serviced.

Finding C-11 Bonding System (ABYC E-2 & E-11)

Mr Breazeale intends to move the vessel from freshwater to the coast.

Recommendation

Recommend having a full corrosion survey to verify the vessel's bonding system is complete with continuity to the "zincs" and working as intended.

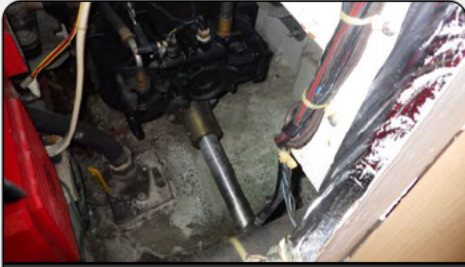


Photo 21: Thru hull showing bonding wire and minimal corrosion. Note no evidence of excessive fluid leaks from the moving parts.

Finding C-12 AC Electrical/Wiring Comments (ABYC E-11)

No Galvanic isolator or ELCI's installed.

Recommendation

Recommend that a Galvanic isolator is installed to manage stray current corrosion when connected to AC shore power. This is more of a requirement as the Mr Breazeal is intending to take the boat on coastal waters. Latest ABYC E11 electrical standards mandate an ELCI be located for each AC power cord electrical input within 10 ft of the inlet. By the design of the boat the main AC panel is within 10ft of the receptacles. The installation will protect personel both on the boat and in the water from stray currents.

Finding C-13 Generator Comments

There was a small amount of coolant in the drip pan.

Recommendation

Investigate further/trace, and service, repair or replace as necessary.

Finding C-14 Multi-Functional Navigation Displays

The navigation equipment, radar, GPS and VHF are old and in poor condition

Recommendation

Replace the equipment.

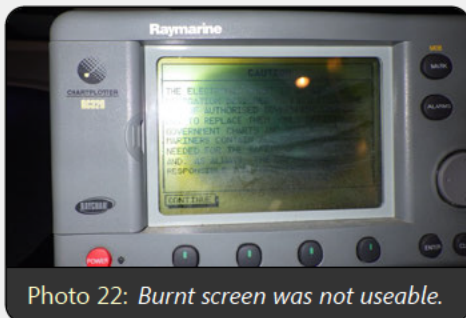


Photo 22: Burnt screen was not useable.

Finding C-15 Sacrificial Anodes

The underwater anodes were either wasting or wasted.

Recommendation

Replace the wasted zinc anodes to ensure proper electrolytic corrosion protection especially as the vessel is being moved to the coast. There was some minor corrosion as evidence of wasted anodes.

Finding C-16 Antifouling Paint

The antifouling bottom paint and running gear coatings appeared to be nearing the end of their serviceable life and were thinned or worn off in several areas with general marine growth observed along the hull's wetted surfaces.

Recommendation

Clean, sand blast, prepare and repaint.

16 SUMMARY

16.1 *Summary of Condition & Valuation*

16.1.1 **VESSEL CONDITION**

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

The grading of condition determines the adjustment to the range of base values for a similar vessel sold within a given time period, as a consideration to determine the Market Value.

The following is the accepted Marine Grading System of Condition:

"EXCELLENT (BRISTOL) CONDITION": a vessel that is new or maintained like new, with all systems and units fully functional.

"ABOVE AVERAGE CONDITION": a vessel that has above average care and is well equipped and in better average condition for her age and class.

"AVERAGE CONDITION": a vessel ready for sale, requiring normal maintenance work and comparably equipped to other similar vessels on the market.

"FAIR CONDITION": a vessel that is in need of a fair amount of maintenance work and some systems are due to be serviced or replaced.

"POOR CONDITION": a vessel that requires substantial work to be fit for its intended purpose (may require structural repairs, extensive refit and replacement of several systems).

"RESTORABLE CONDITION": a vessel with extensive structural deficiencies that is in need of major work on most systems and hull integrity to be fit for its intended purpose.

As a result of my survey, as shown in the REPORT OF MARINE SURVEY & FINDINGS AND RECOMMENDATIONS sections of this report and by virtue of my experience, my opinion is:

AVERAGE CONDITION

16.1.2 **APPRAISAL METHODOLOGY**

The following method of valuation was used to obtain the FAIR MARKET VALUE of the vessel:

Similar boats currently listed on Yachtworld and Boattrader were evaluated. The current listing price was adjusted for age, location (especially inland water versus coastal) and the standard industry adjustment for average list price to sold price was made. (Currently 11%). This value came to \$64,161. The BUC value for the boat model and year adjusted for Gulf of Mexico was researched and the Average range was chosen. The average of this range was \$65,500. Soldboats was reviewed and two boats were found with sold dates 3 years ago. The value was adjusted for the date sold and age of boat to compare with survey boat. The average was calculated then averaged with the BUC value and listing average derated. The valuation was determined as \$63,711. BUC Pro value for replacement value was \$420,000

16.1.3 **SIMILAR VESSEL(S) CURRENTLY ON THE MARKET**

The boats of the same model and similar year are listed on the valuation calculation sheet.

16.1.4 **VALUATION CONCLUSION**

The definition of Fair Market Value, as used in this report, is the estimated amount, expressed in terms of money, that may be reasonably expected for a property in an exchange between a willing buyer and a willing seller, with equity to both, neither under any compulsion to buy or sell, and both fully aware of all relevant facts, as of the specific date stated above. Valuations are the

opinion of the surveyor(s) 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(s) have 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 BUCValuPro™ 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. Implicit in this definition are the consummation of a sale as of a specified date and the passing of a Title from seller to buyer under conditions whereby:

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

This report is subject to the limiting conditions and assumptions stated. Values are based on the whole and possessory interests of the owner of the property, undiminished by liens, fractional interest or other encumbrances.

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

\$63,711 per BUCValuPro™ averaged with derated listing prices and soldboat limited data.

Sixty-Three Thousand, Seven Hundred Eleven

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

\$420,000 per BUCValuPro™

Four Hundred Twenty Thousand

16.1.5 SUMMARY

In accordance with the request for a Marine Survey of "Home Office", for the purpose of evaluating its present condition and estimating its Fair Market Value and Replacement Cost, I herewith submit my conclusion based on the preceding report. The subject vessel was personally inspected by the undersigned on 01/13/2024 for in water and 01/30/2024 for hull inspection.. Subject to correction of deficiencies listed in sections **A** and **B**, the vessel is considered to be reasonably suitable for its intended use. Other deficiencies listed should be attended to in keeping with good maintenance practices or as upgrades. The vessel's valuation is subject to the hypothetical condition that the deficiencies listed in sections **A** and **B** are corrected, and this survey is also made subject to the extraordinary assumption that the vessel's uninspected areas/components (due to inaccessibility) are in reasonable condition with no substantial defects.

16.1.6 SURVEYOR'S CERTIFICATION

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



The statements of fact contained in this report are true and correct. The reported analyses, opinions and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, unbiased professional analyses, opinions and conclusions. I have no present or prospective interest in the vessel that is the subject of this report and I have no personal interest or bias with respect to the parties involved. My compensation is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulated result or the

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

This report should be considered as an entire document. No single section is meant to be used except as part of the whole.

This report is submitted without prejudice and for the benefit of whom it may concern. This report does not constitute a warranty, either expressed, or implied, nor does it warrant the future condition of the vessel. It is a statement of the condition of the vessel at the time of survey only.

[REDACTED], Surveyor



Signed and submitted on: 01/31/2024

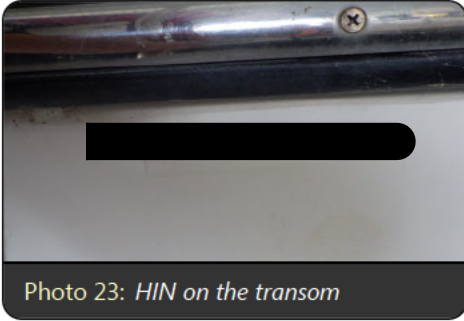


Photo 23: HIN on the transom



Photo 24: Stbd bow



Photo 25:



Photo 26: Stbd stern



Photo 27: port side



Photo 28: Stbd bow



Photo 29: damaged ladder



Photo 30:



Photo 31: *poor quality repair to toe rail but moisture level low*



Photo 32: *View of port engine from aft cabin. Note engine mounts in good condition and minimal corrosion*

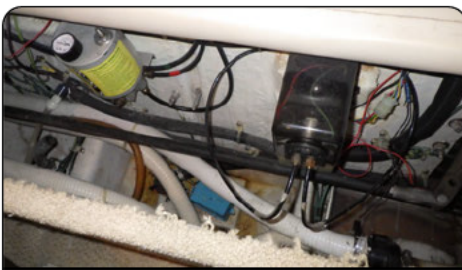


Photo 33: *View of steering hydraulics.*



Photo 34: *Steering hydraulics again but note good bonding wire to lever and general cleanliness*

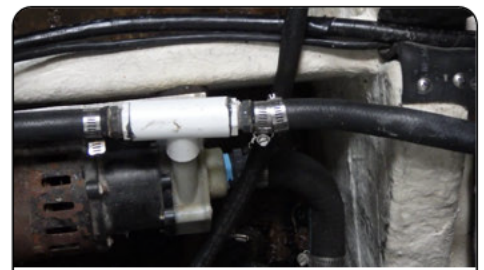


Photo 35:



Photo 36: *AC power inlets showing no evidence of arcing*

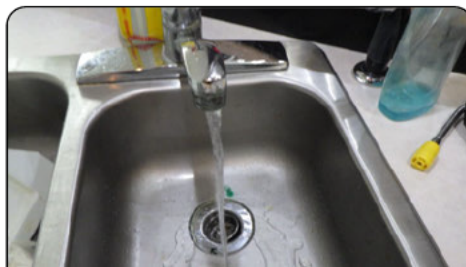


Photo 37: *Evidence of freshwater flow and good condition of the faucet and sink*



Photo 38:



Photo 39: view of freshwater tank label and sender



Photo 40: View of fwd shower sump

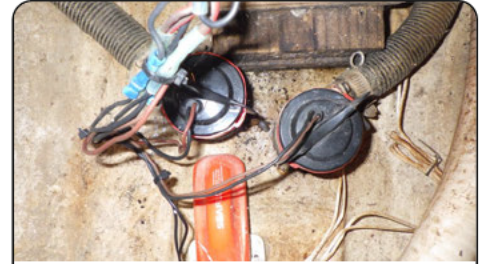


Photo 41:



Photo 42: view of port engine from fwd direction with fuel tank on port side. Note no obvious leaks or corrosion

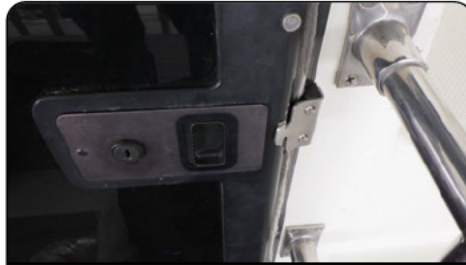


Photo 43: lock broken on companion way entrance



Photo 44:

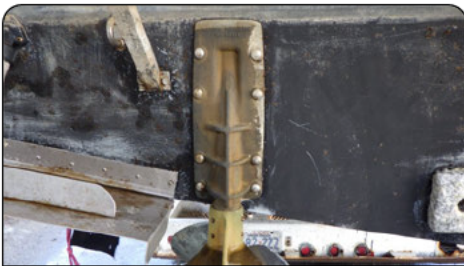


Photo 45: Rudder support.



Photo 46: Prop markings



Photo 47:



Photo 48: Support for "new" swim platform. Note some corrosion



Photo 49: New swim platform support



Photo 50:

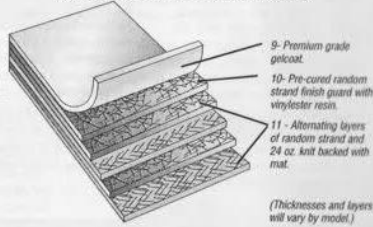
For even greater strength, we overlap the roving at keel, chine and other stress points, and apply doublers at critical points throughout each hull. Lamination specifications are tailored to each model, for maximum strength and integrity without excessive weight.

Benefit: Hand-laid fiberglass construction is the preferred method for high hull strength. Bayliner's industry-leading fiberglass technology assures a boat of unexcelled strength, for exceptional resistance to the punishment of pounding seas, high-speed operation and the stress of prolonged heavy use. It's also a primary reason why Bayliner is able to offer a transferable 7-year structural hull limited warranty on every new boat. Bayliner owners can relax and enjoy the water, knowing their boats are built to last. And the transferable limited warranty is a real plus at resale time.

Typical Hull Side Lamination Schedule

8. **Feature: Marine Composite Construction.** An industry-leading construction process using state-of-the-art construction techniques that control resin and glass ratios and result in lighter and stronger hulls.

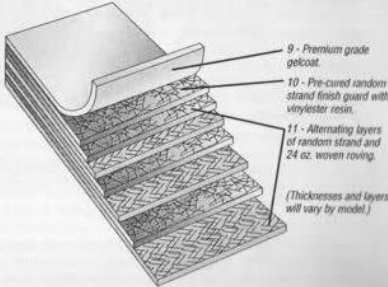
Benefit: A Marine Composite Construction hull can withstand the punishment of rough waters and deliver exceptional performance. Your customers get a stronger boat and enjoy reduced operating costs.



Typical Hull Bottom Lamination Schedule

9. **Feature: Premium Buff-Back Gelcoat.** Bayliner insists on the finest gelcoats available—Formula 954 from Cook Composites, a super-isophthalic resin-based coating that yields a high-gloss finish.

Benefit: A tough, beautiful, long-lasting finish that resists abrasion, impact, chalking, fading and discoloration, to retain its high gloss look and stay new-looking year after year for greater enjoyment and higher resale value.



10. **Feature: Pre-Cured Finish Guard.** Every new Bayliner has pre-cured random strand finish guard with vinyl ester resin, an important new process that ensures an ultra-smooth outer surface. Laying up the first layer with vinyl ester resin and allowing it to cure, before applying additional laminate layers, provides a hard stable base for the entire laminate.

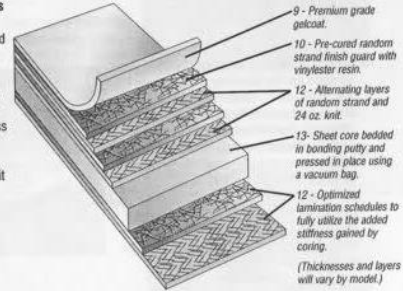
Benefit: Finish guard is a costly, time consuming extra step that stabilizes the hull surface for a flawless finish. Vinyl ester resin with unsurpassed resistance to osmosis, fights gelcoat blistering and cracking for a long-lasting new boat finish.

11. **Feature: Optimized lamination schedules** eliminate coring materials and add structural fiberglass. This is accomplished by alternating layers of 24 oz. knit and random strand fiberglass in the hull sides and 24 oz. woven roving with alternating random strand in the hull bottom, producing stronger, more uniform and consistent hulls.

Benefit: Optimized lamination schedules increase the amount of structural fiberglass content, giving superior tensile strength with no pattern print-through and improved surface finish, resulting in longer-lasting, stronger components.

5288 EF and 5788 EA Hull Bottom and Sides


12. **Feature: Optimized lamination schedules** to fully utilize the added stiffness gained by coring.
- Benefit:** Optimized lamination schedules increase the amount of structural fiberglass content for superior tensile strength and weight reduction. Knit materials reduce print-through for improved surface finish.



Vacuum bagging assures even bonding of the coring material against the previously laid hull laminations.

13. **Feature (5288 and 5788 only): Sheet core bedded in bonding putty and pressed in place using a vacuum bag.** This process produces a void-free bond between the core and outer laminate.

Benefit: PVC foam core acts as a sound and thermal insulator. Coring allows larger panel sizes and thereby reduces hull structure weight and complexity.

PPA	Machine ID: HOME OFFICE		Component ID: 06008892		 MOTORCHECK LAB 2000 N FLORIDA MANGO RD 104 WEST PALM BEACH FL 33409 561-684-7799
	Machine Year: NA		Component Make: MERCURISER		
Phone:			Component Model: 7.4		
Email:			Component Year: NA		
Fax:			Component Type: GASOLINE ENGINE		
Component Description:			Component Location: PORT MAIN		
			Sump Capacity: 5 Quarts		

Sample ID	Date Taken	Hours on Component	Hours on Oil	Oil Weight	Oil Brand	Oil Type	Oil Changed	Date Analyzed	User Sample ID
26145	1/19/2024	500	100	15W/40	UNKNOWN	UNKNOWN	No	1/19/2024	
PISTON, RING, CYLINDER AND BEARING WEAR INDICATED. POSSIBLY DUE TO THE PRESENCE OF ABRASIVE DIRT PARTICLES. SODIUM LEVEL HIGHER THAN TYPICAL. CHECK FOR SOURCE OF COOLANT AND/OR SALT WATER LEAK. HIGH AMOUNT OF DIRT PRESENT POSSIBLY GAINING ENTRANCE WITH THE COOLANT. CHECK FOR OIL PRESSURE DROP AND ABNORMAL NOISE. CHECK AIR INDUCTION SYSTEM AND ALL DIRT ACCESS POINTS. ADVISE USE OF ADDITIONAL DIAGNOSTIC TOOLS TO DETERMINE COURSE OF CORRECTIVE ACTION.									

Sample ID	Wear Metals(ppm)					Contaminant Metals (ppm)		Multi-Source Metals (ppm)			Additives (ppm)									
	Iron	Chromium	Aluminum	Copper	Lead	Tin	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Nickel	Manganese	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
26145	245	20	18	86	22	23	X	37	214	<2	X	9	X	X	X	X	X	X	X	X


Sample ID	Contaminants					Physical Properties							
	Fuel	Soot	Water	Glycol	Nitration	TBN	Oxidation	V40C	V100C	Vindex	V40C Limit	V100C Limit	Visc Mode
26145	D	X	<0.1	-	3.8	8.1	4.0	110	14.4	103	92-124	12.5-16.3	C

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 Fax: (561) 684-6402

KEY:

ABNORMAL SEVERE D = DETECTED * = NOT DETECTED X = NOT TESTED / NOT APPLICABLE NA = NOT AVAILABLE C = CALCULATED M = MEASURED

PPA Machine ID: HOME OFFICE Machine Year: NA	Component ID: 06008893 Component Make: MERCURISER Component Model: 7.4 Component Year: NA Component Type: GASOLINE ENGINE Component Location: STARBOARD MAIN Sump Capacity: 5 Quarts	 MOTORCHECK LAB 2000 N FLORIDA MANGO RD 104 WEST PALM BEACH FL 33409 561-684-7799
Component Description:		

Sample ID	Date Taken	Hours on Component	Hours on Oil	Oil Weight	Oil Brand	Oil Type	Oil Changed	Date Analyzed	User Sample ID
26146	1/19/2024	500	100	15W40	UNKNOWN	UNKNOWN	No	1/19/2024	
Comments: PISTON, RING, CYLINDER AND BEARING WEAR INDICATED. POSSIBLY DUE TO THE PRESENCE OF ABRASIVE DIRT PARTICLES. SODIUM LEVEL HIGHER THAN TYPICAL. CHECK FOR SOURCE OF COOLANT AND/OR SALT WATER LEAK. HIGH AMOUNT OF DIRT PRESENT POSSIBLY GAINING ENTRANCE WITH THE COOLANT. CHECK FOR OIL PRESSURE DROP AND ABNORMAL NOISE. CHECK AIR INDUCTION SYSTEM AND ALL DIRT ACCESS POINTS. FLUSH UNIT THOROUGHLY.									

Sample ID	Wear Metals (ppm)					Contaminant Metals (ppm)		Multi-Source Metals (ppm)			Additives (ppm)									
	Iron	Chromium	Aluminum	Copper	Lead	Tin	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Nickel	Manganese	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
26146	276	19	27	87	21	19	X	38	240	<2	X	9	X	X	X	X	X	X	X	X
Contaminants										Physical Properties										
Sample ID	Fuel	Soot	Water	Glycol	Nitration	TBN	Oxidation	V40C	V100C	Vindex	V40C Limit	V100C Limit	Visc Mode							
26146	<2.0	X	<0.1	-	3.9	8.0	4.5	110	14.4	134	92 - 124	12.5 - 16.3	C							

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X = Not Applicable for Test Type
 NOTE: HOURS OR MILES ON UNIT AND/OR HOURS OR MILES ON OIL: "0" = HOURS/MILES UNKNOWN.
 UNKNOWN HOURS OR MILES ON UNIT OR ON OIL LIMITS THE ACCURACY OF THE TEST RESULTS
 *Accuracy of recommendations is dependent on representative oil samples and completely correct data on both unit and oil. This analysis is intended as an aid in predicting mechanical wear, no guarantee expressed or implied, is made against failure of this component. MotorCheck (Oil Lac. LLC.) liability in any case is limited to the cost of the reported analysis.

KEY:

ABNORMAL SEVERE D = DETECTED . = NOT DETECTED X = NOT TESTED / NOT APPLICABLE NA = NOT AVAILABLE C = CALCULATED M = MEASURED

M[✓]C™ UNDERSTANDING YOUR REPORT

ENGINES

ALUMINUM:	PISTONS, BEARINGS, HOUSINGS, THRUST WASHERS, BUSHINGS
CHROMIUM:	COMPRESSION RINGS, LOW FRICTION BEARINGS, LINERS, CHROMATE COOLING SYSTEM
COPPER:	BEARINGS, BUSHINGS, THRUST WASHERS, OIL COOLER, CLUTCHES, AND AN OIL ADDITIVE IN SOME GASOLINE ENGINE OILS.
IRON:	CRANKSHAFT, CYLINDERS, PISTONS, LINERS, BEARINGS, VALVE TRAIN
LEAD:	BEARINGS, CONTAMINATION FROM LEADED GASOLINE
TIN:	PISTON SKIRTS, BEARINGS, AND BUSHINGS.
SILICON:	AIRBORN DIRT, SEAL MATERIAL, GASKETS, USED IN SOME OIL ADDITIVES, SPRAY LUBRICANTS, WHEN FOUND WITH POTASSIUM INDICATES GLYCOL ISSUE
POTASSIUM:	INDICATION OF GLYCOL OR SALTWATER INTRUSION, ADDITIVE IN SOME OILS
SODIUM:	FOUND IN SOME OIL ADDITIVES, GLYCOL, ENVIRONMENTAL COMTAMINANT OR SALT WATER
WATER:	MEASURED IN % VOLUME, CAN BE INDICATION OF CONDENSATION, COOLING SYSTEM LEAK, OR OUTSIDE CONTAMINATION
GLYCOL:	MEASURED IN % VOLUME, IN THE FORMULATION OF MOST COMMERCIAL COOLANTS
OXIDATION:	THIS IS THE RESULTS OF OXYGEN IN THE AIR REACTING WITH THE OIL AT ELEVATED TEMPERATURES. THIS IS A NORMAL PROCESS AS THE OIL AGES. IF AN ENGINE IS OPERATED CONTINUOUSLY AT A HIGH TEMPERATURE FOR EXTENDED PERIODS, OR IF DRAIN INTERVAL IS OVER EXTENDED, OIL CHANGE IS RECOMMENDED.
NITRATION:	FORMED DURING COMBUSTION PROCESS, LEADS TO ACCELERATED OIL DETERIORATION.
SOOT:	NORMAL COMBUSTION BY PRODUCT OF DIESEL FUEL AND APPEARS AS CONTAMINANT IN THE OIL CAUSING AN INCREASE IN VISCOSITY. INDICATE AN INPROPER AIR/FUEL RATIO, DEFECTIVE AIR INTAKE, FAULTY INJECTORS, OR BLOW-BY
VISCOSITY:	CALCULATED MEASUREMENT OF THE OIL'S ABILITY TO FLOW AND LUBRICATE, INDICATES IF OIL IS TOO THICK OR THIN
TBN:	MEASUREMENT OF OIL'S ALKALINE BASE RESERVE, ADDITIVE IN OIL CAPABLE OF NEUTRALIZING ACIDIC CONTAMINANTS, WHEN TBN IS BELOW 3, IT IS AN INDICATION THE OIL IS NO LONGER SERVICEABLE
FUEL DILUTION:	MEASURED IN % VOLUME, CAN INDICATE FAULTY COMBUSTION, RICH AIR/FUEL MIXTURE WHEN PRESENT BETWEEN 2%-5%. INJECTOR PROPBLEM OR INTERNAL FUEL LINE LEAK IS TYPICALLY INDICATED WHEN FUEL IS DETECTED AT HIGH LEVELS

TRANSMISSIONS

TORQUE CONVERTER, THE CASE, THRUST WASHERS, HOUSINGS, GEAR AND VANE PUMPS
BALL AND ROLLER BEARINGS, ALLOY OF STEEL PARTS
CLUTCH PLATES, BRONZE BUSHINGS, OIL COOLER OXIDES, BRASS FITTINGS
GEARS, BEARINGS, SHAFTS, SOME CASES, CLUTCH PLATES
GEARS
SOME BEARING CAGES
AIRBORN DIRT, SEALERS, GASKETS, USED IN SOME OIL ADDITIVES, SPRAY LUBRICANTS, WHEN FOUND WITH POTASSIUM INDICATES GLYCOL ISSUE, SAND-CASTED PARTS
INDICATION OF GLYCOL OR SALTWATER INTRUSION, ADDITIVE IN SOME OILS
FOUND IN SOME OIL ADDITIVES, GLYCOL, ENVIRONMENTAL COMTAMINANT OR SALT WATER

ACCURACY OF RECOMMENDATIONS IS DEPENDENT ON THE REPRESENTATIVE OIL SAMPLES AND COMPLETELY CORRECT DATA ON BOTH UNIT AND OIL. THIS ANALYSIS IS INTENDED AS AN AID IN PREDICTING MECHANICAL WEAR. NO GUARANTEE, EXPRESS OR IMPLIED, IS MADE AGAINST FAILURE OF THIS COMPONENT, MOTOR CHECK(OIL LAB LLC.) LIABILITY IN ANY CASE IS LIMITED TO THE COST OF THE REPORTED ANALYSIS.

VALUATION SPREADSHEET

Current Yachtworld and BoatTrader listings

<u>Year</u>	<u>Vessel</u>	<u>location</u>	<u>Listed Price</u>	<u>ADJ for Year</u>	<u>Adj cond</u>	<u>Est Sold</u>	
1997	Bayliner 3587 Bay		\$ 64,500	\$ 66,495	\$ 70,739	\$ 63,665	https://www.boattrader.com/boat/1997-bayliner-3587-9015915/
1995	Bayliner 3588 River		\$ 78,000	\$ 82,979	\$ 82,979	\$ 74,681	https://www.boattrader.com/boat/1995-bayliner-3587-9179495/
1996	Bayliner 3589 Sea		\$ 71,900	\$ 76,489	\$ 81,372	\$ 73,234	https://www.yachtworld.com/yacht/1996-bayliner-3587-motoryacht-8844573/
1996	Bayliner 3590 Sea		\$ 49,000	\$ 52,128	\$ 54,871	\$ 49,384	https://www.yachtworld.com/yacht/1996-bayliner-3587-motoryacht-9186392/
1999	Bayliner 3591 Sea		\$ 62,500	\$ 62,500	\$ 66,489	\$ 59,840	https://www.yachtworld.com/yacht/1999-bayliner-3587-motoryacht-8911165/
AVG			\$ 65,180	\$ 68,118		\$ 64,161	

BUC VALUE Pro

Current Retail Value Range	\$ 62,400	\$ 68,600	AVG:	\$ 65,500
Replacement value				\$ 420,000

Soldboats

<u>Year</u>	<u>sold date</u>	<u>list</u>	<u>sold</u>	<u>location</u>	<u>fresh / sea</u>	<u>Engine</u>	<u>Engine Hrs</u>	<u>Adj for list date</u>	<u>Adj for age</u>	<u>Adj for condition</u>
									10% 3%/yr	10%
1998	2021	49000	\$ 45,000	Milwaukee	Fresh	n/k		\$ 50,000	\$ 51,546	\$ 57,274
1997	2021	59500	\$ 50,000	Pt Char FL	Sea	310HP Cur	1333 & 1387	\$ 55,556	\$ 59,102	\$ 65,669
Avg soldboats										\$ 61,471

Average of Listing est sold value, BUC and Soldboat \$63,711