

REPORT OF THE MARINE SURVEY

Survey completed: December 13, 2016

Report: December 13, 2016

Final Report: December 14, 2016

As requested, a Condition & Value Survey was performed of

"CHARLEY J"



1998 Northern Bay 36

PREPARED EXCLUSIVELY FOR:

Chris Hegedus

1655 Copenhaver Road Fort Pierce, FL 34945.

CONDUCTED BY:

Peter J. Spang, SAMS® AMS®



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Please note: This survey is prepared for the exclusive use of Chris Hegedus. This report by itself does not contain all the components necessary for a prepurchase decision. The intended users of this report and appraisal are the client and those lenders and underwriters who may finance or insure this vessel for Chris Hegedus only. This report is not transferable to any other person or entity, therefore, other potential buyers are specifically excluded as third party users of this report.

Vessel owner is responsible for research of warranties and/or defect recalls. As well as conscientiously having defects quickly repaired when recalled. TMS takes no responsibility for any problems stemming from these issues. © Copyright 2016, Turnstone Marine Survey, LLC. All rights reserved



GENERAL SURVEY INFORMATION

SURVEY STANDARDS

1.1 Standards followed: This survey was completed using as reference the federal regulations and amendments issued and enforced by the United States Coast Guard under the authority of Title 33 and Title 46 of the United States Code of Federal Regulations (CFR's). In addition the American Boat and Yacht Council (ABYC) and National Fire Protection Association (NFPA-302) voluntary standards were used as reference during the survey. These ABYC and NFPA voluntary standard practices are generally followed by most vessel manufacturers today. Marine Pollution Act, MARPOL, International ISO, and COLREGS also apply.

SURVEY INSPECTION COMMENTS

1.2 Comments:

- All systems and components inspected and described herein are considered serviceable and/or functional except as indicated in the survey report and recommendations section. Electronic devices and instruments were checked for power up only - not for functionality unless a sea trial was performed. The vessel was surveyed without removal of any parts, including fittings, tacked carpet, screwed or nailed boards, anchors and chain, fixed partitions, instruments, clothing, spare parts, and miscellaneous materials in the bilges and lockers, or other fixed or semi-fixed items. Locked compartments or otherwise inaccessible areas would also preclude inspection. Buyer/owner is advised to open all such areas for further inspection. Furthermore, no determination of stability characteristics or inherent structural integrity has been made and no opinion is expressed with respect thereto. This survey report represents the condition of the vessel on the above dates and is the unbiased opinion of the undersigned, but not to be considered an inventory or a warranty either specified or implied.
- "Priority I Recommendations" are related to Safety & Regulatory findings and are listed in **RED** in the report.
- "Priority II Recommendations" are related to Maintenance & Standards findings and are listed in **ORANGE** in the report.
- "Other Recommendations" are suggestions "in the ways of a prudent mariner" or findings that are relatively minor in nature and are listed in **BLUE** in the report.
- It is the nature of marine vessels that deterioration, wear and accidents do occur and as such, this report therefore represents the condition of the vessel only at the time the survey was conducted.

SCOPE OF SURVEY

1.3 Report file no: 121316northernbay36hegedus.

1.4 Inspection date: December 13, 2016.

1.5 Report date: December 13, 2016.

1.6 Final Report date: December 14, 2016.

1.7 Type of survey: As requested, a Condition & Value Survey was performed. The agreed scope of work is and to inspect and report, with a focus on deficiencies, the overall condition, then appraise the fair market value of this vessel for pre-purchase decision making, and for the purpose of obtaining or renewing insurance and/or insurance underwriting.

1.8 Conducted by: Peter J. Spang, SAMS® AMS®

1.9 Requested by: This survey was performed at the request of the purchaser, Chris Hegedus, who was not present at the time of the survey.

1.10 Survey conditions Equipment used for electrical systems testing: True RMS Multimeter by Klein



Tools model CL2000, True RMS Ideal Sure Test Circuit Analyzer model 61-164, Fluke networks Pro3000 circuit tracer, SPX OTC Digital Battery Tester, HM Digital COM-100 salinity meter, CEM AT-6 Tachometer, Fluke VT04 visual IR thermometer. A calibrated Electrophysics moisture meter, model GRP 33 or model "Dolphin", was used to obtain laminate moisture readings used in this report. A self calibrating Delmhorst J-Lite probing moisture meter would be used for wood applications. The vessel was commissioned and hauled at some point during the survey for a complete inspection. Electrical systems checked: The vessel's (12-24) volt DC system was checked using the ship's batteries. Weather conditions for the survey were moderate temperatures and dry weather. A complete survey was possible. A sea trial was not performed as part of this survey.

1.11 Intended use: Sport and commercial fishing south coastal Florida. "Offshore" or "Near Coastal" which is defined by CFRs as not more than 200 miles offshore.

SURVEY REQUESTED BY

- 1.12 Client's name:** Chris Hegedus.
- 1.13 Client address:** 1655 Copenhaver Road Fort Pierce, FL 34945.
- 1.14 Cellular phone:** 772-882-5831.
- 1.15 Customer experience:** TMS does not have knowledge of this customer's level of experience.

VESSEL INFORMATION

- 1.16 Year /Make /Model:** 1998 Northern Bay 36.
- 1.17 Vessel name:** CHARLEY J.
- 1.18 Description:** Manufactured by: Hutchinson Composites 93 Killeran Lane, Cushing, ME 04563. Finished by: Cape Cod Marine 300 Great Western Road, South Dennis, MA 02660.

Description: This power vessel is of molded fiberglass (FRP) construction, with a Downeast style semi-displacement hull and full keel, and single- monohull. The hull primary color is: White. As designed, the hull has a soft chine at the turn of the bilge. Vessel has a conventional sheer and is of a typical New England style commercial fishing boat style. This vessel as equipped has offshore, blue water capabilities. The vessel's **LOA: 36', Beam: 13', Draft: 3' 6", and Displacement: Not listed.** (Dimensions as per broker/owner). **Hull Identification Number: DEB36025C898.** The Hull Identification No (HIN) is in agreement with the vessel's Documentation papers. This vessel is **Documented by the USCG and the number is: 1070207.** *The documentation paperwork was not sighted on vessel as required by law* however, the document# is appropriately and permanently affixed to the hull per USCG 33CFR Subpart I regulations. The documentation is in order based on the documentation sighted or researched from the internet. The vessel is documented as a **Commercial Fishing Vessel. The Documented hailing port is Harwichport, MA (Long Island, ME on transom)- Hailing port on transom must agree with documented hailing port per 46CFR67.119. RECOMMEND compliance with the law to avoid penalties.** Her Documented length is: **35.9' Breadth: 12.7' Depth: 6.0' Gross tons (GRT): 18 Net tons (NET): 14, and Date of Manufacture: 1998.**

1.19 NOTE: A well kept file with manuals for all or most of the ship's systems, propulsion and electronics is on board.

VESSEL CONDITION & VALUE

- 1.20 Cond. per BUC:** AVERAGE CONDITION This vessel is ready for commissioning or sale requiring TLC, little, or no additional work and normally equipped for her size.
- 1.21 Book values:** This model is not listed by BUC, ABOS or NADA- Book values are not available for reference.



1.22 Market value:

1.23 Explanation:

Market value: Boat \$130,000. Refer to Section 1.1 "Value reconciled"

Valued at \$130,000 using BUC ValuPro, ABOS, NADA, etc., and Soldboats.com among others as guides. Value reconciliation and methodology: Yachtworld currently lists 18 or so comparable vessels-(6 Northern Bay 36s), (in the US), asking \$110,000 (subject vessel) to \$250,000. Soldboats.com currently lists 8 comparable 1998-2001 Northern Bay 36 models that sold for \$110,000 to \$220,000 in the last year, (3 sold this season so far). Eliminating the unusually high and/or low values this calculates a mean market value as \$156,000. Given the age, setup, and condition (-15%) of this vessel, equipment offered and systems repairs needed (if any) to be fully operational, I contend this valuation is fair and is **also based upon correction of Type I and II Recommendations cited in this report.** Comparables used for this valuation are on file and available by request. (The Business Method of Appraisal was not used in this instance as this vessel is used for recreational purposes only. The Cost Method was not used as there were sufficient recent sales of this model to determine a Current Market Value using the Market Method of Appraisal). *This valuation also assumes engines and other untested systems etc. are in good /operable condition as represented.*

1.24 Replace cost:

1.25 NOTE:

\$325,000 per dealer.

The "MARKET VALUE" is the most probable price, in terms of money

- Buyer and seller are typically motivated.
- Both parties are well informed or well advised, and each acting in what they consider their own best interest.
- A reasonable time is allowed for exposure in the open market.
- Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and
- 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.

The overall vessel condition and value was established after a complete inspection of stated vessel, the results of which are included in this report of survey. The estimated fair market value and replacement cost includes all listed auxiliary equipment. See "Condition & Value Summary" section for additional details. Vessel was then compared to similar vessels for sale or sold, using all available resources including listed book values. Valuations are determined using 2008-2009 USPAP (Uniform Standards of Professional Appraisal Practice) standards for personal property in which the surveyor has been trained and tested by the ASA (American Society of Appraisers).

HULL INSPECTION

HULL Summary

2.1 Hull Construction

Construction methods and materials used: This vessel has a molded reinforced fiberglass (FRP) hull reinforced with an end grain balsa core and with a tabbed-in longitudinal and transverse framing system. **Keel:** A full, non ballasted keel is integral with the hull, **Below waterline machinery includes:** 1 prop shaft of 1-3/4", stainless steel stock, and apparently in good condition. No pitting, cracks or corrosion sighted. The shaft passes through a cutlass bearing mounted in the stern tube and is not supported by a strut. The cutlass bearing is in good condition with no excessive play or binding felt. No cracks or wear sighted and the prop turns easily and smoothly. **Propeller is:** Four blades- fixed pitch and made of nibral,



(nickel/ brass alloy). Prop is (RH) right hand rotation. Size: Diameter 26" and Pitch 30". **Rudder is:** Fully skeg supported design and made of stainless steel. Rudder is well secured. No abnormal horizontal or fore/aft movement. **The decks and house are constructed of:** Molded reinforced fiberglass (FRP) reinforced with a plywood core. and reinforced with an end grain balsa core. Mooring fittings include heavy duty well mounted bow cleat(s), cleats amidships on each sidedeck, and inboard cleats at the stern quarters with hawse holes. Strafe protection appears adequate. **The hull to deck joint:** An inward flange on the hull is well sealed and fastened to the deck with mechanical fasteners and an unknown adhesive bonding compound.

2.2 Integrity

This hull is a watertight compartment divided by non-watertight bulkheads. There is a self draining anchor locker in the forepeak. **Hatches**, doors, windows and port lights opening to exterior decks are apparently watertight types, meeting ABYC H-3.5.2 standards, except for the only weathertight, and cabin entrance door. **Enclosed accommodation spaces** each have a means of escape at least 14 1/2" by 18 1/2" meeting standards of ABYC H-3.4. **The cockpit** has 2 apparently functional and appropriate clearing ports.

2.3 Thru-hulls

Thru hull fittings: All sighted appear to be serviceable and properly installed at reinforced locations in the hull and include- flanged seacocks- through bolted and securely mounted to the vessel with and bronze ball valves. All hose fittings below water line are double clamped as recommended by ways of a prudent mariner. *A bag of emergency bungs was not sighted on board and recommended in the ways of a prudent mariner.*

2.4 Condition summary

Components of the hull and deck structure are built and installed to ABYC standards and appear serviceable but with exceptions noted.

HULL EXTERIOR

2.5 Hull cosmetics:



Same area stbd side as well.

Hull has been painted. Fair condition with some damage noted. Gelcoat is dull. Scratches, scuffs, in general showing its' age and service. 2 deep digs each side aft have been filled with caulk.

2.6 Bow:

Solid, no cracks visible on external inspection. Moisture readings are relatively dry.

2.7 Rub rail:

Black PVC rubrail. In good condition- well secured.

2.8 Transom:

Flat transom. Tuna door in transom. Door is solid, hinges tight, latch secure, opens and closes easily and tightly. Appears serviceable. Transom is well secured, no cracks or defects sighted. Moisture readings were relatively dry. No soft or delaminated areas revealed when tapped.

2.9 Moist./Delam.:

Moisture meter readings on topsides near the water line and surrounding thru hull fittings are relatively dry. Wetted surface wet from recent haul, but drying areas



showed moderate moisture readings. Percussion testing with a phenolic hammer on a 6" grid pattern reveals: What appears to be solid laminate. Moisture readings from inside the hull agreed with moderate moisture readings.

2.10 Condition summary: No evidence of damage or blistering. Wetted surface is clean, fair, and has last year's anti-fouling paint.

2.11 NOTE:



Prop and shaft were tangled with a polypropylene pot warp. It was removed, but an explanation as to vibration and inability to make wide open throttle.

ABOVE WATER LINE THRU-HULLS

- 2.12 -->STEM:** None.
- 2.13 -->HULL SIDES:** Bronze mushroom head fittings. Used for; Bilge /sump drains.
- 2.14 -->TRANSOM:** Hull pockets. Used for: Cockpit /deck drain(s), (with flapper valves). **Stbd clearing port flapper is missing.**

HULL BOTTOM

- 2.15 Bottom paint:** Wetted surface is clean and fair. Barnacles removed from the keel.
- 2.16 Grounding damage:** None noted.
- 2.17 Thru Hulls** All thru-hull fittings were adequately sealed and bonded to hull as sighted from exterior. Clear of debris.
- 2.18 Transducers** Transducers for depth are properly mounted, adequately sealed and bonded to the hull.
- 2.19 Grounding plate:** No grounding (electrical) plate.
- 2.20 Moist. /Delam.:** Moisture meter readings might not be reliable due to vessel bottom paint wet from recent haulout. Spot readings as areas dried revealed relatively dry laminate. Percussion hammer testing reveals no evidence of any delamination on hull bottom.

KEEL

- 2.21 Keel type:** Full molded keel.
- 2.22 Keel condition:** No damage or problems sighted, Externally the keel shows no evidence of damage. Tapping with the hammer produce solid sounds in all areas. Moisture readings are not elevated.

INBOARD PROP(S)

- 2.23 Prop manufacturer:** By HyTorq? (Difficult to read)
- 2.24 Diameter and pitch:** 26" X 30". Rotation is RH. (as stamped on prop hub)
- 2.25 Prop condition:** Prop is in good condition with no cracks, corrosion or bent, nicked or chipped blades. Turn smoothly and easily. *Small prop nut goes on first, then the large one. Install properly.*

RUDDER(S)



2.26 Condition:



Rudder appears to be in serviceable condition. Slight wear in strut bushing cup, but serviceable as is.

ANODES

- 2.27 General Good condition, very little wasting, zinc(s) remain serviceable.
- 2.28 Hull mounted: "Camp" anode securely mounted on transom.
- 2.29 Bonding: Hull anode is connected to vessel's bonding system.
- 2.30 Results No evidence of abnormal galvanic or stray current corrosion is evident on the underwater metals. Sacrificial anodes are wasting normally.

BELOW WATER LINE THRU-HULLS

- 2.31 ENGINE BILGE : Bronze seacock ball valve installed. Sea valve is accessible and functional. **Thru hull valve used for:** Engine raw water intake, **Sea valve is piped with:** Marine rubber covered reinforced hose. Hose connections are double clamped. **Sea strainer installed in the area for:** Engine raw water cooling. Sea strainer appear clear of debris.
- 2.32 AFT BILGE : Bronze seacock ball valve installed. Valve is functional and accessible. **Thru hull valve used for:** Deck wash down inlet. **Sea valve is piped with:** Marine rubber covered reinforced hose. Hose connections are double clamped.
- 2.33 HEAD/FWD BILGE: Bronze seacock ball valve installed. Sea valve is accessible and functional. **Thru hull valve used for:** Waste holding tank discharge. **Sea valve is piped with:** White sanitation hose. Hose connections are double clamped.

HULL INTERIOR

- 2.34 Hull /Deck Joint: No leaks sighted thru hull to deck joint area. Joint appears secure where sighted.
- 2.35 Bilge(s): **Bilge has quite a bit of floating oil. Normal bilge pump operation could discharge oil overboard in violation of 33CFR Part 155 resulting in pollution and heavy penalties. RECOMMEND: Repair oil leaks and remove oil from bilge carefully with regards to environmental pollution.**
- 2.36 Stringers: Hull stiffness provided by FRP (unknown core or no core) longitudinal stringers that run the length of the vessel. Complete inspection not possible due to limited access. Stringers are sighted in the engine compartment and under cabin sole and are well glassed into hull where sighted. Stringers were sounded with hammer where accessible and appear very sound. No soft spots, separation, cracks rotting or splitting sighted. Limber holes appear to be adequately sealed where sighted. Stringers checked with moisture meter where accessible and all readings are relatively dry.
- 2.37 Trnsvrse members: Inspected where accessible and found to be dry and solid.
- 2.38 Bulkheads: Athwartships reinforcement enhanced by structural bulkheads bonded to the hull



- with FRP (fiber reinforced plastic). All tabbing appears serviceable and sound with no cracks or separation of tabbing sighted in any compartments. No visual evidence of movement sighted in any bulkhead.
- 2.39 Stem:** Solid stem, no cracks, damage, or separation sighted inside or out.
- 2.40 Inside of transom:** Reinforced. Secure-no cracks or separation sighted where visible.
- 2.41 Condition summary:** Unless otherwise noted the hull system and related fittings meet ABYC standards and appear serviceable.

TOP DECK & SUPERSTRUCTURE

DECK Summary

- 3.1 Ground tackle** Anchor is: One Danforth or danforth style. A chain leader to 3 strand nylon line, (unknown length). *There is no secondary or backup anchor and rode as recommended in the ways of a prudent mariner.*
- 3.2 Safety holds** Grab rails are well mounted to the weatherdeck structures bridge deck and helm, on the house, on the foredeck, in the cabin, and for the companionway.
- 3.3 Ladders and stairs** Below decks and companionway stairs are well mounted and sturdy with provided handholds and non-skid treads. Built in ladder back side of tuna tower to access upper helm etc.
- 3.4 Miscellaneous** The windshield or windscreen is of a typical marine style and quality utilizing safety glass or lexan of a sufficient thickness, gaskets are in good condition, the framework is solid and well mounted. The field of vision from the helm is unobstructed apparently meeting standards of ABYC H-1.5 to 1.8.
- 3.5 Condition summary** Components of the top deck and/or superstructure system are built and installed to ABYC standards appear serviceable but with exceptions noted.

MAIN DECK & FITTINGS

- 3.6 Const. material:** Molded FRP with a balsa core sandwich construction.
- 3.7 Deck Surface:** White non-skid paint applied to gelcoat.



3.8 Moist /Delam:



Higher than normal moisture readings found in deck surface(s) as follows: Scattered small areas of high moisture and dull sounding in the side decks, and cockpit sole. Larger foredeck area forward of the cuddy raised roof and surrounding hatch covers in the cockpit sole. House roof at the ladder from the cockpit. **These areas should be addressed by a fiberglass/deck expert to determine whether repairs, if any, are necessary. RECOMMENDATION: At a minimum, all deck mounted hardware in the areas mentioned should be removed, bedded and remounted properly to prevent further moisture penetration into deck core material.**

3.9 Windshield:

4 sections windshield with 2 side sections built into house. Rubber gaskets in tact. No leaks evident. Windshield wiper is installed pilot side only. **Not OK. The following problems are noted: Repair wiper as necessary to restore serviceability.**

3.10 Window(s):



Fixed windows in cabin structure. Large removable glass door stbd side of house. **(Note in photo- wet and soft area under my hammer)**

3.11 Port(s) /port light(s):

By Beckson. Opening portlights in coach roof structure. Opening portlights include screens. Latches and hardware in place. Portlights open easily and appear



3.12 Deck Hatches:

serviceable.

Bowmar opening hatch-aluminum frame. Hatch is well secured, seals in good condition, support arm(s) in place. Hatch(es) over accommodation area(s) is/are large enough for emergency egress. Meets ABYC standards.

3.13 Ventilation:

Opening deck hatches.

3.14 Joinery stress:

None noted.

3.15 Cabin to deck joint:

Molded in -- no stress cracks noted.

3.16 Chocks and cleats:

All are well sealed and secure. Chafe protection provided by properly place chocks or metal chafe strakes.

3.17 Deck box:

Large insulated fish box in cockpit.

3.18 Condition summary:

Unless otherwise noted, deck system and related fittings meet ABYC standards and appear serviceable.

GROUND TACKLE

3.19 Anchor locker:

In the forepeak, with access from the V-berth. For anchor rode only. Clean and dry. Drains to bilge.

BRIDGE DECK / COCKPIT

3.20 Cockpit /Helm:

Helm is in the bridge and on the flybridge.

3.21 Top /superstructure:

Molded FRP superstructure. Appears well mounted and serviceable- no cracks sighted in the welded joints.

3.22 Sole:

Painted FRP and rubber carpet pads.

3.23 Cockpit Equipment:

Cockpit flood lights installed, power up and appear serviceable. Washdown is serviceable.

3.24 Door(s):

Double wood doors. Door has a locking device.

3.25 Storage:

Two side cockpit storage lockers in sole.

3.26 Engine hatch(es):

Three large access hatches in bridge sole.

3.27 Condition summary:

Unless otherwise noted, appears serviceable and built to ABYC standards.

FISHING EQUIPMENT

FISHING GEAR

4.1 Fish box(s)

Large insulated fish box on the cockpit sole.

4.2 Rod holders:

There are thru-deck holders mounted on side decks /transom.

4.3 Lure storage:

There is a tackle station with several drawers provided.

4.4 Tuna tower:

Welded aluminum with upper helm. Appears solid structure but the plywood helm and floor need to be rebuilt.

4.5 Tuna pulpit:

Available- not sighted. Mounts are installed.



4.6 Washdown system:



There is a raw water washdown system provided. The washdown system is operational.

CABIN INTERIOR APPOINTMENTS

CABIN Summary

- 5.1 Heat and AC: Neither heat nor AC systems installed on this vessel.
- 5.2 Galley: No galley on this vessel.
- 5.3 Accommodations: There are sleeping facilities for (2) persons located in the V-berth. The enclosed head has: A basin, with hot and cold pressurized fresh water, a flushing marine toilet, and a separate stand/sit shower stall.
- 5.4 Entertainment: No entertainment devices on board.
- 5.5 Condition summary: Components of the cabin system are built and installed to ABYC standards and appear serviceable.

MAIN SALOON

- 5.6 Style: Cuddy style, with head.
- 5.7 Headliner: No headliner material. Underside of cabin roof is gelcoated or painted.
- 5.8 Doors: Open and close easily and latch properly.
- 5.9 Water intrusion: **Moisture dripping from underside of forepeak onto the v-berth. RECOMMEND: Trace source and seal off all water intrusion points to prevent further damage.**
- 5.10 Fabric & cushions: **Matching fabric covered cushions V-berth are damp.**
- 5.11 Light fixtures: 12 volt white/red cabin lights throughout the vessel. Lamps power up and appear serviceable.
- 5.12 Storage: Storage under and back of seats.
- 5.13 Condition: Interior is generally in good condition.

GALLEY

- 5.14 Microwave: Unit powers up and appears serviceable.

HEAD(S)

- 5.15 Toilet(s): Hand operated manual flush pump. Toilet and flush appears serviceable.
- 5.16 Toilet raw water: Raw water intake thru bronze seacock. Hose is secure with clamp.
- 5.17 Sink: Stainless steel basin. Water source is from pressurized system. Appears serviceable. Supplied with hot and cold water.
- 5.18 Shower(s): Stand up or sit down shower stall.
- 5.19 Shower pump: Located in sump tank with auto float.
- 5.20 NOTE: The head is clean and odor free. As new condition.



STEERING SYSTEM

STEERING Summary

- 6.1 System** The vessel has a hydraulic steering system without power assist and wheel controlled. Steering is accomplished through SS rudder(s)
- 6.2 Condition summary** Components of the steering system are built and installed to ABYC standards and appear serviceable.

STEERING SYSTEM

- 6.3 Steering location(s):** There is one helm and it is at the bridge. There is a helm on the tower.
- 6.4 Type:** Hydraulic system, with ram attached to a quadrant(s) on the rudder stock.
- 6.5 Manufacturer:** Robertson with autopilot system.
- 6.6 Lines and fittings:**



Flexible hydraulic lines from steering head to ram(s). No leaks sighted. **Hydraulic hose crimp fittings at the rudder ram are badly corroded. Recommend replacement.**

- 6.7 Rudder stock(s):** Stock appears visually sound.
- 6.8 Packing gland(s):**



Packing gland shows evidence of water leakage. **RECOMMENDATION: Service packing gland to prevent any water intrusion. Monitor often and adjust as necessary.**

PROPULSION SYSTEM

PROPULSION Summary



7.1 Propulsion:



The vessel is propelled by a single engine, diesel fueled 6 cylinders inline, and turbocharged. Inboard(s) system installation manufactured by: **Volvo Penta**, **Engine year:** 1998? and **Model:** TAMD73EDC. **Producing:** Rated @2600 RPM.. **Serial #2071098338*98336. Hours: Approx 4000.** (Hours read from onboard instruments).

7.2 Controls:

Manual type, with individual levers for each engine throttle and reverse gear, On this vessel are two control stations located at, the bridge deck helm, and a helm on the tuna/marlin tower.

7.3 Exhaust:

The wet exhaust system is constructed of: Reinforced rubber hose, FRP pipe, and FRP muffler. Exhaust piping is double clamped at all connections and exits through the transom.

7.4 Shafting:

There is one, stainless steel 1 3/4" diameter prop shaft, passing through water cooled dripless teflon seal shaft glands attached to the shaft tube with a double-clamped reinforced accordion hose. The shaft is supported by a water lubricated rubber sleeve cutlass bearing mounted in a stern tube exiting the keel.

7.5 Alarms

There are alarms for: Low oil pressure and high coolant temperature. The alarms are: Audible, visual, and appear to be operating satisfactorily when the engine(s) started. Backed up with gauges for tachometer, oil pressure, coolant temperature, and DC voltage.

7.6 Ventilation

Ventilation of the machinery space is appropriate for this vessel and operational and is comprised of natural ventilation ducted to appropriate areas for each of the engines.

7.7 Condition summary

Components of the propulsion system are built and installed to ABYC standards and appear serviceable with exceptions noted below.

MAIN ENGINE(S)

7.8 Engine(s) hours:

Difficult to read LED on tachometer. Approx. 4000 hours.

7.9 Hoses and clamps:

Clamps appropriate and in good condition. Hoses original but not soft or cracked.

7.10 Belts and pulleys:

Serpentine belt appears serviceable. No cracks or splits sighted. Pulleys/belts appear to be in line.

7.11 Cooling system(s):

Fresh water / raw water heat exchanger cooled. Raw water strainer(s) installed. Coolant is full. **No record of the water pump impeller having been replaced. Recommend water pump service now and henceforth as recommended by the manufacturer.**

7.12 Oil level:

Oil appears dirty and full. RECOMMENDATION: Change crankcase oil and filter(s) if applicable. *An oil sample was drawn from each/the engine for independent lab analysis. Engine(s) operated for at least 20 minutes and/or until coolant reached 140 degrees. Sample was carefully and cleanly aspirated from the sump via the dipstick opening. Care was taken to avoid contamination. Results to be emailed separately. Surveyor supports the recommendations of the*



spectrographic analysis report from the HO Penn laboratory- if any- and does not comment separately.

- 7.13 Fuel pump(s): Engine mounted mechanical or vacuum operated.
- 7.14 Fuel supply lines: USCG type A1 or A2. *If original, the fuel lines have passed their recommended service age (5 years gasoline, 10 years diesel) and should be replaced.*
- 7.15 Fuel shutoff: Not sighted.
- 7.16 Oil filter(s): Spin-on cartridge style. Remote mounting enabling easy access.
- 7.17 Air filter(s): Clean and serviceable.
- 7.18 Fuel filter(s): Remote mounted separator/filter.
- 7.19 Drip pad available: No, Fluids and debris fall into bilge area. Oil is sighted in bilge. **33 CFR Sec. 155.330 violation. Vessels must have ability to retain oily slop. RECOMMEND: Clean oil from bilge, repair oil leak, place pads or "sock" in bilge under engine(s). Discharge of oil with bilge water carries severe penalties.**
- 7.20 Engine mounts: Engine mounts appear to be well secured to the support stringers.
- 7.21 Engine ground: Engine is properly grounded with a proper size conductor cable.
- 7.22 Engine space: Compartment is large enough or accessible enough to properly maintain installed machinery. Ventilation is acceptable and to ABYC and CFR regulations. **There is no fire extinguishing access port installed to the engine space. Hatches would have to be opened to fight fires which is dangerous. RECOMMEND install a fire fighting access port per ABYC A-4.5.2.1 and NFPA 302 or a fixed auto fire extinguishing system inside the engine space.**
- 7.23 Last overhaul: No overhaul, engine is original.
- 7.24 Engine(s) operated: Engine started while in berth. Allowed to run long enough to assure operation of gauges etc. No problems noted, started quickly, minimal or no smoking, ran smoothly, no leaks sighted, transmission quickly shifted in and out of gear. No shaft creep noted.
- 7.25 Condition summary: *An accurate and dependable condition statement cannot be made without starting the engine(s) and conducting a sea trial, analyzing an oil sample and/or conducting a full engine survey, (which can only be done by a certified diesel or gasoline engine technician which this surveyor is not). Engine(s) installed to ABYC standards and appear serviceable.*
- 7.26 NOTE: *Engine is showing its' age with external corrosion and multiple oil leaks. Dipsticks are missing their handles.*

DRIVETRAIN

- 7.27 Transmission: ZF Marine Model #280 reverse gear with trolling valve and with a raw water heat exchanger.
- 7.28 Stern tube(s): Water cooled dripless teflon shaft seal system. Appears serviceable.
- 7.29 Condition summary: Shifts smoothly and easily at rest. *No problems noted, but statement of serviceability cannot be made without a sea trial.*

EXHAUST SYSTEM

- 7.30 Discharge: Through the transom.



7.31 Piping /Clamps:



Piping: mix of fiberglass and flex hose. Securely double clamped as required. **The flex exhaust hose is showing signs of age cracking and has been split to accommodate a larger diameter pipe. Although the hose appears to remain serviceable it cannot be determined when the hose will fracture through. RECOMMEND: Properly replace all**

cracked or aged engine exhaust hose.

7.32 Exhaust manifold:



Appears to be cracked. Exhaust leak evident. Repair as needed.

ENGINE INSTRUMENTS AND CONTROLS

7.33 Blowers:

Passive ducted ventilation with cowls.

7.34 Alarm /Shutdown:

Available as part of Volvo Penta gauge package. "Idiot light(s)". Audible alarm.

7.35 Gauge cluster:

Gauges include: Tachometer, engine temperature, engine oil pressure, DC voltmeter, and engine hour meter. LED monitor(s) each engine as installed is/are part of a; Volvo Penta gauge package.

NAVIGATION ELECTRONICS

NAVIGATION EQUIPMENT Full and Summary

8.1 Navigation station:

All navigational instruments are at the bridge helm.



8.2 Compass(es):



Ritchie. Powerdamp. and with a 4" card. Lighted and shaded. Located on the helm dash. The compass appears functional. **There is a Suunto compass on the tower with a large air bubble. Repair or replace.**

8.3 VHF radio(s):



Standard Horizon, *This VHF radio has a NMMEA interface and is DSC capable- register the vessel and owner with the USCG. Go to <http://www.boatus.com/MMSI/> to obtain a MMSI number- it's free. A wired RAM is at the helm. Radio powers up.*

8.4 Autopilot(s):



Robertson, AP-35 system, Unit powers up and appears serviceable.



8.5 Depth sounder(s):



Furuno FCV582L, color sonar fish finder. Instrument powers up.

8.6 Speed /log:

See multi-function.

8.7 Chart plotter(s):

See multi-function system.

8.8 Multi-function:



Garmin multi functional-used as a chart plotter.

8.9 Radar:



Garmin GPSmap 4210 multi-functional. The radar powers up.

8.10 Antenna(s):

There are antennae for: VHF, Radar, and (closed array)

8.11 AIS system

System capable. Recommended.

8.12 Condition summary:

Vessel is well equipped for its' intended service.



ELECTRICAL SYSTEMS

ELECTRICAL SYSTEMS Summary

9.1 House Batteries:

There is one Interstate, 12 volt, wet cell lead acid, and 8D size. Passed Cold Crank Amp test.

9.2 Starting batteries:



There is one Interstate, 12 volt, wet cell lead acid, and 8D size. Passed Cold Crank Amp test.

9.3 Battery installation:

Batteries are secured: In trays. Problems are noted with the battery installation to comply with ABYC E-10 and 33CFR Sec. 183.420. Refer below.

9.4 DC system:

There are on / off switches for each battery bank. They are appropriate, accessible and functional. Panels and meters are marine appropriate and appear functional. Overcurrent protection is installed on each branch of the DC system. The DC electrical system utilizes appropriate marine grade UL approved wire, properly bundled and supported wherever sighted. Battery charging via engine alternator. Problems noted with the DC system are noted. Refer below.

9.5 AC system:

No AC system on this vessel. An inverter is installed for plug-in AC appliances.

9.6 Bonding /galvanics

The vessel is partially, but satisfactorily bonded.

9.7 Condition summary

Components of the ship's electrical system are mostly built and installed to ABYC standards and appear serviceable but with exceptions noted below.

SHIP'S BATTERIES

9.8 Storage:

Battery(s) are not properly secured. Code of Federal Regulations CFR33.183.420 mandates that batteries be well secured, (including vertical), from movement of no more than 1" in any direction with a pull force of 90 lbs or 2 times the battery weight. Recommend compliance with CFR and secure batteries as required by law. Battery terminals are not protected as required. Code of Federal Regulations - CFR33.183.420 mandates that ALL non-grounded battery (+) and DC circuit terminals be protected against accidental shorting by the use of insulation barriers or sleeves or compliant battery boxes with covers. Recommend compliance with CFR and insulate all non-grounded battery and DC terminals.

D.C. ELECTRICAL SYSTEMS

9.9 Cables /wiring:

(For vessels built or reconfigured after 8/1/1985) A primary circuit breaker is not installed within limits defined by 33CFR Sec. 183.460. (Preferably at the battery terminal or within 7". If the wire is sheathed, then within 72"). RECOMMEND: Compliance with the law and install primary breaker as required.

9.10 Battery monitor:

Voltmeter/ammeter part of the OEM propulsion gauge cluster.

9.11 DC panel:

Yes, located in the cuddy cabin. Each branch switch is clearly labeled as to



9.12 Breaker /fuse:

purpose.

All D.C. circuits are adequately protected by switches that are properly fused.

9.13 Condition summary:

Aside from deficiencies noted, the DC system on this vessel is built to ABYC standards and appears serviceable.

INVERTER/CONVERTER

9.14 Units onboard:

(1)

9.15 Type:

12 VDC to 120 VAC Inverter. AC output is modified sine wave.

9.16 Manufacturer:

Tripp Lite Model PV2000FC.

9.17 Input (DCV/AMP):

12 VDC and 192 amperes max.

9.18 Output rating:

120 VAC, 60 HZ, 2000 Watts.

9.19 Installation:

There is an inverter installed for using AC 120 VAC appliances. The boat is not wired for shore power nor generator, and appliances are plugged into the unit directly. The unit is apparently being exposed to salt water as corrosion is evident. **The following problems were noted concerning the inverter installation: Inverter is not installed to ABYC A-27 standards. It is not in a dry location. The cabinet is not grounded or not attached to vessel's bonding system. Unit does not provide GFCI protection.**

9.20 Location:

On shelf in cuddy. Exposed.

9.21 Condition summary:

The inverter and/ or its installation does not meet ABYC A-31 standards and violates 33 CFR Part 183 Subpart I. Electrocution and fire hazard exists-repair installation or remove from the boat.

TANKAGE

TANKAGE Summary

10.1 Marine Sanitation

A manual pump flush toilet is connected to: A Type IIIB MSD system, that apparently meets 33CFR159 requirements as long as the seacock or Y-valve is locked closed while in protected waters. Poly plastic holding tank with a capacity known to be unknown gallons.

10.2 Water Heater

Raritan 6 gallon water heater with a 120 VAC element and with an engine coolant heat exchanger. Includes a 75 psi relief valve, drain spigot, and is built and installed to ABYC standards and CFR requirements.

10.3 Fuel Tanks

There are 2 fuel tank(s) made from FRP (integral) with a capacity of 225 gallons each. System is built and installed to ABYC standards and CFR requirements. Tanks are not labeled as they were built-in by Cape Cod Marine. Builder states he pressure tested as required. No smell of diesel noted. **Cockpit sole access hatches for the fuel tank reveal obvious leaking from the deck onto the top of the fuel tank. Balsa core surrounding the hatches is rotted. All care should be taken to keep these hatches watertight. Replace hatches after repairing surrounding deck.**

10.4 LPG/CNG System

There is no LP or CN gas system on this vessel.

10.5 Water Tanks

Fresh non-potable water storage tank is made of, poly-plastic material, and has a total capacity known to be 30 gallons per listing. Piping throughout the vessel is via reinforced hose. Water is pumped by a system's pressure regulated 12 VDC pump. System is installed and maintained to ABYC H-23 standards. Appears to be serviceable. There is no city water inlet to the vessel.

10.6 Condition summary

Components of the ship's tankage and related components systems are built and installed to ABYC standards and appear serviceable.

FUEL TANK(S)

10.7 Tank(s) location(s):

Installed beneath the cockpit sole.



10.8 Access:

Access to tank(s) and fuel system meets standards of ABYC H-24 and 33CFR Sec. 183.554. *Note: This vessel's manufacturer made no provisions for maintenance or replacement of the fuel tank(s) as recommended by ABYC H-33.10.4.1. Replacement or repair will involve destructive methods.*

10.9 Tank(s) condition:

No diesel odor detected. Tops of tanks are wet from leaking deck hatches.

10.10 Fuel fills located:

The fuel fill is directly on the tank(s) port and starboardside.

SAFETY EQUIPMENT

DEWATERING PUMPS

11.1 Forward bilge:

There is one small pump by Rule. Powered by 12 VDC, It is a centrifugal style pump, Manual override at the helm operational- no float switch. **High water alarm is not functional. RECOMMENDATION: ABYC H-22.7.3 (A recent safety standard)- For vessels with enclosed accommodation spaces, install at least one high bilge water alarm float switch above the normal accumulation of bilge water and test periodically to ensure it is functioning properly and test periodically to ensure it is functioning properly.**

11.2 Engine compart.:

There is one pump, by Rulemate, and powered by 12 VDC, It is a centrifugal style pump with an automatic built in float switch or sensor. *Float switch not tested. The internal float, sensor or switch could not be accessed. Monitor pump for proper operation.* Manual override at the helm operational.

U.S.C.G. REQUIRED

11.3 Required equipment:

Be aware that State and Local regulations concerning mandatory safety equipment might differ from the Federal regulations enforced by the Coast Guard. They are usually more specific and comprehensive than the Federal regulations. For instance in Massachusetts; ALL power boats must carry an anchor and line, boats longer than 26' must have a bell in addition to the horn or whistle, toilet waste cannot be discharged in any inshore State waters except a small area in Nantucket Sound and the ferry channel between Woods Hole and Martha's Vineyard, etc. These are examples and not conclusive. As you know, "Ignorance of the law is not excuse". When you register your boat, you will be given a copy of the State Regulations. Take a few minute to read the booklet and make sure when you are boarded by Local, State, or Federal Authorities your boat will be compliant. That said, the following is to meet USCG CFR 33 and 46 regulations only. **Safety notice:** Please read this important notice of a recall for some fire extinguishers with plastic valves made by Kidde. Go to: <http://marinesurvey.us8.list-manage2.com/track/click?u=be99d3cfe0e55e99f3413d7e8&id=0b03df0333&e=dc9600d0ec>. **Visual and pyrotechnic signals: Visual or pyrotechnic emergency signal devices not included with sale- must provide. Navigation lights: The following navigation lights are either not appropriate and/nor operational: and** by definition: A vessel at anchor shall exhibit an all-around **white anchor light** visible for 2 nautical miles where it can be best seen. **There is no anchor light installed. Sound devices: No sound devices on board this vessel. RECOMMENDATION: Recommend an approved marine sound device; horn, whistle or bell, be made readily available to comply with USCG regulations. USCG Placards:** Both USCG 33CFR 151 mandated placards (Oil & Garbage) are properly posted. **PFDs and Life Jackets:** PFDs are not included in the sale of this vessel. **This vessel must be properly equipped with PFDs per USCG Required Equipment chart before leaving dock.** (There are 4 survival suits onboard?). **Coast Guard approved Type IV (Throwable):** There is/are: No throwable flotation device sighted on board. **33 CFR 46 sec 25.25-5d states all



vessels >26' must carry an approved throwable flotation device: life ring, buoy, cushion. And it must be readily accessible at all times. Fire Fighting Equipment: This vessel's fire extinguishing equipment is surveyed to the mandatory requirements promulgated by the USCG as outlined in 46CFR Chapter I Subchapter C Part 25.30, also ABYC A-4 and NFPA 12, 12A, 12B and 2001 and as this gasoline powered vessel is between 26' and 40' it is required to have at least (2 total) USCG Type B fire extinguishers mounted outside engine compartment, at the steering position and galley or passenger compartment. **No fire fighting equipment sighted. This vessel by law must be equipped with required fire extinguishing equipment per USCG 46CFR.**

AUXILIARY SAFETY EQUIPMENT

11.4 Recommended

The following safety equipment is strongly recommended in the ways of a prudent mariner: **First aid kit:** *No first aid kit sighted. Highly recommended.* **Smoke detector:** None sighted. **RECOMMENDATION:** NFPA 12.3 Smoke Detection - All vessels 26 ft (8m) 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 installed and maintained according to the manufacturer's instructions. Recommend compliance with NFPA 302 and install a smoke detector in EACH enclosed sleeping space. **CO detector:** A carbon monoxide fume detector was not sighted but is/are highly recommended by NFPA for all gasoline powered vessels of any age with enclosed sleeping space(s) especially if a genset is installed or non-vented flame producing heating and/or cooking devices. Internal battery combination smoke and CO alarms are readily available. This is an ABYC Standard A-24 for all vessels constructed after July 31, 2008. **RECOMMEND compliance with ABYC A-24 and NFPA 302. Install a CO or SMOKE/CO detector alarm in EACH enclosed cabin including enclosed helms.** **Radar deflector:** *No radar deflection equipment sighted. Highly recommended.* **Deck lighting available:** Aftdeck or cockpit floodlight(s) installed- and apparently operational. **Search light:** *No searchlight, highly recommended.* **Life raft or pod:** Viking in hydro release container on the cabin roof. *Certification has expired -- have life raft and hydro-release mechanism currently certified.* **EPIRB:** There are (2) 406 MHz EPIRBs on board that appear serviceable. Deck mounted with a hydro release mechanism and inside the house. Both pass self test. **Man overboard:** *No, design MOB (Man Over Board) system and provide necessary equipment. Drill with all hands.* Deficiencies: **USCG required safety equipment deficiencies on this vessel must be amended before putting to sea. Refer to Safety Equipment section for specific deficiencies, then refer to the USCG Safety Equipment Chart following this section to properly equip this vessel.**



RECOMMENDATIONS:

PRIORITY I - SAFETY & REGULATORY RECOMMENDATIONS: (MAY BE MANDATORY)

GENERAL SURVEY INFORMATION

VESSEL INFORMATION

1.18 Description:

1. Hailing port on transom must agree with documented hailing port per 46CFR67.119. RECOMMEND compliance with the law to avoid penalties.

HULL INSPECTION

HULL INTERIOR

2.35 Bilge(s):

2. Bilge has quite a bit of floating oil.

PROPULSION SYSTEM

MAIN ENGINE(S)

7.19 Drip pad available:

3. Clean oil from bilge, repair oil leak, place pads or "sock" in bilge under engine(s).

EXHAUST SYSTEM

7.31 Piping /Clamps:

4. Properly replace all cracked or aged engine exhaust hose.

7.32 Exhaust manifold:

5. Appears to be cracked. Exhaust leak evident. Repair as needed.

ELECTRICAL SYSTEMS

SHIP'S BATTERIES

9.8 Storage:

6. Recommend compliance with CFR and secure batteries as required by law. Recommend compliance with CFR and insulate all non-grounded battery and DC terminals.

D.C. ELECTRICAL SYSTEMS

9.9 Cables /wiring:

7. RECOMMEND: Compliance with the law and install primary breaker as required.

INVERTER/CONVERTER

9.21 Condition summary:

9. The inverter and/ or its installation does not meet ABYC A-31 standards and violates 33 CFR Part 183 Subpart I. Electrocution and fire hazard exists- repair installation or remove from the boat.

SAFETY EQUIPMENT

U.S.C.G. REQUIRED

11.3 Required equipment:

10. Visual or pyrotechnic emergency signal devices not included with sale- must provide. There is no anchor light installed. Recommend an approved marine sound device; horn, whistle or bell. This vessel must be properly equipped with PFDs per USCG Required Equipment chart before leaving dock. 33 CFR 46 sec 25.25-5d states all vessels >26' must carry an approved throwable flotation device: life ring, buoy, cushion. And it must be readily accessible at all times. No fire fighting equipment sighted. This vessel by law must be equipped with required fire extinguishing equipment per USCG 46CFR.

AUXILIARY SAFETY EQUIPMENT

11.4 Recommended

11. RECOMMEND compliance with ABYC A-24 and NFPA 302. Install a CO or SMOKE/CO detector alarm in EACH enclosed cabin USCG required safety equipment deficiencies on this vessel must be amended before putting to sea. Refer to Safety Equipment section for specific deficiencies, then refer to the USCG Safety Equipment Chart following this section to properly equip this vessel.



PRIORITY II - MAINTENANCE & STANDARDS RELATED: (NOT NORMALLY MANDATORY)

HULL INSPECTION

ABOVE WATER LINE THRU-HULLS

2.14 -->TRANSOM:

- 1. Stbd clearing port flapper is missing.

TOP DECK & SUPERSTRUCTURE

MAIN DECK & FITTINGS

3.8 Moist /Delam:

- 2. These areas should be addressed by a fiberglass/deck expert to determine whether repairs, if any, are necessary- see report.

3.9 Windshield:

- 3. Repair wiper as necessary to restore serviceability.

CABIN INTERIOR APPOINTMENTS

MAIN SALOON

5.9 Water intrusion:

- 4. Moisture dripping from underside of forepeak onto the v-berth.

STEERING SYSTEM

STEERING SYSTEM

6.6 Lines and fittings:

- 5. Hydraulic hose crimp fittings at the rudder ram are badly corroded. Recommend replacement.

6.8 Packing gland(s):

- 6. Service rudder stock packing gland to prevent any water intrusion.

PROPULSION SYSTEM

MAIN ENGINE(S)

7.11 Cooling system(s):

- 7. . Recommend engine raw water pump service now and henceforth as recommended by the manufacturer.

7.12 Oil level:

- 8. RECOMMENDATION: Change crankcase oil and filter(s) if applicable.

7.22 Engine space:

- 9. RECOMMEND install a fire fighting access port per ABYC A-4.5.2.1 and NFPA 302 or a fixed auto fire extinguishing system inside the engine space.

NAVIGATION ELECTRONICS

NAVIGATION EQUIPMENT Full and Summary

8.2 Compass(es):

- 10. There is a Suunto compass on the tower with a large air bubble. Repair or replace.

OTHER RECOMMENDATIONS: (SUGGESTIONS IN THE WAYS OF A PRUDENT MARINER)

GENERAL SURVEY INFORMATION

VESSEL INFORMATION

1.18 Description:

- 1. The documentation paperwork was not sighted on vessel as required by law.

HULL INSPECTION

HULL EXTERIOR

2.11 NOTE:

- 2. Prop and shaft were tangled with a polypropylene pot warp. It was removed, but an explanation as to vibration and inability to make wide open throttle.

TOP DECK & SUPERSTRUCTURE

DECK Summary

3.1 Ground tackle

- 3. There is no secondary or backup anchor and rode as recommended in the ways of a prudent mariner.



MAIN DECK & FITTINGS

3.10 *Window(s):*

4. (Note in photo- wet and soft area under my hammer)

CABIN INTERIOR APPOINTMENTS

MAIN SALOON

5.10 *Fabric & cushions:*

5. Matching fabric covered cushions V-berth are damp.

PROPULSION SYSTEM

MAIN ENGINE(S)

7.14 *Fuel supply lines:*

6. If original, the fuel lines have passed their recommended service age (5 years gasoline, 10 years diesel) and should be replaced.

7.26 *NOTE:*

7. Engine is showing its' age with external corrosion and multiple oil leaks. Dipsticks are missing their handles.

TANKAGE

TANKAGE Summary

10.3 *Fuel Tanks*

8. Cockpit sole access hatches for the fuel tank reveal obvious leaking from the deck onto the top of the fuel tank. Balsa core surrounding the hatches is rotted. All care should be taken to keep these hatches watertight. Replace hatches after repairing surrounding deck.

SAFETY EQUIPMENT

DEWATERING PUMPS

11.1 *Forward bilge:*

9. High water alarm is not functional.




AUXILIARY SAFETY EQUIPMENT

11.4 *Recommended*

10. No first aid kit sighted. Highly recommended. No radar deflection equipment sighted. Highly recommended. No searchlight, highly recommended. Certification has expired -- have life raft and hydro-release mechanism currently certified. No, design MOB (Man Over Board) system and provide necessary equipment. Drill with all hands.



**US COAST GUARD
Enforced minimum safety equipment requirements**

U. S. COAST GUARD MINIMUM REQUIREMENTS FOR RECREATIONAL VESSELS				
EQUIPMENT	CLASS A Less than 16ft/4.9m	CLASS 1 16 to less than 26 ft/7.9m	CLASS 2 26 to less than 40 ft/12.2m	CLASS 3 40 to not more than 65 ft/19.8m
 Personal Flotation Devices (PFDs)	One approved Type I, II, III or V (must be worn) PFD for each person on board or being towed on water skis, tubes, etc.	One approved Type I, II or III PFD for each person on board or being towed on water skis, etc.; and one throwable Type IV device. (A type V PFD may be used in lieu of any wearable PFD, if approved for the activity in which it is being used. A TYPE V HYBRID MUST be worn to be legal.)		
Check state laws for PFD requirements for children and certain water craft & sports.				
Bell,  Whistle	Every vessel less than 39.4 ft (12 meters) in length must carry an efficient sound producing device.	Every vessel 39.4 ft (12 meters) or larger in length must carry a whistle and a bell. The whistle must be audible for 1/2 nautical mile. The mouth of the bell must be at least 7.87 inches (200mm) in diameter.		
Visual Distress Signals (Coastal Waters, the Great Lakes & US owned boats on the high seas)	Required to carry approved visual distress signals for night-time use.	Must carry approved visual distress signals for both daytime and night-time use.		
 Fire Extinguisher (Must be Coast Guard approved)	One B-I type approved hand portable fire extinguisher. (Not required on outboard motorboats less than 26 ft in length if the construction of the motorboat is such that it does not permit the entrapment of explosive or flammable gases or vapors and if fuel tanks are not permanently installed.)	Two B-I type OR one B-II type approved portable fire extinguishers.	Three B-I type OR one B-I type PLUS one B-II type approved portable fire extinguishers.	
When a fixed fire extinguishing system is installed in machinery spaces it will replace one B-I portable fire extinguisher.				
Ventilation (Boats built on or after 8/1/80)	At least two ventilation ducts capable of efficiently ventilating every closed compartment that contains a gasoline engine and/or tank, except those having permanently installed tanks which vent outside of the boat and which contain no unprotected electrical devices. Engine compartments containing a gasoline engine with a cranking motor are additionally required to contain power operated exhaust blowers which can be controlled from the instrument panel.			
Ventilation (Boats built before 8/1/80)	At least two ventilation ducts fitted with cowls (or their equivalent) for the purpose of efficiently and properly ventilating the bilges of every closed engine and fuel tank compartment using gasoline as fuel or other fuels having a flashpoint of 110 degrees or less. Applies to boats constructed or decked over after April 25, 1940.			
Back-fire Flame Arrestor	One approved device on each carburetor of all gasoline engines installed after April 25, 1940, except outboard motors.			
Note: Some states have requirements in addition to the federal requirements. Check your state's boating laws.				



DECLARATION:

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

- **EXCELLENT /BRISTOL** - Essentially as new in appearance- loaded with extras. A rarity.
- **ABOVE AVERAGE** - Above average care- no obvious defects or limitations. Optional electronics or systems.
- **AVERAGE** - Ready for sale needing no repairs, updates or cleaning.
- **FAIR** - Needs the usual maintenance, TLC, repair or service to prepare for sale
- **POOR** - Requires substantial yard work and is devoid of extras.
- **RESTORABLE** - Enough of the hull and engine exists to restore the boat to usable condition.

RESULTS:

- **THIS VESSEL'S CONDITION.....AVERAGE CONDITION** This vessel is ready for commissioning or sale requiring TLC, little, or no additional work and normally equipped for her size.
- **ESTIMATED MARKET VALUE.....Market value:** Boat \$130,000. Refer to Section 1.1 "Value reconciled"
- **APPROXIMATE REPLACEMENT COST.....\$325,000 per dealer**
- **INTENDED USE OF VESSELSport and commercial fishing south coastal Florida. "Offshore" or "Near Coastal"** which is defined by CFRs as not more than 200 miles offshore
- **SUITABILITY FOR INTENDED SERVICE:** Vessel IS considered fit for it's intended service upon correction of all listed Priority I and specific Priority II recommendations.

NOTE1: All "Priority II" and "Other Recommendations" should be thoroughly reviewed to bring vessel up to current standards and or improve the value of the vessel.

NOTE2: The vessel owner is solely responsible for researching and knowledge of manufacturers' warranties and recalls for any and all components of this vessel and responsibly responding to same.

NOTE3: Estimated replacement cost was determined using information obtained from BUC ValuPro.com and dealer prices using the same or similar make and model with similar equipment options.

CLOSING STATEMENT & SIGNATURE:

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, impartial, and unbiased professional analyses, opinions and conclusions.*
- *I have no, (or the specified), present or prospective interest in the property that is the subject of this report, and I have no, (or the specified), personal interest with respect to the parties involved.*
- *I have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.*
- *my engagement in this assignment was not contingent upon developing or reporting predetermined results.*
- *my compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.*
- *my analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice, (USPAP).*
- *no one provided significant business and /or intangible asset appraisal assistance to the person signing this certification. (If there are exceptions, the name of each individual providing significant business and/or intangible asset appraisal assistance must be stated).*

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




Peter J. Spang, SAMS® AMS® (Society of Accredited Marine Surveyors #987)