Suenos Azules Marine Surveying and Consulting

REPORT OF MARINE SURVEY

Pre-purchase Condition and Value

of the vessel bearing Hull Identification Number PEA56100077G

1977 36' Pearson 365 Ketch

PREPARED EXCLUSIVELY FOR:

Mark Greenspan
630 Wood Drive
Palm City, Florida 34990

CONDUCTED BY:

Capt. John Banister, SA
on
September 6-7, 2012

Suenos Azules Marine Surveying and Consulting
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INTRODUCTION

REPORT INTRODUCTION COMMENTS:

At the request of Mr. Mark Greenspan, the prospective buyer of a 1977 36' Pearson Ketch, I agreed to conduct a pre-purchase and valuation survey. I arrived at the vessel's location on September 6, 2012 at 8:30 AM and met with the current owner of the vessel, Mr. Tom Spartan (who in this survey will be referred to as "the vessel's current owner"), Mr. Greenspan, and the designated Captain of the vessel (Mr. Chris Spears). The vessel was docked at a private residence in Indian Rocks Beach, Florida but hauled out and surveyed at the Madeira Harbor Marina located at 13650 Gulf Boulevard in Madeira Beach, Florida. The survey was conducted on September 6, 2012 from 9:00 AM - 4:20 PM and on September 7, 2012 from 8:30 AM - 2:20 PM. Mr. Spartan was not present for the sea trial on the second day of the survey.

The weather on both days of the survey was warm, sunny, and dry with partly cloudy skies. Moisture readings were taken of the vessel with a calibrated Model GRP 33 Marine Moisture Meter. Thermal images were taken of the vessel using a calibrated "Flir" brand "i5" model infrared thermal imaging camera.

AC and DC power were made available during the survey. A sea trial was performed as part of this survey. The vessel's papers were on board showing that Mr. Spartan was the owner of the vessel. Mr. Greenspan was present on both days of the survey.

During a vessel's 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. Findings in the summary pages of this survey reflect conditions observed at the time of survey.

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DEFINITION OF TERMS

The following terms and words have the following meanings as used in this report of 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 tests).

FIT FOR INTENDED SERVICE - Service for which is intended by Survey Purchaser (present or prospective owner).

ADEQUATE - Sufficient for a specific requirement.

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

EXCELLENT CONDITION - New or like new.

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

AVERAGE CONDITION - Denotes that the system, component, or item is functional as is with minor repairs.

POOR CONDITION - Unusable as is. Requires the replacement of a system for the component or item to be considered functional.

USE OF * - Use of * in the body of this report will indicate that a footnote may be listed at the bottom of the page or a finding will be listed in the "Findings and Recommendations" section pertaining to the * items or the use of the text colors red, green, and blue.

GENERAL INFORMATION (SHORT FORM)

FILE NUMBER: 12-000181
SURVEY PREPARED FOR: Mr. Mark Greenspan

NAME OF VESSEL: N/A
TYPE OF SURVEY: Pre-purchase and valuation survey
OVERALL VESSEL RATING: AVERAGE CONDITION
ESTIMATED MARKET VALUE: $27,900.00
ESTIMATED REPLACEMENT COST: $279,500.00
YEAR/MAKE/MODEL OF VESSEL: 1977 Pearson 365 Ketch
BUILDER: Pearson Yacht Corporation, Portsmouth, Rhode Island
YEAR BUILT: 1977
MAKE OF VESSEL: Pearson
MODEL OF VESSEL: 365
HULL IDENTIFICATION NUMBER: PEA56100077G
OFFICIAL NUMBER: 647001
HAILING PORT: Largo, Florida
STATE VALIDATION STICKER: 1055555
STATE REGISTRATION NUMBER: FL 7355 JB
OWNER NAME: Thomas Spartan
OWNER'S ADDRESS: 2330 King Drive, Largo, Florida 33773.
PLACE OF SURVEY: 13650 Gulf Boulevard, Madeira Beach, Florida 33708
DATE/TIME OF SURVEY: September 6, 2012 from 9:00 am to 4:20 pm & September 7, 2012 from 8:30 AM - 2:20 PM.
HULL MATERIAL: Fiberglass
HULL TYPE: Displacement
LENGTH OVER ALL: 36'5"
BEAM: 11'5"
DEPTH: 8'6"
DRAFT: 4'6"
DISPLACEMENT: 17,700 lbs.
PROPULSION SYSTEM: One Westerbeke 40, four cylinder, 37 horsepower inboard engine
FUEL TYPE: Diesel
FUEL CAPACITY: 40 Gallons
AC POWER: 120 Volts
DC POWER: 12 Volts
FRESH WATER CAPACITY: 150 Gallons
HOLDING TANK: N/A
INTENDED USE: Recreation
INTENDED CRUISING AREA: Inland and coastal waters

SURVEY SCOPE & GENERAL INFORMATION

SCOPE OF SURVEY

Report file no:	12-000107.
Inspection date(s):	September 6-7, 2012.
Date of written report:	September 9, 2012.
Conducted by:	Capt. John Banister, SA.
Requested by:	Mark Greenspan.
Purpose of survey:	To assess the overall condition and value of the vessel for pre-purchase decision making.
Intended use:	Recreational.
Vessel surveyed at:	13650 Gulf Boulevard, Madeira Beach, Florida 33708.
Weather conditions:	Sunny, warm, and dry with partly cloudy skies. Light winds.
How survey conducted:	The vessel was surveyed both while afloat and while hauled out of the water.
Sea trail:	A sea trial was performed as part of this survey. The results are included in the Sea Trail section.
Electrical systems checked:	DC power was used to check the DC electrical systems. AC shore power was used to check the AC electrical systems.
Moisture checks:	A calibrated Electrophysics marine moisture meter, Model GRP33 was used for moisture readings referenced in this report.
Sailboat rigging:	All standing rigging was installed and checked only at eye level and below unless otherwise specified.
Surveyor's qualifications:	The surveyor is a member of SAMS (Society of Accredited Marine Surveyors), ABYC (American Boat and Yacht Council), IAMI (International Association of Marine Investigators), and the NFPA (National Fire and Protection Association). The surveyor is also ABYC Standards Accredited, a USPAP (Uniform Standards of Professional Appraisal Practice) Certified Appraiser, a ITC (Infrared Training Center) Certified Level I Infrared Thermographer, and a USCG Licensed Master Captain.

SURVEY REQUESTED BY

Client name:	Mark Greenspan.
Street address:	630 Wood Drive.
City/State/Zip:	Palm City, Florida 34990.
Cellular phone:	(772) 340-5050.

VESSEL INFORMATION

Vessel Yr/Make/Model:	1977 Pearson 365 Ketch.
Hailing port:	Largo, Florida.

Hull ID number verification:

Hull identification number

PEA56100077G.

State registration no.:

State registration number plates

FL 7355 JB.

State validation sticker:

State validation sticker

10555555.

Manufacturer/Builder: Pearson Yacht Corporation, Portsmouth, Rhode Island.

Vessel description: The 1977 Pearson 365 Ketch is a recreational sailing vessel (hull number 144). The vessel was made of fiberglass on a displacement hull design with a molded in fin keel. The vessel was powered by a single Westerbeke, four cylinder, four cycle, inboard diesel engine. The vessel was "vee drive" configured. The vessel also included a large aft cockpit with molded in cockpit coaming, helm station pedestal with a built in magnetic compass, working depth sounder, forward accommodation spaces with a main salon, convertible dinette, galley, working head, forward "V" berth, and a navigation station. The vessel also had a removable bimini top, air cowlings, windlass, bowsprit, stainless steel standing rigging, stainless steel winches, aluminum masts, teak trim and handrails, padded vinyl seat cushions, and plenty of locker spaces for gear storage.

U.S.C.G. Official Documentation No:

Vessel documentation numbers on board

647001 (USCG documentation is expired)

Documented use: Recreational.

Documented home port: Naples, Florida (registered by a previous owner)

Documented length: 36.4 feet.

Documented breadth: 11.4 feet.

Documented depth: 8.5 feet.

Documented gross tons: 17 tons.

Documented net tons: 15 tons.

VESSEL SPECIFICATIONS

Type:	Fiberglass.
Length overall (L.O.A.):	36'5"
Beam:	11'5"
Draft:	4'6"
Displacement:	17,700 pounds.
Ballast:	7,300 pounds.
Overhead clearance:	43'0" (fixed height)
Note:	

Hull manufacturer number ID plates

Hull number identification plate "44" (sighted on the lower companionway bulkhead in the cockpit and on the starboard side of the lower mizzen mast).

SURVEY STANDARDS

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 the 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.*

SURVEY INSPECTION COMMENTS

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. If a component is not identified in this report, it was not inspected.*
- *"Priority I Recommendations" are related to Safety and Regulatory findings and are listed in RED in the report.*
- *"Priority II Recommendations" are related to Maintenance and Standards findings and are listed in GREEN in the report.*
- *"Other Recommendations" are 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.*

EXTERIOR HULL & BOTTOM INSPECTION

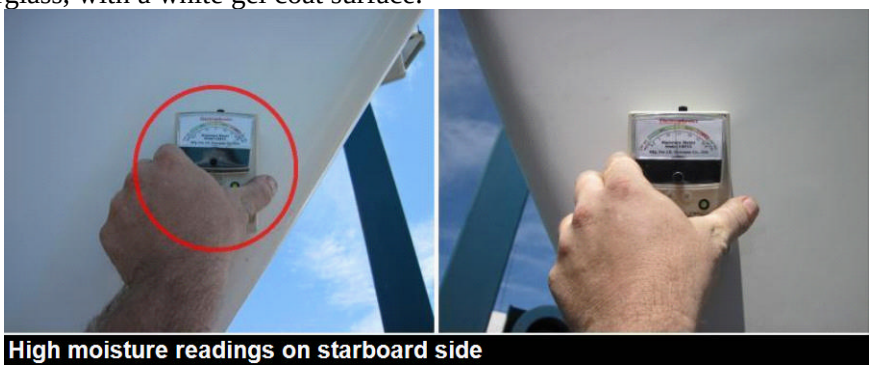
HULL EXTERIOR

Construction material:


Hull exterior

Fiberglass, with a white gel coat surface.

Stem:


High moisture readings on starboard side

Solid, no cracks on external inspection. Moisture readings were relatively dry (less than 14%) on the port side stem. The starboard side stem had elevated moisture readings from 15% - +30% on the stem approximately three feet in height from the water line and approximately four feet aft from the stem. *Note: Moisture readings of 14% or less are considered dry for fiberglass.*

Side thru hull fittings: Marelon plastic type mushroom thru hull fittings were sighted on the vessel's topsides. All thru hull fittings appeared to be well secured to the vessel.

Rub rail: The rub rail appeared to be made of a black rubber like material and surrounded the vessel at the hull to deck joint. The rub rail was reinforced with a chemical bonding compound and stainless steel fasteners. No loose areas or damage was sighted on the rub rail.

Engine vents: Two air cowlings were sighted on the aft transom gunnel for natural and forced air ventilation for the engine compartment and lazarette. The 12 volt forced ventilation system (blower) was functional when tested.

Transom: The transom of the vessel was a short canoe style transom.

Transom thru hull fittings: Fittings for bilge discharge and raw water exhaust from the engine were sighted on the transom of the vessel above the water line.

Boarding ladder: None sighted. ABYC H-41 currently recommends that a boarding ladder be provided to allow a person to re-board without assistance for safety.

Hull cosmetics:

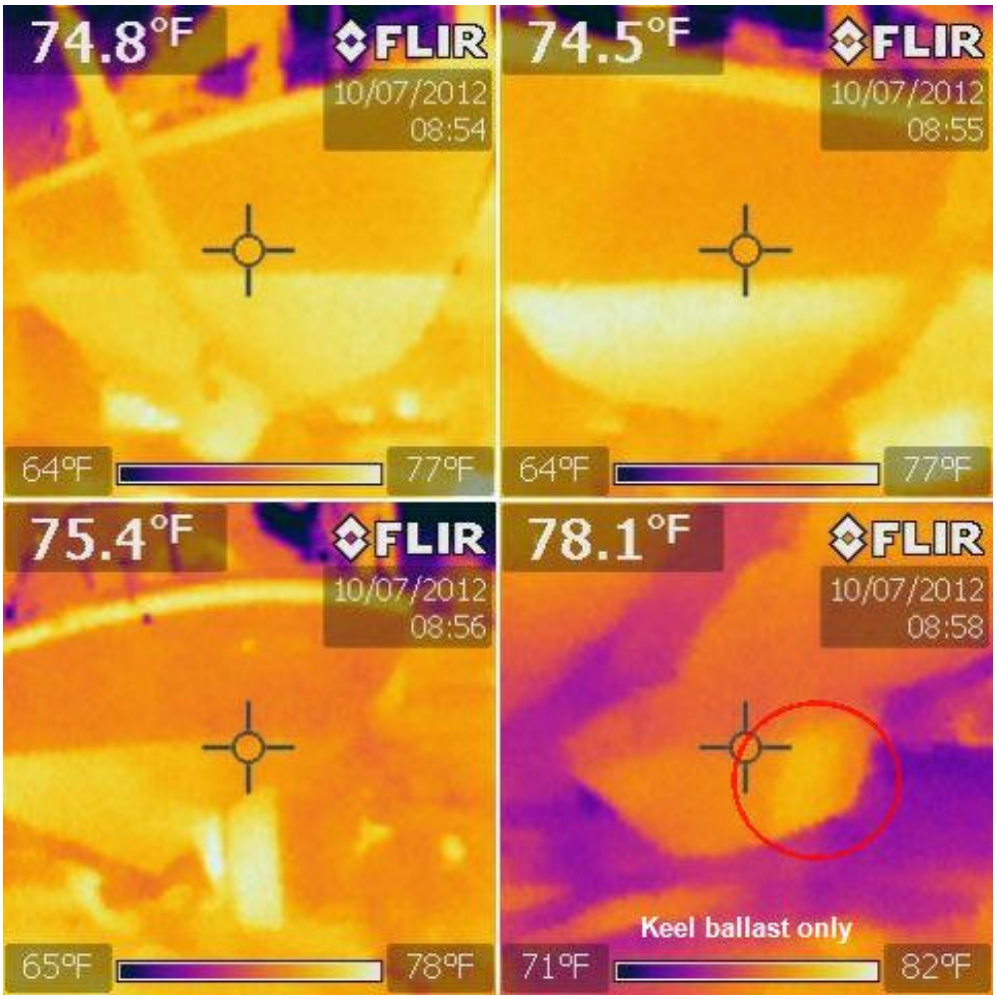
Areas of gel coat crazing on the topsides

Hull cosmetics were in good condition with only minor nicks and scratches sighted. Some crazing was sighted on the port and starboard hull areas near the water line (cosmetic only).

Moisture/Delamination:

All moisture meter readings on side hull near the water line and surrounding thru hull fittings were relatively dry with normal comparative moisture meter readings (less than 14%). The exception was on the aft transom area near the water line and the starboard side near the stem (already mentioned above). Transom moisture readings near the water line were between 15% - 28%. The area was approximately two feet in height from the water line to the edges of the transom. No signs of delamination or blistering were sighted on the hull above the water line. No signs of structural stress cracks were sighted.

Thermal images of the hull:



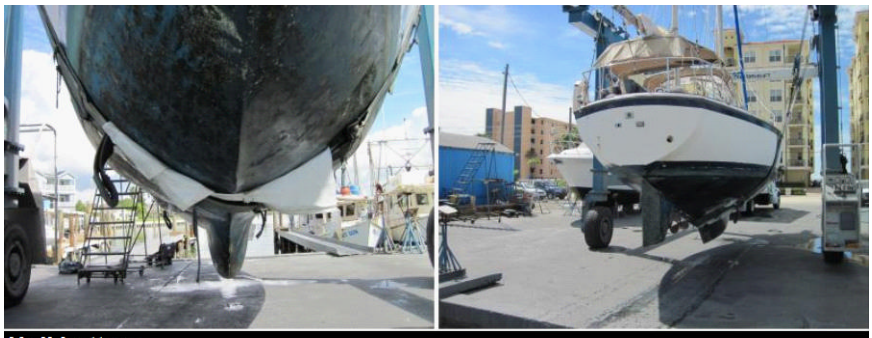
Normal thermal images of the fiberglass hull. No thermal anomalies indicating delamination was sighted with the thermal camera.

Condition summary: Average condition.

Findings:	Recommendations:
No boarding ladder was sighted on the hull nor was there a means to re-board the vessel from the water line. Elevated moisture readings were sighted on starboard port side of the hull just aft of the stem and on the transom near the water line. Moisture meter readings were between (15% - +30%).	Consider installing a boarding ladder that can be deployed from the water as a means to re-board the vessel as recommended by ABYC H-41. Have a qualified marine technician further investigate the starboard stem and transom area of the hull. Repair, replace, or renew if necessary. If core replacement may be required, recommend using a composite core such as divinycell or coosa.

HULL BOTTOM

Bottom paint:



Hull bottom

Anti-fouling bottom paint in was sighted on the hull bottom. The anti-fouling paint was in average condition. There were some areas of minor sea growth and some faded areas of paint sighted.

Stress cracks: No stress cracks were sighted in the hull when inspected.

Osmotic blistering: The bottom of the hull was sounded with a phenolic hammer. No evidence of blisters or delamination were sighted on the hull bottom during the bottom inspection.

Blister comments: *Blisters (delamination) are an unknown factor on all boats and if not currently present, there is no guarantee that they will not appear in the future. Blisters have a tendency to dry out over winter or during dry storage unless severe or large. Blisters (if any) best appear after the vessel has been in water for an entire season or for a long period of time. In addition, the symptomatic evidence of blistering can be obscured by bottom coatings, a dry storage period during which blisters spontaneously depressurize, bottom laminate sanding, and other conditions or actions. Recommend full inspection for blisters immediately after haul-out and power wash. The Surveyor has no firsthand knowledge of the history of bottom maintenance, blistering, repairs or prophylactic coatings on this vessel.*

Grounding damage: No signs of previous grounding damage was sighted on the hull bottom.

Strainers/Scoops/Screens: All bronze raw water intake strainers and bronze thru hulls were well secured to hull bottom. Some sea growth was sighted inside there intake / discharge seacocks below the water line.

Transducers: The depth transducer on the port side forward section of the hull was well secured and in good condition. The speed "wheel" transducer was covered and did not appear to be functional (sighted on the starboard side of the hull bottom).

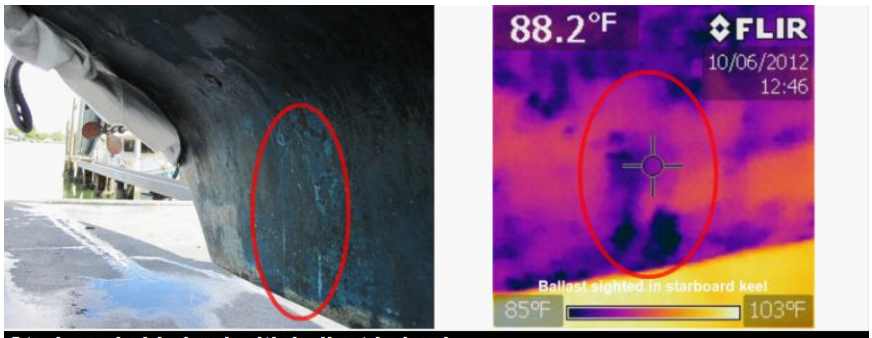
Thru hull fittings: Mushroom type bronze fittings for all below water line sea cock locations. Well secured to the hull bottom. All fittings appeared to have some sea growth in them.

Condition summary: Average condition.

Findings:	**Recommendations:**
The anti-fouling paint was faded and should be repainted to insure its effectiveness against bottom growth. Some sea growth was sighted in some thru hulls below the water line.	Have a qualified marine technician repaint the vessel bottom with proper anti-fouling paint if the vessel is going to be in the water for a long period of time. Have a qualified marine technician further inspect the bronze thru hulls on the vessel bottom. Repair, replace or renew to clear the thru hulls.

KEEL

Keel type:



Starboard side keel with ballast in keel

Fin keel, molded in. The keel measured 13'6" in length and 2'6" in height (from the foot of the keel to the hull bottom). The keel was in average condition. The center of the keel was filled with ballast material from weight. No cracks or separations were sighted.

Condition summary: Average condition.

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

Prop(s) description:


Shaft and vee drive assembly

The propeller on this vessel was a three bladed bronze propeller. The propeller measured 17 inches in diameter and was well balanced and secure to the shaft when tested. The pitch was labeled to be 12 inches, LH (left handed). The propeller nuts were reversed and incorrectly installed.

Shaft size / material: The shaft on this vessel was in good condition and was made of what appeared to be steel. The shaft measured one and one eighth inches in diameter and was well secured to the shaft coupling sighted in the engine compartment.

Cutless (shaft) bearing(s): Average condition. No excess play was sighted in the cutless bearing.

Strut(s): Single bronze P-Strut on the shaft. The strut measured four and a half inches in length by 10.5 inches in height. The strut appeared to be in line and secure. Backing hardware was sighted for the strut from the inside of the lazarette.

Other notes: The exterior shaft appeared to have been painted or treated with an anti-fouling coating.

Condition summary: Average condition.

Findings:	Recommendations:
The propeller nuts were incorrectly installed.	Have a qualified marine technician re-install the propeller nuts. *Note: Per ABYC P-6 recommendations, the narrow nut (also called a jam nut) should be installed against the prop and the thicker nut should be installed behind the narrow jam nut, then properly cotter pinned.*

RUDDER(S)

Rudder type: The rudder was a skeg type fiberglass rudder. The rudder was in good condition and well secured to the hull. No excess play was found in the rudder. The rudder

swung both ways easily. No delamination or blistering was sighted in the rudder.

Condition summary: Average condition.

ANODES

Shaft: One shaft mounted anode was sighted on the shaft. The anode was worn approximately 10% and was secure when tested.

Bonding: Bonding wires for all of the under water running gear was sighted on this vessel. Bonding wires were proper 8 AWG green insulated stranded copper wire as recommended by ABYC. Some bonding wire connections were loose or off (see All Thru Hull Fittings below).

Other notes: *Monitor all anodes frequently and replace when they are more than 50% worn. Anodes are normal replacement items designed to protect the running gear from galvanic corrosion. It is recommended to keep spares aboard the vessel.*

INTERIOR HULL & STRUCTURAL INSPECTION

HULL INTERIOR & STRUCTURAL COMPONENTS

Hull to deck joint:

Hull to deck joint

Internal flanged type hull to deck joint. Elastomeric bonding compound was sighted in the hull to deck joint and reinforced with stainless steel fasteners. No leaks were sighted in any part of the hull to deck joint area.

Bilge(s): Bilge spaces were sighted to have approximately an inch of oily bilge water. *NOTE: Whenever you visit your boat, it is a good practice to check the bilge spaces for higher than normal levels of water. Also check for anything else that could be causing obstructions in the limber holes at the bulkheads, frames or at the bilge pumps themselves.*

Stringers: Hull stiffness provided by FRP (fiber reinforced plastic) wood cored longitudinal stringers that ran the length of the vessel. Complete inspection was not possible due to limited access. Stringers were sighted in the engine compartment and under the cabin sole and were well glassed in to the hull where sighted. Stringers were sounded with a phenolic hammer where accessible and appeared very sound. No soft spots, separations, cracks or splitting was sighted. Limber holes appeared to be adequately sealed where sighted. Stringers were checked with a moisture meter where accessible and all readings were relatively dry (less than 14%).

Bulkheads: Athwartships reinforcement was enhanced by structural bulkheads bonded to the hull with FRP (fiber reinforced plastic). All tabbing appeared serviceable and sound with no cracks or separations of the tabbing sighted in any of the compartments where they could be seen. No visual evidence of movement was sighted in any of the bulkheads.

Stem: Solid stem, no cracks or separations were sighted from inside the vessel.

Inside of transom: Reinforced. Appeared secure with no cracks or separations sighted.

Condition summary: Good condition.

ALL THRU HULL FITTINGS

Sea valves:

Seacock on board, disconnected bond wire

The raw water intake / discharge seacocks below the water line on this vessel were bronze ball valve type seacocks. All seacocks tested on board were properly secured to the hull. No leaks were sighted at any of the seacock locations. The port and starboard aft scupper drain seacocks were stuck in the open position. All other seacocks were functional but very difficult to open and close. All of the seacocks that could be sighted on this vessel were bonded however some bonding wires were loose or off of the seacocks.

Sea strainers: Engine intake sea strainer was made of marelon plastic. Functional when tested.

Other notes: The rudder shaft log mount was made of bronze and sighted to be bonded.

Condition summary: Average condition.

Findings:	**Recommendations:**
The water intake seacock for the head was sighted to not be bonded (had a disconnected bonding wire). Some bonding wires were held on improperly with stainless steel hose clamps around the seacocks. Port and starboard drain scupper seacocks were stuck in the open position and the valves would not close. Some other seacocks were difficult to open and close.	Have a qualified marine technician properly attach bonding wires to seacocks using proper spade type wire or direct fastener type connections to the seacocks. Have a qualified marine technician further inspect the seacocks that were stuck in the open position. Repair, replace or renew as necessary. *NOTE: All seacocks aboard a vessel should be in the closed position when the vessel is unattended. Seacock valves can and will corrode if left unattended. It is a good practice to turn the seacock valves regularly to insure the valves are working properly. Tapered wooden plugs tied to sea valves are an inexpensive safety item and highly recommended under current ABYC standards.* Note: *Dissimilar metals and metal alloys have different electrode potentials when two or more of these metals exist in the same electrolyte (such as seawater). When this happens a galvanic couple can be created and depending upon the nobility of the metal, one metal will become the anode and another metal will become the cathode and can form electrolysis between the two electrodes (the anode and the cathode). Once the galvanic couple is formed between the two metals, the anode metal will dissolve into the electrolyte. This electrochemical reaction is called galvanic corrosion and can occur on a vessel below the waterline between two metals that are different in nobility or charged at different levels. Bonding underwater metals together causes the metals to remain at the same potential and helps prevent or slows the galvanic corrosion process.*

TOP DECK & SUPERSTRUCTURE

MAIN DECK & FITTINGS

Deck Surface:

Main deck areas

Molded, cored fiberglass deck construction. The core of this vessel was end grain balsa wood sandwiched between two layers of 1/8 inch fiberglass layers. The deck surface was white gel coat with a molded in non skid fiberglass surface. Some balsa wood was sighted to be deteriorated as seen through the deck pipe of the vessel near the anchor locker. Some areas of the cabin top and deck were found to have some deteriorated coring when tested with the phenolic hammer (approximately 15% of the deck and cabin top area).

Moisture/Delamination:

Elevated moisture readings on deck

Moisture meter readings were relatively dry (less than 14%) in most areas of the deck. Some elevated moisture areas were sighted around the cabin top, bow areas of the main deck, and the teak wood around the coaming of the cockpit (between 15% - +30%). No delamination or soft spots were discovered.

Toe rail(s): Molded in fiberglass with a teak wood cap rail, no cracks or separations were sighted. Some of the teak wood was chipped around the inboard sides of the toe rail.

Anchor platform: Attached teak wood platform with an attached stainless steel double anchor roller assembly. Well secured with no cracks sighted.

Anchor/chain locker: Yes, accessed from the forward "V" berth via a forward locker door. Functional with a latch. One of the top hinges was loose and would not close properly.

Deck pipe:

Deteriorated wood coring

Yes, to the port side of the windlass. Appeared unobstructed when tested.

Windlass: The windlass was a 12 volt / manual "Simpson Lawrence" brand "Sea Tiger 555" windlass. The windlass was made from steel and was well secured to the deck

	when tested. The windlass was not fully functional when tested.
Bow pulpit/rail:	The bow pulpit rail was made out of stainless steel and measured 30 inches in height by one inch in diameter. The mounting plates were made of wood with stainless steel fasteners. Some of the mounts were loose when tested. A stainless steel stern rail was sighted around the aft coaming of the vessel. The stern rail measured 24 inches in height by one inch in diameter. Well secured to the coaming top.
Stanchions/side rail(s):	The stanchions were made of stainless steel and measured 24 inches in height by one inch in diameter. The mounts were made of wood below the stanchion bases and fastened with stainless steel fasteners. Some of the stanchions were loose when tested. tested.
Lifeline(s):	Double life lines were vinyl covered and in good condition. Life lines measured 5/16 of an inch in diameter. Well secured when tested.
Cleats & fairleads:	Aluminum horn cleats were all well secured to the deck and functional with proper backing hardware where they could be seen.
Cabin (house) to deck joint:	Molded in. No stress cracks were sighted.
Deck hatches:	Cockpit molded in bench hatch covers were made of FRP and in good condition. Hatches around the cockpit (three of them) could be secured.
Escape hatch(es):	Two cabin top "Bomar" brand forward and aft (one over the forward "V" berth and one over the main salon) escape hatches were sighted. The hatches was made of a Lexan glass material in aluminum frames. Seals appeared to be in average condition. Support arms were functional and in place.
Ventilation:	Yes, provided by plastic air cowlings into the lazarette and accommodation spaces.
Cabin house window(s):	A total of eight (four on each side of the cabin top) tempered glass windows with aluminum frames were sighted in the cabin spaces of the vessel. All of the windows appeared functional and in good condition. No leaks sighted.
Scuppers/deck drain(s):	Yes. Drains were clear, hoses secure and connected to drain seacocks.
Grab rail(s):	Teak wooden grab rails were sighted on the cabin top, in the overhead of the main salon and in the galley. All grab rails were secure when tested.
Exterior teak:	Polished, and in average condition. No loose areas or wood deterioration was sighted.
Condition summary:	Average condition.

Findings:	**Recommendations:**
Moisture meter readings were high in some areas on the deck, cabin top, and on the aft teak rails around the cockpit coaming (between 15% - +30%). Some areas of wood core deterioration were detected around the forward deck and cabin top areas (approximately 15% of the main deck and cabin top areas). The teak cap areas of the toe rail were sighted to be chipped in the wood along the inboard edges. The anchor locker access door in the forward "V" berth had a loose top hinge. The windlass would not power up when tested, but worked manually. Some of the stanchions and forward bow rail were loose at the wooden bases when tested.	Have a qualified marine technician further inspect the deck and coring that had elevated moisture readings. Repair, replace or renew as necessary. If desired, replace the chippped teak along the toes rails and loose hinge on the anchor locker door. Have a qualified marine technician further inspect the non-working power motor on the windlass. Repair, replace or renew if desired. Have a qualified marine technician further inspect the loose bow rail and stanchions at the wood bases. Recommend replacing with new bases of a stronger material with proper stainless (non corrosive) metal backing hardware. Rails and stanchions should not move more than an inch in any direction if properly secured to the deck.

BRIDGE DECK / COCKPIT

Cockpit & Helm seating

Helm and forward view near helm

Helm seating was a two person aft molded in bench seat aft of the helm pedestal. The seating area at the helm had an adequate field of view as recommended by ABYC.

Sole: Fiberglass with molded in non skid.

Canvas: Overhead tan colored canvas bimini that could be connected to the dodger. Supported by stainless steel tubular supports mounted around the cockpit coaming. Well secured. Some stitching in the overhead bimini was sighted to be coming out. Extra panels for this bimini were sighted in the forward "V" berth locker.

Door(s): Forward companionway door leading to the accommodation spaces was adequate. Door was a slide out type, three wood paneled door with a sliding overhead FRP hatch. Functional when tested.

Storage: Yes in the cockpit seating hatches leading to a large lazarette space below.

Moisture/Delamination: Cockpit deck was dry (moisture readings less than 14%).

Condition summary: Average condition.

Findings:	Recommendations:
Some stitching in the forward section of the bimini was missing or broken.	If desired, have a qualified marine technician further inspect the canvas bimini top and all the panels. Repair, replace or renew if necessary.

RIGGING & SAIL HANDLING

MAST(S) / BOOM(S)

Main mast(s):


Keel stepped main mast


Corroded steel compression plate


Main mast with spreaders


Mast head

The main mast was keel stepped in the main salon. The mast was constructed of aluminum. The main mast sat on a steel compression plate and was fastened in to the keel with large fasteners on the compression plate. The mast had a single set of spreaders three quarters of the way up the mast and was reinforced with 5/16 inch and 3/8 inch diameter 1 x 19 stainless steel wire rigging. The mast appeared to be secure and in good condition. The compression plate appeared corroded when inspected.

Mast track: Spinnaker pole track on face of mast. Well secured and appeared functional. Aft mast track was grooved and was in good condition.

Gooseneck(s): The goose neck was made of stainless steel and aluminum and fastened to the main mast (that connected the boom) with stainless steel fasteners. The gooseneck pin was properly secured in to the mechanism to prevent backing out of the pin. No cracks, excess play or separations were sighted at the gooseneck during the sea trial.

Mast sheaves: Good condition. No cracked or broken sheaves sighted. Sheaves appeared functional and did not seize when the lines were worked through them.

Masthead fittings: Masthead fittings were: One anchor light, one windex (with tacking tabs in place), one windfinder, and one VHF antenna. The windex was working properly during the sea trial. The VHF antenna appeared secure. No working VHF radio was installed to test the VHF antenna.

Boom(s): The boom was made of aluminum. The boom was in good condition and well secured when tested during the sea trial.

Mizzen mast(s):

Mizzen mast

One deck stepped aluminum mizzen mast was sighted in the fore section of the cockpit. The mizzen mast had a single set of spreaders. The mizzen mast had a single set of spreaders three quarters of the way up the mast and was reinforced with 5/16 inch diameter 1 x 19 stainless steel wire rigging. The mizzen mast appeared to be secure and in good condition. The mizzen mast had stainless steel mast steps going up the length of the mast. All of the steps appeared secure.

Note: Mizzen mast had the day shape for "vessel at anchor" attached to its fore end. Metal bird spikes were sighted on both spreaders on the masts to prevent birds from perching on the tops of the spreaders.

Findings:	Recommendations:
The main mast compression plate appeared to be corroded when inspected. Upper and lower shroud stays on both masts appeared to be loose during the sea trial.	Have a qualified marine rigger further inspect the compression plate and adjust the upper and lower shroud stays and adjust all standing rigging properly when the vessel is in the water. Repair, replace or renew as necessary.

FURLING GEAR

Type:

Jib roller furling

The forward jib roller furling gear was a "Hood" brand "810 Seafurl Lo" series roller furling. The roller furling was properly attached to the mast head and deck fittings and was functional when tested. Furling and jib lines were properly supported and clear of other gear and lines on board.

Condition summary: Good condition.

STANDING RIGGING

All Stays & Shrouds: Secure, in good condition. No significant corrosion sighted on the wire ropes.
Cotter pins: Yes, sighted at every turnbuckle and attachment point on shrouds and backstays.
Backstay: Split back stays on both masts.
Chainplates: Not sighted due to limited access behind fastened bulkheads in the main salon.

Turnbuckles:

Turnbuckles on the deck

Stainless steel turnbuckles, tang ends, cleavis pins, and cotter pins appeared to be in good condition with no signs of corrosion. The wire rope terminated into Norseman like termination ends that connected to the turnbuckle rods. All of the turnbuckles connected to the chain plates appeared to be in good condition with no signs of significant corrosion, cracks or loose areas. Port and starboard turnbuckles were protected with PVC pipes over the wire rope and turnbuckles (three on each side).

Findings:	Recommendations:
Chainplates could not be properly inspected due to limited access behind fastened bulkheads.	Have a qualified marine rigger remove bulkheads to properly inspect the chainplates for corrosion and / or stress fractures. Repair, replace or renew if necessary.

HALYARDS

All halyards: All halyards sighted are colored yacht double braid nylon line. The halyards were of appropriate size for their use and in average condition. No fraying or weaknesses sighted in the lines.

SHEETS

Jib sheeting: Jib sheets and roller furling sheet were in average condition when inspected. The sheets were double braid nylon line. No fraying or weaknesses sighted in the lines.

WINCHES

Cockpit:

Cockpit area winches

The winches in the cockpit were "Lewmar" brand, two speed, stainless steel, self tailing winches. The following were the winches in the cockpit area: Port side coaming were one number 42 winch and one number 16 winch. Starboard side coaming was one number 42 winch. On the cabin top were one port side number 16 winch. All winches turned both ways properly when tested and appeared well secured to the vessel.

Mast mounted:


Port and starboard winches on main mast

Two (one port and one starboard) "Lewmar" brand stainless steel, two speed winches were sighted on the mast just above the gooseneck. The winches worked properly when tested and appeared well secured. The port side winch was a number 25 winch. The starboard side winch was a number 16 winch.

Boom mounted:

One "Lewmar" brand stainless steel, single speed number 6 winch was sighted on the starboard side of the main boom. The winch worked properly when tested and appeared well secured.

Mizzen mast winches:

Port and starboard winches on mizzen mast

Two (one port and one starboard) "Lewmar" brand stainless steel, single speed winches were sighted on the mast below the gooseneck. The winches worked properly when tested and appeared well secured. Both winches were number 8 winches.

Findings:	Recommendations:
The winches were functional but appeared dry when turned.	Have a qualified marine rigger further inspect these winches. The winches should be disassembled, cleaned and lubed with proper winch lube to extend life of the winches.

OTHER SAIL HANDLING EQUIPMENT

Traveler(s): One block and line type traveler was sighted on the cabin top. Functional when tested.

Genoa Sailtracks / Cars: Sighted on the outboard sides of the cabin top on the teak toe rails. Well secured, functional when tested.

Battens: Spare fiberglass battens were sighted in the navigation station in the main salon.

Rope clutches & cam cleats: Yes, sighted on the main mast. Functional when tested.

Spinnaker pole(s): Aluminum spinnaker pole installed on the fore end of the mast. In good condition. Not tested as part of the sea trial.

Condition summary: Good condition.

SAILS INVENTORY

MAINSAIL(S)

Type of sail(s):

Main sail and jib under sail.

The main sail was a fully battened sail. The sail had no reefing points on the main sail. The sail was an "Ulmer Kolius" brand sail and appeared to be in average condition during the sea trial. The sail appeared to be made of Dacron. No holes or broken stitching upon inspection. One of the lowest sail cars was off the sail track during the sea trial.

Sail specifications:

Condition summary: Average condition.

FORESAIL(S)

Type of sail(s): A forward jib sail was sighted forward of the main sail. The sail appeared to be made of Dacron. The sail was well secured to the rig and in average condition. The jib sail had a sewn in blue colored sun cover. It was apparent that the sail had been previously repaired in the past as three sewn in panels were sighted near the foot of the jib sail.

Condition summary: Average condition.

MIZZEN SAIL(S)

Type of sail(s): The mizzen sail was a unbattened sail. The mizzen sail had two reefing points. The sail appeared to be in good condition during the sea trial. The sail appeared to be made of Dacron. No holes or broken stitching upon inspection. It appeared this sail had been repaired in the past as some sewn in panels were sighted along the leech end of the sail.

Condition summary: Average condition.

SAILS COMMENTS

Sail inspection note: The surveyor recommends that all sails should be fully inspected by a qualified sail maker to determine the sail stretch, tears, loose or worn seams, batten pockets, and remaining life left in the sails before this vessel is to get underway. The main sail track car was able to be placed back in the track during the sea trial. One spare sail for the main was sighted in the main salon. This sail was inspected on board. The sail appeared to have some broken stitching and appeared worn. Have a qualified sail maker determine the remaining life of this main sail and to see if it is worth repairing.

HELM & NAVIGATION ELECTRONICS

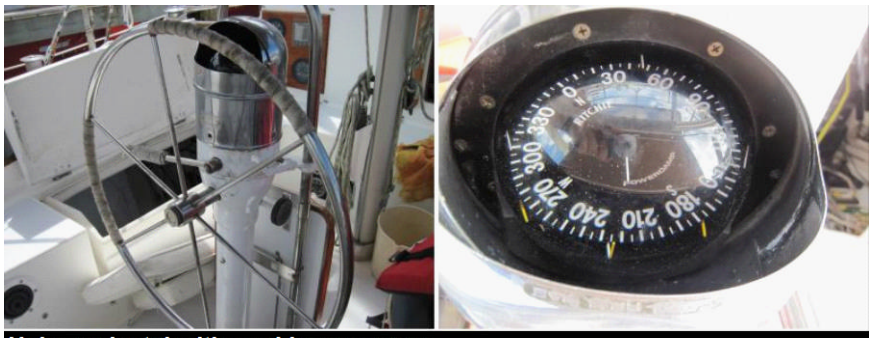
NAVIGATION ELECTRONICS

Helm station:

Cockpit area nav / engine instruments

Electronics mounted on the port and starboard cockpit bulkheads and on the starboard side bulkhead near the deck in the cockpit area. All of the electronics except for the "Raymarine" brand digital depth sounder were not functional when tested.

Compass:



Helm pedestal with working compass

The magnetic compass at the helm station was a "Ritchie" brand "Powerdamp" series compass. The compass appeared to be working properly with very little deviation.

VHF radio(s): No working VHF radio was sighted on board this vessel.

Autopilot(s): No working electronic autopilot was on board this vessel. The helm station wheel could be clamped into a stationary position via a manual dial on the starboard side of the pedestal. Functional when tested.

Depth sounder(s): A 12 volt "Raymarine" brand depth sounder was sighted on the port side bulkhead of the cabin top in the cockpit area. Powered up and was functional when tested.

Wind : Analog wind meters and wind direction meters were not functional when tested. A mast head windex with tabs was functional when tested during the sea trial.

GPS: No working GPS navigation system was working on board this vessel.

Radar: A "Raytheon" brand "R-10" model radar system was sighted on board this vessel on the starboard side of the main salon forward of the navigation station. The unit did not power up when tested.

Other electronics: Note: *No single side band or radio direction finders were installed on board as indicated on the power distribution panel.*

Findings:	**Recommendations:**
All analog navigation and wind instruments were not functional when tested. There was no working VHF radio installed on this vessel. The helm pedestal nut that held the wheel on was loose and needs to be tightened.	Have a qualified marine technician further inspect these analog instruments. Repair, replace or renew as necessary. Although not required by law on a vessel of this size, consider placing at least one portable VHF radio on board this vessel before getting underway for passenger safety. Have a qualified marine technician tighten the helm nut on the helm pedestal to secure the wheel.

ENGINE INSTRUMENTS AND CONTROLS

Throttle and shift controls:

Broken throttle cable during sea trial

The throttle and shift controls were sighted at the helm pedestal. Both controls were functional when tested during the sea trial however the throttle cable broke at the helm pedestal during backing down maneuvers.

Engine room blowers: Yes, one blower, functional when tested.
Engine alarm shutdown: Engine alarm did not function when tested.
Engine status: Did not power on when tested.
Volt: Analog volt gauge was sighted near the helm station. Did not appear functional when tested.
Hour meter(s): No working hour meter was sighted on board.
Oil pressure: Analog oil pressure gauge was sighted near the helm station. Did not appear functional when tested.
RPM: Analog tachometer gauge was sighted near the helm station. Did not appear functional when tested.
Temperature: Analog water temperature gauge appeared functional when tested.
Fuel: No working fuel gauge was sighted aboard this vessel.
Condition summary: Poor condition.

Findings:	**Recommendations:**
The throttle cable broke when testing backing down maneuvers during the sea trial (but was replaced the following day of the survey). The analog wind, volt, tachometer, and oil pressure gauges were not functional when tested. No working hour meter was sighted on board this vessel.	Consider having a qualified marine technician further inspect the existing throttle cable to determine if the length is proper. This may account for some of the stiffness in the throttle lever. If cable replacement is needed, consider replacing cables with Teflon coated throttle and / or shifting cables for easier movement and longer durability of the throttles and shifting controls. Consider having a qualified marine technician further inspect the non-working gauges. Repair or replace as necessary. A working hour gauge is recommended on this vessel to monitor engine hours and to know when to service the engine and transmission.

OTHER ELECTRONICS AND CONTROLS

12 volt outlet: Sighted on the power distribution panel. Not functional when tested.
Antenna(s): One VHF steel whip antenna was sighted on the main mast head. One covered rotating radar antenna was sighted on the fore end of the main mast just above the spreaders.

Bilge pump switches: Bilge switch was sighted near the power distribution panel. functional when tested. The switch was properly fused protected as recommended by ABYC.

Courtesy lights: 12 volt deck aft deck courtesy light was not functional when tested.

High water alarm: No working high water alarm was sighted on board this vessel.

Condition summary: Average condition.

Findings:	Recommendations:
The 12 volt outlet at the power distribution panel was not functional when tested. The 12 volt cockpit courtesy light was not functional when tested. No working high water alarms were installed on this vessel.	Consider having a qualified marine technician replace or repair the 12 volt outlet and 12 volt aft deck courtesy light if desired. Consider installed a high water alarm on board this vessel. Note: *Since 2005, ABYC H-22 has recommended the use of a high water bilge alarm for all vessels with accommodation spaces. Recommend compliance with ABYC.*

CABIN INTERIOR APPOINTMENTS

MAIN SALON

Style:

Main salon and navigation station in salon

Traditional with teak accents and wooden ceilings.

Sole: Solid teak wood sole. Well secured to the deck in all of the cabin spaces.

Headliner: FRP overhead.

Bulkheads: Wood bulkheads tabbed in place. Well secured.

Water intrusion signs: None sighted.

Seat cushions: Padded fabric seat cushions in average condition. No rips or tears sighted.

Navigation station: On the starboard side of the main salon across from the galley.

Light fixtures: 12 volt lamps. All were functional when tested.

Storage: Yes under main salon seats and in locker spaces above the main salon seats.

Cabin fans: Yes, two sighted in the main salon area. Both powered up when tested. One fan turned backwards, blades had no fan cover, and needs to be replaced.

Cabin heater:

Cabin heater and charlie noble

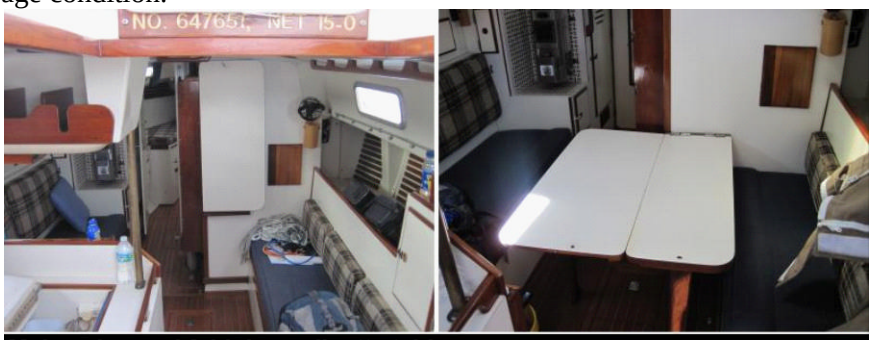
One "Dickinson" brand "Newport" series oil heater was sighted on the port side of the main salon. The stove was surrounded by porcelain tile to protect the underlying wood and FRP surfaces. The heater vented to the above deck via a stainless steel charlie noble. The heater was not tested as part of this survey. The

vessel's current owner said he has never powered up the oil heater in the two years he has owned the vessel.

Grab rails: Yes, overhead teak grab rails sighted. Well secured.

Condition: Average condition.

Other notes:



Main salon and fold down dinette table

The main salon had a fold out dinette table sighted on the forward bulkhead of the main salon. The table was made of a composite material and teak wood and was functional when tested.

Findings:	Recommendations:
One 12 volt cabin fan near the galley was spinning backwards when tested and blades were unprotected.	Have a qualified marine technician replace this 12 volt cabin fan. The oil heater should be inspected and tested by a qualified technician before using.

GALLEY

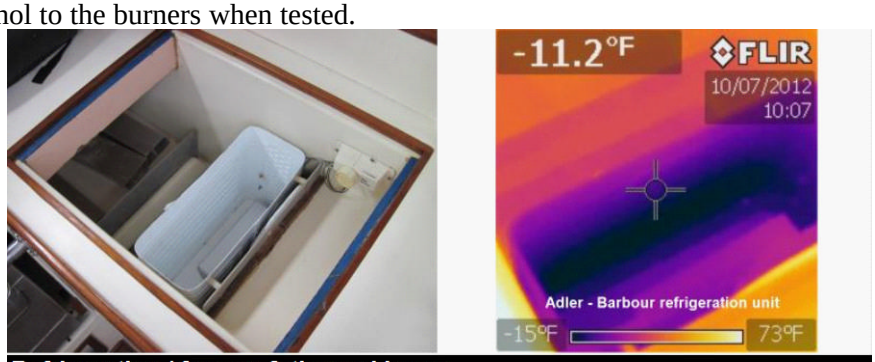
Location:

Galley and stove

On the port side of the main salon.

Stove: The stove was "Force 10" brand stainless steel alcohol stove. The stove was gimballed and had three burners and an oven. The pressurized alcohol tank was sighted on the starboard aft side of the main salon and was manually pressurized. The tank was able to hold pressure when tested, however the stove did not feed alcohol to the burners when tested.

Refrigeration:



Refrigeration / freezer & thermal image

The refrigeration unit was a 12 volt "Adler - Barbour" brand refrigeration / freezer unit that was recessed into the forward counter of the galley. The unit was functional when tested.

Water system: Pressurized potable (fresh) hot and cold water was available on board this vessel. Pressurized water was made available via a 12 volt automatic water pump. Pressurized water was functional on this vessel when tested.

Sink(s): Stainless steel sink with working hot and cold water faucet that drained overboard. In good condition.

Findings:	Recommendations:
The alcohol stove was not functional when tested.	Consider having a qualified marine technician repair or replace the non working stove if desired.

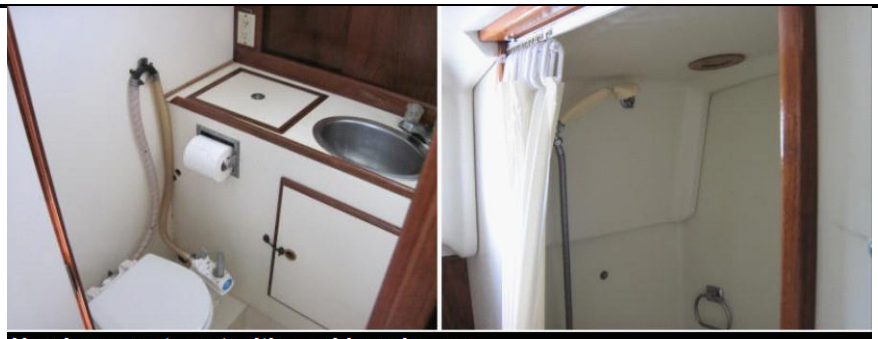
BERTHS / STATEROOMS

Berths: There was one forward "V" berth compartment forward of the head. The forward "V" berth appeared to be the master stateroom on board. In the main salon, port and starboard bench seats could be unlatched and pulled out on wooden tracks to make for additional berthing space. Both bench seats were functional. The starboard side bench seat was off the aft wooden track and needs to be reset. The "V" berth fabric cushions were in average condition with no rips or tears sighted. The "V" berth had a white painted wooden door that could be closed for privacy.

Findings:	Recommendations:
The sliding wood track on the starboard side bench seat in the main salon was off (to convert the seat to a sleeping berth).	Consider resetting the bench back into the aft track so the bench slides easier and evenly.

HEAD(S)

Number/Location:



Head compartment with working shower

One head was sighted on the starboard side of the forward cabin. The head was in a private compartment and had a latchable wooden door.

Toilet(s): The toilet was a fresh water supplied "ITT Jabsco" brand toilet. The toilet was a manual flushable toilet. The toilet was functional when tested.

Sink: The sink was a stainless steel sink with a hot and cold water faucet that converted in to a shower. The sink drained overboard.

Shower(s): The shower was a plastic shower stall with hot and cold water and a detachable shower head. The shower had a working shower curtain and grey water drained into a grey water tank sighted below the main salon sole.

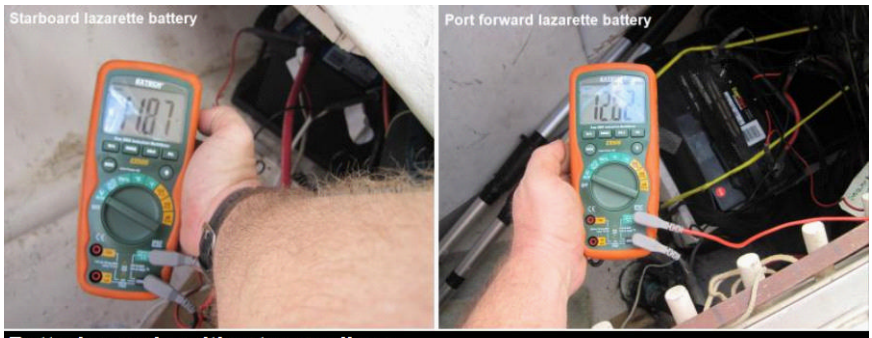
Medicine cabinet: Yes, sighted above the sink. Teak locker space with sliding doors.

ELECTRICAL SYSTEMS

D.C. ELECTRICAL SYSTEMS

D.C. Voltage system: 12 volt system.

Primary batteries:



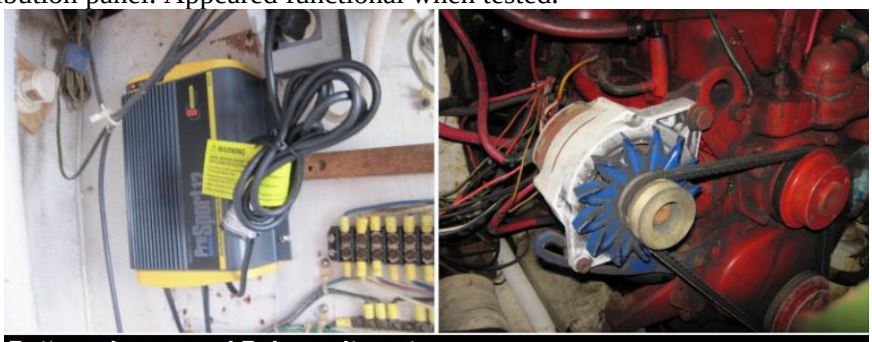
Batteries and multimeter readings

The primary batteries on board this vessel were one 12 volt "Duralast" brand, lead / acid battery (model number 24-MD-DL, sighted in the starboard side aft lazarette) and one 12 volt "EverStart" brand, lead / acid battery (model number 27DC-6, sighted in the port side forward lazarette). The batteries were both deep cycle marine batteries and were rated at 550 CCA (cold cranking amps) and 600 CCA respectively. The batteries were charged between 11.87 - 12.62 volts when tested with a multimeter. The batteries were wired in a parallel circuit and were designated for engine start (Duralast battery) and house battery use (EverStart battery). The batteries were secure to the vessel. The batteries were wired with proper 1 AWG battery cable.

Battery selector switch: One "Perko" brand rotary battery switch was sighted in the starboard side lazarette. Functional when tested. *Note: Recommend alternating use of battery one or two when using the vessel. Only use the battery switch "All" or "Both" position if both of the batteries are low or when charging with the onboard battery charger or the engine's alternator.*

Battery monitor: Yes, switched analog type gauge to test the batteries sighted at the power distribution panel. Appeared functional when tested.

Charging system:


Battery charger and Balmar alternator

The vessel's batteries could be charged via the onboard 120 volt "Pro Mariner" brand marine battery charger or via the vessel's engine "Balmar" marine alternator. The 120 volt battery powered up when tested. The vessel's alternator charged both batteries during the sea trial.

Distribution panel:

DC power distribution panels in main salon

The power distribution panel was sighted in the forward cabin of this vessel on the aft bulkhead above the sleeping berth. The panel was functional when tested.

Breaker(s)/fuse(s): All DC circuits were adequately protected by branch breakers.

Connectors: Ring spade or crimp on connectors sighted for wiring connections.

D.C. wiring: All wiring runs were properly secured every 18 inches per ABYC E-11 recommendations.

DC Electrical ground: The DC electrical system was properly tied in to the vessel's electrical ground system using the engine as the common ground.

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

Condition summary: Average condition.

Findings:	Recommendations:
Wing nuts were sighted on the battery terminals that connected the battery cables to the batteries on the port side battery. Batteries were not properly secure in their battery trays when tested. Battery terminals were not protected with non-conductive boot covers.	Have a qualified marine technician install permanent fasteners on the terminals on the port battery that secure the battery cables as recommended by ABYC E-10. Have a qualified marine technician properly secure the batteries to their tray. *NOTE: All batteries should be properly secure to their locations and can not be moved more than one inch in any direction as recommended by ABYC E-10.* Have a qualified marine technician install non-conductive battery boot covers over the terminals to prevent accidental arcing of the terminals as recommended by ABYC E-10.

A.C. ELECTRICAL SYSTEMS

A.C. Voltage system: 30 amp, 120 volt system.

Shore power cord(s): The shore power cord was a 50 foot "Marinco" brand shore power cord. The shore power cord was in average condition but was missing a locking collar on one side.

Wiring Problem:


Hot / neutral reverse polarity

All of the 110 volt outlets on board had a hot / neutral reverse polarity when tested.

A.C. power selector switch:

AC distribution power and AC boat cable

AC power / shore dial switch located in main AC panel in the galley area. No generator was on board.

Distribution panel(s): Yes, sighted on the aft bulkhead of the galley.

Branch breakers: All AC circuits were adequately protected by branch breakers.

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

GFCI protection: No sighted GFCI equipped 110 volt outlets were installed in the wet locations on board.

A.C. meter(s): Analog type, sighted at the AC power distribution panel. Did not appear to be functional when tested.

Wire type: Proper stranded copper marine type boat cable. The size and rating where it could be sighted appeared correct and serviceable for its intended use.

Wiring secured: Yes, all wiring was secured every 18 inches per ABYC and NFPA recommendations.

Wire terminations: AC wiring was properly terminated. No wire nuts or loose connections were sighted.

Anti-chafe protection: Anti-chafe protection was sighted at all compartment pass thru locations on this vessel. The anti-chafe protection for the wires were cut plastic water hose at bulkhead pass through locations.

A.C. Electrical ground: The AC electrical system was properly tied into the vessel's electrical ground system using the engine as the common ground.

Galvanic Isolator: Not sighted on board.

Condition summary: Average condition.

Findings:	**Recommendations:**
The male end of the shore power cord was missing a locking collar. All of the outlets on board had hot / neutral improper polarity when tested. The 120 volt outlets were not GFCI protected when tested. The analog AC meter was not functional when tested. No galvanic isolator was sighted on the vessel where it could be seen.	Place a working shore power cord on board that has a locking collar on the male end of the cord to prevent backing out of the shore power cord when connected. Have a qualified marine technician correct the wiring problem on the outlets so that all outlets have proper polarity as recommended by ABYC E-11. Have a qualified marine technician install working GFCI outlets in all wet locations on board as recommended by ABYC E-11. Have a qualified marine technician Install a working AC power meter on board to properly monitor power. Have a marine electrician verify that a galvanic isolator is properly installed behind or close to the shore power inlets and that it is properly working. *Note: A marine galvanic isolator is a unit that functions by isolating functional sections of the vessel's electrical systems which prevents the movement of charge carrying particles from transferring from one section of the vessel to another (such as preventing direct current flowing between the sections of the vessel but still*

allowing proper electrical power and energy to still be exchanged by means such as capacitance, induction or electromagnetic waves). Galvanic isolation is used in situations where two or more electric circuits must communicate, but their grounds may be at different potentials. It is an effective method of breaking ground loops by preventing unwanted current from flowing between two units sharing a ground conductor. Galvanic isolation is also used for safety and preventing accidental electrical current from reaching the ground through a person's body if ground contact is made. Recommend insuring the proper install of a marine type galvanic isolator with a working fail safe switch as recommended by ABYC E-11.

LIGHTNING PROTECTION

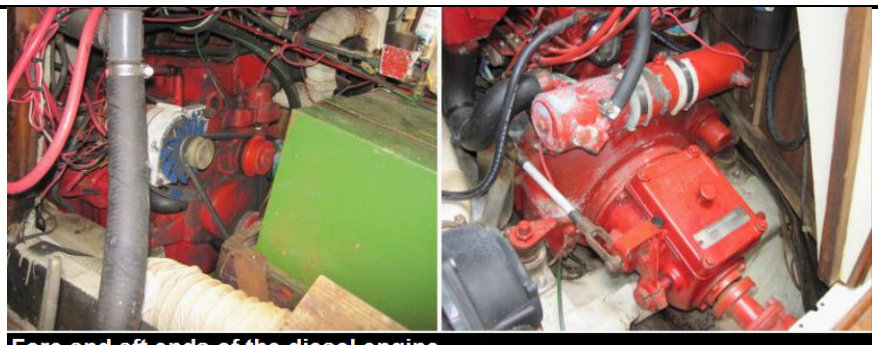
Main grounding conductor: The main grounding conductor for the lightning protection system could not be sighted at the mast or mizzen mast due to limited access.

Findings:	Recommendations:
The lightning protection system could not be sighted due to limited access to the cable at the mast and mizzen mast.	Have a qualified marine technician further inspect the lightning protection system at both masts. It is best to step down these masts to the ground for better inspection and testing of these lightning protection cables. Note: *Some vessels discharge lightning by having the current travel down standing rigging and connecting a ground cable to the chain plate that discharges through the strut or other underwater metal running gear. The lightning protection system should be inspected, tested, and understood on this vessel before getting underway.*

PROPULSION SYSTEM

MAIN ENGINE(S)

No./Type/Cylinders:



Fore and aft ends of the diesel engine

The engine that powered this vessel was a "Westerbeke" brand "40" model four cylinder, four cycle, 37 horsepower inboard diesel engine. The engine was naturally aspirated.

Serial no(s):

Engine serial number

108U9485B710.

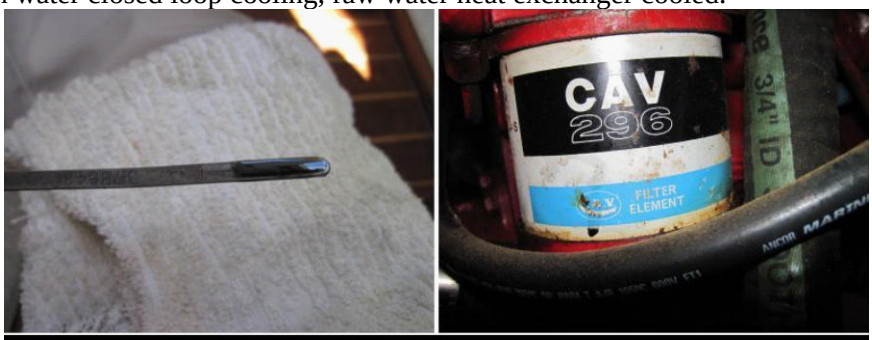
Engine(s) hours: Not sighted on board.

Hoses and clamps: Average condition, no cracks sighted.

Belts and pulleys: The belt on the engine was loose with some excess belt deflection when tested. Belt dust was sighted on the front of the engine (which faces aft in the lazarette because of the vee drive configuration.

Cooling system(s): Fresh water closed loop cooling, raw water heat exchanger cooled.

Oil level and condition:



Oil level and fuel filter on engine

Clean and full on dipstick. No foreign debris, water or cuttings sighted on the oil dipstick.

Fuel supply lines: Unmarked rubber flex hose. Appeared in average condition. No leaks sighted.

Fuel filter(s): "CAV 296" fuel filter attached to the diesel engine.

Engine mounts and beds: Engine mounts appeared to be well secured to the support stringers.

Engine ground cable: Yes, engine was properly grounded with a proper size conductor cable.

Other notes: The coolant reservoir was remote of the main engine sighted to be in the forward starboard side lazarette. The coolant appeared to be in good condition. No leaks were sighted.

Condition summary: Average condition.

Findings:	**Recommendations:**

Uneven temperature anomalies in exchanger

The engine belt was loose and belt dust was all over the fore end of the engine. The aft heat exchanger was sighted to be uneven in temperature suggesting the heat exchanger may have corrosion inside the tubulars and may need servicing. The aft heat exchanger had some surface corrosion on the exchanger surface and around the ends suggesting a previous leak. No leaks were sighted in the exchanger while the engine was running and during the sea trial.

Have a qualified marine technician properly adjust or replace the engine belt. Have a qualified marine technician further inspect the aft heat exchanger. Repair, replace or renew as necessary.

EXHAUST SYSTEM

Discharge location(s): On the port side transom above the water line via a stainless steel fitting.

Piping/Clamps: Raw water exhaust piping was black flex hose. Properly double clamped where it could be sighted.

Exhaust manifold: No cracks or water tracks sighted. Appears to be in good condition as sighted.

Muffler(s):

Wet exhaust system

Aluminum water lift type muffler. No leaks sighted. Sighted in the starboard side lazerette near the water heater.

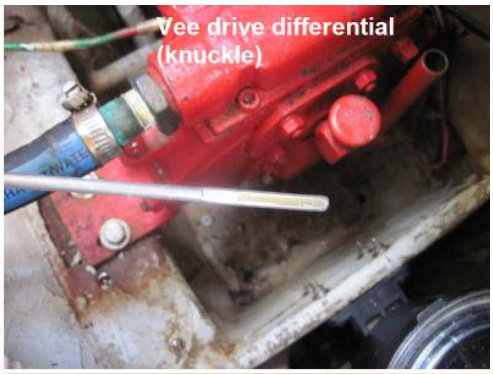
Other notes: There was a steel gate valve fitting near the muffler in the lazarette. The gate valve was stuck in the open position and would not close.

Condition summary: Average condition.

Findings:	Recommendations:
Exhaust hose gate valve above the muffler was stuck in the open position.	Have a qualified marine technician replace the frozen gate valve with a ball type bronze seacock valve.

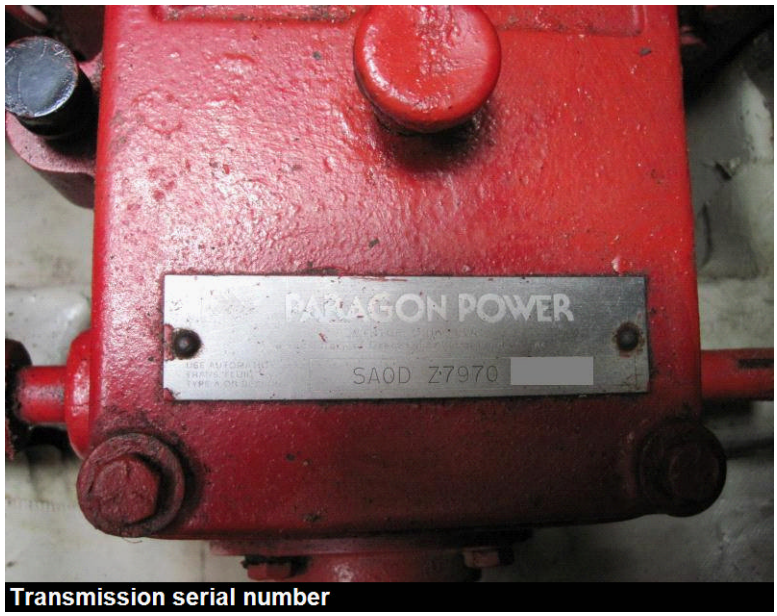
TRANSMISSION(S)

Manufacturer/Model:



The aft transmission was a "Paragon" brand transmission. The transmission was controlled by a manual cable and was fully functional when tested during the sea trial. The unit was connected to a vee drive differential unit sighted forward of the transmission under the main salon sole. The vee drive had a hard impeller built into it that pressurized raw water to the engine and helped cool the vee drive hydraulic fluid. The vee drive had proper and clean fluid when checked. The vee drive unit was functional when tested.

Serial no(s):



Transmission serial number

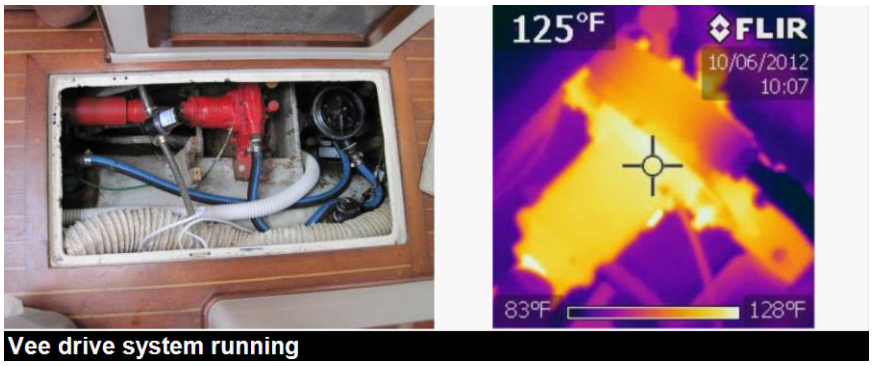
SAQDZ79706M380.

Gear ratio: 2 : 1.

Propeller shaft(s): 1 1/8 inch diameter steel shaft.

Stuffing box(es): Packless shaft seal system. Bellows and carbon collar is secure and appears functional. *Owner is advised to "burp" the bellows after each launch before use and check after launch for any leaks.*

Other notes:



Vee drive system running

The vee drive system was tested with a thermal camera. The vee drive system was running normally with no unusual temperatures or gear noise sighted or heard.

Condition summary: Average condition.

Findings:	Recommendations:
The shaft seal was dripping at a rate of one drop per second.	Have a qualified marine technician further inspect the shaft seal. Repair, replace or renew. The shaft seal should drip no more than a few drops per minute.

STEERING SYSTEM

STEERING SYSTEM

Type:


Steering system

The steering system on board this vessel was a manual cable / chain over pulley system. The steering system worked properly when tested and turned both ways equally. No leaks were sighted in the rudder post pass through location or around the packing glands during the sea trial. Cables, chains, and pulleys appeared secure and in average condition. The steel steering quadrant was in average condition with cables terminated and properly secure in the quadrant. Adequate tension was on the cables when tested. Some surface corrosion was sighted on the top of the steering quadrant.

Emergency tiller: Yes sighted in the aft lazarette. Functional when tested. Tiller fitting sighted aft of the helm pedestal via a deck cover.

Condition summary: Average condition.

Findings:	Recommendations:
The top of the steering quadrant was sighted to be corroded. The emergency tiller deck cover (made of aluminum) had holes going through the cover aloowing water to get to the top of the steering quadrant.	Have a qualified marine technician further inspect the steering quadrant and cover to the emergency tiller. Replace, repair or renew as necessary.

TANKAGE

FUEL TANK(S)

No & Location:

Fuel tank & fuel fill deck fitting

One fuel tank was sighted below the aft cockpit deck. The tank appeared to be in good condition with no leaks sighted. The tank was mounted on a flat surface and appeared well secured. No leaks were sighted on the tank.

Tank type & capacity: Painted aluminum. The tank's rated capacity was approximately 40 gallons.

Manufacturer' s label(s): The USCG required label was not sighted on the fuel tank.

Fuel supply and return hoses: Unmarked flex and painted metal hoses. *Note: Most fuel hose manufacturers now recommend fuel hoses be replaced every five years. This is more important with the introduction of ethanol into gasoline as hoses can and do deteriorate from the inside. The date of manufacture is imprinted on all USCG approved fuel hoses. Consider replacing all flexible fuel hoses every five years as a part of routine maintenance.*

Shut off valve(s): Yes at the top of the tank. Functional when tested.

Vent line/location: Yes, vented to the port transom of the hull.

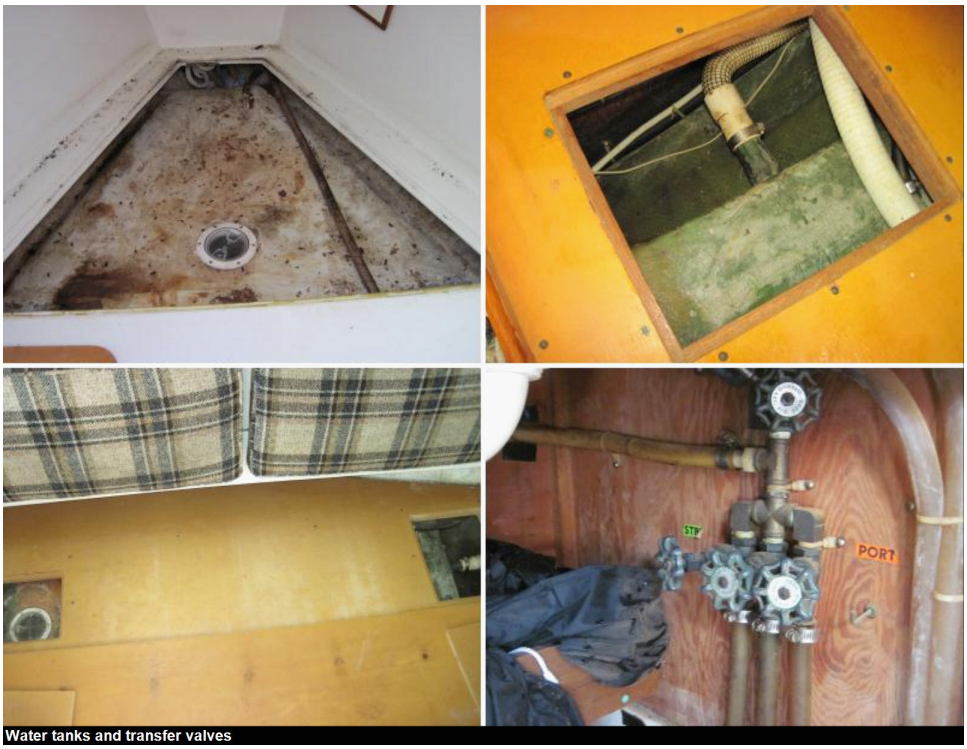
Fill line(s) located: One bronze fuel fitting was sighted on the center of the cockpit deck forward of the helm pedestal. The fill hose was a USCG type B2 fill hose and was properly double clamped and grounded. No leaks were sighted in the hose or around the clamps where they could be seen.

Inspection/cleaning access: Yes, proper access could be made to the fuel tank.

Tank(s) condition: Visually good where it could be sighted.

FRESH WATER TANK(S)

No & locations of tanks:



Water tanks and transfer valves

A total of three water tanks were sighted on board this vessel. One under the forward "V" berth bunk, and two tanks sighted in the main salon (one each under each bench seating). The tanks appeared to be made from FRP. Each tank was rated to hold 50 gallons each (150 gallons total). All of the tanks appeared well secured, vented, and on a flat surface. The water fill for the tanks were bronze type deck fills sighted on the port and starboard decks outboard of the cabin top and at the port bow near the windlass. The deck fills and plastic hoses were properly secured and appeared to be in good condition. No leaks were sighted in the potable water system or tank. Transfer valves for the potable water system were gate valves sighted under the galley sink. All of the transfer valves worked properly when tested.

Water pump(s): A 12 volt "Shurflo" water pump was sighted next to the water heater in the starboard side lazarette.

Supply lines: Reinforced flex plastic hose. No leaks sighted.

Shut off valve(s): At the gate valves under the galley sink.

Other notes: A separate 12 volt "bow pump" for fresh water wash down was sighted under the "V" berth locker space on the starboard side of the vessel. THis pump did not power up when tested. The fitting for the wash down was on the starboard bow next to the windlass. The fitting appeared to be old and not functional.

Condition summary: Average condition.

Findings:	**Recommendations:**
The forward "V" berth tank had mouse urine and waste on the surface of the tank. Signs of a mouse's nest could be sighted in a small space just forward of the "V" berth water tank. The interior of the "V" berth tank was dirty and should be cleaned. The forward bow pump and deck fitting for fresh water wash down were not functional.	Have a qualified marine technician properly clean up the mouse waste and interior of the forward water tank. If a mouse is on board it should be removed. Mice and rats will eat through wiring and lines on board. If desired, replace the old bow pump and wash down fitting on deck.

HOLDING TANK(S) - BLACK WATER

Marine Sanitation Device: No waste tank was sighted on board this vessel. Waste tank pump out hose was sighted under the starboard side "V" berth, but the tank appeared to have been removed. The only way to flush the manual toilet was directly overboard.

Y valve(s) installed: Yes, sighted in the head near the toilet. The "Y" valve leaked out of the valve itself when the toilet was flushed.

Vent(s) location(s): Yes, on the starboard topside of the vessel.

Vented loop(s): yes, sighted behind the toilet.

Macerator pump(s): Not sighted on board.

Condition summary: Poor condition.

Findings:	Recommendations:
No waste tank was sighted on board, toilet could only flush directly overboard. The "Y" valve sighted in the head leaked from the valve when the toilet was pumped.	Have a qualified marine technician properly install a type III MSD system (Marine Sanitation Device - waste holding tank) and connect it to the waste pump out hose as required by 33 CFR 159. Note: *The waste tank and proper MSD system is a USCG requirement for all vessels in U.S. inland waters and on the Great Lakes. An operational waste overboard discharge system is illegal in Inland waters and the Great Lakes and can result in State or USCG fines. In inland water or on the Great Lakes the overboard discharge system must be disabled. USCG regulation 33 CFR 159.7 requires securing the device by one of the following methods: 1) closing the seacock and removing the handle, 2) pad locking the seacock in the closed position, 3) using a non-releasable wire tie to hold the seacock in the closed position, or 4) locking the door to the space enclosing the toilets with a padlock or door handle key lock.* Have a qualified marine technician replace the leaking "Y" valve.

WATER HEATER

Tank location:

Water pump and hot water heater

One 120 volt "Raritan" brand "R6S" model stainless steel water heater was sighted in the starboard side lazarette (serial number HF 9607206). The unit was heat exchanger heated from the engine or AC power heated. The unit had a rated capacity of six gallons and appeared to be well secured and in good condition.

Pressure relief valve(s): Yes.

Drain fixture(s)/plug(s): Yes.

Supply lines: Reinforced plastic hose.

Heat exchanger hoses: Black flex hose. Average condition.

Outer tank material: Painted steel.

Ignition protected: Yes.
Other notes: Some minor corrosion was sighted on the surface of the tank.
Condition summary: Average condition.

GREY WATER TANK(S)

Number of tanks:

Grey water tank and hose fittings

One grey water tank was sighted under the main salon sole near the head. The grey water tank was made of plastic and was covered. Inside the grey water tank was a 12 volt "Rule" brand "Sahara" series 750 GPH pump with a built in float switch. The pump did not power up when tested.

Lines: Reinforced plastic. Discharged to the starboard side of the hull via a thru hull fitting.
Tank(s) condition: Good condition.
Condition summary: Poor condition.

Findings:	Recommendations:
The small grey water tank under the forward cabin sole had a non-functional pump and was overflowing with water when inspected.	Have a qualified marine technician further inspect this grey water tank. Repair or replace as necessary.

SAFETY EQUIPMENT

U.S.C.G. REQUIRED

Navigation lights: All navigation lights except for the aft stern light were not working when tested. Running lights had power but the port light was not functional and the starboard light was very dim.

Life Jackets(PFD's):

Life jackets and USCG required placards

The following USCG approved life jackets were sighted on board: One type I life jacket, one type II life jacket, two type III life jackets. All of the life jackets were in serviceable condition.

Throwable type PFD's: Two USCG approved type IV throwable PFDs were sighted on board this vessel. The PFDs appeared to be in good condition and were serviceable.

Visual Distress Signals: No current visual distress kit was sighted on board this vessel. *NOTE: All visual distress signals have a printed expiration date of three years from date of manufacture. It is recommended that expired signals be retained for backup. There*

must be at least three aerial or three red hand held signals that are current.

Sound devices: No 12 volt or manual horn was sighted on board that could be heard at least 1/2 of a nautical mile.

USCG placards: Both oil discharge and the MARPOL garbage discharge placards were sighted on this vessel.

Engine ventilation: Natural ventilation for engine space is provided. Power exhaust ventilation blower(s) are installed and fully operational.

Findings:	Recommendations:
The navigation lights were not fully functional when tested. There were no unexpired visual distress signals sighted on board this vessel. No working horn was sighted on board.	Have a qualified marine technician properly repair or replace the non working navigation lights as required by 33 CFR 84 and 72 COLREGS. Place at least three unexpired day / night visual distress signals on board this vessel as required by 33 CFR 175.110 before getting underway on this vessel. Have a qualified marine technician repair or replace this horn to make it operational. A vessel's horn on this size vessel needs to be heard at least 1/2 of a nautical mile as required by 72 COLREGS Rule 33.

FIRE FIGHTING EQUIPMENT

Portable fire extinguishers:

Fire extinghisher and service tag

Two "TRW" brand USCG approved fire extinguishers were sighted on this vessel. The fire extinguishers were properly charged and rated for A, B, and C rated fires (one sighted near the galley and one sighted at the navigation station). The fire extinguishers showed they were charged but were tagged to have been last serviced in 1995.

Findings:	Recommendations:
No current annual inspection tags were sighted on the portable fire extinguishers.	ABYC A-4 and NFPA 302 recommends that fire protection systems be inspected and reweighed at one year intervals and tagged accordingly. Recommend compliance. NOTE: *USCG standards (46 CFR 25) for vessels 26 to 40 feet require two BI extinguishers or one BI and one fixed system. ABYC A-4.6.3 and NFPA 302 Chapter 12 recommends at least three fire extinguishers: One outside the engine and or generator compartment, one at the steering position, and one near the galley or cockpit area. Recommend compliance with ABYC and NFPA for this size vessel. Fire extinguishers should be permanently mounted and readily available using the mounting system for the brand chosen.*

BILGE PUMPS

ELECTRIC PUMPS:

Electric and manual bilge pumps on board

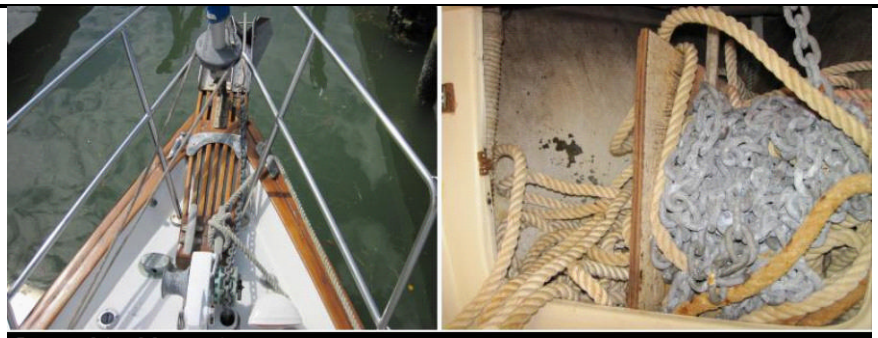
One bilge pump was sighted on board this vesse just forward of the vee drive system in the lowest part of the bilge. The bilge pump was a 12 volt "Rule" brand 1000 GPH bilge pump with an external float switch. The bilge pumps were wired into a fused protected circuits as recommended by ABYC. The bilge pump powered up when tested. The float switch was functional when tested.

MANUAL PUMPS: A total of two manual "Henderson" brand bilge pumps were sighted on board (one near the engine and one in the port side lazarette). Both bilge pumps were functional when tested and properly discharged overboard.

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

GROUND TACKLE

Primary anchor:


Ground tackle system

The primary anchor was a galvanized steel plow type anchor. The anchor was properly rated for this size vessel. The anchor was attached to approximate 25 five feet of 3/8 inch diameter galvanized steel chain which attached to approximately 150 feet of 9/16 inch diameter three strand right lay nylon line. The entire ground tackle was in good condition when inspected.

Findings:	Recommendations:
Stainless steel wire was not moused to the shackles on the ground tackle.	It is a good practice of seamanship that stainless steel wire be tied into the shackle and shackle pin to prevent the pin from backing out of the shackle while the anchor is deployed.

AUXILIARY SAFETY EQUIPMENT

Carbon monoxide detectors: No working smoke / CO detectors were sighted on board this vessel. *NOTE: During the burning of any of fuels, carbon monoxide (CO) gas may be created due to incomplete combustion from propulsion systems, cabin heater or stove as well as nearby boats running generators or other equipment. Adequate ventilation must be provided at all times while burning any of these fuels. CO gas may also be drawn into the cabin spaces through ventilation systems. This is especially true of boats running air conditioning or generators. CO is a gas that can not be seen or smelled and can kill without warning, Regular testing of installed CO detectors in any occupied spaces or compartments below decks is highly recommended.*

Findings:	Recommendations:
No smoke / CO detectors were installed on board.	Although not required by law on a vessel of this size, it is a good practice of safety to have a working smoke / CO detector on board when staying aboard the vessel or while underway (one unit should be installed in each cabin compartment).

SEA TRIAL

SEA TRIAL DETAILS

Date & Time: A sea trial was conducted on September 6, 2012 but was postponed due to the throttle cable breaking during maneuvers. The sea trial was resumed on September 7, 2012 from 9:11 AM to 11:15 AM. On board the vessel at the time of the sea trial was Captain Chris Spears (the designated operator of the vessel), Tom Spartan (the current owner of the vessel), Mark Greenspan (the prospective buyer of the vessel), and Captain John Banister (the marine surveyor). The vessel was operated along the intracoastal waterway between Indian Rocks Beach and Madeira Beach, Florida.

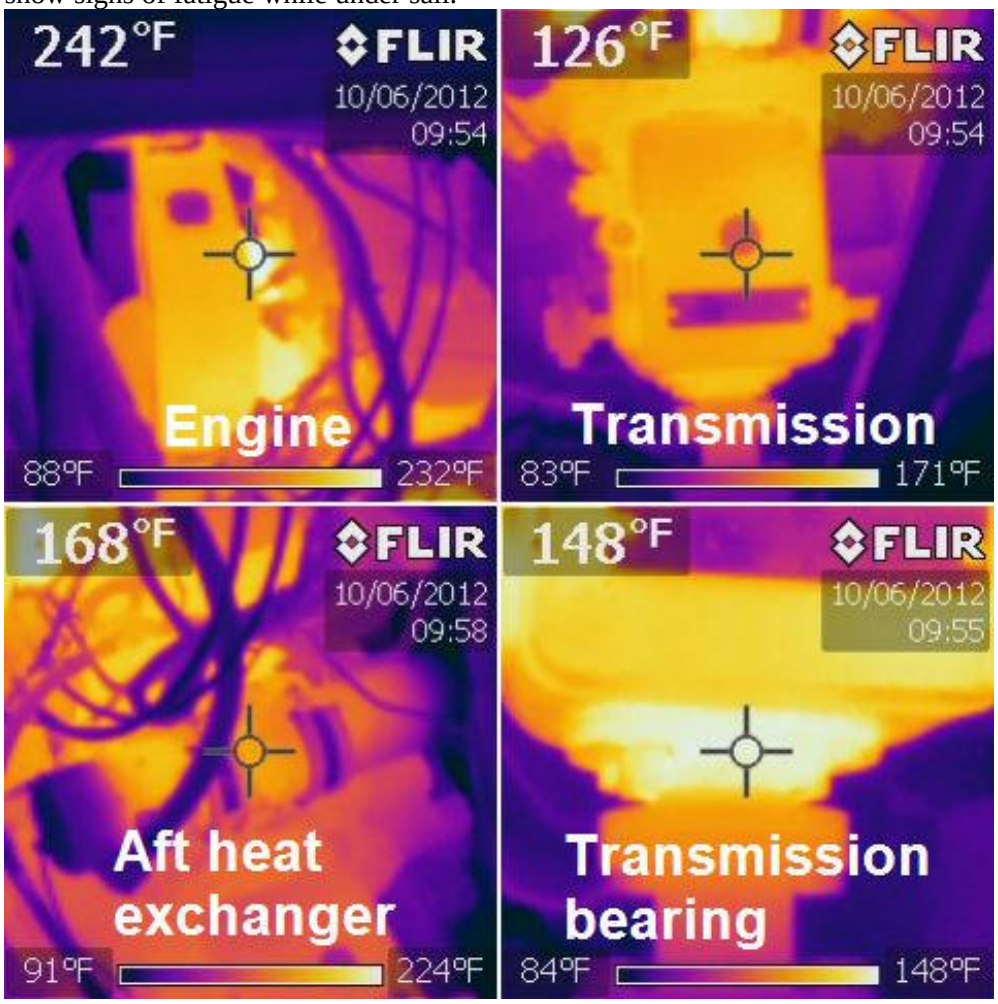
Sea trial results:

Vessel underway and WOT on GPS

The vessel's engine started up properly and the engine had adequate exhaust discharge. The exhaust smoke was normal with no unusual vapors noticed. The

The vessel's wide open throttle (WOT) was recorded at 5.9 knots sustained. No tachometer reading could be recorded due to the tachometer gauge not working (already noted in this report). The vessel was able to back down properly but the throttle cable broke on the third trial to back down. The turning radius of the vessel was approximately 35 feet when the rudder was turned hard over on the port and starboard sides. The vessel's turning radius was equal on both sides. After running the engines and generator, the following temperature readings were recorded (all readings were recorded in degrees fahrenheit with a calibrated thermal imaging camera): Engine block: 242 degrees, and exhaust manifold: 165 degrees. No significant variation in temperatures were sighted around the cylinder heads on the engine. All temperature readings were within normal limits however the engine block was running a little hotter than normal. No leaks were sighted in any of the exhaust or hull pass through locations during the sea trial. All engine mounts appeared to be secure during the sea trial. The vessel's sails and rigging were in good condition and were functional during the sailing phase of the sea trial. No shock loading of the rigging was sighted. The masts did not excessively bend or show signs of fatigue while under sail.

Thermal images taken during sea trial:



Findings:	Recommendations:
The engine block was running a little hotter than normal.	Have a qualified marine technician further inspect the engine (especially the heat exchanger and impeller) to insure the raw water cooling system is circulating properly. Repair, replace or renew as necessary.

INSPECTION RECOMMENDATIONS SUMMARY

PRIORITY I - SAFETY & REGULATORY RECOMMENDATIONS:

(MAY BE MANDATORY)

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

TANKAGE

Findings:

No waste tank was sighted on board, toilet could only flush directly overboard. The "Y" valve sighted in the head leaked from the valve when the toilet was pumped.

Recommendations:

Have a qualified marine technician properly install a type III MSD system (Marine Sanitation Device - waste holding tank) and connect it to the waste pump out hose as required by 33 CFR 159. Note: *The waste tank and proper MSD system is a USCG requirement for all vessels in U.S. inland waters and on the Great Lakes. An operational waste overboard discharge system is illegal in Inland waters and the Great Lakes and can result in State or USCG fines. In inland water or on the Great Lakes the overboard discharge system must be disabled. USCG regulation 33 CFR 159.7 requires securing the device by one of the following methods: 1) closing the seacock and removing the handle, 2) pad locking the seacock in the closed position, 3) using a non-releasable wire tie to hold the seacock in the closed position, or 4) locking the door to the space enclosing the toilets with a padlock or door handle key lock.* Have a qualified marine technician replace the leaking "Y" valve.

SAFETY EQUIPMENT

U.S.C.G. REQUIRED

Findings:

The navigation lights were not fully functional when tested. There were no unexpired visual distress signals sighted on board this vessel. No working horn was sighted on board.

Recommendations:

Have a qualified marine technician properly repair or replace the non working navigation lights as required by 33 CFR 84 and 72 COLREGS. Place at least three unexpired day / night visual distress signals on board this vessel as required by 33 CFR 175.110 before getting underway on this vessel. Have a qualified marine technician repair or replace this horn to make it operational. A vessel's horn on this size vessel needs to be heard at least 1/2 of a nautical mile as required by 72 COLREGS Rule 33.

PRIORITY II - MAINTENANCE & STANDARDS RELATED RECOMMENDATIONS:

(NOT NORMALLY MANDATORY)

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

EXTERIOR HULL & BOTTOM INSPECTION

HULL EXTERIOR

Findings:

No boarding ladder was sighted on the hull nor was there a means to re-board the vessel from the water line. Elevated moisture readings were sighted on starboard port side of the hull just aft of the stem and on

the transom near the water line. Moisture meter readings were between (15% - +30%).

Recommendations:
Consider installing a boarding ladder that can be deployed from the water as a means to re-board the vessel as recommended by ABYC H-41. Have a qualified marine technician further investigate the starboard stem and transom area of the hull. Repair, replace, or renew if necessary. If core replacement may be required, recommend using a composite core such as divinycell or coosa.

HULL BOTTOM
Findings:
The anti-fouling paint was faded and should be repainted to insure its effectiveness against bottom growth. Some sea growth was sighted in some thru hulls below the water line.

Recommendations:
Have a qualified marine technician repaint the vessel bottom with proper anti-fouling paint if the vessel is going to be in the water for a long period of time. Have a qualified marine technician further inspect the bronze thru hulls on the vessel bottom. Repair, replace or renew to clear the thru hulls.

PROPELLER(S)/SHAFT(S) / STRUT(S)
Findings:
The propeller nuts were incorrectly installed.

Recommendations:
Have a qualified marine technician re-install the propeller nuts. *Note: Per ABYC P-6 recommendations, the narrow nut (also called a jam nut) should be installed against the prop and the thicker nut should be installed behind the narrow jam nut, then properly cotter pinned.*

INTERIOR HULL & STRUCTURAL INSPECTION

ALL THRU HULL FITTINGS
Findings:
The water intake seacock for the head was sighted to not be bonded (had a disconnected bonding wire). Some bonding wires were held on improperly with stainless steel hose clamps around the seacocks. Port and starboard drain scupper seacocks were stuck in the open position and the valves would not close. Some other seacocks were difficult to open and close.

Recommendations:
Have a qualified marine technician properly attach bonding wires to seacocks using proper spade type wire or direct fastener type connections to the seacocks. Have a qualified marine technician further inspect the seacocks that were stuck in the open position. Repair, replace or renew as necessary. *NOTE: All seacocks aboard a vessel should be in the closed position when the vessel is unattended. Seacock valves can and will corrode if left unattended. It is a good practice to turn the seacock valves regularly to insure the valves are working properly. Tapered wooden plugs tied to sea valves are an inexpensive safety item and highly recommended under current ABYC standards.* Note: *Dissimilar metals and metal alloys have different electrode potentials when two or more of these metals exist in the same electrolyte (such as seawater). When this happens a galvanic couple can be created and depending upon the nobility of the metal, one metal will become the anode and another metal will become the cathode and can form electrolysis between the two electrodes (the anode and the cathode). Once the galvanic couple is formed between the two metals, the anode metal will dissolve into the electrolyte. This electrochemical reaction is called galvanic corrosion and can occur on a vessel below the waterline between two metals that are different in nobility or charged at different levels. Bonding underwater metals together causes the metals to remain at the same potential and helps prevent or slows the galvanic corrosion process.*

TOP DECK & SUPERSTRUCTURE

MAIN DECK & FITTINGS

Findings:

Moisture meter readings were high in some areas on the deck, cabin top, and on the aft teak rails around the cockpit coaming (between 15% - +30%). Some areas of wood core deterioration were detected around the forward deck and cabin top areas (approximately 15% of the main deck and cabin top areas). The teak cap areas of the toe rail were sighted to be chipped in the wood along the inboard edges. The anchor locker access door in the forward "V" berth had a loose top hinge. The windlass would not power up when tested, but worked manually. Some of the stanchions and forward bow rail were loose at the wooden bases when tested.

Recommendations:

Have a qualified marine technician further inspect the deck and coring that had elevated moisture readings. Repair, replace or renew as necessary. If desired, replace the chippped teak along the toes rails and loose hinge on the anchor locker door. Have a qualified marine technician further inspect the non-working power motor on the windlass. Repair, replace or renew if desired. Have a qualified marine technician further inspect the loose bow rail and stanchions at the wood bases. Recommend replacing with new bases of a stronger material with proper stainless (non corrosive) metal backing hardware. Rails and stanchions should not move more than an inch in any direction if properly secured to the deck.

RIGGING & SAIL HANDLING

MAST(S) / BOOM(S)

Findings:

The main mast compression plate appeared to be corroded when inspected. Upper and lower shroud stays on both masts appeared to be loose during the sea trial.

Recommendations:

Have a qualified marine rigger further inspect the compression plate and adjust the upper and lower shroud stays and adjust all standing rigging properly when the vessel is in the water. Repair, replace or renew as necessary.

STANDING RIGGING

Findings:

Chainplates could not be properly inspected due to limited access behind fastened bulkheads.

Recommendations:

Have a qualified marine rigger remove bulkheads to properly inspect the chainplates for corrosion and / or stress fractures. Repair, replace or renew if necessary.

SAILS INVENTORY

SAILS COMMENTS

Sail inspection note:

The surveyor recommends that all sails should be fully inspected by a qualified sail maker to determine the sail stretch, tears, loose or worn seams, batten pockets, and remaining life left in the sails before this vessel is to get underway. The main sail track car was able to be placed back in the track during the sea trial. One spare sail for the main was sighted in the main salon. This sail was inspected on board. The sail appeared to have some broken stitching and appeared worn. Have a qualified sail maker determine the remaining life of this main sail and to see if it is worth repairing.

HELM & NAVIGATION ELECTRONICS

NAVIGATION ELECTRONICS

Findings:

All analog navigation and wind instruments were not functional when tested. There was no working VHF

radio installed on this vessel. The helm pedestal nut that held the wheel on was loose and needs to be tightened.

Recommendations:
Have a qualified marine technician further inspect these analog instruments. Repair, replace or renew as necessary. Although not required by law on a vessel of this size, consider placing at least one portable VHF radio on board this vessel before getting underway for passenger safety. Have a qualified marine technician tighten the helm nut on the helm pedestal to secure the wheel.

ENGINE INSTRUMENTS AND CONTROLS
Findings:
The throttle cable broke when testing backing down maneuvers during the sea trial (but was replaced the following day of the survey). The analog wind, volt, tachometer, and oil pressure gauges were not functional when tested. No working hour meter was sighted on board this vessel.

Recommendations:
Consider having a qualified marine technician further inspect the existing throttle cable to determine if the length is proper. This may account for some of the stiffness in the throttle lever. If cable replacement is needed, consider replacing cables with Teflon coated throttle and / or shifting cables for easier movement and longer durability of the throttles and shifting controls. Consider having a qualified marine technician further inspect the non-working gauges. Repair or replace as necessary. A working hour gauge is recommended on this vessel to monitor engine hours and to know when to service the engine and transmission.

CABIN INTERIOR APPOINTMENTS

MAIN SALON
Findings:
One 12 volt cabin fan near the galley was spinning backwards when tested and blades were unprotected.

Recommendations:
Have a qualified marine technician replace this 12 volt cabin fan. The oil heater should be inspected and tested by a qualified technician before using.

ELECTRICAL SYSTEMS

D.C. ELECTRICAL SYSTEMS
Findings:
Wing nuts were sighted on the battery terminals that connected the battery cables to the batteries on the port side battery. Batteries were not properly secure in their battery trays when tested. Battery terminals were not protected with non-conductive boot covers.

Recommendations:
Have a qualified marine technician install permanent fasteners on the terminals on the port battery that secure the battery cables as recommended by ABYC E-10. Have a qualified marine technician properly secure the batteries to their tray. *NOTE: All batteries should be properly secure to their locations and can not be moved more than one inch in any direction as recommended by ABYC E-10.* Have a qualified marine technician install non-conductive battery boot covers over the terminals to prevent accidental arcing of the terminals as recommended by ABYC E-10.

A.C. ELECTRICAL SYSTEMS
Findings:
The male end of the shore power cord was missing a locking collar. All of the outlets on board had hot / neutral improper polarity when tested. The 120 volt outlets were not GFCI protected when tested. The analog AC meter was not functional when tested. No galvanic isolator was sighted on the vessel where it

could be seen.

Recommendations:
Place a working shore power cord on board that has a locking collar on the male end of the cord to prevent backing out of the shore power cord when connected. Have a qualified marine technician correct the wiring problem on the outlets so that all outlets have proper polarity as recommended by ABYC E-11. Have a qualified marine technician install working GFCI outlets in all wet locations on board as recommended by ABYC E-11. Have a qualified marine technician Install a working AC power meter on board to properly monitor power. Have a marine electrician verify that a galvanic isolator is properly installed behind or close to the shore power inlets and that it is properly working. *Note: A marine galvanic isolator is a unit that functions by isolating functional sections of the vessel's electrical systems which prevents the movement of charge carrying particles from transferring from one section of the vessel to another (such as preventing direct current flowing between the sections of the vessel but still allowing proper electrical power and energy to still be exchanged by means such as capacitance, induction or electromagnetic waves). Galvanic isolation is used in situations where two or more electric circuits must communicate, but their grounds may be at different potentials. It is an effective method of breaking ground loops by preventing unwanted current from flowing between two units sharing a ground conductor. Galvanic isolation is also used for safety and preventing accidental electrical current from reaching the ground through a person's body if ground contact is made. Recommend insuring the proper install of a marine type galvanic isolator with a working fail safe switch as recommended by ABYC E-11.*

LIGHTNING PROTECTION
Findings:
The lightning protection system could not be sighted due to limited access to the cable at the mast and mizzen mast.

Recommendations:
Have a qualified marine technician further inspect the lightning protection system at both masts. It is best to step down these masts to the ground for better inspection and testing of these lightning protection cables. Note: *Some vessels discharge lightning by having the current travel down standing rigging and connecting a ground cable to the chain plate that discharges through the strut or other underwater metal running gear. The lightning protection system should be inspected, tested, and understood on this vessel before getting underway.*

PROPULSION SYSTEM

MAIN ENGINE(S)
Findings:
The engine belt was loose and belt dust was all over the fore end of the engine. The aft heat exchanger was sighted to be uneven in temperature suggesting the heat exchanger may have corrosion inside the tubulars and may need servicing. The aft heat exchanger had some surface corrosion on the exchanger surface and around the ends suggesting a previous leak. No leaks were sighted in the exchanger while the engine was running and during the sea trial.

Recommendations:
Have a qualified marine technician properly adjust or replace the engine belt. Have a qualified marine technician further inspect the aft heat exchanger. Repair, replace or renew as necessary.

EXHAUST SYSTEM
Findings:
Exhaust hose gate valve above the muffler was stuck in the open position.

Recommendations:
Have a qualified marine technician replace the frozen gate valve with a ball type bronze seacock valve.

TRANSMISSION(S)

Findings:

The shaft seal was dripping at a rate of one drop per second.

Recommendations:

Have a qualified marine technician further inspect the shaft seal. Repair, replace or renew. The shaft seal should drip no more than a few drops per minute.

STEERING SYSTEM

STEERING SYSTEM

Findings:

The top of the steering quadrant was sighted to be corroded. The emergency tiller deck cover (made of aluminum) had holes going through the cover aloowing water to get to the top of the steering quadrant.

Recommendations:

Have a qualified marine technician further inspect the steering quadrant and cover to the emergency tiller. Replace, repair or renew as necessary.

TANKAGE

FRESH WATER TANK(S)

Findings:

The forward "V" berth tank had mouse urine and waste on the surface of the tank. Signs of a mouse's nest could be sighted in a small space just forward of the "V" berth water tank. The interior of the "V" berth tank was dirty and should be cleaned. The forward bow pump and deck fitting for fresh water wash down were not functional.

Recommendations:

Have a qualified marine technician properly clean up the mouse waste and interior of the forward water tank. If a mouse is on board it should be removed. Mice and rats will eat through wiring and lines on board. If desired, replace the old bow pump and wash down fitting on deck.

GREY WATER TANK(S)

Findings:

The small grey water tank under the forward cabin sole had a non-functional pump and was overflowing with water when inspected.

Recommendations:

Have a qualified marine technician further inspect this grey water tank. Repair or replace as necessary.

SAFETY EQUIPMENT

FIRE FIGHTING EQUIPMENT

Findings:

No current annual inspection tags were sighted on the portable fire extinguishers.

Recommendations:

ABYC A-4 and NFPA 302 recommends that fire protection systems be inspected and reweighed at one year intervals and tagged accordingly. Recommend compliance. NOTE: *USCG standards (46 CFR 25) for vessels 26 to 40 feet require two BI extinguishers or one BI and one fixed system. ABYC A-4.6.3 and NFPA 302 Chapter 12 recommends at least three fire extinguishers: One outside the engine and or generator compartment, one at the steering position, and one near the galley or cockpit area. Recommend compliance with ABYC and NFPA for this size vessel. Fire extinguishers should be permanently mounted and readily available using the mounting system for the brand chosen.*

SEA TRIAL

SEA TRIAL DETAILS

Findings:

The engine block was running a little hotter than normal.

Recommendations:

Have a qualified marine technician further inspect the engine (especially the heat exchanger and impeller) to insure the raw water cooling system is circulating properly. Repair, replace or renew as necessary.

OTHER OBSERVATIONS:

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

TOP DECK & SUPERSTRUCTURE

BRIDGE DECK / COCKPIT

Findings:

Some stitching in the forward section of the bimini was missing or broken.

Recommendations:

If desired, have a qualified marine technician further inspect the canvas bimini top and all the panels. Repair, replace or renew if necessary.

RIGGING & SAIL HANDLING

WINCHES

Findings:

The winches were functional but appeared dry when turned.

Recommendations:

Have a qualified marine rigger further inspect these winches. The winches should be disassembled, cleaned and lubed with proper winch lube to extend life of the winches.

HELM & NAVIGATION ELECTRONICS

OTHER ELECTRONICS AND CONTROLS

Findings:

The 12 volt outlet at the power distribution panel was not functional when tested. The 12 volt cockpit courtesy light was not functional when tested. No working high water alarms were installed on this vessel.

Recommendations:

Consider having a qualified marine technician replace or repair the 12 volt outlet and 12 volt aft deck courtesy light if desired. Consider installed a high water alarm on board this vessel. Note: *Since 2005, ABYC H-22 has recommended the use of a high water bilge alarm for all vessels with accommodation spaces. Recommend compliance with ABYC.*

CABIN INTERIOR APPOINTMENTS

GALLEY

Findings:

The alcohol stove was not functional when tested.

Recommendations:

Consider having a qualified marine technician repair or replace the non working stove if desired.

BERTHS / STATEROOMS

Findings:

The sliding wood track on the starboard side bench seat in the main salon was off (to convert the seat to a sleeping berth).

Recommendations:

Consider resetting the bench back into the aft track so the bench slides easier and evenly.

SAFETY EQUIPMENT

GROUND TACKLE

Findings:

Stainless steel wire was not moused to the shackles on the ground tackle.

Recommendations:

It is a good practice of seamanship that stainless steel wire be tied into the shackle and shackle pin to prevent the pin from backing out of the shackle while the anchor is deployed.

AUXILIARY SAFETY EQUIPMENT

Findings:

No smoke / CO detectors were installed on board.

Recommendations:

Although not required by law on a vessel of this size, it is a good practice of safety to have a working smoke / CO detector on board when staying aboard the vessel or while underway (one unit should be installed in each cabin compartment).

CONDITION & VALUE REPORT SUMMARY

DECLARATION:

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

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

Definitions of value are clarified as defined by USPAP® (the Uniform Standards of Professional Appraisal Practice) and IVSC® (the International Valuation Standards Council). The definitions are as follows:

- **ESTIMATED MARKET VALUE** - A type of value, stated as an opinion, that presumes the transfer of a property (i.e., a right of ownership or a bundle of such rights), as of a certain date, under specific conditions set fourth in the definition of the term identified by the appraiser as applicable in an appraisal.
- **ESTIMATED REPLACEMENT VALUE** - The current cost of a similar asset offering equivalent utility.

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

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

- **RATING OF VESSEL CONDITION.....AVERAGE**
- **ESTIMATED MARKET VALUE.....$27,900.00**
- **ESTIMATED REPLACEMENT VALUE.....$279,500.00**
- **INTENDED USE OF VESSEL.....RECREATION (COASTAL CRUISING)**
- **SUITABILITY FOR INTENDED SERVICE: Vessel IS considered fit for its intended use and upon correction of all listed Priority I & II recommendations.**

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

APPRAISAL VALUE CERTIFICATION

CLOSING STATEMENT AND SIGNATURE:

SUMMARY:

In accordance with the request for a marine survey of the 1977 36' Pearson Ketch, for the purpose of evaluating its present condition and estimating its fair market value and replacement cost on the date of the survey. I herewith submit my assessment based on the preceding report. The vessel was personally inspected by me (the undersigned) on September 6-7, 2012. Subject to the correction of the deficiencies listed in the red and green summary page, the vessel will be considered to be suitable for its intended use. Other
deficiencies listed in the blue findings should be attended to in a timely fashion.

SURVEYOR'S CERTIFICATION

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

The statements contained in this report are true and correct.

The reported analysis, opinions, and conclusions are limited only by the reported findings, but may also extend to the statements of the owner, captain, or representative of the vessel. My report may also be limited based upon the conditions that the survey may bring. My findings and conclusions are from my best efforts from professional analysis, opinions, and conclusions which are based upon my experience and training.

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 to the parties involved.

My compensation is not contingent upon the reporting of a predetermined value from any party, nor the direction in value or direction in a value assessment that favors the cause of the client. My compensation is not contingent upon the amount of the value estimate, the attainment of a desired 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 appraisal is submitted in confidence for the exclusive use of Mr. Mark Greenspan without prejudice to the rights and / or interests of any other concerned parties and may not be used for any other purpose or relied upon by any other person.

ATTENDING SURVEYOR _____

Capt. John Banister, SA, Marine Surveyor