

Vessel Survey: **1982 Lyman Morse Seguin 44**

Prepared For:
XXX

Survey Date:
XXX



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Introduction

The vessel "XXX" was surveyed on XXX at XXX and XXX by Jim Merrick at the request of XXX. The survey was conducted as a Pre-Purchase survey to assess the overall condition of the vessel and determine the present value of the vessel and its systems.



General Information

Scope of Survey

This survey was conducted in accordance with the Code of Federal Regulations (CFR) as enforced by the United States Coast Guard (USCG) and Federal Communications Commission (FCC) as well as the voluntary standards of the American Boat and Yacht Council (ABYC) and Nation Fire Protection Association (NFPA), in effect at the date of this survey. However, complete compliance with such standards varies with intended service of the vessel and is not guaranteed.

The vessel **was** surveyed in the water

The vessel **was** surveyed out of the water

A sea trial **was** performed

A rig inspection **was not** performed

This vessel was surveyed without the removal of any parts, including fittings, tacked carpet, screwed, or nailed boards, anchors and chain, fixed partitions, instruments, clothing, spare parts and miscellaneous materials in the bilges and lockers, or other fixed or semi-fixed items.

A mechanical inspection of the engine(s) is beyond the scope of this survey, and while observations are made regarding the visible condition of the engine(s) and related systems, this survey is not intended to indicate evaluation of the internal condition of the engine(s). Electronic equipment was checked for "power up" only, no claim is made as to the accuracy or integrity of the information displayed or communicated by the equipment. Household appliances such as washing machines, dryers, dishwashers, dehumidifiers, or other, non-marine products are not tested beyond simple power up.

This survey report represents the condition of the vessel on the above dates and is the unbiased opinion of the undersigned, but it is not to be considered an inventory and no warranty is made either specified or implied of merchantability or fitness for a particular purpose.

Acceptance and use of this report implies and acknowledges that the client understands and accepts that the report has been composed of information that is believed to be true after reasonable investigation and inquiry but is not warranted to be so. The information was obtained without drilling, diving, cleaning, or opening up to expose parts or conditions ordinarily concealed. There were no tests for tightness or soundness conducted other than the conditions noted visually.

Acceptance and use of this report implies and acknowledges that the client understands and accepts that no determination of stability or structural strength has been made and that no opinion thereof has been expressed.

Definition of Terms

The terms and words used in this report 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 testing, etc.)
SERVICEABLE, OPERATIONAL	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.
FINDING Axx. FINDING Bxx. FINDING Cxx.	<p>In the body of this report, these marks are links to indicate that a finding and/or recommendation will be listed in the “Findings and Recommendations” section, pertaining to the specified item. Clicking on the mark in the PDF is a link that will take you to the finding.</p> <p>Findings preceded with “A” plus a number are considered safety-related items, whereas items preceded with “B” are other deficiencies that should be addressed. Additional Surveyor’s notes and observations are in the last section, preceded with “C”.</p> <p>PLEASE BE ADVISED THAT SOME DEFICIENCIES, OBSERVATIONS, AND SUGGESTIONS MAY ALSO BE CONTAINED IN THE BODY OF THE REPORT.</p>

Vessel Data

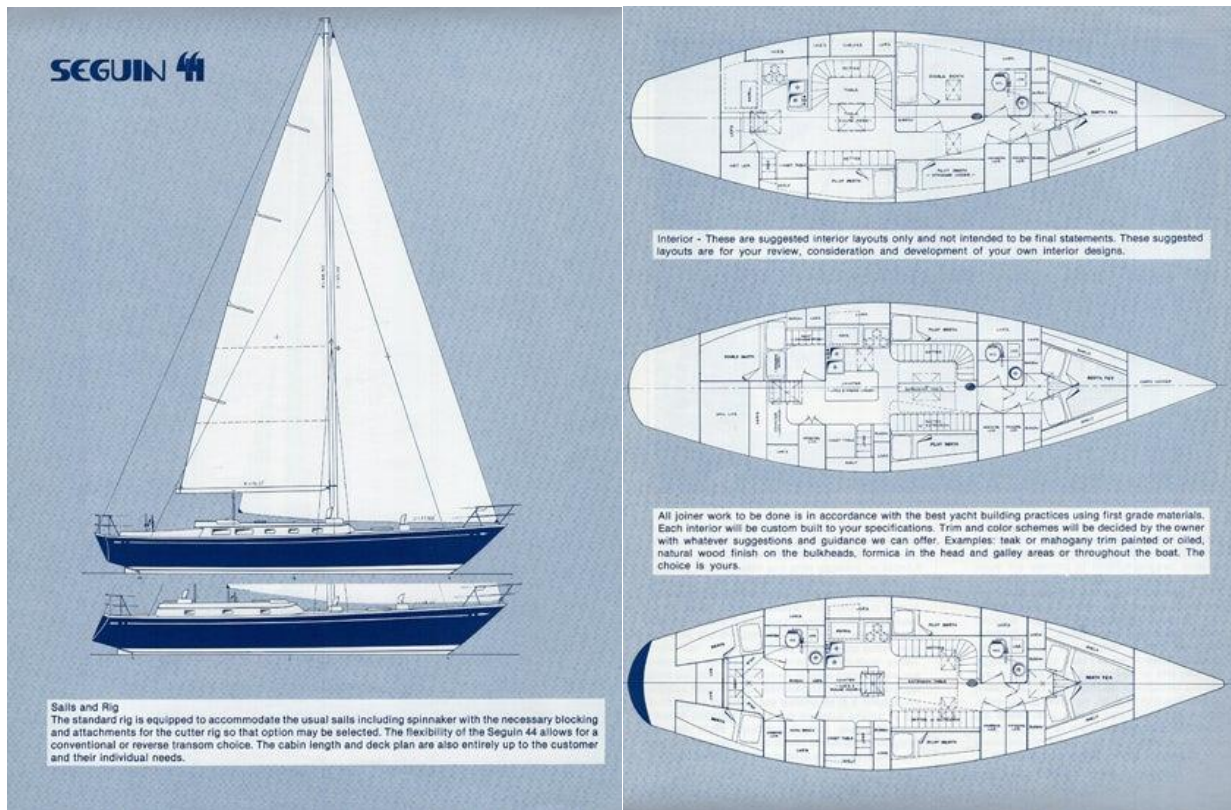
VESEL NAME:	XXX	HAILING PORT:	XXX
SURVEY NUMBER:	XXX	DATE OF SURVEY:	XXX
REPORT DATE:	XXX	PREPARED FOR:	XXX
ATTENDING:	XXX (prospective buyer(s)) XXX (broker) Jim Merrick (surveyor)	SURVEY LOCATION(s):	XXX
BUILDER:	Lyman Morse	MAKE:	Lyman Morse
MODEL:	Seguin 44	YEAR:	1982
HULL ID (HIN):	XXX	STATE REGISTRATION:	XXX
		USCG DOCUMENT #:	XXX
REGISTERED OWNER:	XXX	LEGAL OWNER:	XXX
REGISTERED OWNER ADDRESS:	XXX	LEGAL OWNER ADDRESS:	XXX
INTENDED SERVICE:	Recreational	LENGTH:	44.5'
DRAFT (MAX):	5.25' (9.1')	BEAM:	12.8'
HULL MATERIAL:	FRP	HULL TYPE:	Keel/centerboard
RIG:	Masthead Sloop	RIGGING:	Stainless rod
DISPLACEMENT:	28,800 pounds	BALLAST:	7,000 pounds (est.)
PROPULSION:	Inboard	FUEL:	Diesel
FUEL CAP.:	108 gallons	FRESH WATER CAP.:	100 gallons
MSD (HOLDING) CAP.:	20 gallons	DINGHY/TENDER:	None
INTENDED USE:	Recreational	INTENDED USE AREA:	Coastal waters

Vessel dimensions were taken from the USCG documentation if available, or from the manufacturer data, or vessel listing.

General Description

The Lyman Morse Seguin 44 is a 44' cruising monohull design by Sparkman & Stephens and built by Lyman Morse in Thomaston, ME. Available in either fin keel or shoal-draft centerboard version, with multiple house, rig, transom, and layout options, each of the 14 Sequin 44s were customized for the initial owner. Known as stout and seakindly under sail, the Seguin performs well in bluewater. It compares well with similar Hinckley, Little Harbor, Bristol, and Formosa boats of the period.

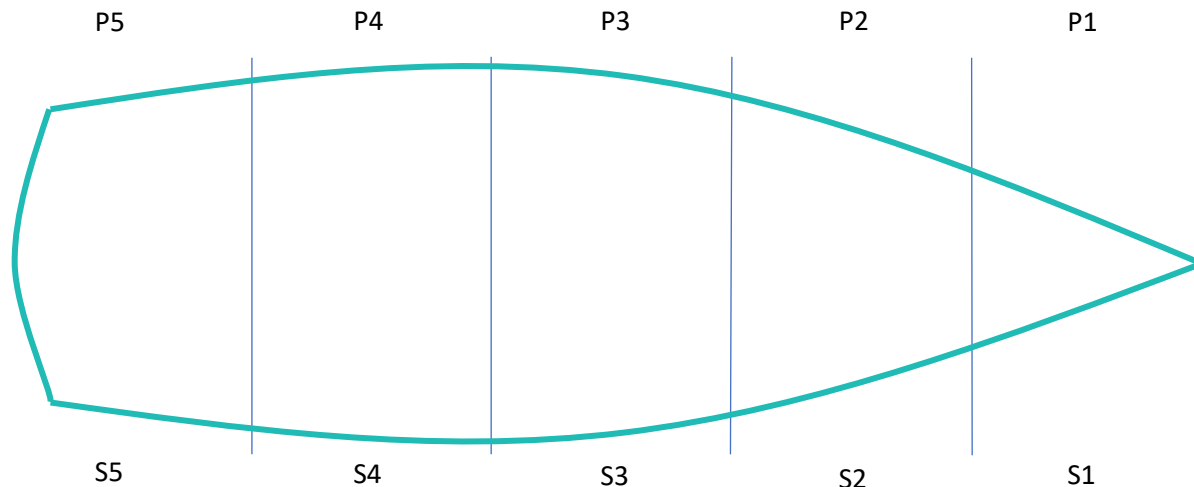
This particular vessel was number five and configured with the shoal-draft keel and centerboard, extended house, two cabins (top cabin layout, middle floorplan, and bottom transom in illustrations below), and a masthead sloop rig. The hull was laid up in 1981 and the vessel was delivered in 1982.



Hull and Topsides

The vessel was inspected out of the water to examine the hull and running gear under the waterline.

To facilitate locating areas of note in the examination of the hull and deck we have divided the vessel by sections from bow to stern, both port and starboard sides.



The vessel was constructed with a keel/centerboard hull made of partially foam-cored FRP.

A lead ballast keel was internally bolted to the hull.

The vessel had an FRP-encased lead centerboard that was visually inspected from a distance and appeared to be serviceable although some blisters were noted on either side. **FINDING: B1.**

The keel bolts were difficult to sight but appeared to be in serviceable condition.

The keel/hull joint was in serviceable condition with some degradation of the sealant at the leading edge. **FINDING: B2.**

The hull was percussion tested at approximately 8" intervals both above and below the waterline, and areas of interest were further examined with a Flir infrared camera and or moisture meter as needed.

The hull below the waterline was sealed with a barrier coating that was in serviceable condition.

The hull below the waterline was painted with anti-fouling paint that was in serviceable condition.

Some flaking, sloughing, or loss of bottom paint was observed.

The fairing at the shaft alley cutlass bearing was beginning to deteriorate. **FINDING: B3.**

The skeg-hung rudder was inspected by both percussion testing and Flir infrared examination (if needed) and appeared to be in serviceable condition.

Some rust was beginning to form at the rudder pintle. **FINDING: B4.**

The rudder bearing was in serviceable condition.

A small number of quarter-sized blisters in the antifouling paint were observed on the hull. **FINDING: B5.**

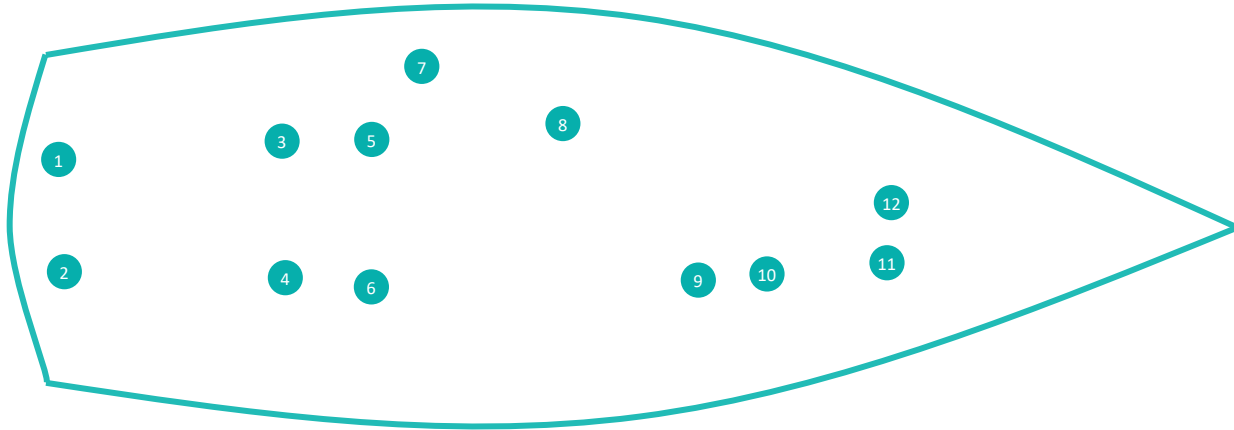
A number of quarter-sized laminate blisters were observed on the hull. **FINDING: B6.**

The hull areas around the through-hull fittings were inspected from both inside and outside the vessel and did not show evidence of saturation or other water damage.

The hull above the waterline (topsides) was not oxidized with some small scratches or gouges and was in serviceable condition. **FINDING: B7.**

Through-Hull Fittings and Seacocks

The vessel has the following “below the maximum heeled waterline” through-hull fittings:



Number	Purpose	Type	Condition
1	Scupper drain	Plastic	Non-valved (above waterline)
2	Scupper drain	Plastic	Non-valved (above waterline)
3	Fridge heat exchanger	Bronze	Non-valved
4	Freeze heat exchanger	Bronze	Non-valved
5	Galley sink intake	Bronze ball	Operational
6	Watermaker intake	Bronze ball	Operational
7	Galley sink drain	Bronze ball	Operational
8	Head discharge	Bronze ball	Operational
9	MSD discharge	Bronze ball	Operational
10	Head intake	Bronze ball	Operational
11	Depth transducer	Plastic	Non-valved
12	Speed transducer	Plastic	Non-valved

The scupper drains were plastic through hulls and the fairing and/or paint around them was deteriorating. **FINDING: B8.**

Other through-hull fittings above the waterline appeared to be in serviceable condition.

Deck and House

The vessel is an aft cockpit sloop with a low coachroof, decks covered with fastened teak, and the house and combings are varnished teak veneer providing a classic look. Wide side decks provide easy access forward.

The companionway was configured with a sliding hatch and hatch board(s).

There was one opening portlight in the house, and no opening portlights in the hull. The portlight was in serviceable condition.

There were no opening windows in the house.

There were nine fixed windows in the house, and no fixed windows in the hull. The fixed windows were in serviceable condition.

There were five opening deck hatches. The hatch(es) were in serviceable condition.



The design of the hull/deck joint was an inward flange bonded with fasteners on approximately 4" centers. Due to the interior cabinetry, hull liner, and/or bulwarks access to the joint was limited, prohibiting a rigorous inspection. Where visible, the hull/deck joint appeared to be in serviceable condition.

The deck and topsides are plywood-cored FRP and were percussion sounded at approximately 8" intervals and additionally inspected with a Flir infrared camera and or moisture meter as needed.

The deck(s) appeared to be sound.

The nonskid was in serviceable condition.

The teak decking was in serviceable condition with a few exposed fasteners or missing bungs. **FINDING: B9.**

The bulkheads and tabbing where visible appeared to be in serviceable condition.

The stringers where visible appeared to be in serviceable condition.

Cabin

The cabin enters from the cockpit down a ladder to the salon. To port is the aft double cabin, and to starboard a counter area with top-loading freezer. Ahead to starboard is the nav station with electric

panels, to port is the U-shaped galley. Forward of the galley is a dinette with drop leaf table and settee opposite. Forward of the mast to port is the head, and in the bow a cabin with double vee berth.

The headliner was FRP and teak and was in serviceable condition.

The cabinetry was matched grain teak and was in serviceable condition.

The sole or flooring was teak and holly and was in serviceable condition.

Interior finish, upholstery, and bedding were in serviceable condition.



Galley

The double stainless steel galley sink included hot and cold pressurized fresh water.

The galley featured a Frigoboat 12v top-loading refrigerator and a separate top-loading freezer. The refrigeration systems included keel coolers and were operational.

Foot pumps were also installed for raw and freshwater and appeared to be operational.

The vessel also included a Force10 LPG three-burner stove and oven with broiler that was operational.

Systems

Propulsion and Running Gear

The vessel was powered by a single 70 HP Westerbeke W70 diesel engine, mated to 17" three-blade MaxProp feathering propeller through a ZF 25 M (HBW250) transmission.

Engine Serial Number	U3974-C811
Transmission Serial Number	20189588
Engine Hours	4701

Engine hours were recorded from the hour meter if present or as reported by the seller or their agent.

No internal testing or diagnosis of the engine was performed.



The engine was fresh water cooled with closed coolant system.

The engine belts were in serviceable condition.

The engine hoses were in serviceable condition.

Engine coolant level was adequate.

The aft engine mounts were quite corroded. **FINDING: B10.**

The raw water strainer was clean and free of growth or particulates.

The 1.75" shaft was in serviceable condition.

The shaft coupling was heavily rusted. **FINDING: B11.**

The shaft seal was a conventional “stuffing box” type seal that was in need of adjustment and service. **FINDING: B12.**

The cutlass bearing in the strut was in serviceable condition, the cutlass bearing at the shaft log could not be assessed.

The propeller was in serviceable condition.

A line cutter was installed on the shaft forward of the strut and appeared serviceable.

The engine room or engine compartment was adequately ventilated.

Fuel System

Fuel was held in four tanks totaling 108 gallons (three FRP in bilge, one aluminum in lazarette.)

The tanks appeared to be properly vented overboard.

The FRP tank(s) were able to be visually inspected on all sides. The aluminum tank was only partially accessible. To the extent that they could be inspected, the tank(s) appeared to be in serviceable condition.

Metallic deck fill(s) and/or tanks were not electrically bonded. **FINDING: B13.**

Fuel lines were serviceable and were of correct, USCG/ABYC complaint type.

Fuel lines were properly routed and supported.

The fuel filter/separator(s) did not show any sediment or water.

The fuel separators were not in the engine space.

Electrical System

The vessel had the following battery banks:

Purpose	Voltage	# Batteries	Battery Size	Battery Type	Electrolyte
Start	12v	1	Group 24	AGM	N/A
House	12v	4	Slimline	AGM	N/A



Note: The batteries were not tested for charge holding ability, cranking amperage, or specific gravity of electrolytes, nor was the charging system tested beyond confirming voltage.

The batteries were adequately secured.

The batteries were not mounted in acid-resistant boxes or trays. **FINDING: B14.**

The positive terminals were protected from accidental contact by a boot or lid.

Charging was provided by the engine alternator and a Magnum inverter/charger. Both alternator and shore power charging were operational.

A Magnum 2812 inverter was installed and was tested and was operational.

The inverter case was not able to be accessed to determine if it was properly grounded.

The DC distribution panel included voltage and amperage meters and appeared properly installed and labeled with master and individual breakers. Where sighted, the DC wiring appeared to be of proper type, gauge, and appeared to be securely attached.

The vessel had one shore power bus(es) with one 30A inlet port.

The shore power inlet port was a SmartPlug and was in serviceable condition.

The shore power cord in use was in serviceable condition.

Other shore power cords and adapters on board were not inspected.

An AC panel was installed for each AC bus and included voltage and amperage meters and main and individual breakers.

Each AC bus was equipped with power and reverse polarity indicators.

The AC wiring appeared to be properly installed.

The AC main breaker did not appear to be a double-pole breaker. **FINDING: B15.**

The AC panel was protected from accidental contact with a latch, lock, or cover on the back side.

An ELCI protection breaker was not installed. **FINDING: B16.**

AC polarity was tested at all outlets and was in serviceable condition.

GFCI operation was tested at all required outlets and was in serviceable condition.

Shore power was tested for AC current leakage, and none was detected.

The AC ground and DC negative buses were properly connected.

An isolation transformer was not installed.

A galvanic isolator was not installed.

Sanitation and Water System

The vessel had one manual head.

The head was connected to one plastic type III MSD (holding tank) totaling 20 gallons.

The head was connected to Y-valve(s) to allow for direct overboard discharge or storage in an MSD.

The MSD was configured for both dock-side pump out or macerator pump-driven overboard discharge.

The waste discharge through hull(s) and or Y-valve(s) were properly secured in the no-discharge position per CFR.

The holding tank was properly vented overboard.

Macerator pump(s) were not tested as the vessel was in a no-discharge zone.

The fresh water was stored in two stainless steel tanks totaling 100 gallons.

Pressurized hot and cold water was provided by a 12v Jabsco pump that was tested and was operational.

Hot water was provided by an AC and engine-heat powered Quick 1250-watt 11-gallon hot water heater located in the lazarette. The water heater appeared to be operational for both AC and engine-heat.

A Village Marine watermaker was installed. The watermaker was not tested beyond powering up the device.

Helm/Steering System

The single helm was connected to an Edson cable steering system that was in serviceable condition.

Engine controls were Teleflex cable controls and were tested and were operational.

A 12VDC bow thruster was installed and was operational. The bow thruster leg was loose and allowed the leg to rotate causing the impeller to rub against the tube. **FINDING: B17.**

An emergency tiller was sighted in the cockpit locker.

The rudder post was in serviceable condition.

The rudder shaft seal showed some corrosion but was in serviceable condition. **FINDING: B18.**

Navigation and Electronics

The helm included a mounted Ritchie compass.

The vessel has the following electronics:

- Raymarine E120 chartplotter
- Raymarine E80 chartplotter
- Raymarine RayStar RS125 GPS antenna
- Raymarine 36-mile radar **FINDING: C1.**
- (2) Raymarine ST60 Maxiview instruments
- Raymarine Maxiview remote keypad
- (2) Raymarine ST60 wind instruments
- Raymarine ST7000 autopilot with hydraulic drive
- Raymarine ST80 course computer
- Raymarine 600R autopilot wired remote
- Raymarine ST60 tridata instrument
- Raymarine ST60 graphic instrument
- Smart Radio SR161 AIS receiver

- Icom IC-M504 DSC VHF radio FINDING: C2.
- Icom IC-M55 VHF radio
- Icom IC-M802 SSB radio FINDING: C2.
- Icom AT-140 SSB antenna tuner
- Pactor II USB Modem
- Kenwood VHF/UHF/HAM
- Sirius satellite radio tuner
- Sony CD stereo

All electronics were powered up successfully, but not tested for functionality or accuracy except as noted.



Corrosion Control and Bonding System

Cathodic protection was provided with zinc or aluminum anodes located on the shaft, thruster, and prop. All anodes were replaced during the survey.

No corrosion analysis was conducted.

The underwater running gear was tested for electrical continuity and resistance and appeared to be serviceably bonded.

Heating, Cooling, and Ventilation

The cabin(s) were heated with a Sigmar diesel bulkhead heater that was not tested.

Air conditioning was not installed.

LPG (Propane) or CNG

The vessel was equipped with an LPG system.

The gas tank(s) were stored in a dedicated locker located in the cockpit. FINDING: B19.

The LPG locker was sealed at the lid and all penetrations.

The locker was vented overboard with a drain line above the heeled waterline.

The gas bottle(s) were not adequately secured. FINDING: B20.

A pressure gauge was fitted to the tank and a leak-down test did not appear to show any significant loss of pressure.

LPG or CNG was controlled with a Marinetics remote switch that was operational.

An inline gas valve was located in a hanging locker in the aft cabin. **FINDING: B21.**

Ground Tackle, Stability, and Docking

The vessel has an 88# Delta plow-style anchor, with 240' of 3/8" galvanized chain.

Note: The lengths were reported by the owner or owner's representative or were taken from the vessel listing, no measurement was undertaken.

The anchor, swivel, and rode shackles were secured with lashing wire.

A Lewmar electric anchor windlass was installed with foot control for hoisting and lowering. The deck and backing plate beneath the windlass appeared to be in serviceable condition. The windlass was tested and was operational.

A secondary Bruce anchor with rode was sighted on board.

Sufficient fenders and mooring lines for typical moorings were on board.

Additional Equipment

A radar mast was installed at the transom with an outboard crane.



A dodger was installed over the companionway. The tube, canvas, and windows were all in serviceable condition.

Sailing Equipment

Spars and Standing Rigging

The rigging aloft was not inspected and is not included in this survey.

The vessel was configured with a masthead sloop rig.

The spars were painted aluminum and appeared to be in serviceable condition with no areas of corrosion around fittings of dissimilar metals.

A spinnaker pole was sighted on board.

A whisker pole was not sighted on board.

Standing rigging was rod rigging and appeared to be in serviceable condition.

The vessel was equipped with lazy jacks that were in serviceable condition.

The spreader ends were not visible.

The spreader bases where visible appeared to be in serviceable condition.

The masthead sheaves were not visible.

The roller furler halyard swivel(s) were not visible.

The shroud terminations at the masthead were not visible.

The turnbuckles where visible appeared to be in serviceable condition.

The cotter keys and clevis pins where visible appeared in serviceable condition.

The chainplates where visible appeared to be in serviceable condition.

The mast base or step was in serviceable condition.

The mast partner appeared to be dry and in serviceable condition.

Sails

The vessel was equipped with the following sails:

Sail	Condition	Sailmaker	Notes
Main (full batten)	Average	North	On boom with sail cover
1005 Genoa/Jib	Good	North	On roller furler with cover
Spinnaker	Not inspected	Quantum	In bag with sock
145% genoa	Not inspected	Quantum	In bag under vee berth

Additional sails were reported to be included with the vessel but were not inspected.

Some chafing was noted near the clews on the leach of the main. **FINDING: B25.**



Running Rigging

The running rigging was Dacron and was serviceable with minimal age and sun damage.

All blocks, tracks, stoppers, and cam cleats were operational.

The genoa was installed on a Harken roller furler that was operational.

A Navtec hydraulic backstay adjuster was installed and was in need of fluid or service. **FINDING: B26.**

A Hood rigid boom vang was installed with 6:1 purchase.

The 5:1 main sheet was installed on a traveler with 4:1 purchase and was in serviceable condition.

Winches

The vessel included the following winches:

Location	Brand	Size	Type
(2) Primaries	Barient	36	2-speed, ST
(2) Secondaries	Barient	28	2-speed, ST
(1) cabin top	Harken	44	2-speed, ST
(3) Mast	Barient	27	2-speed, ST
(2) Mast base	Barient	27	2-speed, ST

All winches were in serviceable condition.

Safety Equipment

Navigation Lights

The vessel was equipped with port, starboard, stern, and steaming lights, as well as an all-around masthead anchor light per CFR. All navigation lights were tested and were operational.

Signaling

An LED and day signal and additional aerial flares were on-board and were current. Based on this, the vessel did meet the USCG requirement for visual distress signals.

A handheld air horn sound signal was on board and was tested successfully. Based on this, the vessel did meet the USCG requirement for audible signals.

Life Saving

Seven adult PFDs and no child PFDs were located on board and appeared to be in serviceable condition.

A Horseshoe type IV PFD was located on board at the pushpit. Based on this, the vessel did meet the USCG requirement a type IV PDF.

A LifeSling-style throwable was also located on board.

A first aid kit was on board.

A removable reboarding ladder was located on board. The ladder was not deployable by a swimmer in the water. **FINDING: B27.**

Pulpit, pushpit, and lifeline stanchions were securely mounted.

Lifeline were stainless wire and were in serviceable condition.

One or more mounted, working, non-expired carbon monoxide (CO) detectors were sighted on board. Based on this, the vessel did meet the USCG requirement for CO detectors.

One or more mounted, working, non-expired smoke detectors were sighted on board. Based on this, the vessel did meet the USCG requirement for smoke detectors.

A DSB four-person inflatable life raft was located in the cockpit locker. The inspection date on the raft was not current (due 2/2011). The raft was not mounted in a secure, accessible manner and a hydrostatic release and painter with weak link was not installed. **FINDING: B22.**

An ACR 406MHz EPIRB was mounted in the cabin. The EPIRB was past due for both inspection and battery replacement. **FINDING: B23. FINDING: C2.**

A sea anchor was located in the cockpit locker.

A Mustang Rescue Stick throwable device was located in a locker under the companionway steps.

Pumps and De-watering

The vessel had the following pumps:

Type/Size	Cap.	Location	Manual	Automatic	Indicator
Electric submersible		Fwd bilge	Operational	Operational	Yes
Electric submersible		Mid bilge	Operational	Operational	Yes
Electric submersible		Aft bilge	Operational	Operational	Yes
Manual		Cockpit	Operational	N/A	N/A
Manual	30GPM	Cabin sole	Operational	N/A	N/A

A high-water alarm was not located on board. **FINDING: B24.**

Fire Extinguishers

The following fire extinguisher(s) were sighted on board:

Type/Size	Charged	Condition/Date	Location	Mounted
Rechargeable BC-I	Charged	Expired (2019) FINDING: A1.	Unlabeled cockpit locker FINDING: A2.	Mounted
Rechargeable BC-I	Charged	Expired (2019) FINDING: A1.	Companionway in an unlabeled cabinet FINDING: A2.	Mounted

Rechargeable BC-I	Charged	Expired (2019) FINDING: A1.	Companionway in an unlabeled cabinet FINDING: A2.	Mounted
Rechargeable BC-I	Charged	Expired (2019) FINDING: A1.	Forward cabin in an unlabeled cabinet FINDING: A2.	Mounted

The vessel's engine room was not equipped with an automatic fire suppression system.

Based on these observations, the vessel was not in compliance with USCG and NFPA requirements for fire protection equipment. FINDING: A3.

Documentation, Placards, and References

A hull identification number (HIN) was sighted on the vessel hull, but it had been painted over and was not legible. FINDING: A4.

The vessel was a Coast Guard documented vessel and the USCG documentation number was sighted permanently affixed to the inside of the vessel.

A current Coast Guard Vessel Documentation Certificate was not sighted on board. FINDING: A5.

The vessel name and hailing port were properly displayed as required for USCG documented vessels.

A current State Annual Vessel Registration Decal was affixed to the hull.

A current State Vessel Registration Certificate was sighted on board.

A MARPOL "Discharge of Trash" placard was sighted on board.

A "Discharge of Oil" placard was sighted on board.

The Washington State-required carbon monoxide warning decal was sighted on board.

Vessels 40' and longer are required to carry a Waste Management Plan which was not sighted on board. FINDING: A6.

Operational Test or Sea Trial

The vessel was sea trialed on Shilshole Bay. The weather was overcast, 40 degrees, winds S 5-7kts, with a light chop.

The engine was started after cooling for more than 12 hours in ~40-degree temperature. It started with minimal cranking and exhibited minimal smoke on startup. The engine(s), transmission(s), and steering were tested and verified to be operational.

The vessel obtained the estimated hull speed of 7.9kts SOG at 2,250 RPM (with 1.0–1.5 kts favorable current).

The engine was able to reach the manufacturer's recommended WOT throttle speed of 2,600 RPM.

Engine temperatures, oil pressure, and charging were all within normal ranges throughout the testing.

The vessel operated normally throughout the entire RPM range without issue.

No significant sounds or vibrations were noted.

Findings and Recommendations

Based on our survey, we make the following findings and recommendations:

Priority A

The following are items that should be addressed for safety concerns or to be in compliance with CFR or other regulatory requirements:

- A1.** Per 46 CFR 25, all rechargeable fire extinguishers are required to be inspected annually and have an inspection record attached.

Some or all of the rechargeable extinguishers on board were either expired or missing current tags and should be serviced or replaced.



- A2.** Some of the fire extinguishers on board were mounted inside cabinets or closets. Per CFR, and fire extinguisher mounted in a cabinet must have a label on the cabinet in a contrasting color stating "FIRE EXTINGUISHER INSIDE" in lettering at least 3/8" in height.

Label the cabinets that contain extinguishers.



- A3.** Per 46 CFR 25, vessel with an enclosed compartment or cabin must carry the following fire extinguishers:

Length	Extinguishers	With Fire Suppression
< 16'	0	0
< 16' (built-in tank)	1 B-I	0
16' < 26'	1 B-I	0
26' < 40'	1 B-II or 2 B-I	1 B-I
40' < 65'	1 B-II and 1 B-I, or 3 B-I	1 B-II or 1 B-II

Note: Fixed fire system equals one B-I.

This vessel **did not** meet the required number/size of extinguishers.

Install additional fire extinguishers as required.

- A4.** The Hull Identification Number (HIN) was missing or illegible. All vessels are required to have a valid, readable HIN on or near the starboard stern quarter.

Repair or affix a new HIN placard to the vessel.



- A5. The vessel is currently documented with the US Coast Guard, but the registration certificate was not on board per 46 CFR 67.

Ensure that the vessel has the current USCG documentation certificate on board per CFR.

- A6. Per 33 CFR 151.57 vessels 40' in length and longer are required to have a waste management plan on board.

We have included a simple waste management plan template you can print out and post on board. Follow the link at end of this survey report.



Priority B

The following items are not considered safety issues or material defects, but are other deficiencies that should be addressed:

- B1. The keel was visually inspected from a distance and appeared to have some laminate blisters on either side. Such blisters in the gelcoat and/or laminate are generally not structural in nature, but if they become large or dense enough, they can weaken the laminate.

We recommend monitoring the blisters and repairing as needed.



- B2. The sealant at the keel/hull joint was deteriorating.

This should be monitored and excavated and replaced at a future haul out. The keel bolts should be checked at the same time.



- B3. The fairing at the shaft alley cutlass bearing was deteriorating.

This should be monitored and excavated and replaced at a future haul out.



- B4. Rust was beginning to form at the edges of the rudder pintle (hinge).

At the next bottom service this area should be stripped, and a metal primer and epoxy coat applied.



- B5. Blisters in antifouling paint is common, often caused by inadequate preparation or dry time during bottom service. Such blisters are largely cosmetic and not a cause for concern, but marine growth may attach aggressively to the exposed epoxy barrier coat.

Repair at the next bottom service.



- B6. Osmotic blisters in the gelcoat and/or laminate are generally not structural in nature, but if they become large or dense enough, they can weaken the laminate.

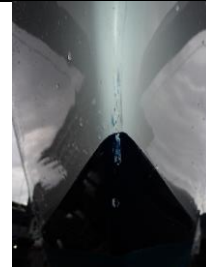
We recommend monitoring the blisters and repairing as needed.





- B7.** Scratches or gouges in the paint/gelcoat above the waterline was noted at the bow stem, the stern, S5, P4, and P5.

Investigate further and repair as desired/needed.



- B8.** The fairing and or paint around the plastic scupper fittings was deteriorating.

These are above the static waterline but would be submerged underway. Investigate further and repair as needed.



- B9.** The decks retained much of their material but (as always) there are a few exposed fasteners, as well as missing or damaged bungs. Some bungs had been sealed with sealant rather than a bung—many of these were failing. There were no areas of open seams or failing caulking.

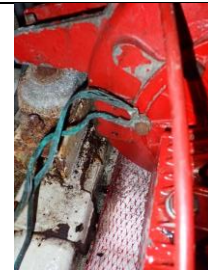
Exposed fasteners and missing, or improper bungs pose a risk of leaking. Replace the bungs, counter sinking the fasteners deeper if needed.





- B10.** The engine mounts were rusted and hard. This may contribute to increased noise and vibration and can lead to fatigue and failure of the mounts.

Replace the engine mounts.



- B11.** The shaft coupling was heavily rusted. The shaft coupling should be kept clean and free of rust or they can become impossible to separate.

Service the shaft coupling (in concert with the engine mounts)



- B12.** The stuffing box shaft seal was corroded, as were the coupling, motor mounts, and bonding wires in the area of the seal, indicating a current or past leak.

Service the shaft seal, clean and protect the surrounding components.

For proper lubrication and heat dissipation, stuffing boxes with conventional packing be adjusted so that it produces 2-6 drips per minute (depending on RPM) during operation.



- B13.** Per ABYC H-24 and H-33, all metallic components of the fuel system should be electrically bonded to prevent static discharge during fueling. This includes the deck fill plates.

Ensure that the deck fill is electrically bonded to prevent static discharge.

- B14.** The batteries were not installed in acid-resistant boxes or trays to capture electrolyte leakage per ABYC E-10.7 guidelines. Even sealed or AGM batteries can fail, releasing potentially damaging battery acids into the vessel.

Install the batteries in ABYC approved boxes or trays.



- B15.** The main AC breaker did not appear to be a “double-pole” breaker (switching both hot and neutral.) Per ABYC recommendations, the main AC power breaker should be a double-pole breaker opening both the hot and neutral leads.

Confirm and replace with a double-pole breaker if needed.



- B16.** Per ABYC E-11.11.1, all vessels with shore power should be equipped with an ELCI breaker. Replace or install additional shore power breakers with ELCI breakers.

Install an ELCI breaker.

- B17.** The dog leg of the bow thruster was loose and allowed the leg to rotate, causing the impeller to rub against the FRP tube. While it is likely that the impeller would wear down before the FRP tube, it does not seem like a good idea to leave it as is.

Investigate further and repair or replace as needed.



- B18.** The rudder shaft seal was corroded and may be leaking.

Adjust the seal and clean as needed.



- B19.** Per ABYC A-1 a propane locker should only open from the top with a sealed lid.

The propane locker(s) should be repaired or replaced with a top-opening, sealed lid.



- B20.** Per ABYC A-1, propane tanks must be properly secured whether active or in storage. Unsecured tanks can lead to a dangerous condition should they shift underway. This includes the small, green 1 LB bottles!

Secure the propane tanks in ABYC approved sealed propane lockers or in the open air.

- B21.** Per ABYC A-1, the LPG hose extending from its connection inside the LPG locker to the appliance should be continuous and unbroken. An inline valve was located in the hanging locker aft of the galley.

Replace the propane line with a continuous line, making all connections inside the locker.



- B22.** The life raft was well beyond its inspection date, nor was it installed in an accessible location with a painter attached to a weak link and a hydrostatic release. While a life raft is not required, having one on board that is not current can provide a false sense of security.

Have the life raft and hydrostatic release serviced and mount it in a proper location or remove it from the vessel.



- B23.** The EPIRB was past its reinspection and battery service date. While an EPIRB is not required, having one on board that is not current can provide a false sense of security.

Have the EPIRB serviced at an authorized dealer if you intend to use it.



- B24.** Per ABYC H-22.7.3, on boats with an enclosed accommodation compartment, an audible alarm shall be installed indicating that bilge water is approaching the maximum bilge water level.

We recommend installing a high water alarm at a height of 2" above the level at which the primary bilge pump begins to operate.

- B25.** The main was showing some wear and chaffing on the leach near the clew and reef points.

Investigate further and repair or replace as needed.



- B26.** The Navtec backstay adjuster was operational, but only in a small part of the stroke, indicating a loss of fluid or a leaking seal.

Investigate further and repair as needed.



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- B27.** ABYC standard H-41.10 states that a means of unassisted reboarding shall be provided on all boats. The reboarding means shall be accessible to, and deployable by the person in the water.

Add a reboarding ladder to transom, pushpit, or gunnel that can be deployed by a person in the water.

Priority C Notes and Observations

The following items are informational in nature:

-
- C1.** The radar on this vessel has a specified range of 36 miles, with an antenna mounted approximately 11 feet above the water. This provides a range to the horizon of 3.9 miles (the maximum range at which the radar can see an object at sea level.) Taller objects will be visible at greater distances: 20' target - 9.1 miles (recreational vessel); 100' target - 15.6 miles (commercial vessel); 500' target - 30. miles (headland.) Weather may be visible at further ranges. Sea state and weather conditions can reduce these ranges.



-
- C2.** The MMSI number for this/these radio(s) needs to be reassigned to the new owner.

All MMSIs issued by the Federal Communications Commission (FCC) end in zero. MMSIs issued by Boat US, US Power Squadron, SeaTow and Shine Micro end in a digit other than zero. The seller should go to where the MSI was registered and release his interest so that the buyer can take it over.



Summary and Valuation

Alert was personally inspected on XXX by the undersigned surveyor. Subject to the corrections noted in "Findings and Recommendations" it appears to be suited for the intended purpose of Recreational use in Offshore.

The vessel appears to have been well maintained, with no reported structural repairs or damage other than that which has been cited in this report.

Condition

The vessel was found to be in **above average condition**.

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

EXCELLENT	Essentially "like new" or "Bristol" in appearance.
ABOVE AVERAGE	Has had above average care with no obvious limitations.
AVERAGE	Ready for sale. May need some maintenance, updates, or cleaning.
FAIR	Needs a fair amount of maintenance or repairs to prepare for sale.
POOR	Needs substantial yard work or repairs before use.

Valuation

The "**FAIR MARKET VALUE**" is the most probable price in terms of money that a vessel should bring in a competitive and open market between two willing and informed parties, acting independently and in their own interest.

Based on available competitive data from similar vessels both recently sold and on offer through industry sources including BUC, NADA, Soldboat, Yachtworld, local brokers, and other sources, taking into account depreciation of comparable sales, the estimated **fair market value of this vessel is \$XXX**. Factors affecting the valuation of this vessel include overall vessel condition, and current market conditions.

The price represents a normal consideration for the vessel sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

The **estimated replacement cost of this vessel is \$XXX** based on information obtained from the manufacturer, local dealer(s), and BUC for similar sized and featured vessels in production today.

Comparable Vessels

Comparable sales for 27 1980 to 1990 Lyman Morse Seguin 44 Hinckley Bermuda, Alden 44 and Little Harbor 44 vessels sold within the past 18 years in the Pacific Northwest were examined. The average, unadjusted sale price was \$170,496 with a high of \$307,500 and low of \$70,000. Adjusting for

depreciation since the sale dates, the adjusted average sale price was \$192,398. In computing the FMV for this vessel, particular weight was applied to 6 most similar, local, or recent sales:

Year	Vessel	Sale Date	Sale Price	Loc.	Notes
1985	Little Harbor 44	Jun-15	\$163,784	Ca	
1990	Alden Aft Cockpit	Jun-13	\$205,000	CA	
1980	Hinckley Bermuda 40 MKIII Sloop	Jul-19	\$232,000	SC	
1981	Lyman-Morse Seguin 44	May-19	\$210,000	ME	
1981	Lyman-Morse Seguin 44	Jan-06	\$154,000	US	
1981	Lyman-Morse Seguin 44	Jul-03	\$130,000	MA	

Valuation Notes

- Valuation figures are estimates based on available market data and the knowledge and experience of the surveyor. No warranty is expressed or implied.
- The Fair Market Value represents the value of the vessel in its present condition and location on the date of the survey inspection, including all of the Findings & Recommendations listed in this report.
- The analyses, opinions, and conclusions in this report were developed, and this report has been prepared in consideration of the Uniform Standards of Professional Appraisal Practice.
- This valuation is expressly prohibited to be used to determine the value of a vessel for donation purposes.

Certification

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

- The statements of fact contained in this report are true and correct.
- The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, unbiased professional analyses, opinions, and conclusions.
- I have no present or prospective interest in the vessel that is the subject of this report, and I have no personal interest or bias with respect to the parties involved.
- My compensation is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulate result, or the occurrence of a subsequent event.
- I have made a personal inspection of the vessel that is the subject of this report.
- The right to amend and/or supplement this report should additional information be made available is reserved.
- The digital photographs contained in the body of this report and in the any associated shared medium were taken by the attending surveyor(s). We certify that the content of these photographs have not been materially changed or alter except to enhance clarity.
- This report is submitted without prejudice and for the benefit of whom it may concern.

Surveyor:

A handwritten signature in black ink, appearing to read "Jim Merrick", written over a horizontal line.

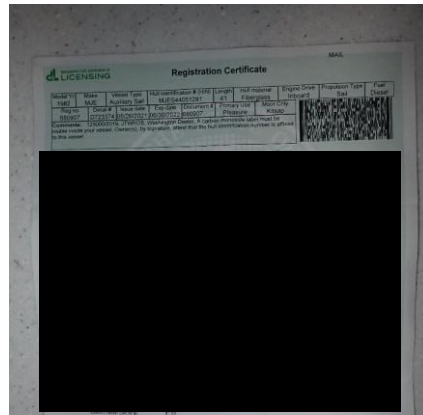
Jim Merrick, SAMS SA
Merrick Marine

Date: XXX

Additional Photographs and Materials



HIN



State Registration Certificate



State Decal & State Registration Numbers



USCG Documentation Certificate



USCG Documentation Number







Additional and high-resolution images, videos (if available), additional documents, a copy of the signed survey agreement, and a copy of this survey can be found online at the link below for six months from the date of this report:

<https://www.dropbox.com/...>