

**HIGH TECH**



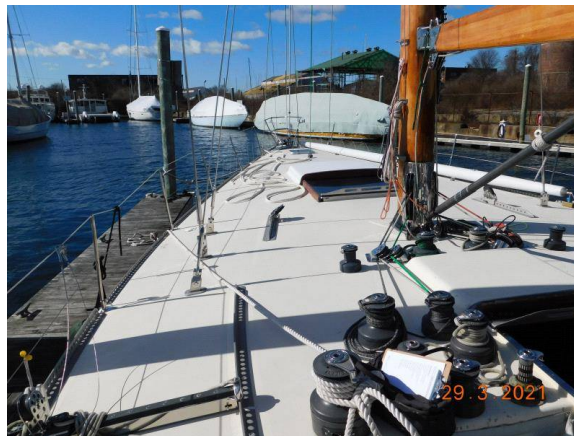
**MARINE SURVEYS**

**REPORT OF MARINE SURVEY**

**Condition & Value  
of the vessel**

**PASSING WIND**

**1994 CARPENTER CUSTOM YACHTS 62**



**REQUESTED BY:**

**Mills LLC**

**C/O Frederick Mills**

**534 Aquidneck Avenue**

**Middletown RI 02840**

**CONDUCTED BY:**

**Patrick Goodrow**

**on**

**March 29, 2021**

**High Tech Marine Surveys**

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MARINE SURVEYS**

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### SUMMARY OF MY QUALIFICATIONS

This report is based on my thirty years experience in the marine industry. I am a member in good standing in the Society of Accredited Marine Surveyors with a rank of Accredited Marine Surveyor. I am also a member of the American Boat & Yacht Council. I am an ITC Certified Level One Infrared Thermographer.

I have been a project manager on several yacht building projects. This experience has given me a good practical sense of all facets of yacht construction. I have been responsible for the design, co-ordination, of hull components, mechanical systems, power plants, mast design and rigging. I have vast experience in carbon fiber, fiberglass, and the use of different cores. Strong lightweight construction is my specialty. I have modified many racing sailboats to increase their speed and efficiency.

In the past thirty years I have competed, in sailboats, on a professional level both internationally and here in the United States. My racing experiences range from, dinghies, to one design, to the America's Cup class sailboats.

I have been the manager, coordinator and participant in many successful racing campaigns. I have also worked as a sail maker and yacht rigger.

In April 2008 I attended the Infrared Training Center. I achieved a Level One certification. I incorporate the use of thermal imaging to troubleshoot electrical, delamination, water infiltration, and lightning strikes in vessels.

As part of my commitment to the Society of Accredited Marine Surveyors I regularly attend educational seminars to constantly upgrade my knowledge in the latest technologies and techniques.

## SCOPE OF SURVEY & GENERAL INFORMATION

### SCOPE OF SURVEY

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<b>Report file no:</b>	Mills LLC.
<b>Inspection date(s):</b>	03/29/2021. 11/08/2021.
<b>Date report written:</b>	03/29/2021. On 11/08/2021 the reported was updated to reflect the bottom inspection. This report should be considered the final insurance survey.
<b>Survey requested by:</b>	This survey was performed at the request of the owner, Frederick Mills, who was not present at the time of the survey.
<b>Purpose of survey:</b>	Assess the overall condition and value of vessel for purposes of obtaining insurance and insurance underwriting. <i>NOTE: This type of survey should not be misconstrued as being a more thorough and more detailed buyers pre-purchase condition survey and is not intended to be assumed as such. Unless safety related, installed vessel components are listed in the report for insurance purposes but were not tested for functionality unless otherwise mentioned.</i>
<b>Conducted by:</b>	Patrick Goodrow.
<b>Intended use:</b>	Pleasure use.
<b>Vessel surveyed at:</b>	NEB , Portsmouth RI.
<b>How survey conducted:</b>	The vessel was surveyed in the water only while resting in it's assigned slip. The bottom and underwater machinery was NOT inspected per the owners request. On November 11.2021 the vessel bottom and topsides were inspected after hauling for the winter. This report has been updated and should be considered the final survey.
<b>Sea trial:</b>	Sea trial was not conducted as a part of this survey. The engine was Not started as a part of this survey.
<b>Weather conditions:</b>	Clear & dry, Temperature was 48°F.
<b>Areas inspected:</b>	See Survey Report Table of Contents for complete list of all vessel areas that were inspected.
<b>Electrical systems checked:</b>	DC power was used to check DC electrical systems.
<b>Moisture checks:</b>	A moisture meter was NOT used for moisture readings due to steady rain before the survey which would yield inaccurate moisture readings. A percussion test was used instead to check for delamination on the deck. Results are included in the report.
<b>Sailboat rigging:</b>	All standing rigging was installed and checked only at eye level and below unless otherwise specified.

### VESSEL CONDITION & VALUE

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<b>Condition rating:</b>	<b>ABOVE AVERAGE CONDITION.</b>
<b>Market Analysis</b>	The Carpenter Custom Yachts 62 is a one of kind racer cruiser. Built specifically for Vic Carpenter the vessel is truly magnificent. There are no true comparables and no listing in the BUC Used Boat Guide 117th Edition. There are two similar boats. The first is built by Swan. It is a 1975 65 foot sloop. It is listed for \$753,045.00. The second is a 1993 Goetz built 68 foot sloop and is listed for \$1,200,000.00. Taking into consideration the above average condition amenities and upgrades I place the fair market value of the 1994

**Estimated fair market value:** Carpenter Yachts 61 at \$790,000.00.  
\$790,000.00.

**Estimated Replacement Value** In excess of \$1,600,000.00.

**NOTE:** *The overall vessel condition and value is for the vessel in its current condition at the time of survey prior to any repairs or maintenance and was established after a complete inspection of stated vessel, the results of which are included in this report of survey. The estimated fair market value and replacement cost includes all listed auxiliary equipment. See "Condition & Value Summary" section for additional details.*

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### SURVEY REQUESTED BY

**Client name:** Frederick Mills.  
**Street address:** 534 Aquidneck Avenue.  
**City/State/Zip:** Middletown RI 02840.  
**Cellular phone:** 401-678-1505.

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### VESSEL INFORMATION

**Vessel Yr/Make/Model:** 1994 Carpenter Custom 62.



**Vessel name:** PASSING WIND.



**Hailing port:** NEWPORT RI.

**Hull ID number (HIN):** The actual HIN was NOT sighted on the vessel. Owner is advised to verify HIN is present or inscribe the HIN permanently into the transom on the upper starboard side for Hull Identification purposes and to comply with 33 CFR Sub Part C 181.23.

**Manufacturer/Builder:** Carpenter Custom Yachts Port McNichol Ontario Canada.

**Year built:** 1994.

**Vessel description:** This is a one of kind vessel. Built exclusively by Vic Carpenter, for his personal yachts. Carpenter Custom Yachts are well known for their artistry in wood. This vessel is no exception. Built in mahogany using the cold molding style of building. Multiple strips of mahogany are bonded together with epoxy creating a beautiful strong hull and deck.

## VESSEL SPECIFICATIONS

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**Type:** Wood, Auxiliary sloop.  
**Length overall (L.O.A.):** 62.00.  
**Beam:** 15.60.  
**Draft:** 9.45.  
**Displacement:** 12,000 lbs.  
**Ballast:** 6,000 lbs.

## U.S.C.G. OFFICIAL DOCUMENTATION

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**Official Documentation No:** 1307867 The vessel documentation was sighted aboard and documented information listed below. Not permanently affixed per USCG regulations. **RECOMMENDATION:** The official documentation no must be permanently affixed in block type Arabic numerals not less than 3 inches on a clearly visible interior structural part of the boat. Recommend compliance with existing regulations.



**Documented name:** PASSING WIND.  
**Documented use:** Recreational.  
**Documented hailing port:** NEWPORT RI.  
**Documented length:** 64.  
**Documented breadth:** 17.  
**Documented depth:** 6  
**Documented gross tons:** 31 GRT.  
**Documented net tons:** 28 NRT.  
**Documented restrictions:** No Coastwise. No fishery.  
**Documentation current:** Yes.

## SURVEY STANDARDS

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**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 Titles 33 and 46 of the United States Code of Federal Regulations (CFR's) in effect at the time of the survey inspection. In addition the American Boat and Yacht Council (ABYC) and National Fire Protection Association (NFPA-302) voluntary standards in effect at the time of the survey were used as reference. These ABYC and NFPA voluntary standard practices are generally followed by most vessel manufacturers today. 100% adherence is not guaranteed.*

## SURVEY INSPECTION COMMENTS

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**Comments:** *• All systems and components inspected and described herein apply only at Time of Survey and are considered serviceable and/or functional except as indicated in the survey report and listed in the Recommendations section. Electronic devices and instruments were checked for power up only - not for functionality. Areas not inspected include vessel structure areas which are covered, unexposed or inaccessible such as screwed down or false panels or bulkheads, moldings or any area that was not readily open for visual inspection. If a component is not identified in this report, it was not inspected.*

**Report terms used:**

- *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 on the date the survey was conducted. It provides no guarantee and no prediction of the vessel's condition on any later date.*
- *"Priority I Recommendations" are related to Safety & Regulatory findings*
- *"Priority II Recommendations" are related to Maintenance & Standards*
- *"Other Observations" are findings that are relatively minor in nature.*
- *FRP: Fibre reinforced plastic-Also known as Fiberglass. This is the typical construction material for most modern day yachts and small craft.*
- *APPEARS: 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, behind screwed down panels, or requirements not to conduct destructive tests).*
- *FUNCTIONAL/OPERABLE: Functions as intended.*
- *POWERS UP: Device was tested for Power Up only, not for full design functionality.*
- *SERVICEABLE: Sufficient for a specific requirement.*
- *EXCELLENT CONDITION: New or like new.*
- *GOOD CONDITION: Shows minimal wear with possible minor cosmetic discrepancies.*
- *FAIR CONDITION: Denotes that system, component or item is functional as is with minor repairs. (MONITOR OFTEN)*
- *POOR CONDITION: Requires repair or replacement of system, component or item to be considered fully usable.*

## EXTERIOR HULL & BOTTOM INSPECTION

### HULL EXTERIOR-SIDES

**Construction material:** Wood Cold molded.  
11/08/2021

Due to the total refinishing of the exterior, there were no fasteners pulled. The mahogany planking showed no signs of paneling and the forward hood ends were smooth and undisturbed. The transom was smooth and fair. Due to the clear exterior finish none of the butt blocks showed signs of wear.



**Hull cosmetics:** The hull was stripped to bare wood and re-painted with clear coat.

**Moisture/Delamination:** Could not check entire hull for moisture as vessel was in the water.  
11/08/2021

Hull was percussion tested with no apparent signs of deteriorated planks.



**Stem:** Solid, no cracks on external inspection.  
11/08/2021 image was added.



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## TRANSOM

**Transom type:** Reverse transom.  
11/08/2021 image added.



**Moisture/Delamination:** Could not check entire hull for moisture as vessel was in the water.  
11/08/2021 Transom was percussion tested with no apparent signs of deteriorated planks.

**Stress cracks:** None sighted.  
11/08/2021 No stress cracks sighted on closer observation.

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## HULL BOTTOM

**Construction material:** Vessel was not pulled for bottom inspection. No bottom inspection performed.----- Owner is advised to fully inspect bottom and all underwater machinery at next haul out.  
11/08/2021  
The vessel bottom was inspected.  
Transom was percussion tested with no apparent signs of deteriorated planks.  
Images added.



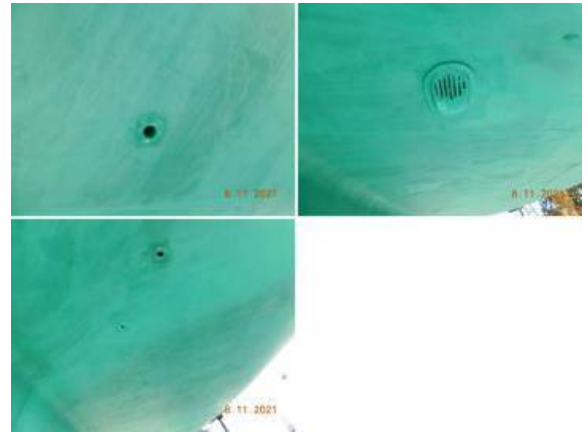
**Bottom paint:** 11/08/2021  
Anti-fouling bottom paint in good condition.

**Stress cracks:** 11/08/2021  
No stress cracks noticed. No planks were paneled and the ends appeared well secured.

**Grounding damage:** 11/08/2021  
None noted.



**Strainers/Scoops/Screens:** 11/08/2021  
All strainers/screens are well secured to hull bottom. Clear of debris & mussels. Images added.



**Transducers:** 11/08/2021  
Transducers for speed and depth are adequately sealed and bonded to the hull. Image added.



**Thru Hull fittings:** 11/08/2021  
Mushroom type bronze fittings for all below water line sea cock locations. Well secured to hull bottom.

## **KEEL**

**Keel type:** 11/08/2021  
Deep fin - lead bulb type. Image added.



**Keel condition:** 11/08/2021  
Keel is well secured and well faired into hull. No cracks or separation sighted at hull to keel joint.

## **PROPELLER(S)/SHAFT(S) / STRUT(S)**

**Prop(s) description:** 11/08/2021  
Prop has two blades and is made of bronze alloy, Prop is folding/feathering type. Prop is in excellent condition. No chipped bent or damaged prop blades.



**Shaft size / material:** 11/08/2021  
Shaft size is 1-1/2" and made of Stainless steel. No pitting, cracks or corrosion sighted. Shaft appears straight with no visible bends. In the image the shaft appears to be bronze. It is stainless steel and has a coating to prevent barnacles from attaching  
Image added.



**Strut(s):** 11/08/2021  
Single bronze P-Strut. Strut appears to be in line and is well secured to the hull bottom.

**Cutlass (shaft) bearing(s):** 11/08/2021  
Good condition. No play found in cutlass bearing.

## **RUDDER(S)**

**Rudder type:** 11/08/2021  
Wooden rudder. Well secured. No abnormal horizontal or fore/aft movement in rudder. No cracks or bending or damage sighted in rudder.  
Image added 11/08/2021.



**Moisture/Delamination:** 11/08/2021  
Percussion testing showed no signs of plank deterioration.

**Rudder alignment/swing:** 11/08/2021  
Full rudder swing to both port and starboard shows equal amount of travel. Rudder is not bent and in full alignment with the keel.

## **ANODES**

**Shaft:** 11/08/2021  
Collar anode on shaft.  
Image added.



# **MAIN DECK**

## **MAIN DECK & FITTINGS**

**Deck Surface:** Cold Molded, with fiberglass covering deck construction.



**Moisture/Delamination:** Moisture meter readings not taken due to wet deck surface. No apparent delamination when checking top deck with phenolic percussion hammer.

**Anchor platform:** Stainless steel with anchor roller. Well secured-no cracks sighted.



**Anchor/chain locker:** Yes accessed from top deck with hatch lock. Functional.



**Bow pulpit/rail:** Stainless steel with side rails, Well secured.

**Stanchions/side rail(s):** Stainless steel.

**Lifeline(s):** Double lines vinyl covered in good condition.

**Boarding gate:** Port and starboard sides have boarding gates.

**Toe rail(s):** Slotted aluminum toe rails - well secured to deck.

**Cleats & fairleads:** Horn cleats are all well secured to deck and side deck and are functional.

**Joinery stress:** None noted.

**Deck hatches:** Yes, well secured, seals in good condition, support arms in place.

**Exterior teak:** Exterior wood is Mahogany and it is in excellent condition.



## **COCKPIT**

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**Cockpit & Helm seating** Custom curved helm seat.



**Sole:** FRP (fiber reinforced plastic) with applied non skid.

**Scuppers/deck drain(s):** Yes. Drains are clear, hoses secure.

**Cabin entrance:** Mahogany hatch boards for companionway entrance with lock.

## INTERIOR HULL & STRUCTURAL INSPECTION

### HULL INTERIOR & STRUCTURAL COMPONENTS

**Hull to deck joint:** Overlap (Shoe box type), Deck joint was covered with FRP (Fiber reinforced plastic), no cracks sighted where it could be sighted. No leaks sighted thru any part of hull to deck joint area sighted.

**Bilge(s):** Clean and dry.



**Keel bolts:** Visually sound, no corrosion sighted, no loose bolts. Hammer test does not appear to indicate internal keel bolt corrosion.



**Stringers:** Hull stiffness provided by wooden grid structure most of which is under the sole as well as a heavy grid system in the area of the keel/bilge. No separation, cracks or splitting sighted in keel/bilge areas or when inspecting transducers. Additional stringers support in engine compartment and stringers are well glassed into hull. Complete inspection not possible due to limited access. Appears serviceable where sighted.

**Bulkheads:** Athwartships reinforcement enhanced by structural bulkheads bonded to the hull with FRP (fiber reinforced plastic). All tabbing appears serviceable and sound with no cracks or separation of tabbing sighted in any compartments. No visual evidence of movement sighted in any bulkhead.

**Stem:** Solid stem, no cracks or separation sighted inside.



**Inside of transom:** Reinforced. Secure-no cracks or separation sighted.

## ALL THRU HULL FITTINGS

**Sea valves:** Bronze seacock ball valves installed, Sea valves sighted are used for: Air Conditioner raw water intake, Engine raw water intake, Head raw water flush intake. Waste discharge  
Tapered wooden plugs tied to sea valves are an inexpensive safety item and highly recommended under current ABYC standards.

**Sea valve condition:** Sea valves are all functional.

**Sea valves piping:** Marine rubber covered reinforced hose. Hoses are double clamped. Monitor all hoses periodically and replace if cracks appear.

**Sea strainers:** Internal strainer installed for engine raw water, air conditioner raw water pickup.

**Transducers:** Speed & Depth transducers are adequately sealed.  
No leakage sighted inside hull.



## CABIN INTERIOR APPOINTMENTS

### MAIN SALON

**Style:** Traditional layout with forward bulkhead.



**Cabin steps:** Mahogany cabin entrance steps.

**Sole:** Mahogany boards.

**Bulkheads/Trim:** Mahogany.

**Headliner:** Wood paneled. Clean and well fastened.



**Grab rails:** Mahogany.

**Doors:** Mahogany doors.

**Hatch screens:** Hatch screens available for all hatches.  
**Engine access:** Mahogany door behind cabin steps.  
**Water intrusion signs:** No evidence sighted.  
**Seat cushions:** Ultra leather.  
**Side windows:** Port lights-Non Opening type. Well sealed and appear serviceable.  
**Navigation station:** Table with storage under top. and dedicated small bench seat.  
**Light fixtures:** 12 volt cabin lights throughout the vessel.  
**Storage:** Adequate.  
**Overall interior condition:** Interior is in overall excellent condition.

**GALLEY**

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**Location:** Starboard side with mahogany counters.



**Stove:** Galley Maid, four burner, LPG, with oven.



**Refrigeration:** Refrigerated compartment serviced by a Isotherm 12V.



**Water system:** Pressurized hot and cold.

**Sink(s):** Twin stainless steel deep well.

**DINETTE**

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**Table type:** Custom mahogany table.



**Seating:** U-shaped seating around table.

## **BERTHS / STATEROOMS**

**Berths:** There are 14 berths throughout the vessel. Designed for long distance ocean racing personal single berths are available.



## **HEAD(S)**

**Number/Location:** Two heads on Port side.

**Toilet(s):** Raritan, Manual flush pump.



**Raw water supply:** Raw water intake thru bronze seacock. Hose secure.

**Sink:** Stainless steel.

**Shower(s):** Handheld, pull out shower fixture.

**Shower pump:** Located in sump tank with auto float and automatic bilge pump. Not tested-Float inside sealed sump container.

## **AIR CONDITIONING**

**Manufacturer & Type:** Cruisair, 120 volt - reverse cycle.

**Locations / BTU Capacity:** Main salon- 12,000 BTU.

**Temp Controls:** Rotary temperature controls.

**Filter(s) Condition:** Filters appeared clean. *Recommend that A/C filter(s) be checked and cleaned frequently to allow the A/C unit to operate at maximum efficiency.*

**Drip trays:** Yes, one for each condensing unit. Functional with drains.

**Condensate drain:** Drains overboard.

**A/C Raw water** Bronze sea cock for A/C Raw water intake. Fully functional and hose is double clamped.

**Thru hull strainer:** Strainer located at A/C raw water pump inlet seacock. Strainer is clear. Hoses are clamped and secure on all fittings sighted.

**Hoses & connections:** Hoses appear to be adequate size and serviceable for application. No cracks or hose damage sighted.



**Raw water cooling pump:** 120 Volt pump, appears to be properly sized - Not tested.

## ELECTRICAL SYSTEMS

### D.C. ELECTRICAL SYSTEMS

**D.C. Voltage system:** 12 Volt system.

**Primary batteries:** There are four batteries Group 24 Lead acid batteries located in the main salon under a sole compartment which provide service to the house electrical

Positive terminals not covered as required.  
**RECOMMENDATION:** Code of Federal Regulations - CFR33.183.420 mandates that positive terminals be protected against accidental shorting by the use of insulation barriers or sleeves or with battery case cover. Recommend compliance with Code of Federal Regulations.



**Battery Set Two:** There is one battery located in the engine compartment that is a Group 27 Lead acid which provide service to the engine. This battery was removed at time of survey.



**Battery selector switch:** Yes Rotary switch is functional.

**Battery monitor:** Switched digital gauge to test battery condition. Xantrex Link 20.



**Charging system:** Engine mounted alternator plus the battery charger is a Phase 3 50 Amp.



**Distribution panel:** Yes located at navigation station.



**Breaker(s)/fuse(s):** All D.C. circuits are adequately protected by branch or switched breakers.

**D.C. usage meter(s):** Analog and digital type.

**D.C. wiring:** All wiring runs are properly secured every 18" per ABYC E11.14.6.9 recommendations.

**DC Electrical ground:** DC electrical system is properly tied into vessels electrical ground system using the engine as a common ground.

**12 volt outlet(s):** DC outlet not tested.

### **A.C. ELECTRICAL SYSTEMS**

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**A.C. Voltage system:** 30 Amp - 120 Volt system. Shore Power: provided by Marincos 30 Amp capacity.

**Shore power cord(s):** 30 AMP-length not measured.

**Shore power breaker:** Separate shore power breaker is also available for the shore power inlet over 10' from power distribution panel per ABYC recommendations.



**Branch breakers:** All A.C. circuits are adequately protected by branch breakers.

**Reverse polarity indicator:** Yes- Not tested. No AC Power to vessel.

**GFCI protection:** No GFCI protection sighted for 110V outlets in/near wet locations (galley, head) -- **RECOMMENDATION:** Provide GFCI protection as currently recommended by ABYC E-11 and NFPA 302. (Install a GFCI equipped breaker in each wet location or as first outlet from power source in each circuit.)

**A.C. wiring:** Stranded copper boat cable- size and rating, where sighted, appears correct and serviceable for intended use.

**Galvanic Isolator:** None sighted.

### **INVERTER/CONVERTER**

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**Type:** DC to AC Inverter.

**Manufacturer:** Prowatt 1000.



**Location:** Engine compartment.

**Input (volts)** 12 Volts.

**Output** 110 volts.

**Ignition protection:** Inverter is marked as Ignition protected.

**Warning labels:** Yes, Appropriate Warning label in place and readable.

## HELM & NAVIGATION ELECTRONICS

### NAVIGATION ELECTRONICS

**Helm station:** Wheel helm in open cockpit.



**Compass(es):** 4" Plastimo.



**VHF radio(s):** Standard Horizon, Uniden, Oceanus. ICOM IC M-560.

**Depth sounder(s):** B & G Network Hydra 2000.



**Speed instrument(s):** B & G Network Hydra 2000.

**Wind :** B&G Network Hydra 2000.

**GPS:** Furno GP 32.



**Radar:** Furuno 1715.



### **ENGINE INSTRUMENTS AND CONTROLS**

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**Throttle and shift controls:** Single lever for throttle/shift controls.



**Engine alarm/Shutdown:** Engine alarm Not tested.

**Engine status:** All engine instruments are OEM. (Original Equipment Manufacturer)



### **OTHER ELECTRONICS AND CONTROLS**

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**Antenna(s):** VHF, GPS.

**Bilge pump switches:** Two bilge pump switches.

**Courtesy lights:** Functional.

**High water alarm:** Not sighted. Since 2005, ABYC H-22 .7.3 has recommended use of a high water bilge alarm for all vessels with accommodation spaces. Recommend compliance with ABYC.

## PROPULSION SYSTEM

### INBOARD ENGINE

**No./Type/Cylinders:** Inboard Shaft driven, Diesel, Straight 6 Naturally aspirated.



**Make / Model:** Volvo Penta. 52 HP.

**Serial no(s):** Engine: 1 000 481.



**Engine(s) hours:** No meter sighted.

**Hoses and clamps:** Good condition-No cracks sighted.

**Belts and pulleys:** Belts condition are serviceable. No cracks or splits sighted. Pulleys/belts appear to be in line.

**Cooling system(s):** Fresh water / heat exchanger cooled.

**Ignition protection:** Yes -Distributor, Alternator and Starter are OEM and ignition protected.

**Fuel pump(s):** Engine mounted.

**Fuel supply lines:** USCG A1 flex.

**Fuel filter(s):** Engine mounted, Racor water separator, fuel filter/water separator. Clear- No water sighted in lower bowl.



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

**Engine ground cable:** Engine is properly grounded with a proper size conductor cable.

**Insulation:** Yes.

**Last major overhaul:** Unknown.

**Engine(s) operated:** Engine not operated for purposes of this survey.



## EXHAUST SYSTEM

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**Discharge location(s):** Transom.  
**Piping/Clamps:** Fiberglass and flex hose.  
**Exhaust manifold:** No cracks or water tracks sighted. Appears to be in good condition as sighted.  
**Anti Siphon Valve:** Appears functional. Check and clean at least annually to ensure proper operation.  
**Muffler(s):** In line.

## TRANSMISSION(S)

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**Manufacturer/Model:** Manufacturer name not sighted. Mechanical gear box.  
**Serial no(s):** Could not read label/tag.  
**Propeller shaft(s):** 1-1/2", Stainless steel, No pitting, cracks or corrosion sighted.  
**Stuffing box(es):** Stuffing box and packing gland, was bronze hex nut type. Boot was double clamped and appeared serviceable. Monitor Frequently for leakage and proper adjustment. Serviceable.

## TANKAGE / PLUMBING

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### FUEL TANK(S)

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**No & Location:** One tank located in the keel sump.  
**Tank type & capacity:** Tank is constructed of Fiberglass. The tank capacity is 50 gallons.  
**Fuel supply lines:** USCG A1 flex hose from tank to fuel pump.  
**Diesel return line(s):** Engine uses grade USCG Type A1 return line. No cracks, soft spots or splitting sighted. Serviceable.  
**Shut off valve(s):** At filter.  
**Vent line/location:** Vent located on hull side.  
**Fill line(s) located:** On tank, clearly marked for diesel fuel per ABYC H-33.12.3 recommendations.  
**Tank(s) grounded:** Yes- tank is properly grounded.  
**Tank(s) secured:** Yes.  
**Inspection/cleaning access:** Limited.  
**Tank(s) condition:** Visually good (where accessible)

### FRESH WATER TANK(S)

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**No & locations of tanks:** Two tanks under cabin seating area.  
**Tank(s) type & capacity:** Aluminum with a total capacity of 200 gallons.



**Tank(s) secured:** Yes.  
**Filter(s):** In line filter. Filter appears clean.  
**Inspection/cleaning access:** Limited.

**Tank(s) condition:** Visually good (where accessible)  
**Water pump(s):** 12 Volt.



**Supply lines:** Grey plastic piping and PVC water lines. No leaks sighted.  
**Filling line(s) located:** Top of tank.  
**Vent(s) location(s):** Side hull.

### **HOLDING TANK(S) - BLACK WATER**

**Marine Sanitation Device:** Certification Type: MSD U.S.C.G. Type III. (Holding tank). Waste tank is connected to deck waste fitting for pump out.  
**No & Location of tanks:** Two holding tanks located under quarter berth area.  
**Tank(s) type & capacity:** Plastic with a total capacity of 20 gallons.  
**Tank(s) secured:** Yes.  
**Tank(s) condition:** Visually good (where accessible)  
**Inspection/cleaning access:** Good.  
**Lines:** Sanitation hose.  
**Discharge line(s) located:** Deck pump out or overboard discharge thru an opened seacock.



**Y valve(s) installed:** Yes.  
**Vent(s) location(s):** Side hull.  
**Macerator pump(s):** 12V, pump.

### **WATER HEATER**

**Tank location:** Engine compartment.



**Manufacturer/capacity:** Iso Temp.  
**How powered:** 110V with heat exchanger coil.  
**Pressure relief valve(s):** Yes- Drains into bilge area.



**Drain fixture(s)/plug(s):** Yes- Appears functional.  
**Supply lines:** PVC.  
**Heat exchanger hoses:** Heat exchanger hoses appear to be in good condition where sighted. No cracks or leaks sighted.  
**Outer tank material:** Stainless steel.  
**Tank(s) secured:** Yes, Tank is well secured to base.  
**Inspection/cleaning access:** Good.  
**Ignition protected:** Yes, Water heater is marine type and ignition protected.

**LPG (PROPANE) TANK(S)**

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**No & location of tanks:** One tank, Cockpit dedicated LPG locker with proper ventilation overboard.



**Secured:** Tank is properly secured to prevent upset or displacement that could place a strain on fuel distribution or appliance fittings per ABYC A-1 recommendations.

**Tank type & OPD:** Aluminum alloy Tank is properly fitted with the Overflow Protection Device (OPD)

**Regulator(s):** Yes-Appropriate LPG regulator.

**Pressure gauge(s):** Pressure gauge is installed.

**Shut off valve(s):** LPG shut off valve at the tank top. In addition an LPG electrical solenoid shut off valve switch is available near the galley and is functional.



**Supply lines:** Flex LPG type hose. Good condition where could be sighted.

**Locker(s) vented:** Yes, LPG locker opens to the atmosphere and also has a bottom vent that vents overboard.

**Inspection/cleaning access:** Good.

**Warning label(s):** Yes-proper LPG gas warning labels located at tank.

**WATER MAKING SYSTEM**

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**Manufacturer:** Spectra Watermaker.



**Secured:** Yes.  
**Location:** Engine room.  
**Inspection/cleaning access:** Good.  
**Water supply lines:** PVC.  
**Through-hull(s):** Bronze mushroom thru hull.  
**Sea valve(s):** Bronze sea valve Operational.  
**Ignition protected:** Yes.

## STEERING SYSTEM

### STEERING SYSTEM

**Type:** Cockpit Wheel steering, Pedestal mounted cable type radial quadrant drive at rudder head.



**Lines and fittings:** Flex cable lines.  
**Pulley, cable, chain:** Cable appeared to be in good condition - No broken cable wires sighted and cable pulley / sheaves are well secured. Keep this cable properly lubed and inspect steering often.  
**Mounting(s):** Secure with stops in place.  
**Rudder stock(s):** Visually sound.  
**Emergency tiller:** Emergency tiller is available and appears functional.

## STANDING RIGGING

### MAST(S) & BOOM(S)

**Main mast(s):** wood, Sitka spruce. Good condition. No cracks or rotted areas sighted. Wood is varnished for protection from elements.



**Mast track(s):** Mast sail track appears serviceable.



**Main mast step:** Keel stepped mast. Mast step is in good condition..



**Main spreaders:** Double spreaders are Wood. No cracks or rot or soft spots sighted. Wood is varnished for protection from elements.

**Gooseneck(s):** Stainless steel - Well secured and no signs of abnormal wear.



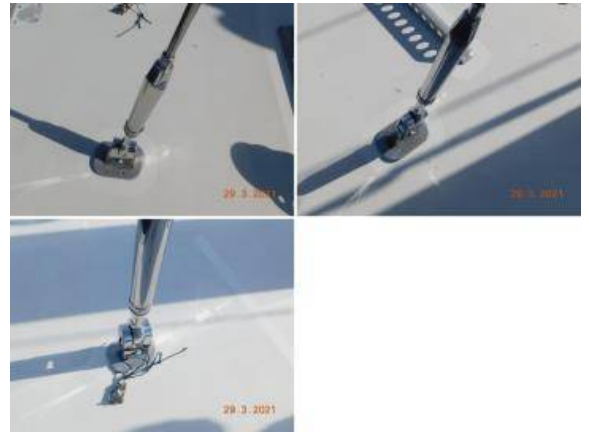
**Masthead fittings:** Anchor light, VHF antenna, Wind speed anemometer, Windex with tacking tabs.

**Boom(s):** Sitka spruce booms for main mast in excellent condition. Boom bails and cleats are well secured.



## **STAYS & SHROUDS**

**Material & Condition:** Stainless steel rod. Hydraulic manual pump backstay adjuster. Appears serviceable. No hydraulic leaks sighted. All rod rigging sighted appeared to be in good condition. Rod ends sighted are secure and no cracked, split or bent rods were sighted.



**Ends:** Secure and no split or corroded ends/wires.  
**Turnbuckles:** Stainless steel closed barrel design .  
**Chainplates:** Chain plates well secured to deck, side hull and or bulkheads for portions that were visible..



**RUNNING RIGGING**

**HALYARDS / SHEETS**

**All halyards:** All halyards sighted are colored yacht braid and in good condition.  
**Main sheeting:** Braided main sheet, Main sheet in good condition. No frayed or severely worn areas as sighted.  
**Head sail(s) sheets:** Yacht braid, Head sail sheet in good condition. No frayed or severely worn areas as sighted.

**WINCHES**

**COCKPIT:** The following winches were sighted on both sides of the cockpit:

**Type / Condition:**

There are 26 winches in the cockpit. They are all being serviced. The winches are made by Barient, Lewmar and Harken.



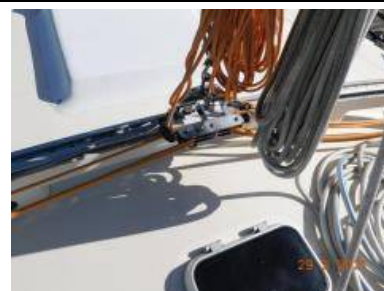
**Winch handles:**

Sighted aboard and appear serviceable.

**OTHER SAIL HANDLING**

**Traveler(s):**

Garhauer traveler on cabin top. Blocks and track appear serviceable and well secured. Traveler car runs smoothly side to side.



**Running lines:**

All running rigging lines lead back to cockpit area.

**Boom Vang:**

Hydraulic controlled rigid boom vang. Well secured and appears functional.



**Backstay adjuster:**

Hydraulic pump - appears serviceable.

**Blocks:**

Harken, Schaefer, Fully functional and well secured to deck.

**Genoa Sailtracks / Cars:**

Securely mounted on both side decks.



**Spinnaker pole(s):**

Stored on side deck stanchions and secured.



## SAILS INVENTORY

### SAILS COMMENTS

**Sail inspection note:** Sails were reportedly at the sail maker for winter storage and maintenance.

## SAFETY EQUIPMENT

### U.S.C.G. REQUIRED

**Navigation lights:** All Navigation running lights were tested and found fully operational unless otherwise stated.

**Life Jackets(PFD's):** USCG Type II, Over 10 sighted aboard.

**Throwable type PFD's:** USCG approved Ring buoy, with tether line attached.

**Visual Distress Signals:** 12 Ga Aerial, Hand held aerial type, Signals are current.

**Sound devices:** Hand held air horn is available and was functional when tested. Whistle is available and functional. Functional ships bell available.

**USCG placards:** Both USCG mandated placards (Oil & Garbage) are properly posted.

**Engine ventilation:** Natural ventilation for engine space is provided.

### FIRE FIGHTING EQUIPMENT-U.S.C.G. Required

**Dry Chemical Size II:** Multiple USCG approved extinguishers All gauges read full.

**Fixed /Clean Agent:** One USCG approved Clean agent automatic fire extinguisher, Located: in the engine compartment.

### BILGE PUMPS

**ELECTRIC PUMPS:** Two electric pumps. Located at: Central bilge.

**SHOWER & SUMP PUMP(S):** Two pumps. Sealed sump tank with one pump and auto float switch.

**MANUAL PUMPS:** Whale manual operated bilge pump. Appears serviceable.

### GROUND TACKLE

**Primary anchor:** CQR, with undetermined length of raw chain 5/8" anchor line.

### AUXILIARY SAFETY EQUIPMENT

**First aid kit:** Yes and appears well equipped.

**Carbon monoxide detectors:** Carbon monoxide fume detector was not sighted but have been required since 2001 by both ABYC and NFPA. ----- Install Carbon Monoxide detectors in any enclosed accommodation spaces per ABYC A-24.5 and NFPA 302 recommendations.

**Gasoline/Propane vapor detector:** Not sighted. Most fume/vapor detectors on the market today detect both gasoline and propane vapors and should be mounted in the engine space and/or the lower part of the bilge because gas vapors are heavier than air. Highly recommended.

**EPIRB:** ACR Satellite 406, Class 2, manually deployable-



**Safety harnesses / tethers:** Available.

## AUXILIARY EQUIPMENT

### MISCELLANEOUS EQUIPMENT & ACCESSORIES

**Dock lines:** Multiple assorted length dock lines.

**Fenders:** Several fenders of various sizes sighted and appear serviceable.



# INSPECTION RECOMMENDATIONS SUMMARY

## **PRIORITY I - SAFETY & REGULATORY RECOMMENDATIONS:**

*(MAY BE MANDATORY)*

The items listed are required by state laws or federal laws and U.S.C.G. regulations or are considered by the attending surveyor to represent unsafe operating conditions. Recommend these items be corrected before next use of vessel.

## **SCOPE OF SURVEY & GENERAL INFORMATION**

### VESSEL INFORMATION

*Hull ID number (HIN):*

The actual HIN was NOT sighted on the vessel. Owner is advised to verify HIN is present or inscribe the HIN permanently into the transom on the upper starboard side for Hull Identification purposes and to comply with 33 CFR Sub Part C 181.23.

### U.S.C.G. OFFICIAL DOCUMENTATION

*Official Documentation No:*

1307867 The vessel documentation was sighted aboard and documented information listed below. Not permanently affixed per USCG regulations. **RECOMMENDATION:** The official documentation no must be permanently affixed in block type Arabic numerals not less than 3 inches on a clearly visible interior structural part of the boat. Recommend compliance with existing regulations.



## **ELECTRICAL SYSTEMS**

### D.C. ELECTRICAL SYSTEMS

*Primary batteries:*

There are four batteries Group 24 Lead acid batteries located in the main salon under a sole compartment which provide service to the house electrical

**Positive terminals not covered as required. RECOMMENDATION:** Code of Federal Regulations - CFR33.183.420 mandates that positive terminals be protected against accidental shorting by the use of insulation barriers or sleeves or with battery case cover. Recommend compliance with Code of Federal Regulations.



## **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, if not addressed, could lead to a Priority I safety issue and/or may result in a reduced vessel market value.

### **ELECTRICAL SYSTEMS**

#### **A.C. ELECTRICAL SYSTEMS**

*GFCI protection:*

No GFCI protection sighted for 110V outlets in/near wet locations (galley, head) -- **RECOMMENDATION:** Provide GFCI protection as currently recommended by ABYC E-11 and NFPA 302. (Install a GFCI equipped breaker in each wet location or as first outlet from power source in each circuit.)

### **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.

### **HELM & NAVIGATION ELECTRONICS**

#### **OTHER ELECTRONICS AND CONTROLS**

*High water alarm:*

Not sighted. Since 2005, ABYC H-22 .7.3 has recommended use of a high water bilge alarm for all vessels with accommodation spaces. Recommend compliance with ABYC.

### **SAFETY EQUIPMENT**

#### **AUXILIARY SAFETY EQUIPMENT**

*Carbon monoxide detectors:*

Carbon monoxide fume detector was not sighted but have been required since 2001 by both ABYC and NFPA. ----- Install Carbon Monoxide detectors in any enclosed accommodation spaces per ABYC A-24.5 and NFPA 302 recommendations.

*Gasoline/Propane vapor detector:*

Not sighted. Most fume/vapor detectors on the market today detect both gasoline and propane vapors and should be mounted in the engine space and/or the lower part of the bilge because gas vapors are heavier than air. Highly recommended.

# HIGH TECH MARINE SURVEYS



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## **DECLARATION:**

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

Estimated fair market value was determined by cross referencing data from Soldboats.com, BUC, ABOS, NADA, Powerboat Guide 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 it's current condition prior to any repairs or maintenance.

Estimated replacement cost 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..... ABOVE AVERAGE-** Has had above average care with no obvious defects or limitations.

- **INTENDED USE OF VESSEL..... Personal Pleasure**
- **ESTIMATED FAIR MARKET VALUE.....\$790,000.00**
- **ESTIMATED REPLACEMENT COST..... Excess of \$1,600,000.00**
- **SUITABILITY FOR INTENDED SERVICE: Vessel IS considered fit for it's intended use and upon correction of all listed Priority I recommendations.**

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



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

This report is not a complete inventory of the vessel nor is it meant to be.

Parts of most vessels cannot be examined due to inaccessibility. Some removal procedures add greatly to the time involved or may even cause damage to the vessel. Therefore such procedures are not performed unless specifically requested or recommended.

Engine surveys and oil analysis are separate surveys and are recommended, and should be performed by specialist in this field.

The vessel's supply tanks are not tested for tightness or leaks. Only visual inspections are performed.

Sailboat mast, boom and rigging are checked visually only. Further scientific tests, such as x-ray, ultra sound or thermal imaging, are not performed unless requested and should be carried out by a specialist in the respective field.

The vessels systems are checked whenever possible. Lack of the proper power or winterization of systems may make this testing impossible. Electronics are only tested to see if the appliance "powers up" not tested for range or reliability. Galley and vessel systems are also tested to "power up" whenever possible. Any additional testing on these items should be performed by an expert in the particular field.

This report is based on over 30 years in the marine industry and as an AMS in good standing within the Society of Accredited Marine Surveyors and as a member of the ABYC.

This report is confined to the surveyor's opinion as to the general physical condition and estimated value of the vessel, it is not to be considered a warranty either specified or implied. I cannot be responsible for errors, omissions, or mistakes in my judgment. Acceptance of this report constitutes acceptance of the conditions.

ATTENDING SURVEYOR: Patrick Goodrow



This is a true digital photograph of my signature      Date: March 29, 2021  
SAMS AMS # 1146, Member ABYC, ITC Level One Thermographer