

**PALCHER MARINE CONSULTANTS, INC.**  
MARINE SURVEYOR AND CONSULTANT

**2000 Beneteau 361**

***SAILBOAT***



INDEPENDENT MARINE SURVEY SERVICE

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# **Report of Marine Survey**

**Of The Vessel**

***SAILBOAT***

**2000 Beneteau 361**

Conducted by  
John Palcher ABYC, IAMI Certified

PREPARED EXCLUSIVELY FOR:

BUYER

2020

INDEPENDENT MARINE SURVEY SERVICE

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# I. INTRODUCTION

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## SCOPE OF SURVEY

Acting at the request of BUYER, the attending surveyor did attend onboard the *2000 Beneteau 361, SAILBOAT* beginning on, 2020 where an "in-the-water-survey" was conducted at Bay Marina, US.

**Note:** The broker (XXXX YACHT, phone XXX-XXX-XXXX) has a sign that has the wording "Not for sale to US residents while in US waters." The conditions and terms of sale are not a function of this survey. The broker's language should be thoroughly vetted and understood by the buyer.

The Hull Identification Number US-BEYXXXXX1900 was verified at the starboard aft hull. A sea trial was performed. An out-of the water inspection of underwater machinery and the exterior of the hulls wetted surface area was performed. The reason for the survey, was to ascertain the physical condition and value of the vessel.

Moisture readings taken and referenced throughout the body of the report, were taken with an Electrophysics GRP33 plus. The meter was calibrated on site using the manufacturer's calibration plate.

AC power was not available. DC power was used to check operation of the electrical systems specified in this report only. No reference or information should be construed to indicate evaluation of the internal condition of the engine or the propulsion system's operating capacity. This report reflects the condition and information available at the time, day and place the sea trial was conducted. Specific concerns observed are addressed within this report. This report serves as a baseline of the mechanical systems' operation and condition. The length of time mechanical systems may operate properly is not the function of this report.

Electronic equipment was checked for "power up" only.

This vessel was surveyed without removals of any parts, including fittings, tacked carpet, screwed or nailed boards, anchors and chain, fixed partitions, instruments, clothing, spare parts and miscellaneous materials in the bilges and lockers, or other fixed or semi-fixed items. Locked compartments or otherwise inaccessible areas would also preclude inspection. Owner is advised to open up all such areas for further inspection. Further, no determination of stability characteristics or inherent structural integrity has been made and no opinion is expressed with respect thereto. This survey report represents the condition of the vessel on the above dates, and is the unbiased opinion of the undersigned, but it is not to be considered an inventory or a warranty either specified or implied.

**NOTE:** It is recommend and understood that all engines be surveyed by a qualified Engine Surveyor to determine the condition of the engines, gears and pumps, heat exchangers, coolers, etc.

## CONDUCT OF SURVEY:

**THE MANDATORY STANDARDS PROMULGATED BY THE UNITED STATES COAST GUARD (USCG), UNDER THE AUTHORITY OF TITLE 46 UNITED STATES CODE (USC); TITLE 33 AND TITLE 46, CODE OF FEDERAL REGULATIONS (CFR), AND THE VOLUNTARY STANDARDS AND RECOMMENDED PRACTICES DEVELOPED BY THE AMERICAN BOAT AND YACHT COUNCIL (ABYC) AND THE NATIONAL FIRE PROTECTION ASSOCIATION**

# I. INTRODUCTION

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(NFPA) HAVE BEEN USED AS GUIDELINES IN THE CONDUCT OF THIS SURVEY.

The use of the word "appears" is intended to indicate that a close or complete inspection was not possible or it was not deemed appropriate at the time of this survey. The deficiencies reported herein reflect the conditions observed at the time the survey was conducted.

Use of asterisks \* in the body of the report will indicate that a finding will be listed in the *Findings and Recommendations* section pertaining to the asterisked item, following the body of the report.

Use of asterisks \*\* denotes manufacturer supplied information.

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# I. INTRODUCTION

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## VESSEL DESCRIPTION

This boat is a sloop configured sailing vessel. The interior has three cabins and a head. The forward cabin is a berth, midship is the salon and galley, and a quarter berth is at the aft starboard. The interior accommodations include a refrigerator/freezer, LPG range, head with shower, and a comfortably laid out salon. The transom has an integral molded swim platform, that accommodates ease of access to the water.



**HIN**



**Broker's Sign**

## II. GENERAL INFORMATION

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### GENERAL INFORMATION

FILE NUMBER: ..... 2020

SURVEY PREPARED FOR: ..... BUYER

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NAME OF VESSEL: ..... SAILBOAT

TYPE OF SURVEY: ..... Condition and Value

OVERALL VESSEL RATING: ..... Poor

ESTIMATED MARKET VALUE: ..... \$XX,000.00

ESTIMATED REPLACEMENT COST:..... \$XXX,000.00

BUILDER: ..... Beneteau

YEAR BUILT: ..... 1999

MODEL YEAR: ..... 2000

MODEL OF VESSEL: ..... Beneteau 361

HULL IDENTIFICATION NUMBER (HIN): ..... US-BEYXXXXX1900

HOME PORT: ..... Canada

PLACE OF SURVEY: ..... Bay Marina, NY

DATE/TIME OF SURVEY: ..... 2020

HULL MATERIAL: ..... Reported to be FRP (Fiber Reinforced Plastic).

HULL TYPE: ..... Full displacement hull, wing keel and spade rudder.

LENGTH OVER ALL (L.O.A.): ..... \*\* 36' 5"

(LOAD) LENGTH WATERLINE (L.W.L.): ..... \*\* 31' 1"

BEAM: ..... \*\* 12' 7"

DRAFT: ..... \*\* 5' 11"

DISPLACEMENT: ..... \*\* Approx. 6100kg - 13448Lbs

PROPULSION SYSTEM: ..... Inboard Deisel

FUEL CAPACITY: ..... \*\* 19.8 Gallons

AC POWER: ..... Yes, 125 volt, 30 amp.

DC POWER: ..... Yes, 12 volt.

## II. GENERAL INFORMATION

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FRESH WATER CAPACITY: ..... \*\* Approx 100 Gallons

INTENDED USE/BUYER: ..... Recreational Cruising Inland Lakes and Waterways

BUYER'S EXPERIENCE: ..... Owned previous boats.



## II. GENERAL INFORMATION

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### DEFINITION OF TERMS:

The terms and words used in this report have the following meanings as used in this *Report of survey*:

#### 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, inability to remove panels, or requirements not to conduct destructive tests).

#### FIT FOR INTENDED USE:

Use which is intended by Survey Purchaser (present or prospective owner).

#### SERVICEABLE: ADEQUATE:

Sufficient for a specific requirement.

#### POWERS 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.

#### FAIR CONDITION:

Denotes that system, component or item is functional as is with minor repairs. (MONITOR OFTEN)

#### POOR CONDITION:

Unusable as is. Requires repairs or replacement of system, component or item to be considered functional.

#### USE OF \*:

Use of \* in the body of this report will indicate that a finding will be listed in the "*Findings and Recommendations*" section pertaining to the \* item.

## II. GENERAL INFORMATION

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### DEFINITION OF TERMS:(*continued*)

Asterisks \* in this General Information section refers to the source of such information as follows:

**\*\* Per Manufacturer's Specifications**

# III. SYSTEMS

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## HULL DECK AND SUPERSTRUCTURE

### HULL CONSTRUCTION

**TYPE:**

Full displacement with wing keel and spade rudder.

**MATERIAL:**

\*\* Glass Reinforced Plastic (GRP)

**EXTERIOR HULL:**

The exterior hull is white gel coat with a painted bottom. The above water line surfaces are waxed and polished. Rub marks were noted on both sides, mostly at fender and lift sling locations. One gel coat scratch is visible at the starboard aft side, it is approximately 1" and does not penetrate to the GRP. The hull appears symmetrical, with no signs of damage observed. Percussion and moisture meter readings do not indicate any signs of de lamination or water intrusion. The transom rub rail is plastic and wraps down and around the swim platform. It has several small scrapes that do not appear to effect its functionality.

**HULL LINER:**

The interior port side hull liner is separated in a small area approximately 5" x 8." The area is at the location where the travel lift forward slings are placed. Percussion identified the area, moisture meter readings are not elevated at or around the area.

**\*B.1**

The interior port side hull liner is separated in a small area approximately 5" x 8."



**PORTLIGHTS:**

Four (4) fixed portlights two each at port and starboard. No signs of water intrusion.

**BULKHEADS:**

Interior construction indicates partial bulkheads at the fore and aft. These are at the companionway and forward berth. No deflection or shifting sighted.

# III. SYSTEMS

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## HULL DECK AND SUPERSTRUCTURE

### HULL CONSTRUCTION(*continued*)

#### STRINGERS:

Stringers are molded into the hull /liner assembly. Where sighted, at the midship bilge and engine compartment, they appear serviceable, and sound on percussion.

#### STEM:

The stem has evidence of previous repair. Appears serviceable.

#### TRANSOM:

The transom is molded GRP with an integral swim platform, and wash down station. It is firm under foot, percussion and moisture meter readings do not indicate elevated moisture.

#### BILGE:

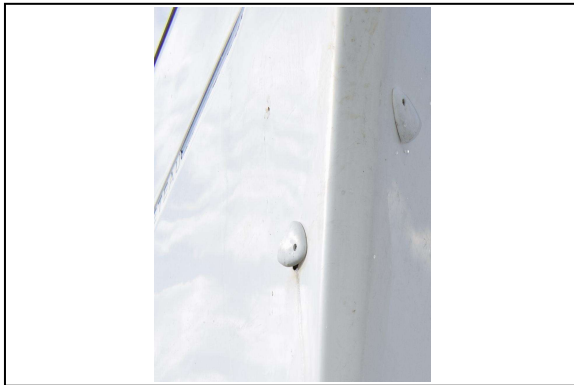
The bilge is dry where sighted at the midship and engine compartment. Evidence of some previous standing water within the engine bilge is evident by water markings. The marks do not reach the engine level.

#### CHAIN LOCKER (DRAINAGE):

Chain locker is dry, drainage is overboard at the bow. The starboard side drain cover is out of place.

##### **\*C.1**

The starboard side drain cover is out of place.



#### KEEL:

\*\* Iron

# III. SYSTEMS

## HULL DECK AND SUPERSTRUCTURE

### HULL CONSTRUCTION(*continued*)

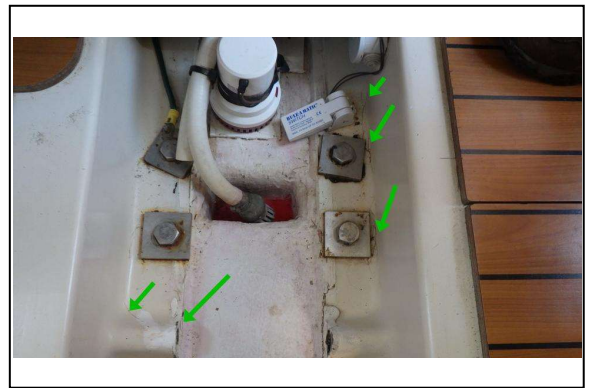
#### KEEL EXTERNAL:

The keel is encapsulated in a protective coating. The starboard wing and aft upper areas are corroded. The starboard side wing has a large area of missing coating and subsequent corrosion. The keel bolts were observed while the boat was on the hard and partially sitting on the keel. No evidence of the bolt heads sitting proud was sighted. The keel to hull joint was observed as the boat was lifted, no movement at the joint was observed.

Surrounding some of the keel bolt heads, the liner has stress cracks.

#### \*B.2

The keel has areas of exposed iron and corrosion. Prior grounding or contact is a possible cause. The hull liner surrounding some of the keel bolts is stress cracked.



# III. SYSTEMS

## HULL DECK AND SUPERSTRUCTURE

### DECK CONSTRUCTION

TYPE:

\*\* Balsa cored GRP.

The deck incorporates molded non-skid surfaces, appears and feels serviceable. The deck near the windlass has a damaged area in need of repair. No evidence of water infiltration was sighted at the interior underneath the area.

**\*B.3**

The deck near the windlass has a damaged area in need of repair.



COCKPIT:

The cockpit surfaces and features appear in good condition. The cockpit has :

- Molded seating benches, and elevated navigation seats at the port and starboard.
- Sail control lines routed to it.
- A pedestal wheel with navigation instruments

### HULL-TO-DECK JOINT

TYPE:

The hull to deck joint incorporates an aluminum toe rail and appears secure. The joint is mostly hidden and not readily observed. No evidence of water intrusion sighted below the joint.

FASTENERS:

Fastness were observed to be in place and appear secure.

### DECK FITTINGS

STANCHIONS:

Stanchion bases are firm when pressure is applied. Stress cracks are visible at some bases. No indication of elevated moisture on percussion or meter readings.

**\*C.2**

Stanchion bases are firm when pressure is applied. Stress cracks are visible at some bases.

# III. SYSTEMS

## HULL DECK AND SUPERSTRUCTURE

### DECK FITTINGS *(continued)*

#### BOW PULPIT (BOW RAIL):

Stainless steel stanchions and rail system. Appears serviceable.

#### TOE RAILS:

Aluminum, appears secure and serviceable.

#### CHOCKS AND CLEATS:

Chocks and cleats distributed around deck. All are firm and secure when tapped with hammer.

#### WINDLASS/GIPSY:

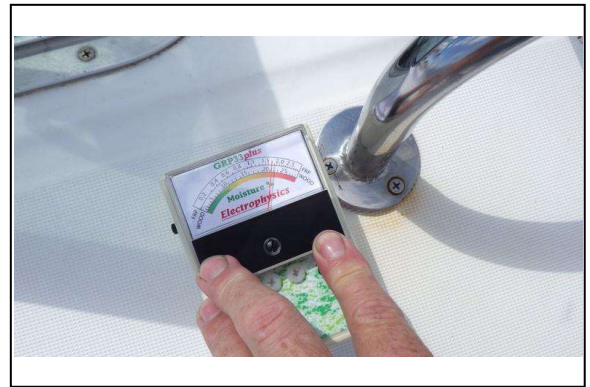
Windlass operated up and down at bow control.

#### DECK SURFACE:

White gel coat with molded non-skid surfaces. Condition is serviceable. One isolated area of deck about 2" diameter has elevated moisture readings, it is firm under foot and percussion does indicate delamination. This is next to a grab rail base at the starboard side.

#### **\*B.4**

One isolated area of deck about 2" diameter has elevated moisture readings.



#### HATCHES:

Deck hatches open, close, and latch, no signs of water intrusion.

#### GRAB RAIL:

Grab rails are distributed around the deck, all are firm when grasped. (Note in deck section regarding one grab rail base.)

#### LIFE LINES:

There are two rows of life lines, routed through the stanchions, appear serviceable.



# III. SYSTEMS

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## HULL DECK AND SUPERSTRUCTURE

### DECK FITTINGS *(continued)*

#### CLEATS:

Chocks and cleats appeared to be serviceable.

#### ANCHOR PLATFORM:

Stainless steel anchor platform with bow roller. Appears serviceable.

### SUPERSTRUCTURE

#### WINDOWS/PORTS/DOORS:

Opening windows on the sides, open and latch with no sign of water intrusion sighted.

#### JOINERY STRESS:

None Sighted.

#### CANVAS AND SUPPORT STRUCTURE:

Various coverings with plastic windows and screens were sighted stored in the boat. appear serviceable Fair condition.

#### SUPERSTRUCTURE HOUSE TO DECK JOINT:

Deck house and deck appeared to be molded seamlessly, no joint was observed.

## CABIN APPOINTMENTS

### INTERIOR DESCRIPTION:

#### JOINERY AND FINISH:

Joinery and finish appear in good condition.

#### WATER INTRUSION SIGNS:

Signs of water intrusion noted at bow under chain locker.

#### **\*B.5**

Signs of water intrusion noted at bow under chain locker. Corrosion at bolts.





# III. SYSTEMS

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## CABIN APPOINTMENTS

### INTERIOR DESCRIPTION:(*continued*)

#### STORAGE AREAS:

The cabinets, lockers, drawers, and shelving are in good condition where sighted.

#### HEADLINERS:

No signs of water intrusion sighted.

#### DOORWAYS:

The doors open and close and latch.

#### FABRIC AND CUSHIONS:

The general appearance of the cushions and fabrics reflect good care and normal wear and tear for a vessel of this age.

#### FLOOR AND WINDOW COVERINGS:

Teak floor covering panels are in good condition.

#### HEADS:

One manual flush head, appears to operate properly when pumped.

#### SHOWERS:

A separate stand up shower enclosure with drain pump is in the head compartment. Water flows from the shower head.

#### FAUCET FIXTURES:

The faucet fixtures and sinks were operable in both heads and in the galley.

#### LIGHT FIXTURES:

12 volt cabin lights throughout the vessel were operable.

#### SALON FURNISHINGS:

Two large couches are at each side of the main salon. Fair condition.

#### VENTILATION:

Several 12VDC fans distributed throughout the cabins, all work.

#### STEREO, ETC.:

Yes, powers up.

### GALLEY

#### SINKS:

Stainless steel double sink with pressurized water and foot pump water.

# III. SYSTEMS

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## CABIN APPOINTMENTS

### **GALLEY(continued)**

#### REFRIGERATION:

Refrigerator and freezer cooled when powered up with batteries.

#### STOVE/OVEN:

Force 10 LPG range/oven. Solenoid appears to activate when switched.

The tank is in a locker with required overboard vent hose. The regulator is not secured properly.

#### **\*A.1**

The LPG regulator is not secured properly.

## PROPULSION

### **MAIN ENGINES**

#### MANUFACTURER:

A Yanmar 3GM30F fresh water cooled diesel engine.

#### SERIAL NUMBERS:

E 24548

#### HORSE POWER:

\*\* Approximately 27 rated hp.

#### INDICATED HOURS:

4,657 Hours on meter

#### EMERGENCY SHUT DOWN:

Mechanical fuel shut off controls for engine. Located at the battery control panel in quarter berth

#### ENGINE MOUNTS AND BED:

Mounts and beds appear serviceable. Mounts secure when tapped with mallet. Aft starboard mount has some corrosion, appears to be from prior water leak.

#### **\*B.6**

Aft starboard mount has some corrosion, appears to be from prior water leak.

#### LUBRICATION:

Oil level within normal limits.

#### EXHAUST SYSTEM:

Single exhaust with water lift muffler, hoses are in good condition and double clamped where sighted.

# III. SYSTEMS

## PROPULSION

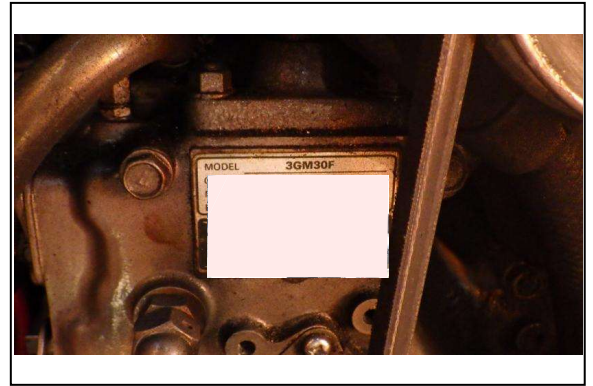
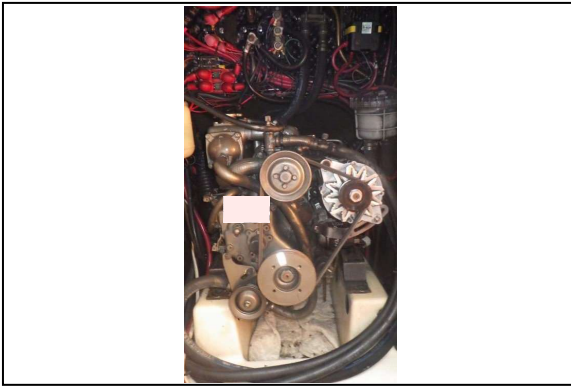
### MAIN ENGINES(continued)

#### PROP SHAFTS:

Stainless steel approximately 1.25". Shaft has damage from contact with shaft log. External shaft seal/bearing is damaged and missing pieces. The internal boot and water port are in serviceable condition.

#### \*A.2

Shaft has damage from contact with shaft log. External shaft seal/bearing is damaged and missing pieces.

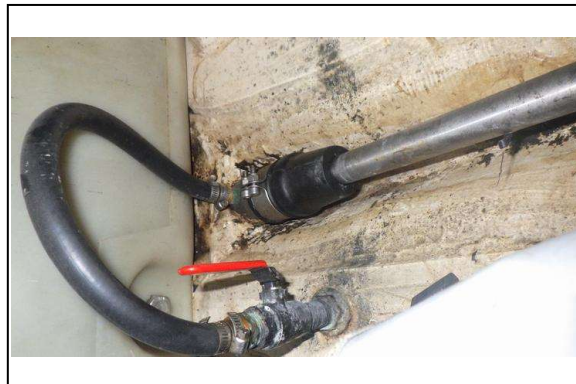


# III. SYSTEMS

## PROPULSION

### MAIN ENGINES(*continued*)

#### PROP SHAFTS:(*continued*)



#### INSTRUMENTS:

Helm cockpit engine gauges are difficult to read due to UV damaged and crazed lenses. The DCV meter does not appear to work.



### COOLING SYSTEM

#### COOLANT LEVEL:

Full

#### HOSES AND CLAMPS:

Engine water hose at cooling pump is damaged, possibly due to contact with alternator blades. Not leaking during inspection.

#### **\*B.8**

Engine water hose at cooling pump is damaged.

# III. SYSTEMS

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## PROPULSION

### COOLING SYSTEM(*continued*)

#### BELTS AND PULLEYS:

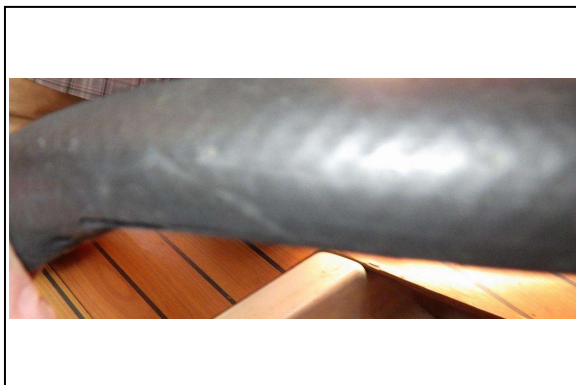
Belt dust sighted in engine compartment.

#### **\*B.9**

Belt dust sighted in engine compartment.

#### SEACOCKS AND STRAINERS:

Bronze sea cocks, valves turn smoothly. Appear serviceable.



**Damaged Hose**

### TRANSMISSIONS

#### MANUFACTURER:

Kanzaki

Model # KM2P

Serial # 47557

#### GEAR RATIO:

2.62

#### FLUID LEVEL AND CONDITION:

Could not check. The plastic threaded portion of dipstick is sheared off and stuck in place. Dipstick can be removed. but fluid is wiped clean.

#### **\*B.10**

The plastic threaded portion of the transmission dipstick is sheared off and stuck in place.

#### CONTROLS:

Mechanical cable and linkage. shifter moves smoothly.

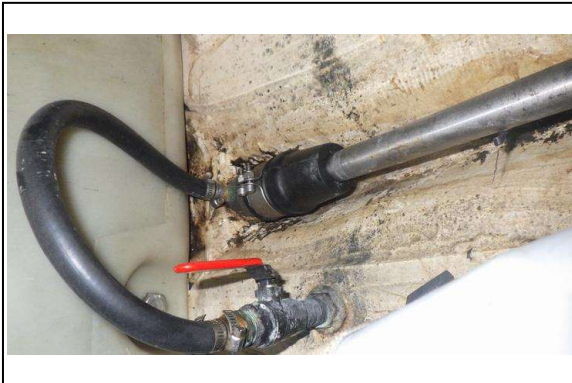
# III. SYSTEMS

## PROPULSION

### TRANSMISSIONS(*continued*)

#### COUPLER (SAFETY WIRE):

None sighted, used lock washers. Appears serviceable.



## FUEL SYSTEM

### MAIN ENGINE(S) FUEL SYSTEM

#### FUEL TYPE:

Diesel.

#### MATERIAL:

One plastic tank

#### SECURED:

Yes, secured with metal tubing.



# III. SYSTEMS

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## FUEL SYSTEM

### MAIN ENGINE(S) FUEL SYSTEM(*continued*)

LOCATION:

Aft of engine.

MANUFACTURING LABEL:

Molded into tank.

FILL PIPE LOCATIONS:

starboard

FILL PIPE FITTINGS:

Not sighted due to access.

HOSE CONNECTIONS, CLAMPS:

Double clamped fuel lines where sighted.

SHUT-OFF VALVE:

Yes, aft cabin at battery control panel.

FUEL FILTERS:

Yes. Both remote mounted Racor filter/water separator type and engine mount filter.

## ELECTRICAL SYSTEMS

### ELECTRICAL SYSTEM (DC SYSTEM)

VOLTAGE:

Lead acid battery powered 12 volt system.

BATTERIES:

Two (2) batteries:

-Group 24 start battery

-4D Deep cycle 1314 CCA

**\*B.11**

4D battery not secured. Abandoned battery cable ends in bilge forward of engine.

# III. SYSTEMS

## ELECTRICAL SYSTEMS

### ELECTRICAL SYSTEM (DC SYSTEM)(continued)

#### MAIN BATTERY SWITCHES:

Two switches at battery panel in aft quarter berth.



#### PANEL:

Bass DC power supply panel, with circuit breakers and DCV meters.



#### ROUTING/SUPPORT:

Supported and secured where sighted.

#### CHARGING SYSTEM:

Alternator on main engine.

#### CHARGING SYSTEM (BATTERY CHARGER):

Sentry 12 VDC battery charger.

Model # SM1220/2



# III. SYSTEMS

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## ELECTRICAL SYSTEMS

### ELECTRICAL SYSTEM (DC SYSTEM)(continued)

#### CHARGING SYSTEM SOLAR:

Two (2) solar panels and a DCV status panel are installed.  
Kyocera Model # KC130TM  
Serial Numbers 0968HM2792 & 0878HM0730

#### CHARGING SYSTEM WIND:

A wind generator is reported to be included with the boat. It was not installed at the time of this inspection.

### ELECTRICAL SYSTEM (AC SYSTEM)

#### SHORE POWER INLET:

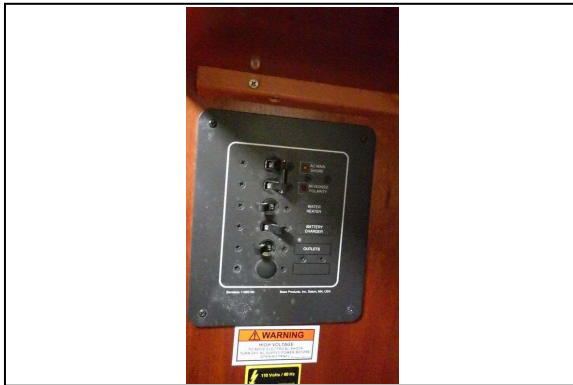
A hard wired AC power cable with 30 amp twist lock shore power connection.  
AC power not available during survey.

#### MAIN BREAKER:

Yes in the main electrical panel, with polarity indicator.

#### BRANCH BREAKERS:

Three (3) branch breakers.  
-Water Heater  
-Battery Charger  
-Outlets



## FRESH WATER SYSTEM

### FRESH WATER SYSTEM: (POTABLE WATER)

#### STORAGE TANKS:

Yes, two (2) Plastic

# III. SYSTEMS

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## FRESH WATER SYSTEM

### FRESH WATER SYSTEM: (POTABLE WATER)(*continued*)

CAPACITY:

\*\* Approx 100 Gallons

LOCATION:

V Berth and aft quarter berth.

INSPECTION/CLEANING ACCESS:

Yes, appears serviceable.

FILL PIPE LOCATION:

Starboard gunwale.

ACCUMULATOR TANK:

Yes.

PUMPS:

Two (2) 12 VDC pumps.

FILTERS:

Yes, in line at pump.

HOSES AND CLAMPS:

Reinforced plastic tubing at various areas throughout vessel. Appears serviceable where sighted.

### FRESH WATER SYSTEM (HOT WATER SYSTEM)

TYPE:

110 electric. Marine grade.

MANUFACTURER:

Forceio six (6) gallon heater.

Model # 40601

Serial # 110607634887

## SANITATION

### SANITATION (BLACK WATER)

M.S.D TYPE USCG SYSTEM:

Certification Type: MSD U.S.C.G. Type III. (Holding tanks)

PUMP-OUT LOCATION:

Starboard gunwale.

# III. SYSTEMS

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## SANITATION

### SANITATION (BLACK WATER)(*continued*)

HOLDING TANK:  
Not sighted.

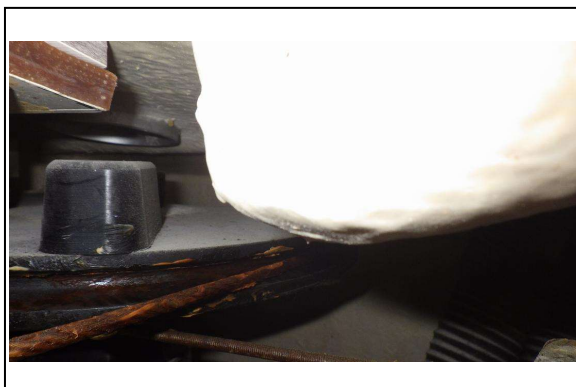
## STEERING SYSTEM

### STEERING SYSTEM

TYPE:  
Pedestal with wheel and cables. Cables have corrosion and are slack.

**\*B.12**

Cables have corrosion and are slack.



### UPPER RUDDER BEARING SUPPORT:

Post mounted rudder.

Previous repair of rudder bottom sighted, appears serviceable. Rudder post has some movement port-starboard. Rudder is GRP no de lamination or elevated moisture detected.

**\*B.13**

Rudder post has some movement port-starboard.

### EMERGENCY TILLER:

Yes, access at aft helm. Tiller arm was sighted in the helm port seat storage area.

## GROUND TACKLE

### GROUND TACKLE

#### ANCHORS:

One (1) forty four pound Rocna fluke anchor.

# III. SYSTEMS

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## GROUND TACKLE

### GROUND TACKLE(*continued*)

RODE MATERIAL:

Chain and braided rope.

WINDLASS:

Yes, powers up and down with bow controller.

## ELECTRONICS AND NAVIGATION EQUIPMENT

### ELECTRONICS AND NAVIGATION EQUIPMENT

VHF:

Standard Horizon Eclipse, powers up.

RADAR:

Furno, powers up.

GPS:

Furno "NavNet" 3D, powers up.

AUTOHELM:

Yes, Raytheon piston arm. Powers up, will not release to standby after engaging auto mode.

**\*A.3**

Auto pilot will not release to standby after engaging auto mode. Switch at DCV panel needed to be turned off to release steering.

SPEED LOG:

Integral to GPS display.

DEPTH SOUNDER:

Yes, integral to GPS display.

COMPASSES:

Yes, Plastimo brand, at helm with light. Direction consistent with boat position at dock.

ANTENNAS:

Three (3) GPS antennas, Two (2) VHF antennas.

BAROMETER:

Yes, Located in the salon.

SHIPS CLOCK:

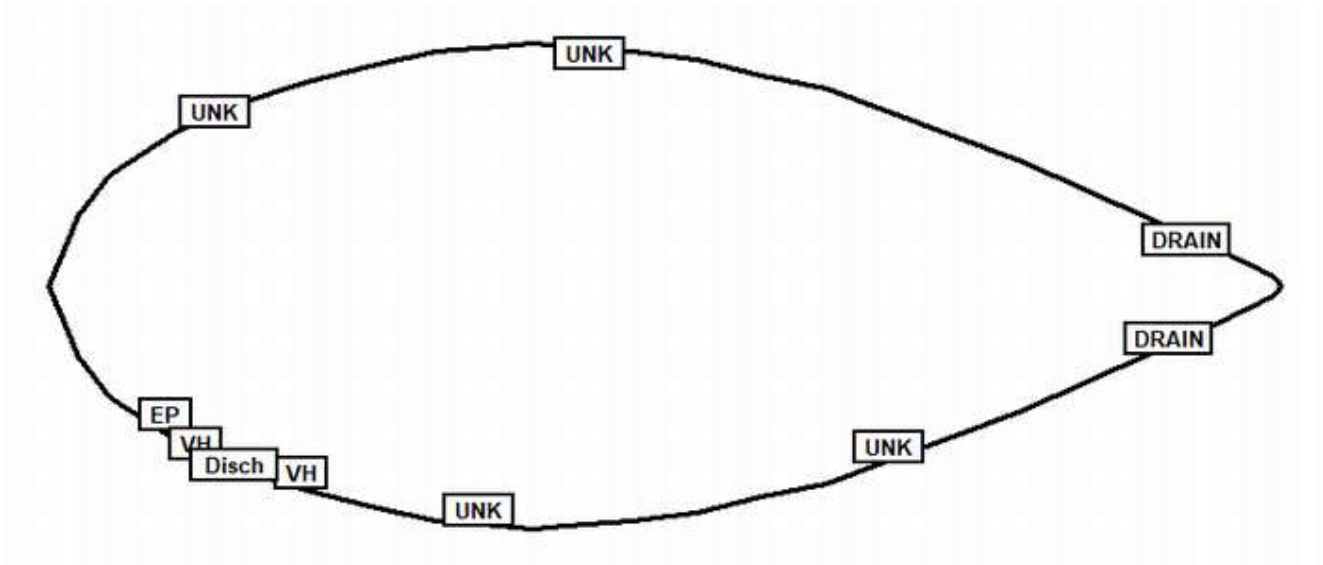
Yes, Located in the salon.

# III. SYSTEMS

## THRU-HULLS

### THRU-HULLS:

THRU-HULLS ABOVE WATER LINE (DIAGRAM):



Abbreviation	Description
Disch	Discharge
DRAIN	DRAIN
EP	Exhst Ports
UNK	unknowm
VH	Vent Hose

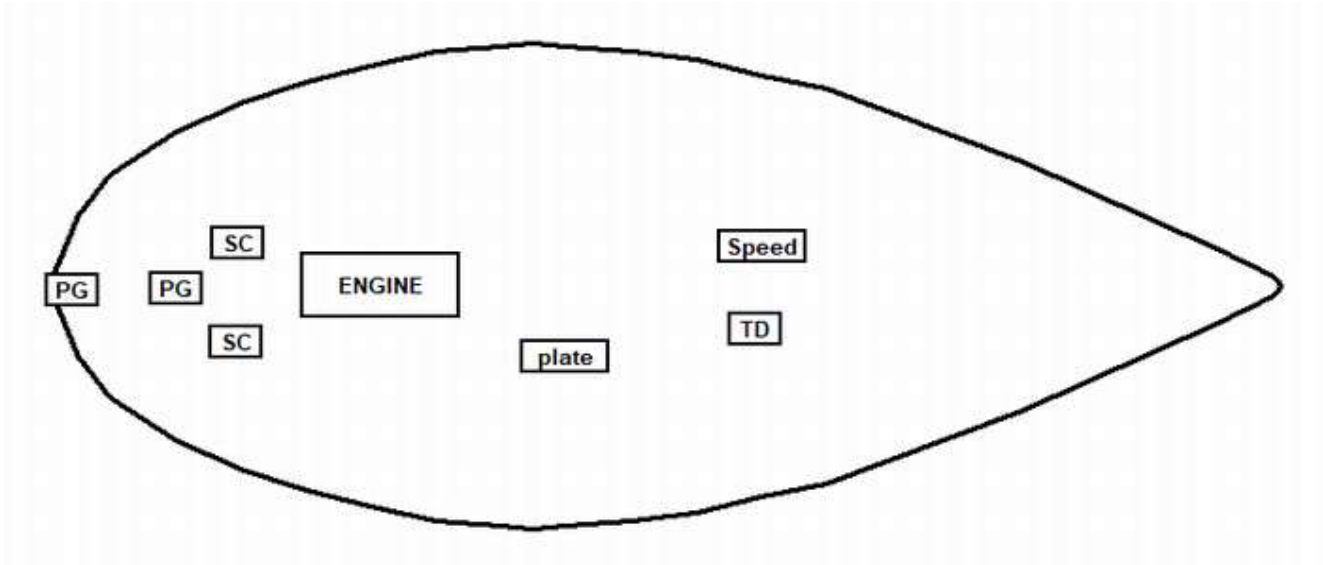
\*\* Red Icon(s) with white text indicates inoperable item.

# III. SYSTEMS

## THRU-HULLS

### THRU-HULLS:(continued)

THRU-HULLS BELOW WATER LINE (DIAGRAM):



Abbreviation	Description
ENGINE	Engine
PG	Pkng Gland
plate	Plate
SC	Seacock
Speed	Speed
TD	Transducer

\*\* Red icon(s) with white text indicates inoperable item.

BONDED:

Thru-Hulls not bonded

**\*C.3**

Thru-Hulls not bonded

# III. SYSTEMS

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## SAFETY EQUIPMENT

### SAFETY EQUIPMENT (UNITED STATES COAST GUARD)

#### NUMBER AND TYPE OF PFD'S:

Several Type II adult and child PFD's, All are in poor condition and should be replaced.

#### **\*A.4**

Several Type II adult and child PFD's, All are in poor condition and should be replaced.

#### NUMBER OF THROWABLE PFD'S:

Throwable PFD sighted, horseshoe type, appears serviceable.

#### FIRE EXTINGUISHERS:

Three (3) Size: BI dry chemical. Gauge on one is near low charge, two others are consistent with Kidde plastic handle recalled extinguishers.

#### **\*A.5**

Gauge on one is near low charge, two others are consistent with Kidde plastic handle recalled extinguishers.

#### VISUAL DISTRESS SIGNALS:

Day flag and expired day/night flares.

#### **\*A.6**

Expired day/night flares.

#### SOUND DEVICES:

Whistle and bell.

#### NAVIGATION LIGHTS:

Sidelights are operable.

Mast head light is operable.

Sternlight is operable.

Anchor light operation not verified.

#### **\*A.7**

Anchor light operation not verified.

#### "NO OIL DISCHARGE" PLAQUE:

Yes, found properly displayed in engine space.

#### CO DETECTION:

No carbon monoxide detector sighted.

#### **\*A.8**

No carbon monoxide detector sighted.

# III. SYSTEMS

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## SAFETY EQUIPMENT

### AUXILIARY SAFETY EQUIPMENT

SMOKE DETECTOR:

None Sighted.

**\*C.4**

No smoke detector/s

BILGE WATER ALARM AND SAFETY SWITCHES:

Yes, tested bilge high water alarm in midship bilge.

FIRST AID KIT:

No. This is highly recommended.

**\*C.5**

First aide kit not sighted.

FUME SNIFFER ALARM SYSTEMS:

No LPG vapor detector sighted.

**\*C.6**

No LPG vapor detector sighted

### BILGE PUMPS

LIST:

Yes two (2) midship appear to be operable and serviceable.

One with float switch and alarm, one operates by switch at DCV panel float not sighted.

## OUT OF WATER INSPECTION

### BELOW WATERLINE MACHINERY

PROPELLER(S):

Three blade folding propeller. Max Prop with approximately 7" blades.

GROUNDING PLATES:

Yes, sighted at starboard side of keel.

ZINCS:

Corrosion anode on propeller assembly.

### CONDITION OF HULL (WETTED SURFACE)

BLISTERS:

None Sighted.



# III. SYSTEMS

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## OUT OF WATER INSPECTION

### CONDITION OF HULL (WETTED SURFACE)(*continued*)

#### CONDITION OF BOTTOM PAINT:

Bottom well painted. Condition good.

## SEATRIAL REPORT

### INTRODUCTION

#### INTRODUCTION:

The SAILBOAT was operated on Lake Champlain with moderate winds and no current. The vessel was operated by the broker's representative. Attending the sea trial were the potential buyer and his friend, the captain, and myself. The boat was operated for approximately 30 minutes. Speed was recorded with a Garmin GPS 12 at incremental RPM's. A wide open throttle and back down test were conducted.

Engine observations and operating temperatures were observed. Lake water temperature reported to be approximately 72 deg F by USGS. Air temperature was 86 deg F, winds WSW 10 mph, gusts to 24 mph.

# III. SYSTEMS

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## SEATRIAL REPORT

### OBSERVATIONS

#### OBSERVATIONS:

1. The engine started without excessive cranking.
2. The engine exhaust appeared normal.
3. The cooling water exhaust appeared adequate and normal.
4. Manufacturer' recommended max RPM is 3,600  
Engines reached 3,000 RPM at wide open throttle (WOT) .
5. The steering system operated normally.
6. The throttles operated normally.
7. The transmission shifted noisily. (Refer to transmission section regarding oil fill level.)
8. The back down test was satisfactory.
9. There were no excessive vibrations noted.
10. There were no oil or coolant leaks observed. (On main engines or in exhaust water)
11. Engine oil pressure 1500 RPM 20 psi

The water temperature is in Fahrenheit. The oil pressure is in pounds per square inch. Revs refers to revolutions per minute. Batts are in volts of charge from the alternator. These figures are comprised of data read from the vessels gauges while underway on the above stated date and time of the sea trial.

# III. SYSTEMS

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## SEATRIAL REPORT

### TRIAL RUN DATA

#### TEMPERATURES:

Temperatures were observed using a Southwire infrared thermometer and recorded just after WOT.

Sea Water Pump	81 F
Engine Water Pump	125 F
Exhaust Elbow	85 F
Alternator	117 F
Heat Exchanger	115 F
Shaft Log	73 F
Prop Shaft	82 F

All temperatures are considered within normal limits.

Transmission	114 F
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### PERFORMANCE DATA

#### SPEED DATA:

2000 RPM	6.0 knots
2500 RPM	6.95 knots
3000 RPM	7.64 knots

## STANDING RIGGING

### STANDING RIGGING

#### NOTE:

Standing rigging observed from deck and dock. Binoculars and telephoto lens used.

#### MAST:

Mast appears in good condition.

#### MAST STEP:

Mast step, fine gel coat stress crack sighted. No obvious deflection of deck. Compression post is stainless steel and its attachment at the keel has no cracking or deflection.

#### **\*C.7**

Mast step, fine gel coat stress crack sighted

#### SPREADERS:

Double spreader rig. Appear in good condition.

# III. SYSTEMS

## STANDING RIGGING

### STANDING RIGGING(*continued*)

#### SHROUDS AND STAYS:

Midship stay anchor connections are corroded at port and starboard. Corrosion sighted at some shrouds.

#### **\*A.9**

Midship stay anchor connections are corroded at port and starboard. Corrosion sighted at some shrouds.

#### BOOM:

Aluminum boom. Appeared serviceable. The boom to mast connection utilizes a cotter pin to hold the assembly in place, the pin is undersized and not properly attached. One pulley has a missing rivet head.

#### **\*B.14**

The boom to mast connection utilizes a cotter pin to hold the assembly in place, the pin is undersized and not properly attached. One pulley has a missing rivet head.



**Mast Step**



**Improper Sized Pin**



**Starboard**



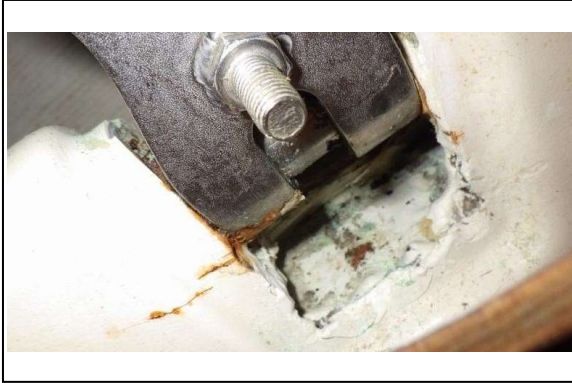
**Starboard**

# III. SYSTEMS

## STANDING RIGGING

### STANDING RIGGING(*continued*)

#### BOOM:(*continued*)



Port



Port



Port

## RUNNING RIGGING

### RUNNING RIGGING

#### WINCHES:

- Two (2) Lewmar 30 two speed self tailing winches
- Two (2) Lewmar 44 two speed self tailing winches
- All in good condition.

#### SAIL TRACK:

- Two deck mounted sail tracks with cars both port and starboard. Appeared serviceable.

#### REEFING SYSTEM:

- Reefing hooks on boom.

# III. SYSTEMS

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## RUNNING RIGGING

### RUNNING RIGGING(*continued*)

#### ROLLER FURLING GEAR:

Pro Furl appeared in poor condition.

#### CAM CLEATS:

Eight cam cleats leading to cockpit, appear serviceable.

#### SWIVEL BLOCKS:

Appeared serviceable where sighted.

#### SNAP SHACKLES:

Appeared serviceable.

## SAILS

### SAILS

#### MAINSAIL:

Sighted folded in aft quarter berth storage, appears in like new condition.

#### HEADSAIL:

Sighted folded in aft quarter berth storage, appears in good condition. Reported to be 125%.

#### PHOTOS:



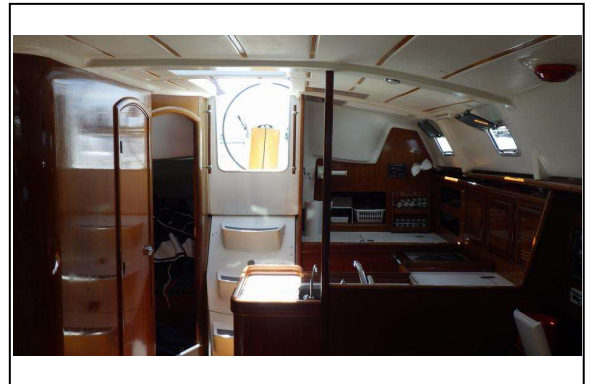


# III. SYSTEMS

## SAILS

SAILS(continued)

PHOTOS:(continued)



# III. SYSTEMS

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## SAILS

**SAILS***(continued)*

PHOTOS:*(continued)*





# IV. FINDINGS AND RECOMMENDATIONS

Deficiencies noted under "SAFETY" should be addressed before vessel is next underway. These findings represent an endangerment to personnel and/or the vessel's safe and proper operating condition. **Findings may also be in violation of U.S.C.G. regulations.**

Deficiencies noted under "OTHER DEFICIENCIES" should be corrected in the near future so as to maintain standards and to help the vessel to retain it's value.

Deficiencies will be listed under the appropriate heading:

- A. SAFETY DEFICIENCIES
- B. OTHER DEFICIENCIES NEEDING ATTENTION
- C. SURVEYORS NOTES AND OBSERVATIONS

## A. SAFETY DEFICIENCIES:

### A.1 (PAGE 15) STOVE/OVEN:

FINDINGS	RECOMMENDATIONS
<b>The LPG regulator is not secured properly.</b>	<i>Investigate secure regulator and verify USCG and ABYC compliance of LPG system. Leave tank off until system is checked.</i>

### A.2 (PAGE 16) PROP SHAFTS:

FINDINGS	RECOMMENDATIONS
<b>Shaft has damage from contact with shaft log. External shaft seal/bearing is damaged and missing pieces.</b>	<i>Investigate further. Repair or replace seal/bearing as necessary. Remove and inspect shaft and log assembly. Full service by an expert.</i>

### A.3 (PAGE 25) AUTOHELM:

FINDINGS	RECOMMENDATIONS
<b>Auto pilot will not release to standby after engaging auto mode. Switch at DCV panel needed to be turned off to release steering.</b>	<i>Ensure auto pilot is off at DCV panel. Investigate further and repair or renew as necessary.</i>

### A.4 (PAGE 28) NUMBER AND TYPE OF PFD'S:

FINDINGS	RECOMMENDATIONS
<b>Several Type II adult and child PFD's, All are in poor condition and should be replaced.</b>	<i>Comply with USCG Safety Regulations.</i>

# IV. FINDINGS AND RECOMMENDATIONS

## A. SAFETY DEFICIENCIES:

### A.5 (PAGE 28) FIRE EXTINGUISHERS:

FINDINGS	RECOMMENDATIONS
Gauge on one is near low charge, two others are consistent with Kidde plastic handle recalled extinguishers.	Replace extinguishers.

### A.6 (PAGE 28) VISUAL DISTRESS SIGNALS:

FINDINGS	RECOMMENDATIONS
Expired day/night flares.	Replace with new flares.

### A.7 (PAGE 28) NAVIGATION LIGHTS:

FINDINGS	RECOMMENDATIONS
Anchor light operation not verified.	Investigate under conditions allowing for viewing light operation, repair if needed.

### A.8 (PAGE 28) CO DETECTION:

FINDINGS	RECOMMENDATIONS
No carbon monoxide detector sighted.	Investigate and install CO detection in compliance with ABYC A-24.

### A.9 (PAGE 33) SHROUDS AND STAYS:

FINDINGS	RECOMMENDATIONS
Midship stay anchor connections are corroded at port and starboard. Corrosion sighted at some shrouds.	Repair/replace midship stay anchor point hardware. Close inspection of all standing rigging by qualified rigger recommended.

## B. OTHER DEFICIENCIES NEEDING ATTENTION:

### B.1 (PAGE 8) HULL LINER:

FINDINGS	RECOMMENDATIONS
The interior port side hull liner is separated in a small area approximately 5" x 8."	Further investigate and repair if necessary, by qualified fiberglass tradesperson.

### B.2 (PAGE 10) KEEL EXTERNAL:

FINDINGS	RECOMMENDATIONS
The keel has areas of exposed iron and corrosion. Prior grounding or contact is a possible cause. The hull liner surrounding some of the keel bolts is stress cracked.	-Further investigate and determine the need for repair or adjustment of the keel bolt attachments points. -Remove corrosion and recoat keel.

# IV. FINDINGS AND RECOMMENDATIONS

## B. OTHER DEFICIENCIES NEEDING ATTENTION:

### B.3 (PAGE 11) TYPE:

FINDINGS	RECOMMENDATIONS
The deck near the windlass has a damaged area in need of repair.	Repair damage.

### B.4 (PAGE 12) DECK SURFACE:

FINDINGS	RECOMMENDATIONS
One isolated area of deck about 2" diameter has elevated moisture readings.	Rebed grab handle.

### B.5 (PAGE 13) WATER INTRUSION SIGNS:

FINDINGS	RECOMMENDATIONS
Signs of water intrusion noted at bow under chain locker. Corrosion at bolts.	Further investigate and repair as necessary.

### B.6 (PAGE 15) ENGINE MOUNTS AND BED:

FINDINGS	RECOMMENDATIONS
Aft starboard mount has some corrosion, appears to be from prior water leak.	Clean and coat to prevent further corrosion.

### B.7 (No Item Text: MECD) CONDITION AND DEFICIENCIES:

FINDINGS	RECOMMENDATIONS

### B.8 (PAGE 17) HOSES AND CLAMPS:

FINDINGS	RECOMMENDATIONS
Engine water hose at cooling pump is damaged.	Replace hose. Secure to prevent damage.

### B.9 (PAGE 18) BELTS AND PULLEYS:

FINDINGS	RECOMMENDATIONS
Belt dust sighted in engine compartment.	Replace and retention belts.

### B.10 (PAGE 18) FLUID LEVEL AND CONDITION:

FINDINGS	RECOMMENDATIONS
The plastic threaded portion of the transmission dipstick is sheared off and stuck in place.	Investigate further and repair or renew as necessary.

### B.11 (PAGE 20) BATTERIES:

FINDINGS	RECOMMENDATIONS
4D battery not secured. Abandoned battery cable ends in bilge forward of engine.	Secure battery. Properly terminate unused battery cable connectors.

## IV. FINDINGS AND RECOMMENDATIONS

### B. OTHER DEFICIENCIES NEEDING ATTENTION:

#### B.12 (PAGE 24) TYPE:

FINDINGS	RECOMMENDATIONS
<b>Cables have corrosion and are slack.</b>	<i>Investigate further. Repair or replace as necessary. Full service by an expert.</i>

#### B.13 (PAGE 24) UPPER RUDDER BEARING SUPPORT:

FINDINGS	RECOMMENDATIONS
<b>Rudder post has some movement port-starboard.</b>	<i>Further investigate and repair as necessary.</i>

#### B.14 (PAGE 33) BOOM:

FINDINGS	RECOMMENDATIONS
<b>The boom to mast connection utilizes a cotter pin to hold the assembly in place, the pin is undersized and not properly attached. One pulley has a missing rivet head.</b>	<i>Repair pulley attachment rivet and replace cotter pin with correct sized pin.</i>

### C. SURVEYOR'S NOTES AND OBSERVATIONS:

#### C.1 (PAGE 9) CHAIN LOCKER (DRAINAGE):

FINDINGS	RECOMMENDATIONS
<b>The starboard side drain cover is out of place.</b>	<i>Move back in to place.</i>

#### C.2 (PAGE 11) STANCHIONS:

FINDINGS	RECOMMENDATIONS
<b>Stanchion bases are firm when pressure is applied. Stress cracks are visible at some bases.</b>	<i>Monitor for water intrusion or worsening, repair as necessary.</i>

#### C.3 (PAGE 27) BONDED:

FINDINGS	RECOMMENDATIONS
<b>Thru-Hulls not bonded</b>	<i>Bonding Metallic components in contact with "sea water" can be part of a comprehensive plan to control corrosion. Review operational area water conditions and bond if appropriate.</i>

#### C.4 (PAGE 29) SMOKE DETECTOR:

FINDINGS	RECOMMENDATIONS
<b>No smoke detector/s</b>	<i>Smoke detectors give early warning to dangerous smoke conditions. Strongly recommended.</i>

#### C.5 (PAGE 29) FIRST AID KIT:

FINDINGS	RECOMMENDATIONS
<b>First aide kit not sighted.</b>	<i>Highly recommended.</i>

# IV. FINDINGS AND RECOMMENDATIONS

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## C. SURVEYOR'S NOTES AND OBSERVATIONS:

### C.6 (PAGE 29) FUME SNIFFER ALARM SYSTEMS:

FINDINGS	RECOMMENDATIONS
No LPG vapor detector sighted	LPG detector is highly recommended.

### C.7 (PAGE 32) MAST STEP:

FINDINGS	RECOMMENDATIONS
Mast step, fine gel coat stress crack sighted	Monitor for development of deflection at deck.

**NOTE:** If cruising more than 25 nautical miles offshore it is also recommended that a USCG approved self-inflating life raft be fitted to the vessel. And a first aid kit and small manual watermaker be added to the ships safety gear.



# V. SUMMARY AND VALUATION

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## STATEMENT OF VALUATION:

1. The "**FAIR MARKET VALUE**" is the most probable price in terms of money which a vessel should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller, each acting prudently, knowledgeably and assuming the price is not affected by undue stimulus.

Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

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

The value considerations used are the BUC Value Service for this vessel needing substantial yard work to prepare for sale, "Poor" condition by industry accepted definition. That number range is between \$44,000.00 and \$49,100.00. The NADA average retail is \$66,550.00, and takes into account the wind generator. Neither prices account for the dinghy and outboard engine. Inspection of the dinghy and engine was not performed, although included in the seller's cost accounting.

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

**\$0**  
*Zero Dollars*

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

**\$0**  
*Zero Dollars*

## V. SUMMARY AND VALUATION

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### **SUMMARY:**

In accordance with the request for a marine survey of the SAILBOAT, for the purpose of evaluating its present condition and estimating its Fair Market Value and Replacement Cost, I herewith submit my conclusion based on the preceding report. The subject vessel was personally inspected by the undersigned on 2020. Subject to correction of deficiencies listed in section IV A. (Safety), the vessel is considered to be suitable for its intended use. Other deficiencies list should be attended to in a timely fashion.



# V. SUMMARY AND VALUATION

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## **SURVEYOR'S CERTIFICATION:**

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

The statements of fact contained in this report are true and correct.

The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, unbiased professional analyses, opinions, and conclusions.

I have no present or prospective interest in the vessel that is the subject of this report, and I have no personal interest or bias with respect to the parties involved.

My compensation is not contingent upon the reporting of a predetermined value or direction in value 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.

This report is submitted without prejudice and for the benefit of whom it may concern.

ATTENDING SURVEYOR: \_\_\_\_\_