



# **Report of Marine Survey**

**Vessel: 2016 Sea Ray 510 Sundancer**

**Purpose: Condition & Valuation**



**Customer: John Doe**

**Date of Survey: November 27th, 2023**

**Location: Grandpappy Point Marina, Denison TX**

**Prepared and Conducted by: Captain John Seckman**

**SAMS Accredited Marine Surveyor (AMS) #1392 – USCG 1600 Master**

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## Scope of Survey

<b>Name of party requesting survey:</b>	John Doe
<b>Vessel Owner:</b>	Jim Doe
<b>Scope of Survey:</b>	Vessel was surveyed for condition and valuation purposes.
<b>How was Vessel Observed:</b>	Vessel was observed in the water and out of the water on travel-lift.
<b>Lake-Test:</b>	Yes, a lake-test was performed. See "Lake-Test" section of survey report for details.
<b>Parties present at time of the survey:</b>	Surveyor, Matt Jobe
<b>Weather at time of survey:</b>	Clear & Sunny. 37 degrees F. Wind S @ 5-10 mph
<b>Vessels intended use:</b>	Cruising and recreation on inland waterways and recreational lakes.

## Survey Standards

**Standards Followed** – Survey was completed using federal regulations and amendments issued and enforced by the United States Coast Guard under the authority of the United States code of federal regulations (CFR title 33 & 46). The American Boat and Yacht Council (ABYC) recommendations and voluntary standards, as well as the standards set forth by the National Fire Protection Association (NFPA-302) were used as reference to complete your survey. These standards are generally used and followed by all boating manufacturers.

## Explanation of Inspection Comments

See the findings page for details on anything found to be un-serviceable or damaged. If a component on the vessel is not listed in this survey then it was not inspected. Locked components or otherwise inaccessible areas were not inspected. This vessel was surveyed without removal of any parts. No determination of stability characteristics or inherent structural integrity has been made and no opinion is expressed with respect thereto.

This survey represents the condition of the vessel as-is, on the day the survey was performed.

<b>RED</b>	Red recommendations are <u>priority A</u> . These need to be addressed immediately as they pertain to the safety/regulatory requirements and safe navigation of the vessel.
<b>BLUE</b>	Blue recommendations are <u>priority B</u> . These relate to maintenance and standard findings that need to be addressed.
<b>GREEN</b>	Green recommendations are <u>priority C</u> . These do not pertain to the safe operation of the vessel and are minor in nature. Thus, they can be addressed at the owner or clients' discretion.

**NOTE:** Vessel is considered fit for its intended use *ONLY* after all **Priority A** recommendations have been corrected. In addition ALL **Priority B** recommendations should be addressed in order to bring the vessel to current safety standards and ensure safe navigation and operation.

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### Vessel Particulars

**Vessel YR/Make/Model:** 2016 Sea Ray 510 Sundancer



Starboard Side

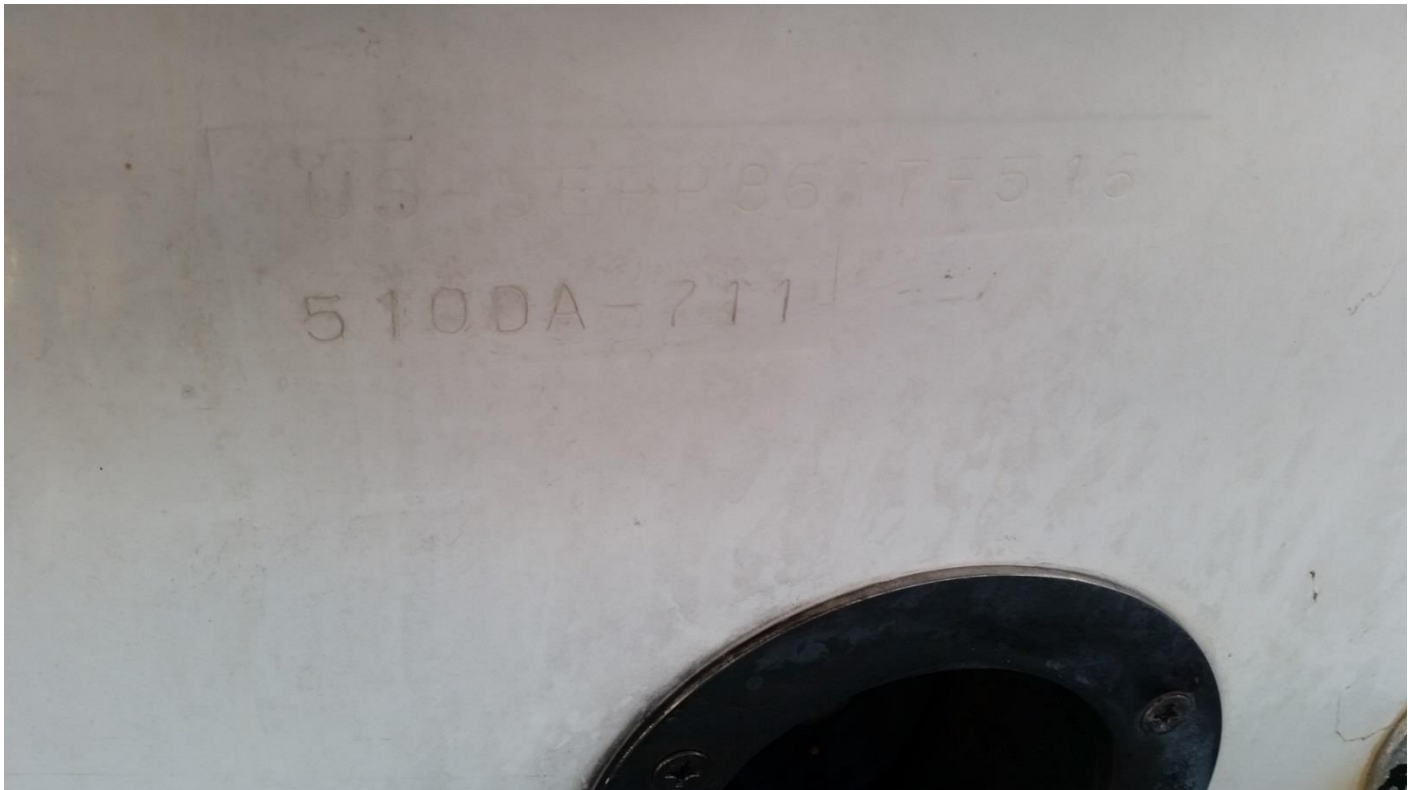


Port Side

**Vessel Name:** "Due South"

**Hailing Port:** N/A

**Hull ID Number:** SERP8617F516



Hull Identification Number (starboard aft corner)

<b>USCG Documentation NO#:</b>	1271513
<b>State Validation Sticker:</b>	Oklahoma 2024
<b>Registration valid and sighted on vessel hull as per regulations:</b>	Yes.
<b>Vessel Type:</b>	Fiberglass Express Cruiser w/ Semi-Vee shaped Hull Configuration
<b>Manufacturer:</b>	Sea Ray Boats, Knoxville TN (Div of Brunswick Corp)
<b>Year of Vessel:</b>	2016
<b>Vessel Length:</b>	<i>Length Overall:</i> 50' 10"
<b>Vessel Draft:</b>	4' 1"
<b>Vessel Beam:</b>	14' 8"
<b>Vessel Weight:</b>	41,423 pounds

### Top Exterior Deck & Hull

<b>Hull Construction Material:</b>	Molded fiberglass over unknown coring.
<b>Hull Surface:</b>	White colored gelcoat along hull sides. Good clean overall condition with no damages sighted.
<b>Rub Rail:</b>	White rubber rub rail with stainless insert covering hull to deck joint, well secured with minimal wear and tear sighted.
<b>Transom:</b>	Conventional flat shaped reinforced transom. See "Out of Water Inspection & Hull Bottom" section of survey report for details.
<b>Swim Platform:</b>	Attached FRP hydraulically raising/lowering swim platform. Properly raises up and down using remote control in transom locker. Percussion tested with phenolic hammer, no delamination or soft spots detected. Well secured to transom.

### Main Deck – Hardware & Fittings

<b>Deck Construction Material:</b>	Molded fiberglass over unknown coring.
<b>Deck Surface:</b>	White gelcoat with molded non-skid pattern. Deck was percussion tested using a phenolic hammer, no delamination or soft spots detected.

**Stanchions/Grab Rails:**

1" tubular stainless steel grab-rails (approximately 36" high) with stanchions surrounding bow to cockpit. Well secured with no damages sighted.

**Scuppers/Deck Drains:**

Deck drain fittings in aft cockpit are secured and hoses are properly clamped and routed overboard through skin fittings.

**Fill/Pump-out Fittings:**

All deck fittings are properly marked as per ABYC recommendations. Located on main deck in the following areas: (1) Fuel Fill – Port & Starboard Aft (2) Water Fill – Port Bow (3) Waste – Port Aft

**Anchor Locker:**

Located on bow. Accessible via deck hatch. Mostly clean and dry. **NOTE: Anchor locker hatch on starboard side – latch is stuck. Repair.**

**Anchor Roller:**

Attached anchor roller on bow. Well secured, serviceable. Chain lock sighted.

**Anchor Windlass:**

24v "Quick" anchor windlass located at bow. Operational using controls at helm station and foot pedals at windlass location.

**Line Cleats:**

Stainless horn style cleats. Serviceable, well secured.

**Deck Hatch:**

Single square shaped lexan deck hatch on forward bow. No leakage or damages sighted.

**Transom Door:**

Swinging transom door on starboard side of transom leads to aft cockpit. **NOTE: Transom door does not close properly. Repair.**

**Cabin Windows:**

Glass windows along cabin and hull sides. **NOTE: Cabin windows – caulking appears deteriorated and cracking in places specifically around forward windshield. Re-caulk all cabin windows.**

**Boarding Ladder:**

Stainless drop-down boarding ladder mounted on swim platform on starboard side. Operational and complies with ABYC recommendations. **NOTE: Gelcoat is crazed in 1"x1" area next to boarding ladder hatch on swim platform. Repair as needed for cosmetic purposes.**



Transom

Bow

### Cockpit –Helm

<b>Cockpit:</b>	Transom door leads to aft cockpit where there is seating, dinette table, wet-bar and cabin door.
<b>Helm Station:</b>	Helm station located in cabin on starboard midships side and is equipped with instrument dash and seating.
<b>Windshield:</b>	Aluminum framed glass windshield with two wipers and washers. Wipers are operational. <b>NOTE: Windshield washers are out of fluid. Replenish fluid.</b>
<b>Deck/Sole:</b>	Teak throughout aft cockpit. <b>NOTE: Teak throughout cockpit is in need of oil. Apply oil to teak to preserve wood and for cosmetic purposes.</b>
<b>Sky Light:</b>	Glass retractable skylight built into cabin overhead. <b>NOTE: Sky-light in cockpit – accordion fabric is loose and comes out of track. Repair.</b>
<b>Seating/Vinyl:</b>	Aft cockpit has “L” shaped bench seating with dinette table. Two snap-on sunpad cushions on bow. <b>NOTE: Seat cushions in aft cockpit are in poor condition with several cracks and ripped seams. Repair as needed for cosmetic purposes.</b>
<b>Cabin Door:</b>	Sliding metal framed glass door in cockpit leads to cabin. Opens and closes properly with no damages sighted.
<b>Engine Hatch:</b>	Aft deck has a single manual-lift engine hatch cover with supporting struts. No damages sighted. Opens and closes properly.
<b>Sun-Shade:</b>	Aft cockpit is equipped with a retractable awning. Operational, properly extends and retracts using switch in cockpit. <b>NOTE: Sun-shade awning has several small holes in fabric. Repair.</b>
<b>Wet Bar:</b>	Aft cockpit equipped with wet bar with sink/faucet and cabinetry. Faucet pressurizes and sink drains properly.
<b>Refrigerator:</b>	110v/12v “Vitrifrigo” ice maker in aft cockpit next to wet bar. <b>NOTE: Cockpit ice maker powers on but does not appear to get cold. Repair.</b>
<b>Cockpit Grill:</b>	110v “Kenyon” grill located in aft cockpit next to wet bar. Powers on.

### Navigation & Helm Electronics

#### Navigation Electronics:

Type	Description	Location	Powers on?
Raymarine Hybrid Touch	15” GPS/Radar/Sonar/NMEA 2000	Helm	Yes
Raymarine Hybrid Touch	15” GPS/Radar/Sonar/NMEA 2000	Helm	Yes

<b>VHF Radio:</b>	“Raymarine” vhf radio. Powers on.
<b>Compass:</b>	“Ritchie” 4” magnetic compass. Serviceable, no fluid leakage sighted.
<b>Spotlight:</b>	“ACR” spotlight mounted on bow with control pad at helm station. <b>NOTE: Spotlight is not operational. Repair.</b>
<b>Antenna(s):</b>	VHF, Glomex TV, Raymarine Radar, GPS & Tracvision antennas mounted on hard top. No damages sighted.
<b>Navigation Lights:</b>	Port/Starboard/Stern/Mast/Anchor lights. All were powered on and found to be operational and compliant with USCG requirements.
<b>Courtesy Lights:</b>	Courtesy lighting throughout cockpit. Powered on.
<b>Underwater Lights:</b>	Four LED underwater lights mounted at transom. Powered on.

### Engine Instruments & Controls

<b>Throttle/Shifters:</b>	DTS (Digital Throttle & Shifter) control levers for throttle and shift controls. Operational.
<b>Engine Gauges:</b>	Analogue gauges for engine RPM, oil pressure, temperature and voltage. All are operational.
<b>Smartcraft Screen:</b>	Smartcraft display screen at helm dash shows engine information. Operational.
<b>IPS Joystick:</b>	Helm station equipped with IPS joystick for maneuvering vessel. Operational.
<b>Skyhook/Auto Pilot:</b>	Skyhook and auto pilot control panel is operational in sky link modes and in auto pilot mode.
<b>Trim Tab Control:</b>	Rocker switches for controlling trim tabs on auto and manual modes. Operational.
<b>Bilge Pump Switch:</b>	Two bilge pump switches to manually activate bilge pumps at helm location.
<b>Shutdown Switch:</b>	Helm station equipped with emergency engine shutdown switch.





Helm Seat

Helm Station

**Entertainment Electronics**

**Stereo/Amplifier:**

12v "Rockford Fosgate" stereo located in cabin with "Sony" amplifier and remote control at helm station. Operational.

**Speakers/Subwoofers:**

NO#	Type	Location
2	JL 6.5" Speakers	Cockpit
2	JL 6.5" Speakers	Cabin

**Televisions:**

NO#	Type	Location
1	Samsung 32" Flatscreen	Forward Berth
2	Samsung 32" Flatscreen	Salon
3	Samsung 32" Flatscreen	Aft Berth

**Cabin & Interior**

**Summary of Interior Cabin:**

Cabin door leads to salon area with helm station, seating, dinette table and wet bar. Forward and down steps leads to two staterooms, galley, two heads and an additional lounge area.

**Seating/Cushions:**

Seat cushions throughout cabin are white colored vinyl and in good overall condition.

**Dinette Tables:**

Dinette tables in aft cockpit and salon are in good condition and well secured.

**Lights/Fixtures:**

(12v/110v) Lighting throughout cabin. Powered on.

**Floor Covering:**

Wood overlay throughout cabin. Good overall condition.

**Headliner/Trim:**

White colored vinyl and wood trim covering overhead and bulkheads. Good clean overall condition. No wet spots or leaking sighted.

<b>Cabinets/Joinery:</b>	Wood cabinetry throughout cabin space with multiple cabinets, drawers and storage hatches. All drawers and cabinets checked were dry and mostly clean.
<b>Stateroom/Berths:</b>	Two staterooms: (1) Forward “Vee” shaped berth with queen sized bed. (2) Aft-midships “Master” berth with queen sized bed and private head. Good clean overall condition.
<b>Washer/Dryer:</b>	220v “Splendide” washer/dryer combo located in the master berth. Powers on.
<b>Wet Bar:</b>	Starboard aft side of salon equipped with wet bar and sink/faucet. Faucet is operational and sink drains properly.
<b>Refrigerator:</b>	12/110v “Vitrifigo” refrigerator next to wet bar in salon. Operational.



Salon from Doorway

Galley

### Galley

<b>Location:</b>	Port midships forward of salon.
<b>Countertop:</b>	Black/Granite colored Corean countertop. Good clean overall condition.
<b>Stove/Cooktop:</b>	110v black colored “Kenyon” two burner stove. Powers on.
<b>Refrigerator:</b>	“Isotherm” 12v/110v stainless refrigerator w/separate freezer compartment. Operational.
<b>Sink/Faucet:</b>	Stainless sink with faucet. Plumbing under sink is secured and properly routed. Faucet pressurizes and sink drains properly.
<b>Microwave:</b>	110v stainless “Cuisinart” microwave. Powers on.

**Head(s)**

<b>Summary:</b>	Two heads: (1) Midships on port side in master berth (2) Forward on port side.
<b>Toilet(s):</b>	Electric flush toilet in each head. Both are operational.
<b>Vanity:</b>	Wood vanity with countertop, cabinet, sink and faucet in each head. Faucets pressurize and sinks drain properly in each head.
<b>Shower:</b>	Enclosed shower stall with folding glass door. Faucet pressurizes and water drains to sump box(s) located in cabin bilge.
<b>Sump Box:</b>	Sump box located in engine space bilge. A/C condensation and shower water drain to box. <b>NOTE: Sump box pump is not operational and water is overflowing into bilge. Repair.</b>

**Air Conditioning**

<b>NO/Type/Location:</b>	<table border="1"> <thead> <tr> <th>NO#</th> <th>Brand</th> <th>Type</th> <th>Location</th> <th>Powers on?</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Dometic</td> <td>Marine Reverse Cycle 8k</td> <td>Forward Berth</td> <td>Yes</td> </tr> <tr> <td>2</td> <td>Dometic</td> <td>Marine Reverse Cycle 8k</td> <td>Aft Berth</td> <td>Yes</td> </tr> <tr> <td>3</td> <td>Dometic</td> <td>Marine Reverse Cycle 16k</td> <td>Salon</td> <td>Yes</td> </tr> <tr> <td>4</td> <td>Dometic</td> <td>Marine Reverse Cycle 16k</td> <td>Galley</td> <td>Yes</td> </tr> </tbody> </table>	NO#	Brand	Type	Location	Powers on?	1	Dometic	Marine Reverse Cycle 8k	Forward Berth	Yes	2	Dometic	Marine Reverse Cycle 8k	Aft Berth	Yes	3	Dometic	Marine Reverse Cycle 16k	Salon	Yes	4	Dometic	Marine Reverse Cycle 16k	Galley	Yes
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	3	Dometic	Marine Reverse Cycle 16k	Salon	Yes																					
4	Dometic	Marine Reverse Cycle 16k	Galley	Yes																						
<b>Thermostats:</b>	Digital thermostat for each unit. All were powered on and operated correctly.																									
<b>Drip Trays:</b>	All units have drip trays that drain to sump box.																									
<b>Water Pump:</b>	220v "Scot" a/c raw water pump. Powers on, no leakage sighted. Hoses are securely clamped.																									
<b>Air Filters:</b>	<b>NOTE: Air conditioner air-filters on condenser fins are dirty. Clean all.</b>																									
<b>Units Tested:</b>	Yes all were powered on and tested on "heat" mode and found to be properly blowing warm air out of vents. <b>NOTE: A/C units not tested on "Cold" mode due to cold ambient temperature, be advised.</b>																									

**D.C Electrical System**

<b>Voltage System:</b>	12 volts
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<b>Batteries:</b>	<b>NO#</b>	<b>Brand</b>	<b>Type</b>	<b>Size</b>	<b>Secured</b>	<b>Location</b>
	2	Interstate	Vented Lead Acid	8D	Box w/lid	Engine Space
<b>Battery Notes:</b>	Batteries are secured as per ABYC recommendations. <b>NOTE: Batteries are empty of fluid and cells are dry. Replenish all battery cells with distilled water.</b>					
<b>Connectors:</b>	Ring, spade or crimp on connectors sighted for wiring connections. No twist nuts sighted. No corrosion sighted on battery posts.					
<b>Charging System:</b>	Alternator on each engine. Additionally, there is a "Pronautic" 110v 60-amp battery charger. Charger was powered on and is installed as per ABYC E-11 recommendations.					
<b>Breaker Panel:</b>	Located next to main A/C power panel in salon. Overcurrent protection sighted for each positive conductor with trip-free type breakers.					
<b>Wiring/Type:</b>	Stranded insulated wire. All wiring accessible for inspection was secured every 18" and routed as per ABYC E-11 recommendations.					
<b>Cut-Off Switch:</b>	Three solenoid type cut off witches for each battery bank located at the breaker panel in the salon.					

### A.C. Electrical System

<b>Voltage System:</b>	50 amp – 110/220 volt
<b>Power Inlet:</b>	Single 50-amp shore power inlet located at transom.
<b>Main Breaker:</b>	The main shore power breaker is located within 10' of the shore power inlet and in compliance with ABYC recommendations.
<b>Cable-master:</b>	Cablemaster with bucket and single 50-amp shore power cord located in engine space. Operable via switch next to shore power inlet.
<b>Transfer Switch:</b>	Make or break power selector switch for shore to ship power.
<b>Breaker Panel:</b>	Located next to main D/C breaker panel in salon. Overcurrent protection sighted for each positive conductor with trip-free type breakers.
<b>A.C. Wiring:</b>	Insulated stranded wire. All wiring accessible for inspection was secured every 18" and routed as per ABYC recommendations.

### Generator

**Manufacturer/Model:** *Manufacturer:* Cummins Onan *Model:* 11.5 MDKBM *KW Output:* 11.5

**Serial Number:** C150807687

**Hour Meter:** 436 hours as per hour meter on unit.

**Hoses/Clamps:** Serviceable condition. No cracks sighted where accessible for inspection. Hoses are properly clamped with stainless hose clamps where applicable.

**Cooling System:** Closed cooled with heat exchanger. Coolant level full as per markings on expansion tank.

**Fuel Lines:** USCG type A15 fuel hose from tank to generator. Serviceable condition where accessible for inspection.

**Fuel Separator:** Remote mounted fuel/water separator. Equipped with metal heat shield as per ABYC recommendations. Well secured, no leakage sighted.

**Oil Condition:** *NOTE: Generator oil is dirty. Service generator with fresh oil and filters.*

**Mounts/Beds:** Generator mounted in box located port aft in engine space. Well secured to support mounting, no damages sighted.

**Exhaust Piping:** Wet exhaust hose and fiberglass muffler. Hoses are properly routed and securely double clamped as per ABYC recommendations. No cracking, leaks or splitting sighted where accessible for inspection.

**Generator Tested:** Yes, the generator was started and ran for approximately forty five minutes on full power load. No issues observed.



Generator



Model & Serial# Placard

## Propulsion System

<b>Propulsion Type:</b>	Inboard – IPS Pods
<b>NO#/Type/Cylinders:</b>	<i>NO#:</i> Two <i>Type:</i> Diesel 4-Stroke Engine <i>Cylinders:</i> 6 <i>Size:</i> 8.3 L
<b>Make/Model/Serial:</b>	<i>Make:</i> Cummins <i>Model:</i> QSC 8.3 550 HOI <i>Port Serial:</i> 73862622 <i>Starboard Serial:</i> 73862624
<b>Horsepower:</b>	550 horsepower each.
<b>Engine Hours:</b>	<i>Port:</i> 270 <i>Starboard:</i> 270 <i>as per Smartcraft display screen at helm dash</i>
<b>Hoses/Clamps:</b>	Serviceable where accessible for inspection. Stainless hose clamps have minimal to no corrosion.
<b>Belts/Pulleys:</b>	<i>NOTE: Due to limited access (belt cover) unable to inspect belts and pulleys. Be advised. NOTE: “Tapping/clicking” sound coming from port engine under belt cover, noise only occurs during certain harmonics/vibration from engine. Have mechanic pull off belt cover and inspect source of noise.</i>
<b>Cooling System:</b>	Closed cooled with heat exchanger. Coolant level full on each engine as per expansion tank markings.
<b>Oil Condition:</b>	<i>NOTE: Oil dirty on each engine. Service engine with fresh oil and filters.</i>
<b>Fuel Separator:</b>	Remote mounted fuel/water separator for each engine. Each are equipped with metal heat shields as per ABYC recommendations. Well secured, no leakage sighted.
<b>Fuel Lines:</b>	USCG type A15 fuel hose from tank to engine. Serviceable condition where accessible for inspection. Well secured with no leakage sighted.
<b>Mounts/Beds:</b>	Engine mounts are well secured to the support stringers. Percussion tested where accessible, no delamination detected and minimal corrosion sighted.
<b>Engine Started:</b>	Yes, engines were started and during lake test. See “Lake-Test” section of survey report for details.
<b>Oil Changer:</b>	“Reverso” oil change system located forward of engines in engine space. <i>NOTE: Oil change system not tested.</i>

**Ventilation:**

Engine ventilation provided via natural ventilation ducts and mechanical blowers.



Starboard Engine



Port Engine

**Exhaust System**

**Discharge Location:**

Underwater through pods and transom sides through skin fittings.

**Piping/Clamps:**

Wet exhaust hose, metal piping and stainless 1/2" hose clamps. Hoses are secured with two clamps at each connection as per ABYC recommendations. **NOTE:** Engine exhaust hoses from engine to muffler have several cracks and rust marks in places on both engines. Replace exhaust hoses.

**Silencer/Muffler:**

Each engine equipped with exhaust muffler/silencer. **NOTE:** Starboard engine exhaust muffler is leaking. Repair.

**IPS Pods**

**Make/Model:**

*Make:* ZF      *Model:* ZF-105      *Ratio:* 1.2

**Serial Numbers:**

*Port:* 20244612      *Starboard:* 20244611

**Gear Housing:**

**NOTE:** Both IPS pod drives have moderate corrosion and pitting. Due to this, the lifespan can be expected to be decreased on each pod. Sand/repaint each drive, monitor frequently and replace anodes regularly to reduce further corrosion. Ensure the slip where vessel is berthed does not have stray current in the water which could be causing electrolytic corrosion to pods.

**Propellers:**

Two bronze four bladed propellers on each pod. No damaged blades, nicked or bent edges.

**Gear Lube:**

Gear lube monitor bottle on each pod is full and fluid appears blue/black in color.

**Transmission Fluid:**

Full and clean on both pods (as per dipstick markings).

**Skeg(s):**

No damages sighted.



Port Pod

Starboard Pod

**Fuel Tanks**

**NO#/ Location:**

Two fuel tanks located midships centerline forward of the engine space.

**Type/Capacity:**

5000 series Aluminum. 202 gallons each.

**Fuel Lines:**

USCG A15 fuel hose. No cracks or splitting sighted where accessible for inspection.

**Vent Line:**

Tank vents using USCG A15 hose to hull side through bulkhead fitting.

**Fill Line Hose:**

USCG type A2 fuel fill hose. Securely double clamped at each connection with 1/2" hose clamps as per ABYC recommendations. No leakage sighted where accessible.

**Tank Secured:**

Tank secured as per ABYC recommendations.

**Tank Condition:**

Serviceable where accessible for inspection. **NOTE: Due to limited access complete inspection not possible.**

**Manufacturers Label:**

Manufacturers label sighted at tank tops as per CFR requirements.

**Fresh Water Tank**

**NO#/ Location:**

One potable water tank located centerline midships/forward in cabin bilge.



<b>Type/Capacity:</b>	FDA approved polyurethane. Estimated at 100 gallons.
<b>Tank Condition:</b>	Serviceable. No leakage or damages sighted where accessible for inspection.
<b>Water Pump:</b>	12v "Shurflo" water pump with accumulator tank. Operational, pressurizes water lines properly, no leakage detected.
<b>Supply Lines:</b>	Flexible red/blue pex piping for all water connections. No leakage or damages sighted where accessible for inspection.
<b>Level Monitor:</b>	Yes, located at main power panel in salon. Powers on.

### **Black Water/Holding Tank**

<b>Vessel MSD Type:</b>	MSD Type I
<b>NO#/ Location:</b>	Single holding tank centerline aft
<b>Type/Capacity:</b>	Polyurethane. Estimated at 50 gallons.
<b>Tank Secured:</b>	Yes, holding tank is secured as per ABYC recommendations.
<b>Tank Condition:</b>	Serviceable where accessible for inspection. No leakage detected.
<b>Vent Location:</b>	Tanks vent using hose to hull side through skin fitting.
<b>Sanitation Lines:</b>	Ribbed sanitation hose. Serviceable condition, no cracks or leaks sighted where accessible for inspection.
<b>Level Monitor:</b>	Yes, located at main power panel in salon. Powers on.
<b>Overboard Capable:</b>	Yes, system is capable of being discharged overboard using macerator and thru-hull fitting with seacock valve. Valve is closed and handle is locked a per law on land-locked waterways.

**Water Heater****NO#/Tank Location:**

One hot water heater located centerline midships in cabin bilge

**Type/Manufacturer/Capacity:***Type:* 110v Marine    *Manufacturer:* Kuuma    *Size:* 11 gallons**Ignition Protected:**

Yes, hot water heater is ignition protected.

**Tank Secured:**

Water heater is secured as per ABYC recommendations.

**Tank Condition:**

Serviceable, minimal to no corrosion sighted. No leakage sighted.

**Tank Tested:**

Yes, water heater was powered on and found to be making warm water.

**Steering System****Manufacturer:**

Mercury DTS

**Steering Type:**

Electronic/Hydraulic "Fly By Wire" steering

**Lines/Fittings:**Flex hydraulic lines with ORB fittings. No leaks sighted where accessible to be inspected. **NOTE: Due to limited access complete inspection not possible.****Interior Hull & Structural Components****Bilge:**Mostly clean and dry where accessible for inspection. **NOTE: Engine space bilge has approximately 2" of standing water (partially due to in-operable sump box). Dry bilge of water and routinely monitor for signs of water egress.****Inside of Transom:**

No cracks or separation sighted where accessible for inspection. Tabbing is secure.

**Hull to Deck Joint:**Overlap (shoe box type). Rub rail covering hull to deck joint, secured with stainless screws. Elastomeric adhesive compound sighted in hull to deck joint. No leaks or damages sighted where accessible for inspection. **NOTE: Due to limited access complete inspection not possible.**

**Bulkhead(s):**

Athwartships reinforcement enhanced by structural bulkheads bonded to the hull with Fiber Reinforced Plastic (FRP). All tabbing appears sound with no cracks or separation sighted where accessible for inspection. No visual evidence of movement sighted where accessible for inspection. Bulkheads were percussion tested with a phenolic hammer where accessible and no delamination or soft spots were found. **NOTE: Due to limited access unable to perform complete inspection of bulkheads.**

**Stringer(s):**

Hull stiffness provided by FRP covered cored (unknown coring type) longitudinal stringers that run the length of the vessel. Stringers sighted in the engine compartment and cabin bilge are well glassed into the hull where accessible for inspection and were percussion tested with a phenolic hammer, no delamination or soft spots were detected. Limber holes appear to be adequately sealed where sighted. **NOTE: Due to limited access unable to perform complete inspection of stringers.**

**Below Waterline Thru-Hull Fittings**

**Number/Type/Location:**

NO#	Type	Location	Used For	Condition
1	Bronze Ball Valve	Engine Space	Starboard Engine	Serviceable
2	Bronze Ball Valve	Engine Space	Port Engine	Serviceable
3	Bronze Ball Valve	Engine Space	Generator	Serviceable
4	Bronze Ball Valve	Engine Space	Holding Tank Discharge	Serviceable
5	Bronze Ball Valve	Engine Space	Air Conditioner	Serviceable

**Condition:**

Seacock valves and thru-hull assemblies are securely bedded/mounted through the vessel hull and are in serviceable condition. Bonding wires properly attached. No leakage and minimal corrosion sighted. All valves are operational.

**Hose(s):**

Marine hard-walled wire reinforced rubber hose. Securely clamped at each connection with stainless hose clamp(s). No cracks, kinks or damages sighted except where noted. **NOTE: Engine raw-water hoses have multiple cracks, rust marks and appear deteriorated in areas. Replace all engine raw-water hoses on each engine.**

**Strainer(s):**

Bronze strainer with sight glass for each engine, generator and air conditioner. All are well secured with no cracks or leakage sighted. **NOTE: Air conditioner strainer is dirty. Clean.**

**Above Waterline Thru-Hull Fittings**

**Hull Sides:**

Stainless skin fittings. Used for: Engine exhaust, generator exhaust, air conditioner discharge, deck drains, grey water and bilge/sump drains. No damages sighted where accessible for inspection.

## Critical Safety Components

### Bilge Pump(s):

NO#	Brand/Model	Location	Secure?	Float Switch?	Operable?
1	Attwood 2000	Aft Bilge	Yes	Yes	Yes
2	Attwood 2000	Aft Bilge	Yes	Yes	No
3	Attwood 2000	Midships Bilge	Yes	Yes	Yes

### Bilge Pump Notes:

Bilge pump hoses found to be secured with stainless hose clamps and in serviceable condition where accessible for inspection. Pumps were tested by activating float switch(s) and found to be operational except where noted. **NOTE: Aft bilge pump is not operational and trips breaker when turned on. Repair.**

### Bilge Blower(s):

Two mechanical blowers located in the engine space. Both powered on using switch at helm dash.

### Portable Fire Extinguishers:

NO#	Brand/Model	Size	Location	Mounted?	Gauge full?
1	Kidde B1	3lb	Galley	Yes	Yes
2	Kidde B1	3lb	Helm Station	Yes	Yes

### Extinguisher Comments:

Vessel complies with USCG/CFR requirements regarding the amount of portable fire extinguishers required onboard. All are securely mounted and full on their respective gauges.

### Fixed Halon/Clean Agent:

“Seafire” clean-agent 1041 automatic fire extinguishing bottle located in the engine space with manual pull handle located at helm station. Status light at helm station properly illuminates green indicating system is charged. Bottle is securely mounted and gauge reads full. **NOTE: Fixed fire extinguisher has outdated certification tag. ABYC A-4 and NFPA 302 recommends that fixed fire protection systems be inspected and reweighed at one year intervals and tagged accordingly. Comply.**

### Carbon Monoxide Detectors:

NO#	Type/Model	Location	Powered on?
1	Xintex CO	Cockpit	Yes
2	Xintex CO	Salon	Yes
3	Xintex CO	Forward Berth	Yes

### Fire/Fume Detectors:

NO#	Type/Model	Location	Powered on?

**Notes:**

NOTE: No smoke detector sighted. Equip vessel with smoke detector and place near galley to comply with NFPA 302 recommendations.

### Safety Related Equipment & Accessories

**Life Jacket's (PFD):**

Type	NO#	Location	Condition
Type I PFD	8	Aft Cockpit Under Seats	Serviceable
Type II PFD			
Type IV Throw Cushion	1	Aft Cockpit Under Seats	Serviceable
Ring Life Buoy			

**Life Jacket Notes:**

USCG/CFR's require one USCG approved PFD per person onboard vessel and one type IV throw cushion to comply with law. PFD's must be in readily accessible location.

**Pollution Placard:**

Pollution placard sighted permanently affixed to vessel and displayed as per CFR/USCG requirements.

**Visual Distress Signals:**

Vessel is located on inland lake and therefore is not required to have visual distress signals as per CFR.

**Sound Signaling Apparatus:**

Pneumatic air horn operated via helm switch. Complies with USCG requirements regarding sound signaling apparatus's and is operational.

### Ground Tackle

**Anchor:**

Polished stainless steel "Lewmar" plow style anchor. Estimated at 40 lb. Rigged to windlass on bow. Serviceable condition.

**Rode:**

Estimated 100' of chain sighted in anchor locker, rigged to windlass. Serviceable condition.

### Trim Tabs

**Trim Tabs:**

Hydraulic trim tabs mounted on outboard sides of transom. Operational using rocker switches at helm dash.

### Lake Test

**Date & Time:**

November 27th, 2023 at 4:30 PM

<b>Summary of Events:</b>	Drove vessel from Grandpappy Point marina to outside marina and around Lake Texoma for approximately twenty minutes and then back to Grandpappy Point marina where it was tied up at fuel dock.																				
<b>Vessel Operated By:</b>	Matt Jobe																				
<b>Engine Starting:</b>	Both engines started with minimal cranking.																				
<b>Exhaust Smoke:</b>	Engine exhaust smoke was minimal and appeared normal.																				
<b>Helm Instruments:</b>	Helm instrument readings were normal throughout lake-test.																				
<b>Throttle/Shifter:</b>	Smooth and responsive throughout lake-test. No issues observed. Gears shifted properly and throttles advanced properly.																				
<b>Steering:</b>	Smooth and responsive throughout lake-test.																				
<b>Joystick:</b>	Joystick was tested and found to be operational.																				
<b>Sky-Hook:</b>	Sky-hook and auto-pilot modes were tested and found to be operational.																				
<b>Notes:</b>	Maximum RPM attained was 3000 on each engine.																				
<b>Instrument Readings:</b>																					
	<table border="1"> <thead> <tr> <th>Gauge</th> <th>Idle</th> <th>Cruising Speed</th> <th>Wide Open Throttle</th> </tr> </thead> <tbody> <tr> <td><i>Tachometer</i></td> <td>Port: 600 Stbd: 600</td> <td>Port: 2000 Stbd: 2000</td> <td>Port: 3000 Stbd: 3000</td> </tr> <tr> <td><i>Engine Temp</i></td> <td>Port: 127 Stbd: 122</td> <td>Port: 170 Stbd: 170</td> <td>Port: 170 Stbd: 170</td> </tr> <tr> <td><i>Oil Pressure</i></td> <td>Port: 47 Stbd: 52</td> <td>Port: 60 Stbd: 50</td> <td>Port: 60 Stbd: 50</td> </tr> <tr> <td><i>Voltage</i></td> <td>Port: 13.9 Stbd: 14</td> <td>Port: 14 Stbd: 14.1</td> <td>Port: 13.9 Stbd: 14</td> </tr> </tbody> </table>	Gauge	Idle	Cruising Speed	Wide Open Throttle	<i>Tachometer</i>	Port: 600 Stbd: 600	Port: 2000 Stbd: 2000	Port: 3000 Stbd: 3000	<i>Engine Temp</i>	Port: 127 Stbd: 122	Port: 170 Stbd: 170	Port: 170 Stbd: 170	<i>Oil Pressure</i>	Port: 47 Stbd: 52	Port: 60 Stbd: 50	Port: 60 Stbd: 50	<i>Voltage</i>	Port: 13.9 Stbd: 14	Port: 14 Stbd: 14.1	Port: 13.9 Stbd: 14
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### Out of Water Inspection & Hull Bottom

<b>Hull Bottom:</b>	Fiberglass with white gelcoat. Percussion tested with a phenolic hammer, no delamination or soft spots were detected.
<b>Transom:</b>	Percussion tested with a phenolic hammer. No delamination or soft spots were detected.

**Bottom Paint:**

Black colored ablative bottom paint. **NOTE:** Bottom paint is flaking off in several areas (specifically at bow). Touch up all bare spots on hull bottom with ablative bottom paint.

**Thru-Hulls:**

Three bronze mushroom type thru-hull fittings on hull bottom. No damages sighted, all appear well bedded, secured and clear of debris. **NOTE:** Thru-hull fittings and lower half of swim platform have moderate amount of corrosion. Clean all thru-hulls and swim platform bracket of corrosion, maintain anodes and monitor frequently for signs of worsening. Ensure the slip where vessel is berthed does not have stray current in the water which could be causing electrolytic corrosion to thru-hulls and swim platform bracket.

**Swim Platform:**

Well secured to transom. See finding in “Thru-Hulls” section above. **NOTE:** Swim platform bracket has been painted with ablative copper based bottom paint which could be contributing to the corrosion sighted on it due to the process of galvanic corrosion. Recommend sanding paint off swim platform mounting bracket.

**Transducer:**

Thru-hull type transducer for depth mounted centerline midships. No damages sighted, appears well bedded.

**Hull Blistering:**

**NOTE:** Approximately ten “dime” size osmotic blisters sighted starboard aft on hull bottom. Repair at next hull bottom maintenance interval.

**IPS Pods:**

See “IPS Pods” section of survey report for details.

**Anodes:**

Ten anodes: (4) two on each side of swim platform bracket (1) Hull/transom mount anode (4) two on each trim tab. **NOTE:** (1) Hull anode is missing from transom. Replace. (2) Anodes on swim platform bracket are missing. Replace. (3) Trim tab anodes have corrosion build-up and also appear “shiny,” which is indicative of electrolytic corrosion (also known as stray current corrosion) which could be a result of the slip where the vessel is being kept. Have electrician measure for electric current in the nearby water and if necessary move vessel to a different slip.



Missing Hull Anode



“Shiny” Looking Anodes

## **Summary of Findings**

### **Priority A Findings**

1. NOTE: No smoke detector sighted. Equip vessel with smoke detector and place near galley to comply with NFPA 302 recommendations.

### **Priority B Findings**

1. NOTE: Sump box pump is not operational and water is overflowing into bilge. Repair.
2. NOTE: Batteries are empty of fluid and cells are dry. Replenish all battery cells with distilled water.
3. NOTE: Generator oil is dirty. Service generator with fresh oil and filters.
4. NOTE: "Tapping/clicking" sound coming from port engine under belt cover, noise only occurs during certain harmonics/vibration from engine. Have mechanic pull off belt cover and inspect source of noise.
5. NOTE: Oil dirty on each engine. Service engine with fresh oil and filters.
6. NOTE: Engine exhaust hoses from engine to muffler have several cracks and rust marks in places on both engines. Replace exhaust hoses.
7. NOTE: Starboard engine exhaust muffler is leaking. Repair.
8. NOTE: Both IPS pod drives have moderate corrosion and pitting. Due to this, the lifespan can be expected to be decreased on each pod. Sand/repaint each drive, monitor frequently and replace anodes regularly to reduce further corrosion. Ensure the slip where vessel is berthed does not have stray current in the water which could be causing electrolytic corrosion to pods.
9. NOTE: Engine raw-water hoses have multiple cracks, rust marks and appear deteriorated in areas. Replace all engine raw-water hoses on each engine.
10. NOTE: Aft bilge pump is not operational and trips breaker when turned on. Repair.
11. NOTE: Fixed fire extinguisher has outdated certification tag. ABYC A-4 and NFPA 302 recommends that fixed fire protection systems be inspected and reweighed at one year intervals and tagged accordingly. Comply.
12. NOTE: Bottom paint is flaking off in several areas (specifically at bow). Touch up all bare spots on hull bottom with ablative bottom paint.
13. NOTE: Thru-hull fittings and lower half of swim platform have moderate amount of corrosion. Clean all thru-hulls and swim platform bracket of corrosion, maintain anodes and monitor frequently for signs of worsening. Ensure the slip where vessel is berthed does not have stray current in the water which could be causing electrolytic corrosion to thru-hulls and swim platform bracket.
14. NOTE: Approximately ten "dime" size osmotic blisters sighted starboard aft on hull bottom. Repair at next hull bottom maintenance interval.



**15. NOTE:** (1) Hull anode is missing from transom. Replace. (2) Anodes on swim platform bracket are missing. Replace. (3) Trim tab anodes have corrosion build-up and also appear “shiny,” which is indicative of electrolytic corrosion (also known as stray current corrosion) which could be a result of the slip where the vessel is being kept. Have electrician measure for electric current in the nearby water and if necessary move vessel to a different slip.

## Priority C Findings

1. NOTE: Anchor locker hatch on starboard side – latch is stuck. Repair.
2. NOTE: Transom door does not close properly. Repair.
3. NOTE: Cabin windows – caulking appears deteriorated and cracking in places specifically around forward windshield. Re-caulk all cabin windows.
4. NOTE: Gelcoat is crazed in 1”x1” area next to boarding ladder hatch on swim platform. Repair as needed for cosmetic purposes.
5. NOTE: Windshield washers are out of fluid. Replenish fluid.
6. NOTE: Teak throughout cockpit is in need of oil. Apply oil to teak to preserve wood and for cosmetic purposes.
7. NOTE: Sky-light in cockpit – accordion fabric is loose and comes out of track. Repair.
8. NOTE: Seat cushions in aft cockpit are in poor condition with several cracks and ripped seams. Repair as needed for cosmetic purposes.
9. NOTE: Sun-shade awning has several small holes in fabric. Repair.
10. NOTE: Cockpit ice maker powers on but does not appear to get cold. Repair.
11. NOTE: Spotlight is not operational. Repair.
12. NOTE: Air conditioner air-filters on condenser fins are dirty. Clean all.
13. NOTE: Engine space bilge has approximately 2” of standing water (partially due to inoperable sump box). Dry bilge of water and routinely monitor for signs of water egress.
14. NOTE: Air conditioner strainer is dirty. Clean.
15. NOTE: Swim platform bracket has been painted with ablative copper based bottom paint which could be contributing to the corrosion sighted on it due to the process of galvanic corrosion. Recommend sanding paint off swim platform mounting bracket.

## Vessel Condition & Value

Values are dependent on the limiting conditions and assumptions noted in this report. These values are statements of opinion. No guarantee can be given that these opinions of value will be sustained or that they will be realized in an actual transaction. Fair Market Valuation was determined by comparing cost and market data analyzed from BUC, ABOS, NADA and various boat sale's websites. Data was reviewed and actual reported sales figures were taken into consideration upon deciding upon value. Price Guide "book" values were also taken into consideration. Estimated Replacement cost was determined using information obtained from ABOS and local dealer prices using same or similar make and model with similar equipment options.

<b>BUC Fair Market Value in "Buc" Condition:</b>	<b>Value as per NADA Average Retail:</b>	<b>What Closest Comparables have listed/sold for:</b>	<b>What Closest Comparables are currently listed for:</b>
\$743,500 - \$817,000	\$648,950	2016 Sea Ray 510 Sundancer – Listed for \$829,000 (03/22), sold for \$779,500 (05/22) – FL	2016 Sea Ray 510 Sundancer – Listed for \$824,995 - MO
		2015 Sea Ray 510 Sundancer – Listed for \$750,000 (03/22), sold for \$740,500 (04/22) – OK	2016 Sea Ray 510 Sundancer – Listed for \$795,000 - MI
		2017 Sea Ray 510 Sundancer – Listed for \$759,000 (10/22), sold for \$735,000 (09/23) – VA	2016 Sea Ray 510 Sundancer – Listed for \$749,600 - FL

Vessel condition was determined upon completion of the survey, and review of all survey information.

Vessel was compared to other vessels of the same age and model. Condition Ratings are as follows:

<b>Excellent</b>	<i>New or in Like-New Condition</i>
<b>Above Average</b>	<i>Has been well cared for, requires minimal to no repairs and comes with extra electronic gear or add-ons.</i>
<b>Average</b>	<i>Ready for sale but needs maintenance, repairs, cleaning or updates.</i>
<b>Below Average</b>	<i>Needs significant maintenance, repairs or service.</i>
<b>Bad Condition</b>	<i>Un-Seaworthy, Dangerous.</i>

<b>Vessel Condition</b>	<b>Average Condition</b>
<b>Estimated Fair Market Value</b>	<b>\$770,000.00</b>
<b>Estimated Replacement Cost</b>	<b>\$1,600,000.00</b>

**NOTE:** Vessel is considered fit for its intended use *ONLY* after all **Priority A** recommendations have been corrected. This valuation is based on the vessel's apparent condition on the date of survey and assumes that the vessel's engine and other installed equipment not proven during the survey inspection are in fact operational. Discoveries made as a consequence of additional testing/inspection procedures may significantly lower this valuation. Also, there is no warranty given, or implied, for the future use or life of the engine or machinery described herein.

## Surveyors 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 stipulate result, or the occurrence of subsequent event. I have made a personal inspection of the vessel that is the subject of this report. This report should be considered as an entire document. No single section is meant to be used except as part of the whole.

This report is submitted without prejudice and for the benefit of whom it may concern. This report does not constitute a warranty, either expressed, or implied nor does it warrant the future condition of the vessel. IT IS A STATEMENT OF THE CONDITION OF THE VESSEL AT THE TIME OF THE SURVEY ONLY. The marine surveyor will not instruct the buyer to "purchase" or "not to purchase" the vessel being surveyed in this report. It is the buyer's sole responsibility to make a buying decision on the vessel described in this survey report. In the unlikely event of dissatisfaction with the content of the survey, with severe errors contained in the survey report or by omission of significant information in the report, the sole and maximum remedy shall be limited to the amount of fee received for this survey. The report is only a statement of opinion and is neither a guarantee nor a warranty of the condition of the vessel, its hull, machinery, unforeseen or undetected damages or other conditions that may exist. If the owner or the buyer has not specifically directed this marine surveyor to inspect the underside of the hull and transom and made arrangements for a haul-out, than this marine surveyor cannot make any judgment of the condition of the underside hull, the transom or the underwater running gear of this vessel in this survey report. Full payment of the survey shall constitute acceptance of these terms.



ATTENDING SURVEYOR: \_\_\_\_\_ (John Seckman)

DATE OF REPORT: **11-29-2023**

US Coast Guard Licensed 1600 Ton Master - License# 2677286

Society of Accredited Marine Surveyors – *Accredited Marine Surveyor (AMS) #1392*

