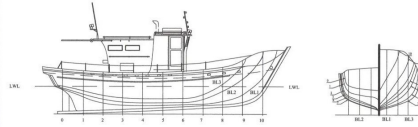


Western Boat and Trawler
www.scottheitmanmarinesurvey.com

Scott Heitman Marine Surveyor
(360)454-8158



1982 58' Delta Limit Seiner, Combination Fishing
"F/V: Artaios"



Membership with US Surveyors Association (USSA), the American Boat and Yacht Council (ABYC) and a USCG Third Party Examiner

Report of Marine Survey

Report of Condition/Valuation of the Fishing Vessel

"F/V: Artaios"

1982 58' Delta Limit Seiner, Combination Fishing

CONDUCTED BY

SCOTT HEITMAN, MARINE SURVEYOR

WESTERN BOAT AND TRAWLER

PREPARED FOR

Chad Poppe

Inspected on November 21-22, 2020

Report of Marine Survey

INTRODUCTION

PURPOSE & SCOPE

The Survey was performed for vessel condition and valuation purposes, but may be considered to be a full comprehensive Pre-Purchase Type Survey as per the clients wishes. The attending Surveyor attended aboard the 1982 Delta Limit Seiner, Combination Fishing "F/V: Artaios", at the request of Chad Poppe, beginning November 21 and ending November 22, 2020. The Survey was requested to determine the physical condition and value of the vessel. No reference or information should be construed to indicate evaluation of the internal condition of engines, transmissions, drives or generators, nor the propulsion system's or the auxiliary power system's operating capacities. Electrical and electronic equipment was powered up and some electrical equipment may have been tested for basic and/or limited function only. The wiring was inspected where accessible and was found to be in generally serviceable condition, unless otherwise noted. A significant amount of wiring could not be observed due to the wiring looms and conduits that transit areas which would require dismantling and removals for their inspection. If a detailed report as to the condition and capacities of the wiring and electrical components is desired, it is recommended that a qualified ABYC Certified Marine Electrical Engineer be engaged. Vessel tankage was visually inspected where accessible. No obvious leakage was observed, unless otherwise noted; however, the tanks were not confirmed to be full at the time of inspection. If a more thorough assessment is desired, the tanks should be filled and checked under full tank status or pressure tested to attest to their condition.

The vessel was Surveyed without the removal of any parts, including fixed partitions, fastened panels, fittings, headliners & wall-liners, heavy furniture, tacked carpeting or other fixed flooring material, appliances, electrical equipment or electronics, instruments, anchors line & chain, spare parts, personal gear, clothing, miscellaneous items in the bilges, cabinets, lockers or other storage spaces, or other fixed or semi-fixed items.

Only installed items were inspected, including but not limited to enclosures, covers and tops. Locked compartments or otherwise inaccessible areas would also preclude inspection. Survey requester is advised to open up all such areas for further inspection. A visual inspection was conducted only on accessible structures and no destructive testing was performed. Naval architecture and engineering analysis were not a part of this Survey. Furthermore, no determination of stability characteristics or inherent structural integrity has been made, and no opinion is expressed with respect thereto. Complete compliance with, identification of, and reporting on all standards, codes and regulations is not guaranteed. This signed report represents the findings of the Survey and supersedes any and all conversations, statements and representations, whether verbal or in writing. This Survey Report represents the condition of the vessel on the above date or dates and is the unbiased opinion of the undersigned, but it is not to be considered an inventory, warranty or guarantee, either specified or implied. The Survey Report is for the exclusive use of the client and those lenders and underwriters that will finance and insure the vessel for this client only, and is not assignable to any other parties for any purpose.

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

Report of Marine Survey

DEFINITION OF TERMS

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

APPEARED:

Indicates that a very close inspection of the related item was not possible due to constraints imposed upon the Surveyor (e.g. no power available, inability to remove panels or requirements not to conduct destructive testing, etc.).

SERVICEABLE:

Fulfilling its function adequately (usable at the time of Survey).

POWERED UP:

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

USE OF "A", "B" or "C":

Use of the letters "A", "B" or "C" in the body of this report will indicate that a finding will be listed in the "Findings and Recommendations" Section pertaining to the lettered item. PLEASE BE ADVISED THAT SOME DEFICIENCIES, OBSERVATIONS AND SUGGESTIONS MAY ALSO BE CONTAINED IN THE BODY OF THE REPORT.

The number of asterisks in this General Information section refers to the source of related information as follows:

** Per Manufacturer's Documentation

*** Per Registration Documentation

**** Per BUC Book Data

Unless specifically noted otherwise, there were no measurements or calculations performed during the Survey. The specifications listed within the report are believed to be correct; however, accuracy is not guaranteed. Recommend obtaining accurate measurements and performing calculations as desired, or verifying all vessel specifications and capacities with the vessel's builder.

SURVEYOR NOTES

TRIAL RUN COMMENTS

A trial run was not performed during the Survey inspection.

OUT OF WATER INSPECTION COMMENTS

An out of the water inspection of the hull's wetted surfaces and running gear was not performed during the Survey inspection.

ELECTRICAL INSPECTION COMMENTS

AC and DC power was used to power up the electrical systems specified in this report only, unless otherwise noted.

ENGINE/MECHANICAL SURVEY

It is highly recommended and understood that all propulsion & auxiliary power systems (engines, transmissions, generators, RSW and large pump/motor systems) be inspected by their respective Manufacturer's Certified Technician to determine their condition.

GENERAL RECOMMENDATIONS

Recommend implementing/maintaining vessel trip and machinery maintenance log books.

Report of Marine Survey

GENERAL VESSEL INFORMATION

TYPE OF SURVEY REQUESTED:	Condition and Value/insurance
DATE AND TIME OF SURVEY:	November 21, 2020 exterior and deck, rigging, fishing gear and machinery 1:30p- 6p November 22, 2020 interior cabin, engine and lazerrete, propulsion and running gear, top house and safety gear. 3a-3p
VESSEL TYPE:	Whale-Back seiner/crabber/charter
VESSEL BUILDER:	Delta
VESSEL DESIGNER:	Delta
HIN (HULL IDENTIFICATION NUMBER):	Commercial Fishing boats, generally, if they are >32' will not have a HIN printed anywhere on the hull.
YEAR BUILT:	1982
HULL NUMBER:	#585 (I believe this indicates a Delta model 58' hull, #5)
DOCUMENTED HAILING PORT:	Douglas AK
HAILING PORT DISPLAYED:	On The Transom
HOME PORT:	Juneau, Alaska
U.S.C.G. DOCUMENTATION NUMBER:	1037553
U.S.C.G. DOCUMENTED FOR:	Coastwise, Fishery, Registry.
U.S.C.G. DOCUMENTATION REGISTERED VESSEL OWNER:	CK MARINE LLC 5115 NORTH DOUGLAS HWY JUNEAU AK 99801
ADF&G#:	76548
STATE REGISTRATION DECAL NUMBER:	NB32073
STATE REGISTERED VESSEL OWNER:	Chad A Poppe
VESSEL MATERIAL:	FRP
LENGTH OVERALL (LOA):	Measured 58'
REGISTERED LENGTH:	58'
WORK DECK DIMMENSIONS:	19'x18' (342 sq feet) measured inside the bulwarks, transom to the aft edge of the main hatch.
REGISTERED BEAM:	19.5'
OVERHEAD CLEARANCE:	pilot house, main cabin, focsle, head and shower. 6'6" Engine room 6'6"
DEPTH:	10'
GROSS TONNAGE:	75 GRT
NET TONNAGE:	60 NRT
LOCATION OF SURVEY INSPECTION:	Juneau, Ak
VESSEL OWNER:	CK Marine (Chad Poppe, managing owner)
OWNERS CONTACT INFORMATION:	Chad Poppe (907) 321-3418

Report of Marine Survey

VESSEL OWNER ADDRESS:

5115 North Douglass HWY
JUNEAU, AK. 99801

PERSONS IN ATTENDANCE DURING SURVEY:

Scott Heitman (surveyor)

WEATHER CONDITIONS PRESENT:

Snowing

COMMENTS:

The vessels hull number is printed at the aft cabin
bulkhead starboard side porthole cut out

RATING & VALUATION

VESSEL OVERALL RATING: **AVERAGE**

ESTIMATED MARKET VALUE: **\$1,100,000**

ESTIMATED REPLACEMENT COST: **\$3,500,000**

Report of Marine Survey

VESSEL CONSTRUCTION

HULL ARRANGEMENT

VESSEL DESCRIPTION AND LAYOUT

Fiberglass whale-backed, flush deck, tophouse, limit seiner rigged for crab and seine

HULL DESIGN TYPE

Full displacement hull soft chine bottom with roll choks and a bulbous bow



HULL MATERIAL

Reportedly, End-Grain Balsa Wood sandwich cored FRP (fiber reinforced plastic) hull, deck and superstructure.

EXTERIOR FINISH

White gelcoat, with blue boot stripe and trim

GENERAL EXTERIOR CONDITION

The exterior of the vessel appeared to be generally well kept and newly painted



TRANSOM

Reportedly, cored transom with stainless steel skiff plate

Report of Marine Survey



BULKHEADS

Athwartships reinforcement enhanced by bulkheads, bonded/tapped to the hull with FRP (fiber reinforced plastic).



STRINGERS/TRANSVERSALS

Hull stiffness was reportedly provided by cored fiberglass longitudinal stringers and athwartships transversals.

Report of Marine Survey



STEM

Slightly raked stem.

KEEL

Partial keel molded into the hull's layup schedule.

BALLAST

No

BUGSHOE

Stainless steel pipe, beavertail, is reported

BILGES

A painted surface was used in the bilges. Recommend keeping the bilges clean & dry.

GENERAL BILGE CONDITION

No significant water was observed collecting in the bilges. General cleaning of the bilges under the engine is recommended.



FINDING B-1

BILGE LIMBER HOLES

The limber holes appeared to be appropriately sized and clear, where sighted.

Report of Marine Survey



VESSEL LIST

The vessel did not have any significant listing, during the Survey (a nearly straight waterline was observed).

BOW SHEILD

Stainless steel bar stock

COMMENTS

All the bilges are interconnected via limber holes and the shaft alley

DECK ARRANGEMENT

DECK TYPE/GENERAL DESCRIPTION

Flush deck

DECK MATERIAL

Reportedly, cored FRP (fiber reinforced plastic) with white gelcoat and 'diamond plate' textured non-skid.

FALSE DECK

Raised wear deck, 2"x10" and 2"x6" Apitong decking wood well worn and in fair condition.



BULWARKS

24" molded fiberglass bulwarks (part of the deck's layup) capped in black UHMW and aluminum rails. The forward waist has attached hinged stainless steel purse line side rollers. A pot launching rail is detached when rigged to seine

Report of Marine Survey



RUB-RAILS
Black UHMW



HULL-TO-DECK JOINT TYPE
Appeared to be an internal flange type joint.

Report of Marine Survey



HULL-TO-DECK JOINT REINFORCEMENT

The hull-to-deck joint was fiberglass tabbed internally, where sighted. All the hull support structures appear to be fiberglass tabbed where seen

GEAR STOWAGE

gear stowage

FOREDECK ARRANGEMENT

Whale back fore deck with a hydraulic winch covered in a FRP cowl. Bow pulpit and pipe rails, stainless steel cleats and steel line chocks. Freeman oval hatch. Black Kel-coat non slip paint covers over a diamond plate pattern fiberglass gelcoat



SUPERSTRUCTURE ARRANGEMENT

SUPERSTRUCTURE MATERIAL

Reportedly, End-Grain Balsa Wood cored FRP (fiber reinforced plastic).

SUPERSTRUCTURE-TO-DECK JOINT TYPE

The deck house and deck were molded seamlessly with no joint.

FORWARD COCKPIT BULKHEAD

FRP with an aluminum door. Mounting for the hydraulic valves are on the starboard. On the port side is the wash downs and raingear hooks.

BRIDGE ARRANGEMENT

Report of Marine Survey

BRIDGE MATERIAL

Reportedly, End-Grain Balsa Wood cored FRP (fiber reinforced plastic).

BRIDGE TYPE

Enclosed walk-around top house with full electronics and controls.



MAST

Aluminum stepped at the main deck with a series of partners and support structures

WEATHER DECK

WEATHER DECK ACCESS

There is a ladder leading up from the deck on the starboard side. There is also access from the pilot house through an aluminum pilothouse door on the starboard side. The weather deck is 4.5' above the wear deck.

WEATHER DECK EQUIPMENT

EPIRB, mast rungs, rails with strong points and partners, chest freezer, shore power cord storage, small deck storage boxes, and a BBQ

STORAGE BOXES

Two deck boxes



WEATHER DECK SAFETY RAILS

1.75" aluminum pipe

Report of Marine Survey



EXTERIOR EQUIPMENT

EXTERIOR BRIDGE EQUIPMENT

Hydraulic valves and washdowns

EXTERIOR SEATING

none

GENERAL HARDWARE CONDITION

No significant corrosion was observed on the vessel's hardware.

FINDING C-1

GENERAL CAULKING/SEALANT CONDITION

No significant weathering was observed on the vessel's exterior caulking sealants.

SPORT FISHING EQUIPMENT

Rod holders at the aft top house

EXTERIOR LIGHTING

Sets of flood lights illuminate the vessel, and surrounding area, well. From the forward and fore quarter sodiums and L.E.D.s, when looking for pots or running at night, to picking lights, to redundant deck lighting, there is plenty of light. There are also safety task lights at the aft cabin bulkhead, illuminating the deck when the floods are unnecessary. The only light set that would be appropriate for this boat, but are missing, are squid lights.

-6 L.E.D deck task/floods

-2 halogen deck floods

-2 forward navigation illumination L.E.D. Forward floods

-4 1000+ watt sodium forward navigation/fishing floods

-1 standard bulb 110 volt light fixture, deck illumination

Report of Marine Survey



EXTERIOR WASHDOWNS
110 vac Fresh water wash down

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CABIN VENTILATION

12 vdc fans, opening portlights, the upper and lower exterior doors.

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HULL CLOSURES

Freeman oval aluminum hose test for signs of leakage, replace gaskets and/or tighten adjustment bolts as needed



PORTHOLES/PORTLIGHTS

Opening port lights were located on the house sides. Opening portholes were located on the house side aft



Report of Marine Survey

EXTERIOR DOORS

Aluminum Diamond Sea Glaze dogged door(5'4") is fitted into a snorkel at the aft cabin bulkhead port of center with a single window. The Top house exterior door is aluminum, fitted to the fore cabin bulkhead, starboard of centerline, with two stacked windows. The watertight exterior doors appeared serviceable.



WINDOWS

Tempered, fixed windows in aluminum frames. Port and starboard heavy weather windows, in steel frames, opening



WINDSHIELD

Tempered glass with teak frames and wipers

Report of Marine Survey



FINDING C-2

DECK RAILINGS

1.5" Aluminum pipe railing cap the bulwarks. Aluminum railings ran around the perimeter of the foredeck.

BOW RAILING

Aluminum bow railing integrated into the deck railing.

SAFETY RAILING

Aluminum piping surrounded the aft weather deck perimeter.

FINDING B-2

HAND RAILS/GRAB RAILS

Grab rails were seen around the perimeter of the cabin hand rails were located at convenient locations of the vessel.



BOARDING STAIRS/BOARDING LADDER

Custom aluminum

Report of Marine Survey



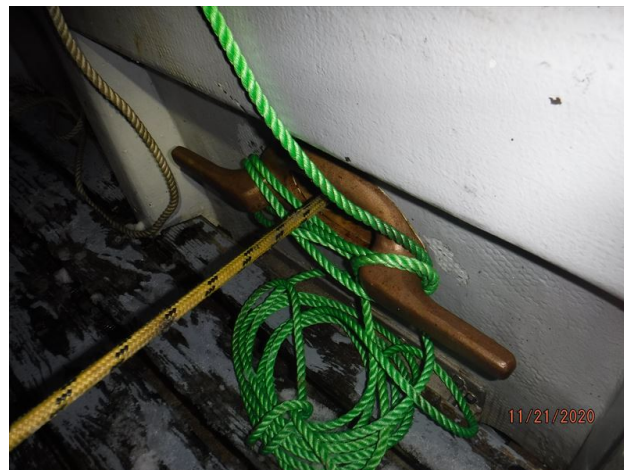
DECK DRAINAGE

Eight (8) 16"x8" self bailing deck drains and deck freeing ports.



CLEATS

The whale back cleats are stainless steel. On the main deck the cleats are bronze hawse hole cleats



Report of Marine Survey

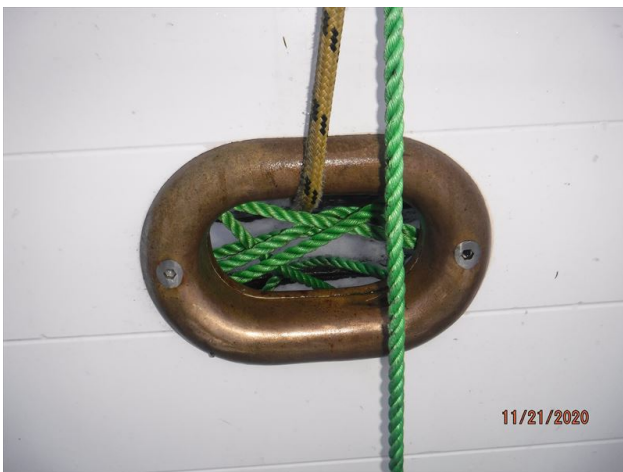


LINE CHOCKS

Galvanized steel bow line guide chocks.

LINE HAWSE PIPES

Line hawse pipes were installed port & starboard at the stern, fore & aft side decks



LINE WARPING CAPSTANS

See exterior equipment deck gear below

ANCHOR PLATFORM

Aluminum

EXTERIOR STORAGE

Deck boxes on the weather deck. Fish tote and smaller portable boxes were seen on the work deck

Report of Marine Survey



WATER MISTING SYSTEM
net washer not seen

EXTERIOR COVERS
Fiberglass anchor cowling, canvas chest freezer cover



TRAILER
unseen

ESCAPE HATCH
An escape hatch was observed on the foredeck.

Report of Marine Survey



MAIN AND SECONDARY HYDRAULIC SYSTEMS

HYDRAULIC PUMPS AND POWER TAKE-OFFS

Commercial Shearing 60/40 mounted on the main engine forward with a Pitts PTO, clutch switch at the helm



THE SMALLER PUMP

Genset mounted double pump with a Pitts PTO. Electric PTO switch at the helm

Report of Marine Survey



HYDRAULIC TANK

45 gallon estimated. Shares the same tank as lube oil



HYDRAULIC VALVES/BANKS

There are three Walvoil banks mounted on the aft cabin bulkhead. The 'big side' valve with an always on rotary handle runs either the deck winch and PL12 for seining, or feeds the starboard, rail mounted, crab block and davit banks. The 'small side' is a 7 spool Walvoil and will run all of the ancilliary picking and main boom winches, as well as, the power block. The King Coiler, crab conveyor, and bait grinder are all run through the lower 'small side' third Walvoil bank. The starboard rail has two banks mounted running a 22" Junes crab block and a davit. They are plumbed through the big side bank. The valves are all new this season and well marked.

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HYDRAULIC LINES/FITTINGS

The big side lines are new 1" Gates. The small side flexible lines are 3/4" Kurt Tuff. There is aluminum pipe or tube running up the main boom and in the engine room. All the lines are well marked ,organized, and chafe protected with 3/8" poly and/or water discharge hose, sheathing



Report of Marine Survey



COMMENTS

The lines, valves, winches, and rigging are all new

DECK MACHINERY

BAIT SHED

There is an aluminum dog house available to accommodate hunting and fishing charters. It is plumbed for fresh, grey and black water to USCG 46 CFR and wired. It is furnished with modern appliances. It is furnished inside and has a rain porch at the stern and storage above for skiffs and kayaks.

This alternate business module is valued at \$200,000.00 Offsite and unseen. The photos below are reported to be a true representation.



Report of Marine Survey



WAVE WALL

no

PROCESSING TABLE

A hydraulic conveyor delivers crab to the sorting table from an aluminum dump box. The aluminum crab sorting table mounts to the forward hatch. Unseen

Report of Marine Survey



BAIT HANDLING
Hydraulic chopper



- GEAR RETRIEVAL
- Crab davit (hydraulic)
 - 22" Junes crab block
 - deck winch, Kolstrand N3 with bronze sheivs
 - Marco puretic power block with gripper wheel
 - Aluminum crab conveyor
 - crab dump box
 - crab sorting table
 - King coiler

Report of Marine Survey



Report of Marine Survey



FISHING GEAR

PRODUCT REFRIGERATION (ICE,RSW,PLATES,BLAST)

The IMS refrigeration unit (RSW) is a 35 ton, two hold system, charged with R22 freon gas.



RSW

The chiller plate is in the main hold. The circulating seawater pump is in the aft engine room port side (gold color pump motor), plumbed to the sea chest

Report of Marine Survey

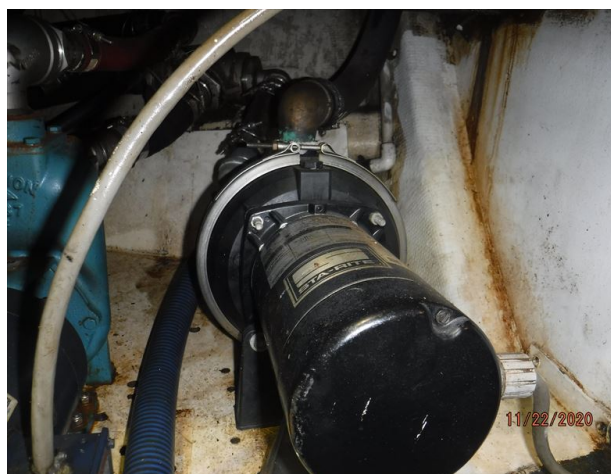


CRAB CIRCULATION AND REFRIGERATION PUMPS

- 7.5 hp 208 volt 4" Deming circulating RSW
- 1 Hp 110vac Sta-Rite 1.5" condensor pump

(see washdowns above for the blue pump pictured on the pump shelf between the pot pump and condensor pump)

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FISH HOLDS AND HATCH COVERS

HOLDS

There are two crab tanks fore and aft. Both holds are plumbed for RSW and insulated. The forward hold has a mounted chiller plate. It is a 50,000 lbs capacity hold. The aft bait hold capacity is 15,000 lbs of tanked crab.

HATCH COVERS

There are two Hatch covers designed for the main hold. These covers are fishery specific. The FRP cover is used when crabbing, and an aluminum flush deck cover is used when the boat is seining

Report of Marine Survey



SEA CHEST MANIFOLD
standard sea chest manifold design



TENDER AND/OR SEINE SKIFF

TENDER/WATERCRAFT
Hydro-Force 5 person inflatable



ENGINE MODEL
Yamaha 8 HP Four Stroke Outboard.

Report of Marine Survey

TENDER EQUIPMENT

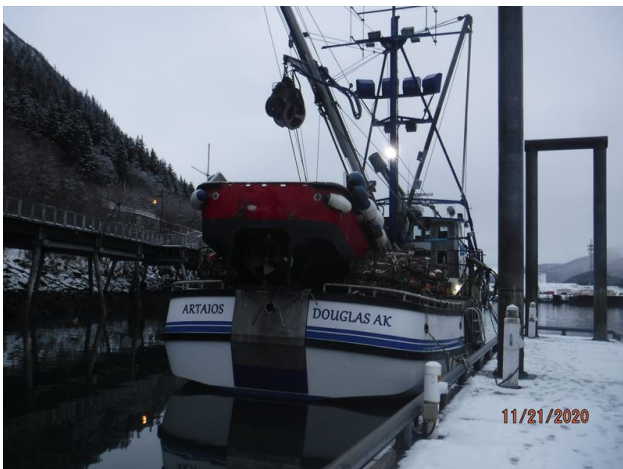
Remote tank, oars, inflation pump

TENDER COMMENTS

State registered till 2023, decal #RB37723

SEINE SKIFF

The Seine Skiff is 20' aluminum skiff, 6068 John Deere powered, wet exhaust, 100 gallon fuel, current state registration decal, quartz nozzle propellor protection, Steering console with engine controls, deck speaker, single Racor fuel/water seperator filter.



Report of Marine Survey

CABIN APPOINTMENTS

INTERIOR

MAIN CABIN ARRANGEMENT

Whale back cabin with a full galley and table to starboard, master's stateroom port. The head is aft cabin to port of the entrance companionway. There are stacked v-bunks forward under the whale back. From the companionway aft when you enter the cabin are stairs leading up to the top house. The top house is also accessed from the weather deck which is accessed via an aluminum ladder that is integral with the weather deck safety rails. The cabin floor is one level and two steps down from the deck. The aft cabin door is set into a snorkel.



GALLEY ARRANGEMENT

The galley is to starboard of the companion way located in the starboard aft corner of the cabin, There are stainless steel appliances all new 2020

- refrigerator/freezer
- dish washer
- electric stove/oven
- microwave



DINING ARRANGEMENT

Galley table accommodates six crew with below bench storage and cabinets above

Report of Marine Survey



ACCOMMODATION ARRANGEMENT

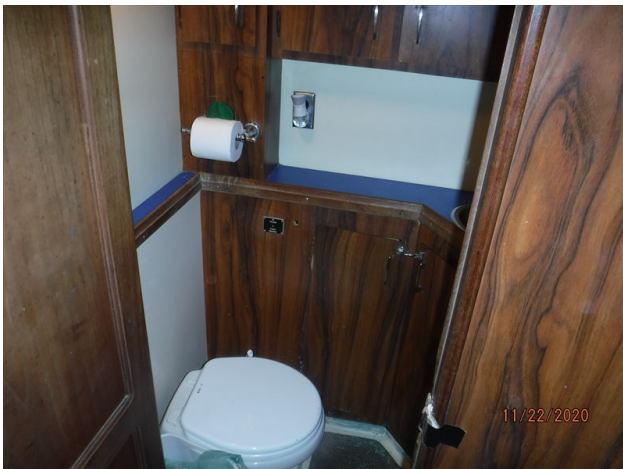
The master stateroom has two bunks, closets, and storage drawers below the captain's bed, an ensuite vanity with a stainless steel sink and mirror. The focsle has six stacked bunks. Three each port and starboard. There is a pantry in the forepeak. The Top House has a day, captain's bunk, with underneath drawers, The bunk also serves as a chart table



Report of Marine Survey



HEAD ARRANGEMENT
Dometic Vacuflush 12 volt Head with vanity



SHOWER ARRANGEMENT
Stall shower in the Head.



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HELM STATION (PILOT HOUSE)

Raised top house with a day bunk, two Flexsteel helm chairs, full modern electronics, manual and automatic hydraulic steering, electronic genset controls, engine monitors (analog) for the main, all alarm systems, 110volt and 12 volt breaker panels. Two helms, port and starboard

INTERIOR BRIDGE SEATING

Flexsteel helm chairs



INTERIOR CABINETRY & TRIM

The interior Satin finished Mahogany cabinetry and trim appeared serviceable.



Report of Marine Survey



INTERIOR DOORS

Satin finished Mahogany cabin doors.

INTERIOR STORAGE

The cabinets, lockers, drawers and shelving appeared serviceable, where sighted.



WALL-LINERS

Mahogany panelling

FLOORING

Grey carpeting

CABIN SOLE FOUNDATION

Plywood cabin sole foundation.

COUNTER TOPS

Dark blue Formica, serviceable

FINDING C-3

GENERAL INTERIOR & SOFTGOODS CONDITION

The general maintenance of the vessel's interior appeared serviceable.

CHART TABLE

The general maintenance of the interior soft-goods appeared serviceable. The chart table is the day bunk with below cabinet storage and drawers wide enough to accommodate standard nautical charts

Report of Marine Survey



INTERIOR JOINER WORK COMMENTS

The interior joiner work appeared serviceable.

INTERIOR BULKHEADS

The interior bulkheads appeared serviceable, where sighted.

WATER INTRUSION COMMENTS

None sighted.

INTERIOR ODOR COMMENTS

None

INTERIOR SYSTEMS & EQUIPMENT

LIGHTING

12 Volt DC lighting fixtures. All lights illuminated. The bridge has nighttime red illumination or daylight illumination option switches in the fixtures

HVAC/AIR CONDITIONING SYSTEM

Gree

CABIN HEATING SYSTEM

Lower cabin electric heating units on a reostat. The pilot house has a heating unit mounted at the floor By Cadet and a ceiling mount by Caframo



Report of Marine Survey



CABIN VENTILATION FANS

12 Volt DC electric ventilation fans were installed in the forward cabin.

VACUUM SYSTEM

Shop vac

EVIDENCE OF INSECTS

None seen

EVIDENCE OF RODENTS

None seen

AUDIO/VISUAL EQUIPMENT

TELEVISION SYSTEM

40" Visio with Xbox 360



SATTELITE RADIO

XM in the top house

CELL BOOSTER

None seen

GALLEY EQUIPMENT

REFRIGERATION

Kenmore Side-by-Side Stainless Steel Refrigerator/Freezer.

Report of Marine Survey



FREEZER
Chest Freezer.



STOVE
General Electric Profile four (4) burner Stove with Touch Control and Ceramic Glass Cooktop. Powered up.



MICROWAVE OVEN
Whirlpool Stainless Steel Microwave Oven.

Report of Marine Survey



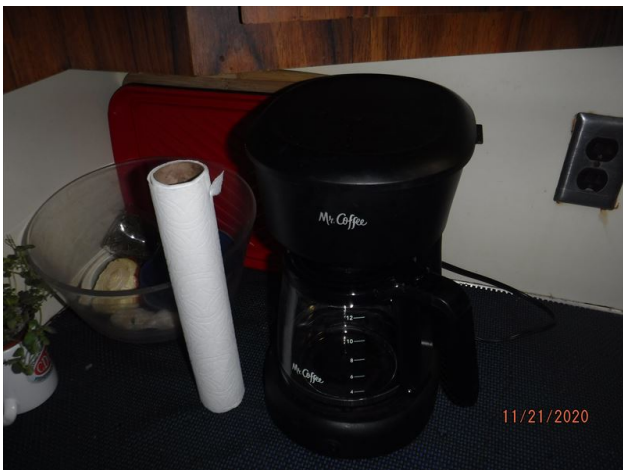
DISHWASHER

Kenmore Elite stainless steel dishwasher.



COFFEE MAKER

Mr. Coffee, Coffee Maker.



GALLEY SINK

Stainless Steel sink with separate basins.

Report of Marine Survey



HOT WATER DISPENSER

Hamilton Beach Stainless Steel Hot Water Dispenser. Powered up.



COMMENTS

All major stainless steel appliances are new in 2020

HARDWARE ACCESSORIES

Brass, bronze and stainless steel

PROPULSION & MACHINERY SPACE

PROPULSION SYSTEM

ENGINE SPACE ACCESS LOCATION

The door leading to the engine room is just inside the main companionway

Report of Marine Survey



ENGINE MODEL

Caterpillar 3408 turbocharged



MANUFACTURE DATE

1975, it is reported that the engine was rebuilt in 2014

Report of Marine Survey



ENGINE HORSEPOWER

365 Hp @ 1800rpm Data tags state

NUMBER OF CYLINDERS

Eight (8) in a 60 degree V configuration.

ENGINE STARTER VOLTAGE RATING

32 Volt.

ENGINE HOURS

8294 hours, SMOH, observed on the engine's analog hour meter.



ENGINE SERIAL NUMBERS

99U03569

ENGINE INSTRUMENTATION

Main engine instrument gauges were installed at the helm. Additional main engine instrument gauges were installed in the engine room.

Report of Marine Survey



ENGINE ALARM SYSTEM

Audible/visual engine alarms at the helm. Tested. Powered up and working as intended.

ENGINE EXHAUST SYSTEM

Insulated in hard frp then blankets



ENGINE COOLING SYSTEM TYPE

Closed water jacket cooling, keel cooled.

ENGINE DRIVE BELTS

Alternator belt condition appeared serviceable.

Report of Marine Survey



THROTTLE & SHIFT CONTROLS

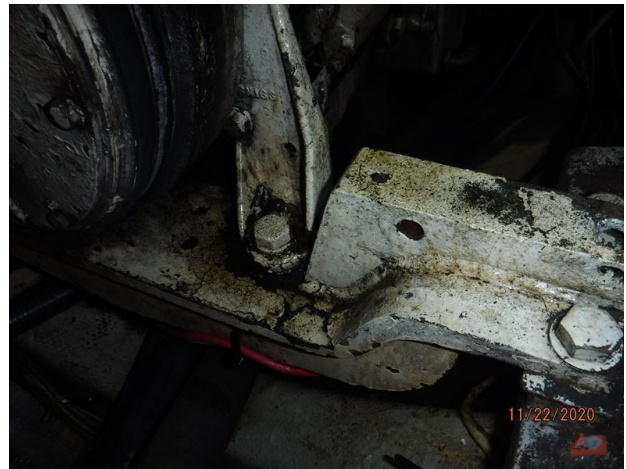
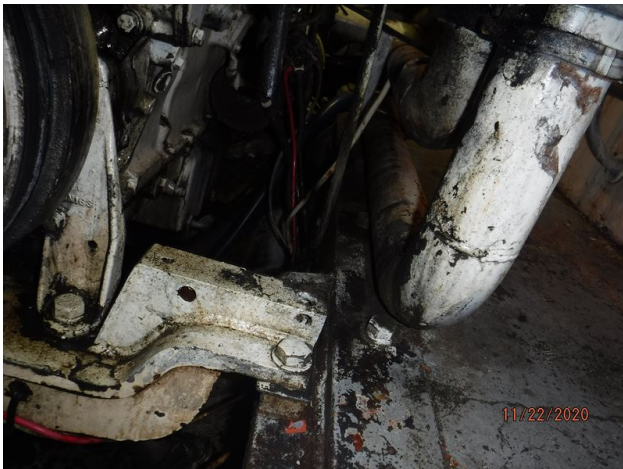
ZF Marine Mathers MicroCommander Electronic Throttle & Gear Controls.

EMERGENCY ENGINE SHUT-DOWN

Engine shut-down button at the helm.

ENGINE BED MOTOR MOUNTS

Adjustable mounts on longitudinal stringer mounted transverse engine bed beams



MAIN ENGINE OIL LEVEL

Normal levels were observed on the engine sump dipsticks.

Report of Marine Survey



MAIN ENGINE COOLANT LEVEL

Murphy switch on the expansion tank reads normal



ENGINE BLOCK HEATERS

Yes, powered up

INTERIOR MACHINE ROOM COMMENTS

There is an aluminum rack built in over the main to hold a tool chest and loose tools. To port is a work bench and vice. Over to starboard are the main 110 volt panels. Aft of the panels is a John Deere genset. The crab circulating pump is aft starboard bulkhead, where along the aft centerline is the seachest manifold. Port aft is the RSW circulating pump. Aft port side is the IMS system and small pumps. Forward bulkhead is the hydraulic/lube tank and an Isuzu genset.

Report of Marine Survey



MACHINERY & BILGE SPACE EQUIPMENT

ENGINE SPACE VENTILATION

Natural air flow ventilation was provided by the hull side vents.



ENGINE ROOM AIR BLOWERS

Mounted in the top house vents, powered up

Report of Marine Survey



SEACOCKS/SEA-VALVES

Raw water seacocks were bronze alloy ball valve type. Lubricate, exercise and monitor frequently. Recommend performing maintenance on all seacocks & sea-strainers annually (disassemble, inspect, clean and lubricate). It is also recommended that all below the waterline and near the waterline thru-hulls have a proper sized wooden plug attached to function as an emergency plugging device.



RAW WATER STRAINERS

Groco bronze alloy with sight glass. Used for the RSW condenser pump

Report of Marine Survey



HOSES

Appeared serviceable, where sighted. Monitor frequently for dry cracking, degradation, damage or chafing.

FINDING B-3

HOSE CLAMPS

Double clamped where sighted. Some slotted stainless steel, some marine grade non-slotted T-bolt type



LUBE TRANSFER SYSTEM

Manual pumps

Report of Marine Survey

LUBE OIL TANKAGE

45 gallons

ENGINE OIL PRE-LUBER SYSTEM

No

WASTE OIL TANKAGE

5 Gallon buckets

SHIP'S AIR COMPRESSOR

No

MACHINERY SPACE WATER SUPPLY

None seen

MACHINERY SPACE INSULATION

Thermal & acoustical sound deadening insulation was reportedly built into the engine room.

TOOL BOX

Two (2). A Craftsman tool Box is installed in the engine room suspended over the main on a dedicated aluminum shelf, and a smaller portable Husky box is in the focus lower stb bunk.



HYDRAULIC FLUID RESERVOIR TANK

10 gallon aluminum (steering)

HYDRAULIC PUMPS AND ENGINE ROOM VALVE BANKS

Rear engine mounted steering pump

SPARES

Belts, hoses and filters

Report of Marine Survey



TRANSMISSIONS / GEARS / DRIVES

DRIVE SYSTEM TYPE

Direct Drive.

TRANSMISSIONS/GEARS

MG-514



GEAR RATIO

Data tag states 4.5:1

GEAR SERIAL NUMBERS

3L 4676

GEAR CONTROLS

ZF Mathers MicroCommander Electronic Controls.

Report of Marine Survey



TRANSMISSION INSTRUMENTATION

Transmission gauges were installed at the helm.

GEAR COOLERS/HEAT EXCHANGERS

Closed cooling heat exchangers.

GEAR FLUID LEVEL

Normal levels were observed on the transmission dipsticks.



PROPELLER SHAFTS

Appears to be steel, shaft measured 3.5" aft of the intermediate bearing the shaft is stainless steel and measures 4"

FINDING C-4

PROPELLER SHAFT COUPLERS

Steel at the engine and intermediate, where seen

Report of Marine Survey



PROPELLER SHAFT PACKING GLANDS

Flange & bolt stuffing box type packing glands. Monitor frequently.



GEAR NOTES

None

FUEL SYSTEMS

FUEL SYSTEM TYPE

Diesel.

FUEL TANK MATERIAL

Fiberglass.

NUMBER OF FUEL TANKS

Four (4).

FUEL TANKAGE CAPACITY

1500 gallon

FUEL LEVEL MONITORING

Fuel sight gauges installed at the main fuel tanks.

Report of Marine Survey



FUEL TANKAGE SECURING

Bonded/glassed to the hull.

FUEL TANKAGE LOCATION

The port and starboard crab tank voids have been constructed into the four fuel tanks.

FUEL FILL LOCATION

Forward work deck port and starboard

FUEL FILL MARKING

The fuel fill fittings were NOT clearly marked as to fuel type.

FINDING B-4

FUEL TANK VENTILATION

Port hull side



FUEL FILL HOSE/PIPE

Unseen due to access

FUEL LINES/HOSES

USCG Approved Type A1 fuel lines, where sighted.

FUEL SHUT-OFF VALVES

Gate valves at the fuel tanks and ball valves at the Primary Fuel Filters. unseen

FUEL MANIFOLD VALVES

Ball valves.

Report of Marine Survey

MAIN ENGINE PRIMARY FUEL FILTERS

Dual Racor 75/1000FHX Primary fuel filter/water separators.



FINDING B-5

MAIN ENGINE SECONDARY FUEL FILTERS

Engine mounted Secondary Fuel Filters.

GENERATOR PRIMARY FUEL FILTERS

Dual Racor 75/1000FHX

FINDING B-6

FUEL FILTER CONDITION

No significant sediment or algae was observed in the Primary fuel filter's sight bowls or on their diffusers. Monitor/service often.

GENERATOR FUEL FILTER CONDITION

Slight sediment was observed in the generator Primary fuel filter's sight bowl and on its diffuser. Monitor and service often.



FUEL COOLERS/HEAT EXCHANGERS

Engine mounted heat exchanger/cooler.

FUEL TRANSFER SYSTEM

Jabsco 12 volt electric Fuel Transfer Pump.

FUEL PRIMING SYSTEM

Manual priming buttons on the engine's secondary fuel filter heads.

Report of Marine Survey

FUEL POLISHING SYSTEM

Baffled day tank for the gensets. 10 gallon

COMMENTS

The water fill plumbing in the lazarette (photo below) shows double hose clamps. The fuel fill hoses are likely to be the same. Double clamped. Too verify this the deck fill fittings will have to be pulled. Pulling the fills may be impracticable and cost prohibitive



ELECTRICAL SYSTEMS

DC ELECTRICAL SYSTEMS

DC SYSTEMS VOLTAGE

12 Volt systems

-navigation electronics

-genset starting.

32 volt system

- main engine start



BATTERIES

Four 8 volt Dyno lead acid, 32 volt starting bank in an acid proof box. Fused cable to the OutBack charger. (see appendix)

One 4D 12 volt lead acid genset starting bank (see appendix)

Two 4D 12 volt genset #2 starting bank

One lead acid marine 4D 12 volt wheelhouse electronics

Surge protector battery pack back-up in the wheelhouse

Report of Marine Survey



FINDING B-7

BATTERY SWITCHES

Two (2) Blue Sea Systems rotary switches.

DC ELECTRICAL PANEL BREAKERS/FUSES

DC breakers at the helm.



Report of Marine Survey

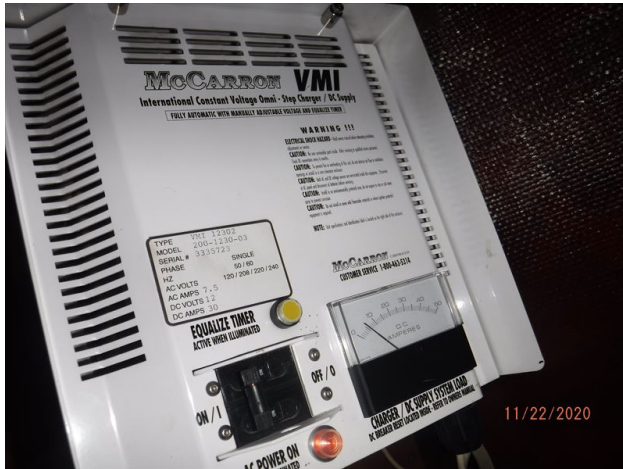
BATTERY CHARGERS

Outback charger services the 32 volt starting batteries

Professional Mariner ProMatic 30-3 - 12 volt / 30 amp. Battery Charger. Tends two 12 volt genset start batteries on the starboard

No charger on the 12volt Isuzu start battery

The pilot house battery is tended by a McCarron constavolt charger



MAIN ENGINE ALTERNATORS

32 volt, 100amp (an estimate)



Report of Marine Survey

GENERATOR ALTERNATORS

12 volt 60 amp each

BONDING SYSTEM (ABYC E-2 & E-11)

No bonding system was installed. It is recommended that a bonding system be installed, connecting all underwater exposed metals to the vessel's bonding system to help minimize electrolytic corrosion from stray current and enhance lightning protection.

FINDING C-5

DC ELECTRICAL/WIRING COMMENTS (ABYC E-11)

Appeared to be well supported and secured, where sighted, except as noted in the appendix

FINDING B-8

AC ELECTRICAL SYSTEMS

AC SHORE POWER SYSTEM VOLTAGE

120/240 Volt.



AC SHORE POWER INLETS

50 Amp. 120/240 volt shore power inlet.

AC SHORE POWER CORDS

50 Amp. vinyl 800 volt shore power cord.

AC SOURCES

Shore/gensets

AC ELECTRICAL SOURCE SELECTOR SWITCHING

Manual rotary type selector switch for shore or ship power/ genset #1 or #2

Report of Marine Survey

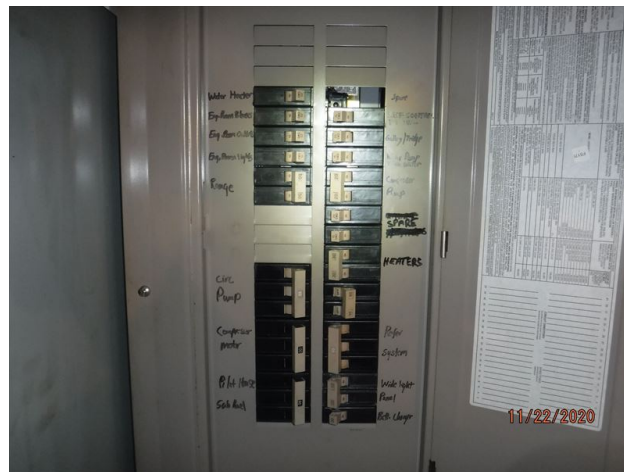


MAIN AC SHORE POWER BREAKERS

The main AC breakers were installed in the main electrical panel.

AC ELECTRICAL PANEL BREAKERS

AC branch breakers in the main engine room AC electrical panel and the helm panel. Verify that it takes additional tools to access any AC wiring terminals at the back of the combined panels. Must pull to verify.



AC ELECTRICAL POWER OUTLETS

There are no GFCI protected outlets on the boat

FINDING B-9

AC ELECTRICAL SYSTEM MONITORS

Digital AC voltage, amperage and hertz gauges in the main pilothouse's AC electric panel and the engine room sector switch panel

Report of Marine Survey



AC SYSTEM WIRING TYPE

Appeared serviceable for intended use, where sighted.

AC ELECTRICAL/WIRING COMMENTS (ABYC E-11)

Some exceptions were observed (see Findings Appendix).

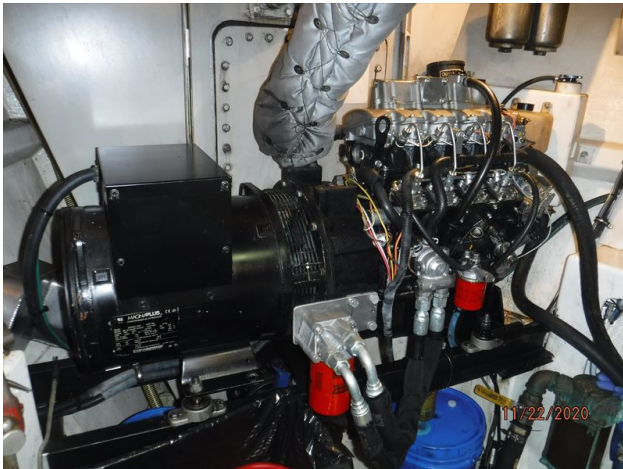
FINDING B-10

GENERATORS/AUXILIARY POWER

AUXILLIARY GENSET #1

GENERATOR MODEL

Forward genset: Isuzu 4LE1 Marathon Electric Magnaplus 283PSL1707 (black paint)



GENERATOR SPEC

unknown, data tag unspecified (each)

Report of Marine Survey



GENERATOR FUEL TYPE

Diesel.

NUMBER OF CYLINDERS

Forward: 4

GENERATOR KILOWATT RATING

Isuzu is 27 Kw

GENERATOR ENGINE RPM RATING

1,800 RPM

GENERATOR VOLTAGE RATING

208 Volt

GENERATOR PHASE RATING

Three Phase, each.

GENERATOR STARTER VOLTAGE RATING

12 Volt

GENERATOR HOURS

Forward Isuzu: 162 manufactured 3/2015

GENERATOR SERIAL NUMBERS

Forward Isuzu: MT-0020468 manufactured 3/2015

Stb: *****

GENERATOR INSTRUMENTATION GAUGES

Generator instrument panels installed at the wheelhouse helm station. Key starting in the engine room

Report of Marine Survey



GENERATOR ALARM SYSTEM

Generator audible alarms.

GENERATOR DRIVE BELT

Aluminum and steel belt guards were removed for inspection. Belts are serviceable, each.

GENERATOR LUBRICATION SYSTEM

Engine mounted mechanical oil pump with spin-on type filter. Engine Mounted remote add-on oil filter
#2 engine mounted mechanical oil pump with spin-on type filter.

GENERATOR OIL LEVEL

Oil level was normal on the generator's oil sump dipstick. The starboard genset dip stick is inaccessible



GENERATOR COOLING SYSTEM TYPE

Dry exhaust/keel cooled

GENERATOR COOLANT LEVEL

(Both) auxilliary generators Coolant Recovery Expansion Tanks appeared empty. (all of the three tanks)

Report of Marine Survey



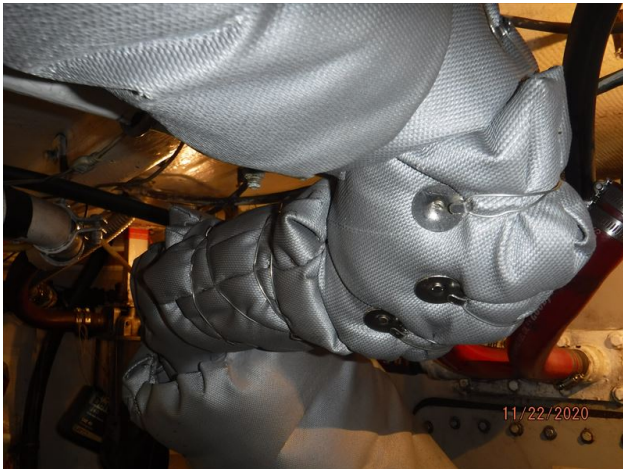
FINDING B-11

GENERATOR FUEL SYSTEM

Remote mounted 12 volt electric pump located port forward engine room under the shelf.

GENERATOR EXHAUST SYSTEM

Dry exhaust wrapped in blankets



GENERATOR SPACE VENTILATION

Natural air ventilation for the generator space was provided by a hull side vent.



Report of Marine Survey



GENERATOR COMMENTS

Keel cooler each

AUXILLIARY GENSET #2

GENERATOR MODEL

Starboard genset: John Deere 4045 no data tags on the generator (white paint)



GENERATOR FUEL

Diesel

NUMBER OF CYLINDERS

Four (4)

GENERATOR KILOWATT RATING

55 Kw

GENERATOR RPM RATING

1,800 RPM

GENERATOR VOLTAGE RATING

208 Volt

GENERATOR PHASE

3 phase

GENERATOR STARTING VOLTS

12 volts

Report of Marine Survey

GENERATOR HOURS

5665

GENERATOR DRIVE BELTS

Serviceable



GENERATOR INSTRUMENTS

At the helm

GENERATOR ALARM SYSTEM

At the helm, visual/audible low oil-hot water, incorrect wattage

GENERATOR EXHAUST

Dry exhaust wrapped in blankets

GENERATOR LUBRICATION SYSTEM

spin on filters

GENERATOR OIL LEVEL

unseen (inaccessible)

GENERATOR FUEL SYSTEM

Engine mounted fuel pump

COMMENTS

Both generators were demonstrated during the survey

INVERTERS & OTHER AUXILIARY POWER

INVERTER SYSTEMS (ABYC E-11, A-31)

Outback 2500 watt inverter charger

INVERTER SYSTEM LOCATION & VENTILATION

Port outboard engine room. Ventilation was adequate.

COMMENTS

The inverters are not hooked up to convert 12volt to 110 but as chargers only, but they could be if there were any house storage battery banks added

WATER SYSTEMS

FRESHWATER SYSTEM

WATER TANKAGE MATERIAL

Fiberglass.

Report of Marine Survey

NUMBER OF FRESHWATER TANKS

Two (2).

WATER TANKAGE CAPACITY

1000 gallon

WATER TANKAGE SECURING

Bonded/glassed to the hull.

WATER TANKAGE LOCATION

Port & starboard, in the lazarette.

WATER FILL LOCATION

Port and starboard aft bulwarks

WATER FILL MARKING

Unmarked

FINDING B-12

FRESHWATER PUMPS

110vac Grunfos 1.5"



WATER LEVEL MONITORING

Sight tubes installed at the water tanks.



HOT WATER SYSTEM

WATER HEATER

Report of Marine Survey

Kenmore.



FINDING B-13

WATER HEATER TYPE
120 Volt AC electric.

WATER HEATER CAPACITY
10 Gallons.

BLACKWATER SYSTEM

MSD (MARINE SANITATION DEVICE) SYSTEM (33 CFR 159)

Type III MSD Waste System (utilizes a holding tank or similar device that prevents the overboard discharge of treated or untreated sewage). see appendix B-14



BLACKWATER TANKAGE

Polyethylene Blackwater (sewage) holding tank.

Report of Marine Survey



COMMENTS

The vessel's operator is responsible for determining what type of MSDs (marine sanitation devices) are prohibited & permitted by law in the location of the vessel's intended use.

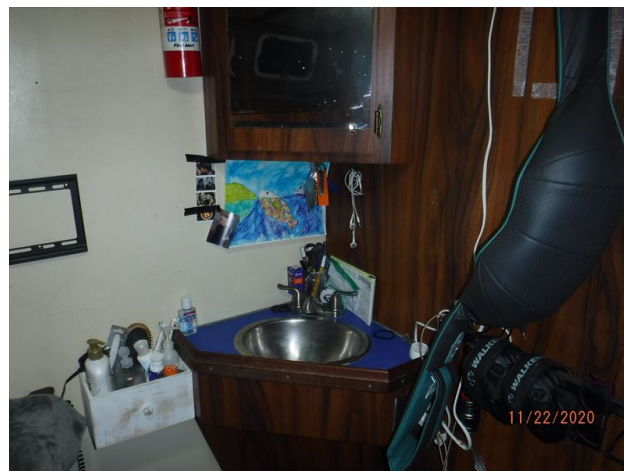


FINDING B-14

GREYWATER SYSTEM

HEAD SINKS

Stainless steel Head sink.

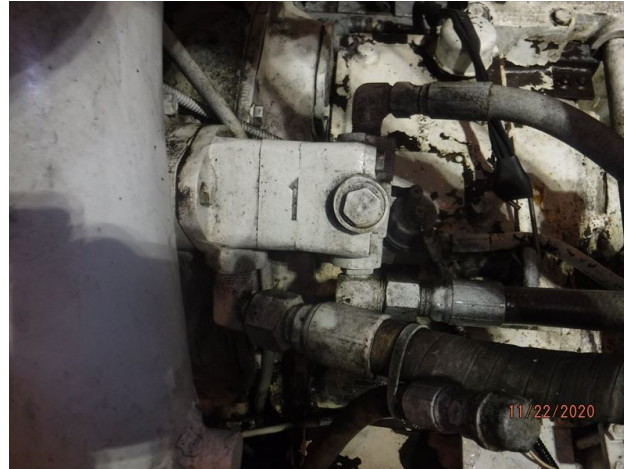


Report of Marine Survey

STEERING SYSTEMS

STEERING SYSTEM TYPE

Hydraulic Power Steering with a front engine mounted pump. Wagner helm pump at the spoked wheel, Accusteer two speed manifold system in the engine room, (Jastrom)T-ram rudder actuator in the lazarette



STEERING SYSTEM MANUFACTURER

Wagner Engineering Inc.- Jastrom Accusteer



NUMBER OF STEERING STATIONS

Two, port and starboard in the wheel house

Report of Marine Survey



STEERING HOSES/LINES

Reinforced flexible hoses with metallic fittings.



STEERING SYSTEM ACTUATORS

The steering ram appeared to be well secured.

RUDDER STOCKS

Stainless Steel Rudder Stocks.

RUDDER LOG PACKING GLANDS

Flange & bolt type packing glands appeared serviceable, except where noted. Monitor frequently.

Report of Marine Survey



RUDDER POSITION INDICATOR
Electro-mechanical type with VDO helm gauge.



RUDDER INDICATOR DIAL
2 Comnav



GROUND TACKLE

ANCHORS
Galvanized navy

Report of Marine Survey

ANCHOR RODE TYPE

1" galvanized boom chain, 1/2 " galvanized wire



ANCHOR WINDLASS

Kolstrand hydraulic or Thompson hydraulic protected in a fiberglass cowling



ELECTRONICS & NAVIGATION EQUIPMENT

VHF RADIOS

Standard Horizon Eclipse DSC+ VHF Radio.

Icom IC-M506 VHF Radio.

Icom 2 meter with HM-133 mic.

All of the radios powered up

LOUD HAILER

Standard Horizon VLH-3000 Loud Hailer

COMPASSES

Wagner 6" with a current deviation card

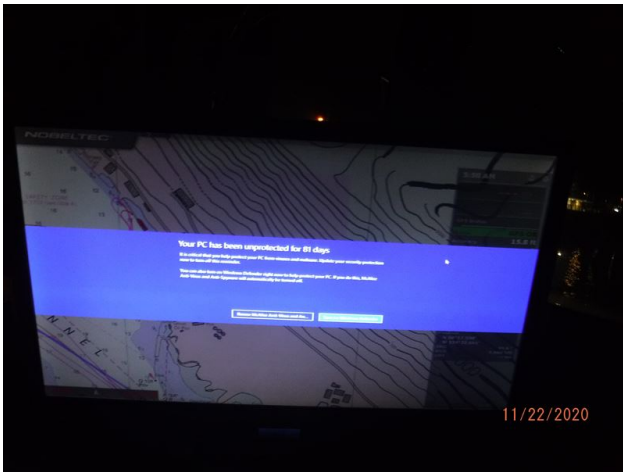


MULTI-FUNCTIONAL NAVIGATION DISPLAYS

Garmin GPS-Map 4212, 12" Multi-Functional Navigation Display, with GPS Chartplotter.
Demonstrated

MONITORS

- Two computer monitors
- Lorax system
- Nav computers



AIS (AUTO IDENTIFICATION SYSTEM)

AI IEC AIS receiver
powered up and displayed surrounding vessels

Report of Marine Survey



NAVIGATION COMPUTER

Asus laptop with NobelTec
Olex bottom mapping computer
Demonstrated. Powered up.



AUTOPILOT

COMNAV Commander with remotes
Powered up and appeared to be working



Report of Marine Survey



GPS (GLOBAL POSITIONING SYSTEM)

SI-TEX 95CP

Powered up.

SATELLITE TELEPHONE

Globalstar

VESSEL MONITORING SYSTEM

Lorex closed circuit engine space and deck, video monitoring

Demonstrated.



BAROMETER

Airguide Barometer.



Report of Marine Survey



THERMOMETER
Airguide



SHIP'S CLOCK
No

ANTENNAS

The antennas appeared to be well mounted where sighted.

FINDING B-15

STEREO SYSTEM

Midland MXT115 powered up.
Pioneer Powered up.
XM satellite powered up.

ELECTRONIC CHART SYSTEM

Electronic redundant

WATCH ALARM

Last Watch II helmsman minder

Report of Marine Survey



TRANSDUCERS

Simrad general purpose
Koden sonar



ELECTRONICS COMMENTS

All of the electronics were powered up and tested.

SAFETY EQUIPMENT

46CFR28 APPLICABILITY

VESSEL SIZE, # OF PEOPLE AND AREA FISHED

Commercial fishing

<65'.

Cold waters.

Coastal waters - 20 miles of the boundary line.

< 6 people.

U.S.C.G. REQUIREMENTS FOR COMMERCIAL FISHING INDUSTRY VESSELS.

Report of Marine Survey

DOCKSIDE SAFETY EXAM

CURRENT

46 U.S.C. §4502(f) requires commercial fishing vessels operating beyond 3 nautical miles from the baseline from which the territorial sea of the United States is measured or beyond 3 nautical miles from the coastline of the Great Lakes, be examined dockside at least once every 5 years. The Coast Guard advises that a safety exam should be completed every 2 years to ensure safety equipment and procedures are current. The dockside exam compliance decals are valid for 2 years.

WEARABLE PERSONAL FLOTATION DEVICES (33 CFR 175)

Three type I vests

Six Immersion suits (46 CFR 28.110-25)

All the above devices were checked (46 CFR 28.115 – General Requirements/46 CFR 28.135 – Markings) for proper retroreflective tape, the proper markings, whistles and lights, current dated batteries, zipper operation and orientation. (see appendix)



FINDING A-1

THROWABLE PERSONAL FLOTATION DEVICES (33 CFR 175)

One (1) Type IV - U.S.C.G. Approved Throwable Device (ring). per 46 CFR 28.135 – Markings



Report of Marine Survey

LIFE RAFTS 46 CFR 28.120 – GENERAL REQUIREMENTS

Gaurdian 6 man SOLAS A pack.

A current inspection tag was observed. Hydrostatic Release Expiration Date: 2023



LIFEFLOATS/BOUYANT APPARATUS 46 CFR 28.120 – GENERAL REQUIREMENTS

N/A

ESCAPE ROUTES 46 CFR 25.26-50

Clear

VISUAL DISTRESS SIGNALS (33 CFR 175.101)

Electric light (night); Distress flag in accordance with 46 CFR 160.142

Three handheld rocket parachute

Twelve hand held red flares

Three handheld red smoke

All current



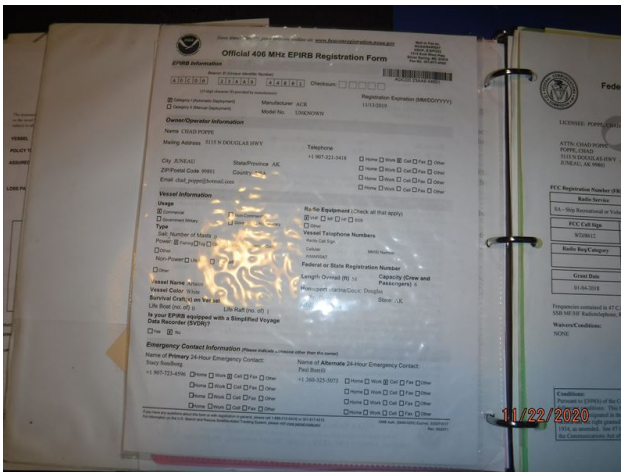
SOUND PRODUCING DEVICES (33 CFR 83)

Hand-held Compressed Air Horn.

E.P.I.R.B.

ACR Electronics Global-Fix EPIRB (not tested). Battery Expiration 2021, release expiration 2022

Report of Marine Survey



FIRE EXTINGUISHERS (46 CFR 25)
Five (5) Type USCG 20-B (current)



U.S.C.G. NAVIGATION RULE BOOK (33 CFR 83) VESSELS OVER 39'4"

None seen The U.S.C.G. International and Inland Navigation Rule Handbook was not observed onboard. This official government rulebook is required on all vessels over 39'4" in length. Also known as Nav-Rules CG169, contains the International Regulations for Preventing Collisions at Sea, 1972 (72 COLREGS). 33CFR88.05

FINDING B-16

Report of Marine Survey

NAVIGATION LIGHTS (33 CFR 83)

The Navigation Lights illuminated, except where noted.



FINDING A-2

INJURY PLACARD

Yes, found properly displayed



"NO OIL DISCHARGE" PLACARD (33 CFR 151/155)

Found properly displayed.



Found properly displayed.

Observed onboard



NON FUNCTIONING (see section water - subsection black water)

Provided; see section General Information and/or Vessel Documentation section(s)

Found

Electronic charts

Provided, see the section 'Navigation' of this report. Vessels must be equipped with an operable magnetic steering compass with a compass deviation table at the operating station.

VHF radio, Provided. a cell phone may replace the SSB if an SSB is required. SSB is required when operating 20 miles offshore.

FCC radio telephone liscence was found on board the vessel



Report of Marine Survey

SPARE 12 VDC BATTERY 46CFR28SUBPARTD.375

Yes in the wheelhouse binacle space hooked up to a charger

All communication equipment must be provided with an emergency source of power, located separate from the machinery space, capable of powering the communication equipment continuously for at least 3 hours. 46CFR28subpartD375

BILGE HIGH WATER ALARMS 46 CFR 28.250

One (1) Bilge High Water Alarm.

FINDING A-3

GENERAL ALARM SYSTEM AND PLACARD

Yes, demonstrated

VESSEL SAFETY PLAN 46 CFR 28.265

Yes found in the vessel's safety notebook but not displayed

FINDING B-17

DRILLS AND INSTRUCTION 46 CFR 28.270

Up to date drill logs in the ships papers were found

SAFETY ORIENTATION LOG 46 CFR 28.270

Mandates for the safety orientation of new crew are incorporated in the Safety Drill and Instruction logs that were found in the ship's papers

FIRST AID SUPPLIES 46 CFR 28.210

A First Aid kit was observed onboard.



VESSELS USING AMMONIA GAS REFRIGERANT

N/A

ELECTRIC BILGE PUMPING SYSTEMS

One (1) Rule 2000, 12 volt Bilge Pump with floatswitch.

One (1) 110vac pump.

The pumps activated and pumped water overboard, demonstrated. The float switches are wired directly to 12vdc (genset start) battery or to the AC system

Report of Marine Survey



BOARDING (JACOBS) LADDER 50 CFR PART 600, SECTIONS 730

None found

FINDING B-18

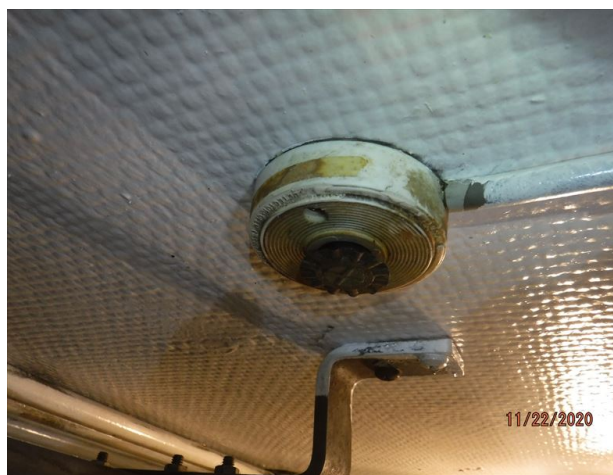
FISHING AGREEMENT 46 USC 10601

Blank copies are found in the ship's papers: A written fishing agreement is required with each seaman employed on vessels of 20 gross tons or more.

ADDITIONAL SAFETY EQUIPMENT

FIXED FIRE SUPPRESSION SYSTEM

Two (2) Carbon Dioxide Fixed Fire Suppression Tanks in the engine compartment. (ok on commercial boats) Automatic thermal and manual activation. Manual shut down buttons are in the companionway as are the blower on off switches. A system discharge indicator was not seen at the helm.



Report of Marine Survey



FINDING B-19

MAN OVERBOARD SYSTEM (MOB)

None seen. I recommend mounting a lifesling M.O.B. Rescue Sling.

DAY SHAPE

The day shape is unriggered and stowed

REBOARDING LADDER

Aluminum

SEARCH LIGHT

Yes ITT Jabsco remote controlled Search Light. Powered on.

Crab Lights



CARBON MONOXIDE DETECTORS (ABYC A-24)

None sighted. Highly recommend installing Carbon Monoxide Detectors inside all of the accommodation spaces.

FINDING A-4

SMOKE DETECTORS (NFPA 302)

None sighted. Install Smoke Detectors inside the accommodation spaces.

FINDING A-5

VESSEL FIRE/GENERAL ALARM SYSTEM

The Fire Alarm System should be inspected by an Authorized Fire Equipment Technician. Powered up.

Report of Marine Survey



FIRE FIGHTING SYSTEM

No

ADDITIONAL SAFETY EQUIPMENT

Rapid ditch (go) bag



COMMENTS

PLEASE VISIT THE FISHSAFEWEST.COM WEB PAGE for complete information describing the commercial fishing industry vessel safety rules and regulations as well as a downloadable customized checklist for your vessel and the pamphlet Federal Requirements for Commercial Fishing Industry Vessels

BILGE PUMPING SYSTEMS

EMERGENCY BILGE PUMPING SYSTEMS

110vac bilge sump pump is mounted in the forward engine room bilge augmenting the 12 vdc pump

Report of Marine Survey



CRAB SUMP PUMPS

Deming 5x6 crab pump driven by a 208 volt ac 10Hp electric motor (grey color motor starboard side)



AUXILIARY GAS SYSTEMS

GAS TYPE

LPG (Liquified Petroleum Gas/Propane).

GAS TANKAGE LOCATION

One (1) tank in the port focsle bunk aft locker. This is a disconnected stowed tank.

FINDING A-6

RIGGING & SAILS

STANDING RIGGING

MAST

Approximately 8" aluminum mast with a partner at the weather deck and aluminum 4" pipe A frame support, spreaders and light platform. Ladder rungs on the forward face access the tops

Report of Marine Survey



MAST SPREADERS

Stabilizer pole cradles and antenna mount spreader bars



MAST STEP

Deck stepped

MAST PARTNER/SUPPORTER

Partner at the weather deck, support structure above the partner



Report of Marine Survey

MAIN BOOM

New, 8" aluminum seine boom with a slider, tip winch, seine winch and mid boom topping winch, stainless steel pipe, hydraulic supply lines



Report of Marine Survey



PICKING BOOMS

Two 4" aluminum with winch mounting plates and one winch each. Manual vanging rigged with aluminum pipe stiff arms both. The winches are spooled with covered KEVLAR line



RIGGING CHAIN PLATES

External chain plates, bolted to the hull.

Report of Marine Survey



SHROUDS/STAYS/TERMINAL ENDS

4" aluminum stiff arms at the picking booms. 1/2" galvanized or spectra cable where needed, serviceable

RIGGING CLEVIS PINS & COTTER PINS

Appeared serviceable, galvanized, seized with stainless steel wire, except where noted



FINDING B-20

STANDING RIGGING COMMENTS

The mast is supported at two points. An 4" aluminum pipe A-frame atop the house and forward cabin, and a partner support at the aft railing level that gives additional strength and spreads the loads that are bearing on the picking booms across the weather deck bulwarks.

Report of Marine Survey



STABILIZER POLES

No

STABILIZER FISH

No

RUNNING RIGGING

TOPPING LIFT

The seine boom, Pullmaster PI 5, topping lift appeared serviceable.



Report of Marine Survey

VANGING WINCHES

Bloom



SWIVEL BLOCKS

Serviceable, new



WINCHES

There are three PL5's on the main boom - topping, tip, and slider. There is one PL5 on the starboard picking boom. This winch replaced a PL4 that is currently a spare on board. The port picking boom winch is a PL4. The Pullmaster PL5's are new winches

The seine winch is a PL12 and is also new. New covered Kevlar line all

- (1) PL12
- (4) PL5
- (2) PL4
- Deck winch. (see gear retrieval section)

Report of Marine Survey



Report of Marine Survey

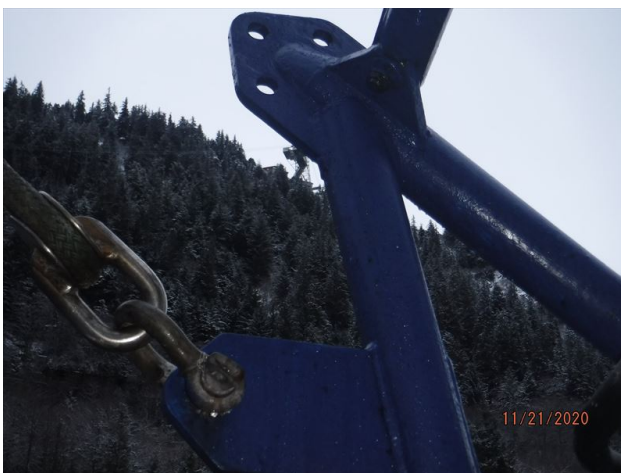


COMMENTS
spare PL4



STRONG POINTS

REEFING POINTS
Appeared serviceable.

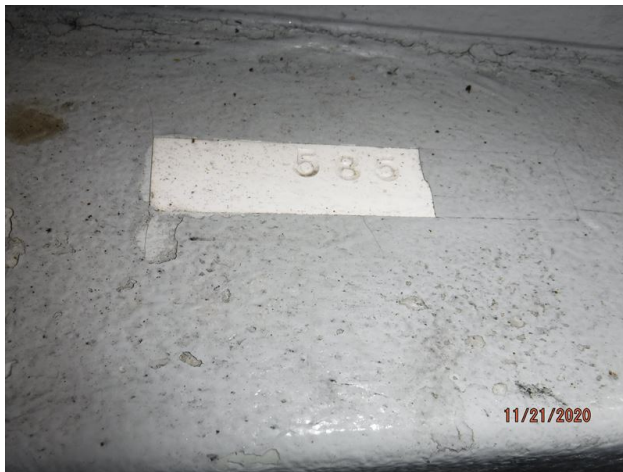


VESSEL DOCUMENTATION

Report of Marine Survey

HIN (HULL IDENTIFICATION NUMBER) COMPLIANCE (33 CFR 181)

The vessel's HIN (Hull Identification Number) displayed on the starboard transom did not match the HIN recorded with U.S.C.G. Documentation. The federal Documentation lacks the Hull ID. It is likely that a HIN was never imprinted by Delta, and that the number pictured below is a Hull Number (HN) only



FINDING C-6

DOCUMENTATION COMPLIANCE (46 CFR 67)

Unknown due to access the fish hold with the documentation #inscribed on the combing was not accessible at the time of the survey



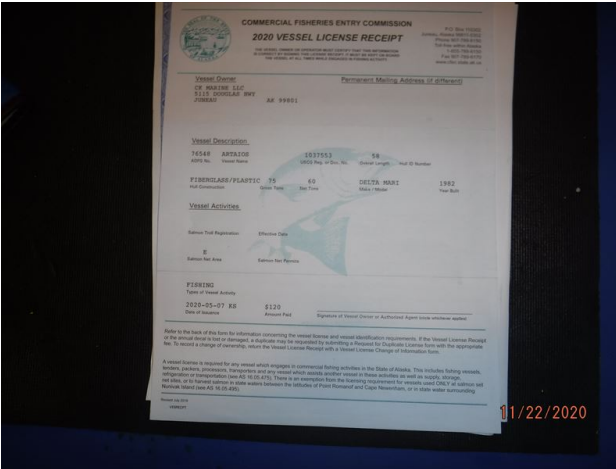
STATE REGISTRATION COMPLIANCE (33 CFR 173)

The vessel's State Registration Numbers and decals for Washington and Alaska were displayed according to U.S.C.G. Standards.

Report of Marine Survey



ADF&G #
Current and displayed per Washington/Alaska



VOLUNTARY DOCKSIDE EXAM DECAL (USCG)
A current dockside exam decal was sighted

Report of Marine Survey



STABILITY LETTER
Stability letter was found on board

Findings & Recommendations

Deficiencies noted under "FIRST PRIORITY/SAFETY AND COMPLIANCE FINDINGS" should be addressed before the vessel is next underway. These findings could represent an endangerment to personnel and/or the vessel's safe operating condition. Findings may also be in violation of U.S.C.G. Regulations, ABYC Voluntary Safety Standards & Recommended Practices or NFPA Codes & Standards.

Deficiencies noted under "SECONDARY PRIORITY/FINDINGS REQUIRING TIMELY ATTENTION" should be corrected in the near future, so as to maintain and adhere to certain codes, regulations, standards or recommended practices (and safety in some cases) and to help the vessel to retain its value.

Deficiencies noted under "SURVEYOR'S GENERAL FINDINGS AND OBSERVATIONS" are lower priority or cosmetic findings, which should be addressed in keeping with good marine maintenance practices and in some cases as a desired upgrade.

Deficiencies will be listed under the appropriate heading:

- A. FIRST PRIORITY/SAFETY AND COMPLIANCE FINDINGS
- B. SECOND PRIORITY/FINDINGS REQUIRING TIMELY ATTENTION
- C. SURVEYOR'S GENERAL FINDINGS AND OBSERVATIONS

A: SAFETY DEFICIENCIES

WEARABLE PERSONAL FLOATATION DEVICES (33 CFR 175)

Three type I vests

Six Immersion suits (46 CFR 28.110-25)

All the above devices were checked (46 CFR 28.115 – General Requirements/46 CFR 28.135 – Markings) for proper retroreflective tape, the proper markings, whistles and lights, current dated batteries, zipper operation and orientation. (see appendix)

FINDING A-1

No recent serviceing documentation proving a suit service has been performed on these 4 years old suits. Each manufacturer of Coast Guard Approved immersion suits outlines the maintenance and servicing guidelines for their products. Maintaining the device in accordance with the manufacturer's specifications is a function of the USCG Approval assigned to the item. Imperial, Stearns, Kent, and Mustang immersion suits suggest serviceing every 2 years until the suit is 5 years old and then every year after that.

RECOMMENDATION

Send the suits in for Pressure tests and general servicing as per manufacturer's specifications.

NAVIGATION LIGHTS (33 CFR 83)

The Navigation Lights illuminated, except where noted.

FINDING A-2

The Anchor Light did not illuminate when tested.

RECOMMENDATION

Repair or replace the Anchor Light to comply with USCG Regulations.

Findings & Recommendations

BILGE HIGH WATER ALARMS 46 CFR 28.250

One (1) Bilge High Water Alarm.

FINDING A-3

The Bilge High Water Alarm did not power up/test sound.

RECOMMENDATION

Investigate further/trace, and service, repair or replace as necessary.

CARBON MONOXIDE DETECTORS (ABYC A-24)

None sighted. Highly recommend installing Carbon Monoxide Detectors inside all of the accommodation spaces.

FINDING A-4

Carbon Monoxide Detectors were not observed onboard the vessel.

RECOMMENDATION

(ABYC A-24.7) A carbon monoxide detection system shall be installed on all boats with enclosed accommodation compartment(s). Carbon monoxide is a toxic, odorless, colorless, tasteless gas produced by the burning of carbon-based fuels. Carbon monoxide in high concentrations can be fatal in a matter of minutes. Unless the symptoms are severe, carbon monoxide poisoning is often misdiagnosed as seasickness; however, lower concentrations must not be ignored because the effects of exposure to carbon monoxide are cumulative and can be just as lethal.

SMOKE DETECTORS (NFPA 302)

None sighted. Install Smoke Detectors inside the accommodation spaces.

FINDING A-5

Smoke Detectors were not observed onboard the vessel.

RECOMMENDATION

NFPA 302 CHAPTER 12 SECTION 12.3. All vessels 26' or more in length with accommodation spaces intended for sleeping shall be equipped with a single station smoke alarm that is listed to UL 217 Standard for Single and Multiple Station Smoke Alarms for recreational vehicles and is to be installed and maintained according to the device manufacturer's instructions.

GAS TANKAGE LOCATION

One (1) tank in the port focsle bunk aft locker. This is a disconnected stowed tank.

FINDING A-6

There is a lpg tank stowed in the focsle

RECOMMENDATION

ABYC 1.8.8 Storage provisions for unconnected reserve cylinders, filled or empty, shall be the same as for cylinders in use. The standard goes on to state the stowage requirements of dedicated LPG lockers. If no lockers are available then the cylinder must be stowed outside, in such manner that escaping gas will flow directly overboard

B: OTHER DEFICIENCIES REQUIRING ATTENTION

Findings & Recommendations

GENERAL BILGE CONDITION

No significant water was observed collecting in the bilges. General cleaning of the bilges under the engine is recommended.

FINDING B-1

The bilges required cleaning.

RECOMMENDATION

Each vessel must comply with the oil pollution prevention requirements of 33 CFR parts 151 and 155.350. In order that stray oil in the bilges will not migrate to the bilge pumps the vessels bilges should be cleaned or wiped down with sorbents. I also recommend placing sorbent logs in the bilges either side of the pumps.

MARPOL compliance standards and the release of pollution from ships. The Federal Water Pollution Control Act prohibits the discharge of oil or oily waste into or upon the navigable waters of the United States, or the waters of the contiguous zone, or which may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States, if such discharge causes a film or discoloration of the surface of the water or causes a sludge or emulsion beneath the surface of the water. Violators are subject to substantial civil penalties and/or criminal sanctions including fines and imprisonment."

SAFETY RAILING

Aluminum piping surrounded the aft weather deck perimeter.

FINDING B-2

The light platform has no safety rails

RECOMMENDATION

Investigate and install safety railing



Findings & Recommendations

HOSES

Appeared serviceable, where sighted. Monitor frequently for dry cracking, degradation, damage or chafing.

FINDING B-3

Chaffing gear is unsecured on some hoses

RECOMMENDATION

Replace and secure the chaffing gear inspect all wiring/hose chases and install proper chafe gear at all key friction points, as necessary.



FUEL FILL MARKING

The fuel fill fittings were NOT clearly marked as to fuel type.

FINDING B-4

The fuel fill fittings were not marked for diesel (labeled "fuel").

RECOMMENDATION

Label fuel fills to identify as fuel fill.



Findings & Recommendations

MAIN ENGINE PRIMARY FUEL FILTERS

Dual Racor 75/1000FHX Primary fuel filter/water separators.

FINDING B-5

The Racor Primary fuel filters for the engines did not have an Approved Heat Shield installed under their sight glass bowls.

RECOMMENDATION

Recommend installing the Approved Heat Shields that meet ASTM FS1201 Certification on the Primary fuel filter sight bowls, as necessary.

GENERATOR PRIMARY FUEL FILTERS

Dual Racor 75/1000FHX

FINDING B-6

The Racor Primary fuel filter for the generator did not have an Approved Heat Shield installed under its sight glass bowl.

RECOMMENDATION

Recommend installing the Approved Heat Shields that meet ASTM FS1201 Certification on the Primary fuel filter sight bowls, as necessary.

Findings & Recommendations

BATTERIES

Four 8 volt Dyno lead acid, 32 volt starting bank in an acid proof box. Fused cable to the OutBack charger. (see appendix)

One 4D 12 volt lead acid genset starting bank (see appendix)

Two 4D 12 volt genset #2 starting bank

One lead acid marine 4D 12 volt wheelhouse electronics

Surge protector battery pack back-up in the wheelhouse

FINDING B-7

The 32 volt battery bank terminals are oxidizing. The terminals are uncovered and the batteries are not well secured in their covered box. The white attached wire's protective chaffing cover is at the end of serviceable life

The forward genset starting battery-box is not well secured in the tool bench locker

RECOMMENDATION

Investigate the 32 volt system further, and service, repair or replace as necessary.
Properly secure all the batteries.



Findings & Recommendations

DC ELECTRICAL/WIRING COMMENTS (ABYC E-11)

Appeared to be well supported and secured, where sighted, except as noted in the appendix

FINDING B-8

- The main engine alternator did not have protective terminal insulation covers installed.
- The forward genset starting battery has no over current protection at the smaller red wire (that I could determin

RECOMMENDATION

- Refit the terminal conductors, as necessary (no more than four terminals shall be secured to any one terminal stud. If additional connections are necessary, two or more terminal studs shall be connected together by means of jumpers or copper straps).
- Verify the install of overcurrent protection were appropriate, as necessary.

AC ELECTRICAL POWER OUTLETS

There are no GFCI protected outlets on the boat

FINDING B-9

There were no GFCI protected AC outlets observed onboard.

ABYC E-11.13.3.5. If installed in a head, galley, machinery space, or on a weather deck, the receptacle shall be protected by a Type A (nominal 5 milliamperes) ground fault circuit interrupter

RECOMMENDATION

Replace with GFCI protected outlets, as necessary. (At least one GFCI outlet per circuit)



Findings & Recommendations

AC ELECTRICAL/WIRING COMMENTS (ABYC E-11)

Some exceptions were observed (see Findings Appendix).

FINDING B-10

The high voltage AC wiring junction box's protective insulation cover was missing at the RSW switch box

RECOMMENDATION

Install an approved junction box cover, as necessary.



GENERATOR COOLANT LEVEL

(Both) auxilliary generators Coolant Recovery Expansion Tanks appeared empty. (all of the three tanks)

FINDING B-11

The generator's Coolant Recovery Expansion Tank was nearly empty.

RECOMMENDATION

Top up reservoirs to the proper level and monitor, as necessary.

Findings & Recommendations

WATER FILL MARKING

Unmarked

FINDING B-12

The water tank fill's fitting was not labeled as "water".

RECOMMENDATION

Properly label the water fill fitting, as necessary.



WATER HEATER

Kenmore.

FINDING B-13

High voltage cover is removed

RECOMMENDATION

Replace the high voltage cover as needed

COMMENTS

The vessel's operator is responsible for determining what type of MSDs (marine sanitation devices) are prohibited & permitted by law in the location of the vessel's intended use.

FINDING B-14

The plumbing out from the toilet to the seacock with a check valve installed at the T does not make sense to me. I see no way for black water to enter the holding tank. What is the function of the pictured macerator pump downstream of the check valve? Operator must demonstrate the head black water discharge operation and a means to secure the blackwater tank via a diverter y-valve or simmilliar device

RECOMMENDATION

Trace, investigate and refit if needed. Demonstrate the operation to prove

Findings & Recommendations

ANTENNAS

The antennas appeared to be well mounted where sighted.

FINDING B-15

Sirious/XM antenna is loose and unsecured

RECOMMENDATION

Mount refinish or replace the antenna, as necessary.



U.S.C.G. NAVIGATION RULE BOOK (33 CFR 83) VESSELS OVER 39'4"

None seen The U.S.C.G. International and Inland Navigation Rule Handbook was not observed onboard. This official government rulebook is required on all vessels over 39'4" in length. Also known as Nav-Rules CG169, contains the International Regulations for Preventing Collisions at Sea, 1972 (72 COLREGS). 33CFR88.05

FINDING B-16

A U.S.C.G. International and Inland Navigation Rules Handbook was not observed onboard. This official government rulebook is required on vessels 12M or 39'4" and larger. Also known as Nav-Rules CG169, it contains the International Regulations for Preventing Collisions at Sea, 1972 (72 COLREGS).

RECOMMENDATION

When entering US waters south of the Straits of San Jaun De Fuca provide the latest version of the Navigation Rulebook to comply with USCG Regulations. Fine for non-compliance.

VESSEL SAFETY PLAN 46 CFR 28.265

Yes found in the vessel's safety notebook but not displayed

FINDING B-17

A safety plan was not posted as per 46 CFR 28.265 Except as provided in paragraphs (b) and (c) of this section, each vessel must have emergency instructions posted in conspicuous locations accessible to the crew.

RECOMMENDATION

If there are more than 4 people aboard and if the vessel operates outside the boundary line then the safety plan must be posted

Findings & Recommendations

BOARDING (JACOBS) LADDER 50 CFR PART 600, SECTIONS 730

None found

FINDING B-18

The vessel did not have an approved boarding ladder installed for safe boarding of the vessel by NOAA Enforcement Boarding Personnel or NMFS Observers. (A) Each pilot ladder must be capable of being rolled up for storage.

RECOMMENDATION

Provide: this requirement applies to vessels with a freeboard of greater than 4 feet. Also, when an authorized officer or observer personnel requests it, you must provide a "pilot ladder" to enable them to embark or disembark the vessel safely. You must also provide a manrope or safety line, and illumination for the ladder, when necessary to facilitate the boarding or when requested by boarding personnel. A "pilot ladder" (sometimes called a "Jacob's ladder") means a flexible ladder constructed and approved to meet the U.S. Coast Guard standards for pilot ladders as found in 46 CFR subpart 163.003 entitled Pilot Ladder

FIXED FIRE SUPPRESSION SYSTEM

Two (2) Carbon Dioxide Fixed Fire Suppression Tanks in the engine compartment. (ok on commercial boats) Automatic thermal and manual activation. Manual shut down buttons are in the companionway as are the blower on off switches. A system discharge indicator was not seen at the helm.

FINDING B-19

No engine/machinery shut down placard seen
No system discharge indicator at the helm

RECOMMENDATION

Intall a placard as required ABYC A 4.8.5.3.2 In case of engine compartment fire, shut down engine(s), generator(s), and blower(s) before manual discharge, or immediately after automatic discharge
A placard should be posted near the manual activation switch that states: Engine compartment is protected by a fire extinguishing system. Avoid inhalation of potentially toxic combustion byproducts. If fire extinguishing system discharge occurs, ventilate space before entering.
-ABYC 4.8.10.2 A system discharge indicator shall be provided at the helm for automatic systems

Findings & Recommendations

RIGGING CLEVIS PINS & COTTER PINS

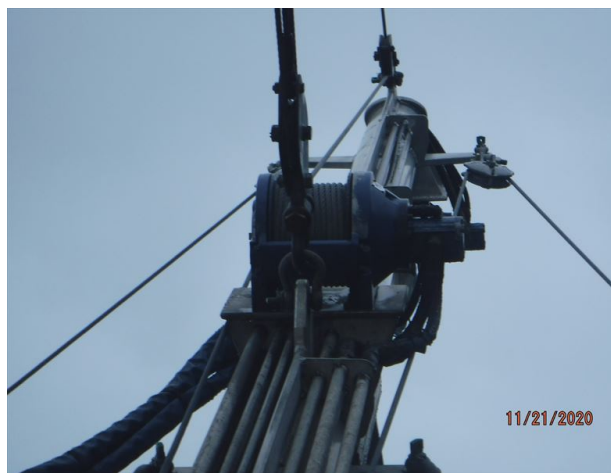
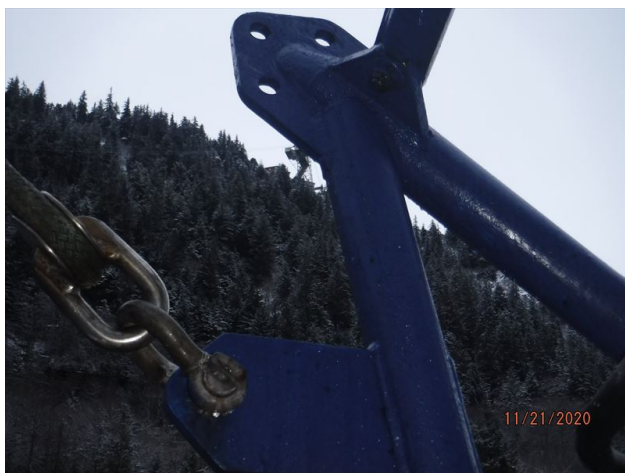
Appeared serviceable, galvanized, seized with stainless steel wire, except where noted

FINDING B-20

Some of the clevises are unprotected from unintentional loosening at the standing rigging. chapter 3-2 SHIP'S GEAR AND RIGGING PROCEDURES, part d safety and inspection sub part 4 mousing

RECOMMENDATION

Seize the pins closed with stainless steel wire



C: SURVEYOR'S NOTES & OBSERVATIONS

GENERAL HARDWARE CONDITION

No significant corrosion was observed on the vessel's hardware.

FINDING C-1

Missing stainless steel flat washer at the anchor cowl toggle bolt port side

RECOMMENDATION

Replace the washer to protect the fiberglass cowl from damage



Findings & Recommendations

WINDSHIELD

Tempered glass with teak frames and wipers

FINDING C-2

The windshield wiper arms were removed.

RECOMMENDATION

Replace the wiper arms and test/prove, as necessary.

COUNTER TOPS

Dark blue Formica, serviceable

FINDING C-3

The Galley counter top was cracked at its port forward corner.

RECOMMENDATION

Repair/refinish or replace the counter top, as necessary.

PROPELLER SHAFTS

Appears to be steel, shaft measured 3.5" aft of the intermediate bearing the shaft is stainless steel and measures 4"

FINDING C-4

The steel shaft is exhibiting high levels of oxidation

RECOMMENDATION

Investigate further, and address as necessary.

BONDING SYSTEM (ABYC E-2 & E-11)

No bonding system was installed. It is recommended that a bonding system be installed, connecting all underwater exposed metals to the vessel's bonding system to help minimize electrolytic corrosion from stray current and enhance lightning protection.

FINDING C-5

An underwater metal bonding system was not installed.

RECOMMENDATION

It is highly recommended that a vessel bonding system be installed, connecting all underwater exposed metals to the bonding system, to help minimize electrolytic corrosion from stray current and enhance lightning protection, as necessary (ABYC E-2 & E-11).

Report Summary

HIN (HULL IDENTIFICATION NUMBER) COMPLIANCE (33 CFR 181)

The vessel's HIN (Hull Identification Number) displayed on the starboard transom did not match the HIN recorded with U.S.C.G. Documentation. The federal Documentation lacks the Hull ID. It is likely that a HIN was never imprinted by Delta, and that the number pictured below is a Hull Number (HN) only

FINDING C-6
The surveyor could find no HIN
RECOMMENDATION
INVESTIGATE FURTHER and inscribe and document as per 33 CFR 181

Read the USCG pamphlet Federal Requirements for Commercial Vessels as found on the web site Fish safe west [Http://fishsafewest.info/PDFs/FederalRequirementsforCommercialFishingVessels_2009.pdf](http://fishsafewest.info/PDFs/FederalRequirementsforCommercialFishingVessels_2009.pdf). You can generate the safety (dockside exam) checklist per unit to your particular vessel. Download it from www.fishsafewest.com recommended

Report Summary

SUMMARY

VESSEL CONDITION

It is the Surveyor's experience that develops an opinion of the OVERALL VESSEL RATING OF CONDITION, after the Survey has been completed and the findings have been organized in a logical manner.

The grading of condition developed by BUC RESEARCH and accepted in the marine industry for a vessel at the time of Survey, determines the adjustment to the range of base values in the BUC USED BOAT PRICE GUIDE for a similar vessel sold within a given time period, as a consideration to determine the Market Value.

The following is the accepted Marine Grading System of Condition:

"EXCELLENT (BRISTOL) CONDITION", is a vessel that is maintained in mint or bristol fashion (usually better than factory new, loaded with extras, a rarity).

"ABOVE AVERAGE CONDITION", has had above average care and is equipped with extra electrical and electronic gear.

"AVERAGE CONDITION", ready for sale requiring no additional work and normally equipped for her size.

"FAIR CONDITION", requires usual maintenance to prepare for sale.

"POOR CONDITION", substantial yard work required and devoid of extras.

"RESTORABLE CONDITION", enough of hull and engine exists to restore the boat to usable condition.

As a result of the Survey, as shown in the REPORT OF MARINE SURVEY & FINDINGS AND RECOMMENDATIONS sections of this report and by virtue of my experience, my opinion is:

AVERAGE

Report Summary

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.

Estimated Fair Market Value is determined using a cross reference of data from Dockstreet Brokers, Alaska Boats and Permits, and GSI Boats. other online sales listings or dealers, most notably brokers dealing in Alaskan or pacific northwest fishing vessels i.e Ebay motors I lean most heavily on the first four online sources. Next I rely on my personal knowledge of recent sales. Adjustments are made for condition and related (fishing) equipment. IN THE CASE OF THIS VESSEL I LISTED THE COST OF THE CHARTER SHED IN THE BODY OF THE SURVEY , BUT IT IS NOT INCLUDED IN THE OVERAL FAIR MARKET VALUE. THE FAIR MARKET VALUE IS THE BOAT, SEINE SKIFF AND DECK MACHINERY ONLY. The Estimated Market Value is for the vessel in its condition on the date or dates of the Survey, prior to any repairs or maintenance.

<https://dockstreetbrokers.com/vessels/se19-013>

<https://dockstreetbrokers.com/vessels/se19-017>

After consideration of the reliability of the data, the extent of the necessary adjustments and condition of the vessel, it is the Surveyor's opinion that the "FAIR MARKET VALUE" of the subject vessel is:

\$1,100,000

One Million, One Hundred Thousand US Dollars

Estimated Replacement Cost is determined using a cross reference of data obtained from Boat Dealers and other online resources.

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. The "ESTIMATED REPLACEMENT COST" of the vessel is:

\$3,500,000

Three Million, Five Hundred Thousand US Dollars

SUMMARY

In accordance with the request for a Marine Survey of the "F/V: Artaios", 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 Inspected on November 21-22, 2020. Subject to correction of deficiencies listed in sections A and B, the vessel is considered to be reasonably suitable for its intended use. Other deficiencies listed should be attended to in keeping with good maintenance practices or as upgrades.

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 stipulated 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.
Inspected on November 21-22, 2020

Scott Heitman, Marine Surveyor

A handwritten signature in blue ink that reads "Scott Heitman". The signature is written in a cursive style and is positioned above a horizontal line.

Inspected on November 21-22, 2020