KEISER MARINE

SURVEYING AND CONSULTING

1995 Nordic Tug 32

Wee Leda

Keiser Marine - AMS Member of Society of Accredited Marine Surveyors

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Report of Marine Survey

Of The Vessel

Wee Leda

1995 Nordic Tug 32

Conducted by
Jeff Keiser, SAMS AMS

Prepared exclusively for Alex McEachern

February 22, 2024

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I. INTRODUCTION

SCOPE OF SURVEY

Acting at the request of Alex McEachern, a survey was performed on the motor vessel "Wee Leda," a 1995 Nordic Tug 32 on February 22, 2024 at Alameda, CA. The vessel's owner and papers were on board at the time of the survey. The Hull Identification Number (HIN) was observed on the transom and appears in a photograph on page six. The vessel was inspected at the dock and a sea trial was performed. An out-of-the-water inspection of underwater machinery and the exterior of the hull's wetted surface area was also performed. The reason for the survey was to ascertain the physical condition and value of the vessel for potential sale of the vessel. AC and DC power were used to check operation of the electrical systems specified in this report. No reference or information should be construed to indicate evaluation of the internal condition of the engine or propulsion system's operating capacity. Electronic equipment was checked for power up functionality only.

This vessel was surveyed without removal of any parts, such as fittings, screwed or nailed boards, anchors, chain, fixed partitions, instruments, clothing, spare parts or miscellaneous materials in bilges and lockers and or any other fixed or semi-fixed items. Inaccessible areas also precluded inspection. Further, no determination of stability characteristics or inherent structural integrity has been made and no opinion is expressed with respect thereto. This survey report represents the condition of the vessel on the above date and is the unbiased opinion of Jeff Keiser, but it is not to be considered an inventory or a warranty either specified or implied.

NOTE: During the course of this survey, the engine was started and loaded during the sea trial but it is understood that the vessel's Cummings diesel engine was not surveyed by a certified marine engine mechanic to determine the comprehensive condition of the engine's gears, bearings, fuel system, pumps, etc. The mechanical wear or potential longevity of the engine was not determined and no opinion is established within this report.

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

I. INTRODUCTION

DEFINITION OF TERMS

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

APPEARS: Indicates that a very close inspection of the particular system, component or item was not possible due to constraints imposed upon the surveyor (e.g. no power available, inability to remove panels, or requirements for nondestructive testing). The deficiencies reported herein reflect the conditions observed at the time the survey was conducted.

FIT FOR INTENDED SERVICE: Service for which it was designed and manufactured by the naval architect and or builder.

FIT FOR INTENDED USE: Use which is intended by survey purchaser (present or prospective owner).

SERVICEABLE: ADEQUATE: Sufficient for a specific requirement.

POWERS UP: Power was applied only. This does not refer to the operation of any system or component unless specifically noted.

EXCELLENT CONDITION: New or like new.

GOOD CONDITION: Nearly new, with only minor cosmetic or structural discrepancies noted.

FAIR CONDITION: Denotes that system, component or item is functional as is with minor repairs and maintenance needed.

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

USE OF ASTERISKS *: in the body of the report will indicate that a finding will be listed in the Findings and Recommendations section pertaining to the asterisked item, following the body of the report.

I. INTRODUCTION

VESSEL DESCRIPTION

This 1995 Nordic Tug 32 is a Lynn Senour design built by Nordic Tug, Burlington, WA. As reported by the manufacturer, the hull construction is solid fiberglass with cored decks and cabin top. The hull is a heavy built trawler design with hard chines, shallow keel and attached swim platform. The cabin sleeps four with a private head/shower, galley and pilothouse. The Wee Leda is powered with a Cummins 210 hp diesel engine with 1445 reported hours.

Prepared exclusively for Alex Mceachern

II. GENERAL INFORMATION

GENERAL INFORMATION

FILE NUMBER:		**1995Nordictug3202222023**
NAME OF VESSEL:		**Wee Leda**
TYPE OF SURVEY:		**Condition and Value**
OVERALL VESSEL RATING:	***	**ABOVE AVERAGE**
[redacted]		[redacted]
ESTIMATED REPLACEMENT COST:		**$960,000.00**
YEAR/MAKE/MODEL OF VESSEL:		**1995 Nordic Tug 32**
DESIGNER/BUILDER:		**Lynn Senour design built by Nordic Tug, Burlington, WA**
HULL IDENTIFICATION NUMBER (HIN):		**NTK50079B595**
HAILING PORT:		**Alameda, CA**
USCG DOCUMENTATION NUMBER:		**1227983**
OWNER:	**	**Alex Mceachern**
PLACE OF SURVEY:		**Alameda, CA**
DATE OF SURVEY:		**February 22, 2024**
HULL MATERIAL:	*	**Fiberglass**
HULL TYPE:	*	**Full displacement with keel and skeg mounted rudder**
LENGTH OVER ALL (L.O.A):	*	**34' 2"**
BEAM:	*	**11'**
DRAFT:	*	**3' 9"**
DISPLACEMENT:	*	**16,000 lbs dry weight**
PROPULSION SYSTEM:		**Single Cummins diesel engine**
SURVEY PREPARED FOR:		**Alex Mceachern**

II. GENERAL INFORMATION

INTENDED USE: . . . . . ** **Recreational near shore cruising**

INTENDED CRUISING AREA: . . . . . ** **California near shore waters**

(Asterisks denote source of information):

*** Per Manufactures Specifications**

**** Per Owner of Vessel**

***** Per BUC Book**

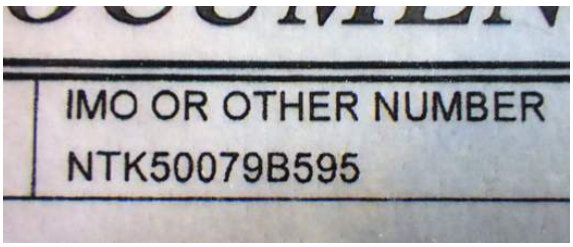
III. SYSTEMS

HULL DECK AND SUPERSTRUCTURE

HULL COMPOSTION AND STRUCTURE:

HIN (HULL IDENTIFICATION NUMBER):
NTK50079B595

HIN at hull



HIN

HULL TOP SIDE CONDITION:

According to the manufacturer, this 1995 Nordic Tug 32 was laid up with a solid fiberglass hull. She has a trawler shaped hull with hard chines, shallow full length keel and skeg hung rudder. The owner created the HIN, Hull Identification Number stamped within a stainless steel plate at the transom because the manufacturer gelcoat stamp was un-readable. The owner utilized the The US Coast Guard Documentation HIN number.

The transom is provided a fiberglass swim platform supported by stainless steel brackets. The swim platform was reported by the owner to have been renewed in 2020 and is found in good condition. The transom has a door midships that leads to the swim platform.

The topsides are green gelcoat with a white boot stripe at the waterline and a broad white stripe below the cap rail. The topsides have faux plank seams with green gelcoat. The gelcoat is found in good condition with minor scratches and chips. The owner reported that he would be repairing gelcoat scratches and chips once the boat was returned to its slip after the boat yard bottom painting. The topside's are free from impact damage. Hull length black rub rails are found at the cap rail and below the sheer.

In general, the topsides and swim platform are found in good condition.

Bow to port

Port side

HULL DECK AND SUPERSTRUCTURE

HULL COMPOSTION AND STRUCTURE:*(continued)*

HULL TOP SIDE CONDITION: ***(continued)***

Port quarter

Bow to starboard

Starboard side

Starboard quarter

Transom

Starboard quarter gelcoat

HULL DECK AND SUPERSTRUCTURE

HULL COMPOSTION AND STRUCTURE:*(continued)*

HULL TOP SIDE CONDITION: ***(continued)***

Deck gelcoat chip

BULKHEADS/STRINGERS:

The bulkheads are marine plywood either stained teak, covered in white Linoleum or upholstered in the V-berth. The bulkheads show no sign of damage or wear where visible. The stringers are wood encapsulated in fiberglass and were visible in the engine room and steering compartment. The bulkheads and stringers are bonded to the hull with fiberglass tabbing and show no sign of damage where accessible.

In general, the bulkheads and stringers are found in good condition.

BILGE:

The bilge aft of the engine is found with approximately 1" of water beneath the ability of the bilge pump to pick up. The engine room and steering compartment bilges are dry and clean.

HULL DECK AND SUPERSTRUCTURE

EXTERIOR CONSTRUCTION/CONDITION:

DECK AND CABIN TOP DESIGN/CONDITION:

The 1995 Nordic Tug 32 has molded fiberglass decks, gunwales and cabin top cored with an unknown material. The decks are white gelcoat with non-skid surface. New non-skid surfaces appear to have been applied to various parts of the decks.

The decks, caprails, cabin top and pilothouse roof were percussion tested with a phenolic hammer at 6"- 8" intervals and found to be free from delamination. The foredeck is provided an Ideal 12 volt windlass and salt water wash down system. The windlass main breaker is found at the helm and functioned from the foredeck foot buttons and the helm switch, in both directions when tested. The wash down pump powered up and produced sea water when tested. The 1995 Nordic Tug 32 has side decks with functioning teak pilothouse sliding doors. A lower aft deck has gunwales and functioning transom door. The lower aft deck has a fiberglass/white gelcoat locker to port that stows the propane system. An aft deck lazarette hatch is found midship that gives access to the steering compartment and provides storage. The owner built a protection barrier out of stainless steel and teak to prevent stowed items from interfering with the steering components. The owner provided compression struts and new seals for the aft deck locker and the lazarette hatch. A varnished teak companionway hatch is found to starboard and a stainless steel ladder gives access to the aft upper deck.

The upper aft deck is provided 1" stainless steel hand rails firmly attached to the deck. The pilot house roof supports three mounted solar panels, the radar external mount, life raft and the electric horns. All exterior teak is varnished and found in good condition.

In general, the decks, cabin top and exterior pilothouse are all found in good condition.

Foredeck

Windlass

HULL DECK AND SUPERSTRUCTURE

EXTERIOR CONSTRUCTION/CONDITION:*(continued)*

DECK AND CABIN TOP DESIGN/CONDITION: ***(continued)***

Cabin top

Port pilothouse door

Starboard pilothouse door

Lower aft deck

Aft deck companionway

Aft deck locker

HULL DECK AND SUPERSTRUCTURE

EXTERIOR CONSTRUCTION/CONDITION:*(continued)*

DECK AND CABIN TOP DESIGN/CONDITION: ***(continued)***

Custom steering guard

Upper aft deck

Pilothouse roof

HULL-TO-DECK JOINT

HULL-TO-DECK JOINT TYPE/CONDITION:

The hull has an inward turning flange for the deck joint. The deck is thru-bolted approximately every 4'' with stainless steel fasteners through the rub rail and sealed with an unknown material. The hull-to-deck joint shows no sign of damage or water intrusion where sighted externally, in the steering compartment or the engine room.

DECK FITTINGS

PULPIT, STANCHIONS, LIFELINES AND HANDRAILS:

The bow pulpit, side rails, aft deck rails, aft deck ladder and their stanchions are 1" stainless steel and found firmly through bolted to the gunwale and decks. The lifelines within the upper aft deck railing are found in good condition. The teak hand holds are properly secured to the pilothouse.

CABIN APPOINTMENTS

INTERIOR DESCRIPTION:

SALON/CABIN LAYOUT:

The interior of Wee Leda is accessed from the aft deck through the teak companionway dual doors or from sliding teak doors to port and starboard in the pilothouse. All doors are vanished and found functional. The aft deck companionway doors lead down steps to reveal the salon. An L-shaped settee with teak table is found to port with storage found beneath. The owner reports that he custom built the settee teak table to replace the original Linoleum topped table. The custom table pedestal can be lowered to create a double berth and is hinged to allow the salon sole hatch to open. Opposite to starboard in the salon is a custom teak table that folds out to provide a second dinette. This dinette utilizes two ice chests as seats with upholstered cushions. An instrument cluster was added aft in the salon with clock, temperature and barometric pressure.

Forward in the salon is the galley with stainless steel sink, microwave and 110 volt refrigerator with front accessed door. The original propane stove has been removed and cooking is now provided by a propane BBQ mounted to the lower aft deck rail. The BBQ was not tested but all other appliances functioned when tested. The refrigerator door is supplied with a custom teak handle and the galley cabinetry is provided a pin to secure the sliding doors while underway.

Forward and up a teak steps is the pilot house with the helm to starboard and large bench seat with foot rests behind. The pilot house has 11 windows that afford excellent visibility with three functioning windshield wipers forward. An instrument cluster was added aft in the pilothouse with clock, temperature and barometric pressure. Newly added, above the helm is a searchlight control. The search light is also operated by a remote control. At the helm dash is a switch to power a newly added bow and stern thruster remote control. Also, a bilge pump cycle meter with alarm cluster was added to the helm. The owner reported that the throttle/shifter was renewed. All elements of the helm functioned when tested.

Forward of the pilot house, down teak steps is the head/shower to starboard. The head has a functioning Vacuflush toilet, vanity sink and separate shower stall. A custom toilet operation panel allows a choice of flushes with fresh or salt water. A custom teak grating was added to the head sole. Opposite the head within cabinetry is an organized ship's library with operation manuals. All the way forward is the V-berth. Storage is found beneath the berth with all back up equipment divided into separate storage bags. A custom ventilation electrical panel is mounted above the berth. Access to the anchor locker is found behind a hatch door forward in the V-berth.

The salon, V-berth and pilothouse upholstery is green and white vinyl, all found in good condition. The galley, salon, pilothouse and V-berth cabinetry have varnished solid teak trim and teak doors found in good condition. The headliner is cream colored vinyl with no stains or damage. The salon and pilothouse lighting has been upgraded to accommodate red lighting to assist with night vision. A set of night vision binoculars were added to the navigational equipment. The owner reports that the interior sole was originally carpeting over plywood. The entire interior sole has been renewed with a custom teak and holly sole. The upholstery, teak and holly sole and teak tables were reported by the owner to have been new in 2021. The vessel is not equipped with air conditioning. Heat is provided by a ducted diesel heater dependant on the engine's cooling system that functioned when tested.

The interior is ventilated with two opening hatches, four round plastic port holes and three sliding windows. The portholes and sliding windows all function. Water stains but no damage are found to the teak beneath the salon windows. Custom fans are found in the V-berth, pilothouse and head to provide cross ventilation. The general condition of the interior is good with substantial upgrades. The cabin spaces are well maintained with good house keeping.

CABIN APPOINTMENTS

INTERIOR DESCRIPTION:*(continued)*

SALON/CABIN LAYOUT:***(continued)***

Salon wide

Salon dinette/double berth

Dinette hinged up

Custom dinette table

Galley

Galley cabinet pin

CABIN APPOINTMENTS

INTERIOR DESCRIPTION:*(continued)*

SALON/CABIN LAYOUT:***(continued)***

Salon instruments

Upgraded salon lighting

Pilothouse

Pilothouse settee

Pilothouse added instruments

Helm

CABIN APPOINTMENTS

INTERIOR DESCRIPTION:*(continued)*

SALON/CABIN LAYOUT:***(continued)***

Helm controls

Thruster controls

Thruster remote

Helm searchlight controls

Searchlight remote

Bilge pump counter/alarm

CABIN APPOINTMENTS

INTERIOR DESCRIPTION:*(continued)*

SALON/CABIN LAYOUT:***(continued)***

Upgraded pilot lighting

Night vision binoculars

Head

Head ventilation

Head sole

Ship's library

CABIN APPOINTMENTS

INTERIOR DESCRIPTION:*(continued)*

SALON/CABIN LAYOUT:***(continued)***

V-berth

V-berth CU

Bagged back up equipment

V-berth electrical upgrade

PROPULSION

MAIN ENGINES

ENGINE(S) TYPE AND CONDITION:

The 1995 Nordic Tug 32 is powered by a Cummins 6BT5.9-M, 6 cylinder diesel engine. The serial number is 45101873. The hour gauge indicates 1445.24 hrs run on the engine. The engine is cooled by a raw water heat exchanger and is equipped with a wet exhaust system and muffler with all hoses double clamped. The raw water strainer is visibly clean through the sight glass and double clamped. The engine oil reads full on the dipstick. The coolant level is full and the belts hoses and clamps are all found in serviceable condition.

The shaft is 1-3/4" stainless steel with no corrosion detected. The stuffing box was moist but did not leak when the shaft was not rotating.

The engine started easily with no unusually colored exhaust emitted. The throttle and transmission controls operated normally. The engine shifted smoothly into forward and reverse. No excessive vibration or sounds were produced from the engine at idle. All engine gauges appeared functional. **Slight engine oil leaks were sighted from the fuel pump attachment at the engine and at the aft valve cover gasket. No oil was found in the engine room bilge.** Engine maintenance records were organized and showed regular maintenance performed during the current ownership of the vessel, 2020 - 2023. The Alternator was documented as replaced in 2022. The alternator metered 13.33 volts charge while the engine was running.

The engine room is insulated with renewed acoustic foam, wires and hoses are orderly and well routed. The general condition of engine and engine room is good.

***C.1**

Slight engine oil leaks were sighted from the fuel pump attachment at the engine and at the aft valve cover gasket. No oil was found in the engine room bilge.

Diesel engine

Oil leak from fuel pump

PROPULSION

MAIN ENGINES *(continued)*

ENGINE(S) TYPE AND CONDITION: ***(continued)***

Oil leak from head

Stuffing box

TRANSMISSION GEAR:

The transmission is a Twin Disc MG-506 with no corrosion or linkage damage sighted. The transmission fluid was found full. No unusual sounds, leaks or vibrations were sighted during the operation of the transmission.

FUEL SYSTEM

MAIN ENGINE(S) FUEL SYSTEM

FUEL TANK(S):

The 1995 Nordic Tug 32 has one aluminum 200 gallon diesel fuel tank located forward within the steering compartment. No leaks or fuel odor were detected from the fuel system. Custom labels where attached to the fuel tank to indicate the level of the fuel through a sight gauge.

Fuel tank labeling

Fuel filters

FUEL SYSTEM

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

DIESEL FUEL LINES AND FILTERS:

All fuel lines are USCG appropriate fuel lines found in serviceable condition with serviceable clamps where sighted. The tank appears to be properly vented and grounded. The Racor fuel/water separator filters for the engine have no sediment or water in their sight bowls.

ELECTRICAL SYSTEMS

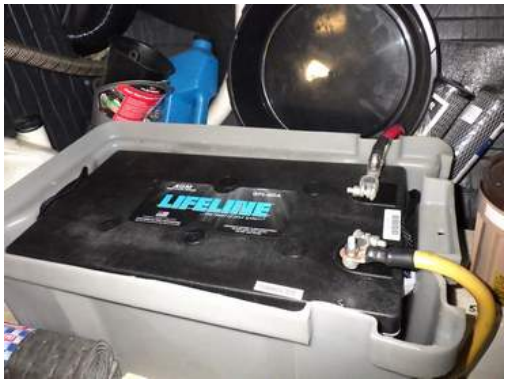
ELECTRICAL SYSTEM (D.C. SYSTEM)

BATTERY BANKS:

There are three separate 12 volt battery banks aboard the vessel. The first bank is dedicated to house loads and consists of two, 12 volt, 8D, AGM batteries. Each house battery is secured within a battery box, one found to port and the other to starboard outboard in the engine room.

The second battery bank is dedicated to starting the engine and consists of a single 12 volt, group 31, AGM battery. The engine starting battery is secured within a battery box forward to starboard in the engine room. The house batteries and the engine stating battery are controlled by custom labeled battery selector switches that allow the engine to start solely by the house or the starting banks or combined in parallel.

The third bank is secured within a battery box in the steering compartment. The third bank and is dedicated to powering the stern thruster and consists of a single 12 volt, group 27, AGM battery. All batteries were reported to have been renewed in 2020.



Port house battery

Starboarb house battery

ELECTRICAL SYSTEMS

ELECTRICAL SYSTEM (D.C. SYSTEM)*(continued)*

BATTERY BANKS: ***(continued)***

Engine starting battery

Stern thruster battery

Battery switch diagram

ELECTRICAL SYSTEMS

ELECTRICAL SYSTEM (D.C. SYSTEM)*(continued)*

DC ELECTRICAL PANEL/CHARGER:

The DC electrical main panel and custom sub-panel are located below the helm in the pilothouse. The main DC panel displays an amp meter. Overcurrent protection is provided by circuit breakers. All breakers are custom labeled with their correct loads.

The battery charger is a Magna Sine 30 amp model and charged all three battery banks at 13.77 volts when tested. The alternator amperage could not be determined but charged the battery banks at 13.33 volts when tested.

DC electrical panel

Battery charger/inverter

ELECTRICAL SYSTEMS

ELECTRICAL SYSTEM (D.C. SYSTEM)*(continued)*

DC CONDUCTOR ROUTING/SUPPORT/CUSTOM WORK:

All DC conductors are marine grade stranded copper wire found well bundled and supported where sighted. Numerous upgrades have been performed to the electrical system. A custom electrical panel has been added to the helm to control navigation lights, windshield wipers, bilge pumps and windlass function. Custom panels were added in the V-berth and pilothouse to monitor battery function and to charge devices via 12 volt outlets and USB inlets. All DC conductors are well routed and labeled with their loads. The conductors sighted within the helm, behind the electrical panels are all organized and accessible.

A custom water gauge has been added to the pilothouse dashboard. The gauge was modified by the owner to give accurate water measurement readings of the water tank to compensate for its unusual shape. All interior lighting has been upgraded to LED bulbs. All new electrical work as been installed and labeled with professional quality.

Helm dash

DC electrical sub-panel

Custom V-berth panel

Custom pilothouse panel

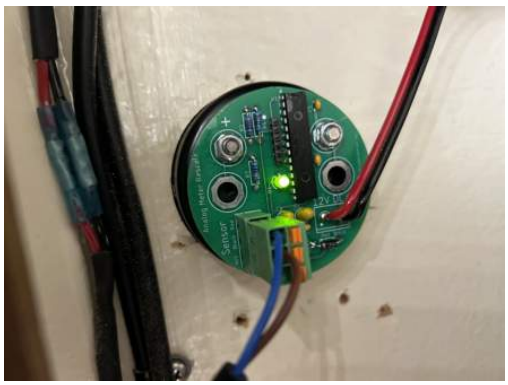
ELECTRICAL SYSTEMS

ELECTRICAL SYSTEM (D.C. SYSTEM)*(continued)*

DC CONDUCTOR ROUTING/SUPPORT/CUSTOM WORK:***(continued)***

Helm wiring

Custom water tank gauge



Custom chip for water gauge

ELECTRICAL SYSTEMS

ELECTRICAL SYSTEM (A.C. SYSTEM)

AC ELECTRICAL SYSTEM:

The AC electrical panel is found to starboard in the pilothouse. The AC panel main breaker is a single throw switch with power indicator and reverse polarity lights. Overcurrent protection is provided by circuit breakers. All AC outlets are GFCI protected. All AC conductors are marine grade stranded copper wire found well bundled and supported where sighted. The 30 amp shore power connections and shore power cable are found in serviceable condition.

AC electrical panel

Shore power cable

GENERATORS AND INVERTERS

INVERTER AND SOLAR CHARGER TYPE AND CONDITION:

The vessel is equipped with a 2000 watt Magna Sine battery charger/inverter. The inverter was tested and provided power to the vessel's AC electrical loads . The vessel is equipped with a solar array and controller system. Three 150 watt solar panels are reported by the owner to produce a 30 amps charge to a Tri-Star solar controller. The solar panel system created 14.6 volts at 301 watts to all battery banks on a clear, sunny day with the sun at 10am elevation.

Solar panels

Solar charge controller

FRESH WATER SYSTEM:

POTABLE WATER TANKS/PLUMBING:

FRESH WATER STORAGE TANKS/PLUMBING:

The vessel has an 100 gallon fresh water capacity reported by the manufacturer to be held in a single tank. The tank is secured under the salon sole. Pressurized potable water is plumbed to the galley and head sinks as well as the shower. The shower is equipped with a sump pump that functioned when tested. Hot water is provided by a 110 volt tank that produced hot water to all sources. No leaks were detected in the freshwater system. All hoses and clamps are found in serviceable condition where sighted.

SANITATION

SANITATION (BLACK WATER)

MSD TYPE AND CONDITION:

The marine sanitation device (MSD) on the Wee Leda is a U.S.C.G. Type III (holding tank). The holding tank is polyethylene and found secured to starboard in the engine compartment. The holding tank is reported by the manufacturer to have a 30 gallon capacity. All sewage hoses and clamps appear to be serviceable. The owner reported that a 90 degree elbow was renewed with a clear reinforced hose to remove any flow restrictions. The tank services a single Vacuflush toilet and is plumbed to only discharge to the holding tank. A custom flush electrical panel was provided to the head to change from sea to fresh water, adjust the flow rate and to monitor the holding tank level.

The holding tank has a separate through hull for overboard discharge with a macerator pump. The MSD discharge seacock is found closed. All plumbing and wiring for the electric head were reported by the owner to have been renewed in 2020. No sewage smell or leaks are evident around the holding tank or in the head.

Upgraded head plumbing

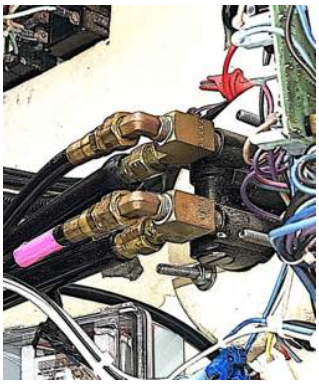
Custom head controls

STEERING SYSTEM

STEERING SYSTEM

TYPE/CONFIGURATION AND CONDITION:

The vessel is steered by a hydraulic ram arm system connected to the single rudder shaft. The hydraulic pump at the helm wheel, ram arm piston, hoses and mounts and are all found in serviceable condition. No hose wear or leaks were detected within the hydraulic steering system. The rudder packing gland is found in serviceable condition. A functioning rudder position indicator gauge was found at the helm and was reported by the owner to have been installed in 2021.



Helm steering pump

Rudder packing gland

ADDITIONAL STEERING EQUIPMENT:

The vessel is also equipped with 12 volt Side Power bow and stern thrusters with controls at the helm station and a remote. Both electric thrusters functioned when tested.

GROUND TACKLE

GROUND TACKLE

ANCHOR/RODE/WINDLASS/GIPSY/CLEATS:

The vessel is equipped with a galvanized 35 lb Naval anchor mounted to the bow roller. The rode consists of galvanized chain and nylon three strand anchor line of undetermined lengths. The anchor and rode appear to be properly sized for the vessel. A spare Danforth anchor with chain and nylon rode was found in the steering compartment.

The vessel is equipped with a bronze Ideal 12 volt electric windlass with proper sized gypsy to match ground tackle chain. The windlass is operated by functioning weather protected foot buttons located on the foredeck and by a toggle switch at the helm. A master breaker for the windlass is found below the helm. The windlass functioned in both forward and reverse when tested from both controls and the remote. There is a bronze Sampson post found secured at the foredeck. Six, 8" bronze cleats are securely through bolted to the gunwale.

ELECTRONICS AND NAVIGATION EQUIPMENT

ELECTRONICS AND NAVIGATION EQUIPMENT

SHIP'S ELECTRONICS/NAVIGATION EQUIPMENT:

Type:	Make:	Model:	Functional:
VHF	Icom	IC-M504	Powered up
VHF handheld (4 units)	Standard/Horizon	HX210	Powered up
Compass	John E Hand	Copper dash	Functioned
Auto pilot	Garmin	GHC10	Powered up
GPS plotter/AIS	Garmin	GPSMap4212	Powered up
Radar	Garmin	24 mile	Powered up
Depth/ speed	Autohelm	Tridata	Powered up
Rudder angle gauge	KUS	Dash gauge	Powered up
DC electrical system monitor	Blue Seas	Volt/Amp meter	Powered up

ELECTRONICS (ENTERTAINMENT)

ENTERTAINMENT ELECTRONICS TYPE AND CONDIDTION:

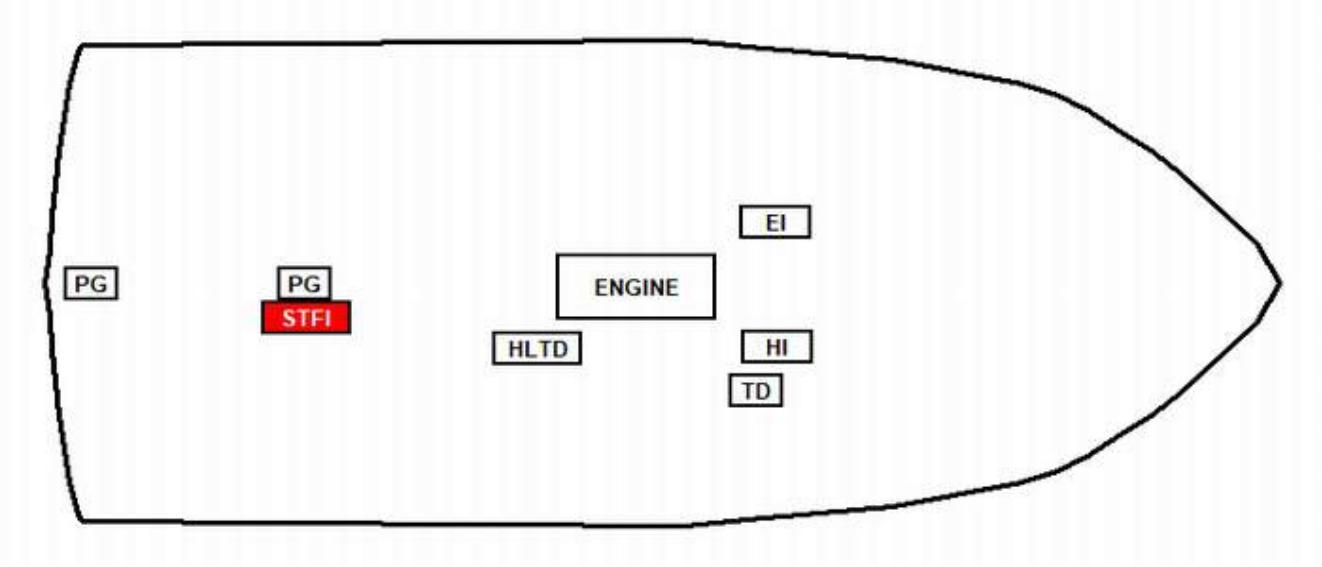
The vessel is equipped with a Jensen AM/FM, MP3/Compact Disc stereo that functioned when tested.

THRU-HULLS:

THRU-HULLS:

THRU-HULLS ABOVE WATER LINE (DIAGRAM):

THRU-HULLS BELOW WATER LINE (DIAGRAM):



Abbreviation	Description
EI	Engine Intake
ENGINE	Engine
HI	Head Intake
HLTD	Holding Tank Discharge
PG	Pkng Gland
STFI	Stuffing Box Intake
TD	Transducer

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

THRU-HULLS:

THRU-HULLS:*(continued)*

THRU-HULLS NOTE:

All below the water line seacocks are bronze but not connected to the ship's bonding system. A conventional stuffing box has renewed the dripless stuffing box. The dripless stuffing box intake seacock has been plugged. The head intake seacock also supplies water for the foredeck wash down system. All hoses, clamps, deck fittings and seacocks are found in serviceable condition, where accessible.

BONDING SYSTEM

BONDING SYSTEM

BONDING CONDUCTORS:

It appears that there is not a proper main bonding conductor on the vessel connected to underwater metals. Bonding and Lighting protection are a matter of individual interpretation of the principals involved. The ABYC suggests bonding all metallic below waterline thru-hull fittings and to construct a Cone of Protection for lighting protection. See Bonding section in the ABYC section E-1& E-4-6d.

SAFETY EQUIPMENT

SAFETY EQUIPMENT (UNITED STATES COAST GUARD)

PFD (PERSONAL FLOATATION DEVICE) TABLE:

Floatation Device Type:	Number:	Location:
Type III custom PFDs	4	Salon
Type III (regular)	2	Salon
Typle III (child)	2	V-berth
Type IV (throwable)	2	Aft deck/pilothouse

SAFETY EQUIPMENT

SAFETY EQUIPMENT (UNITED STATES COAST GUARD)*(continued)*

PERSONAL FLOATATION DEVICE NOTE:

The custom type III PFD's aboard the vessel are each equipped with a whistle, waterproof positioning lights and functioning submersible VHF marine radios in their pockets.

Type III PDF with upgrades

FIRE EXTINGUISHERS:

Fire Extinguisher:	Location:	Size:	Gauge:	Serviced
Dry Chemical B:C	Salon	1	Pressurized	10/2023
Dry Chemical B:C	Pilothouse	2	Pressurized	10/2023

FIRE EXTINGUISHER NOTE:

All three of the fire extinguishers have current inspection tags and are mounted at the three exits of the boat.

VISUAL DISTRESS SIGNALS:

Several VDS (visual distress signals) were found aboard the vessel with expiration dates of December, 2026 and January, 2027. The expiration dates meet USCG requirements.

NAVIGATION LIGHTS:

All appropriate navigational lights are present on this vessel and they all powered up.

COAST GUARD REQUIRED PLACARDS:

An approved Coast Guard "Trash Disposal" placard was found in the galley and a Coast Guard approved "Oil discharge Prohibited" placard was found in the engine compartment.

SOUND DEVICES:

A functioning electric horn is found at the helm. Two tested air horns were found in the pilothouse.

SAFETY EQUIPMENT

SAFETY EQUIPMENT (UNITED STATES COAST GUARD)*(continued)*

SAFETY ALARMS:

The vessel is equipped with a high water bilge alarm. A single smoke CO detector is found under the companionway steps in the salon. A combo smoke/CO alarm was found in the pilothouse.

START-IN-GEAR PROTECTION:

The engine ignition controls are equipped with a start-in-gear protection that functioned when tested.

BOARDING LADDER:

The vessel is equipped with a boarding ladder at the swim platform that is accessible by a person in the water. The boarding ladder was reported to be new with the installation of the swim platform in 2020.

AUXILIARY SAFETY EQUIPMENT:

BILGE PUMPS:

A 12 volt DC bilge pump is found in the engine room bilge. The electric bilge pump functioned from the manual switch and the float switch. A custom operation light/alarm and cycle meter for the bilge pump is found at the helm.

LIFE RAFT:

The vessel is equipped with a Viking 6 person life raft secured to the pilothouse roof. The life raft has a current inspection date that requires the next service on 02/2027. The life raft is not equipped with a hydrostatic release device.

HEALTH SAFETY EQUIPMENT:

The owner has added health safety equipment to the vessel for the safety of his passengers. The following is a list of the equipment and its location on the vessel.

1.) A small easily accessible first aid kit is found behind the helm in the pilot house.
2.) A larger fully equipped first aid kit is found within the lower cabinetry opposite the head.
3.) An emergency medical oxygen supply tank is found mounted the the bulkhead below the V-berth.
4.) A self guided Defibrillator kit is found in the lower cabinetry opposite the head.

Pilothouse first aid

Large first aid kit

SAFETY EQUIPMENT

AUXILIARY SAFETY EQUIPMENT:*(continued)*

HEALTH SAFETY EQUIPMENT:***(continued)***

Medical oxygen

Defibrillator

OUT OF WATER INSPECTION

BELOW WATERLINE HULL/MACHINERY

HULL'S WETTED SURFACE AND MACHINERY CONDITION:

The Wee Leda was hauled out of the water by a hydraulic travel lift at Grand Marine boat yard in Alameda, CA. The bottom of the vessel was pressure washed to remove marine growth and allow a clear visual inspection. The bottom was repainted and inspected on 3/01/2024. No blisters were detected on the hull. The hull's wetted surface was percussion tested with a phenolic hammer at 6"x 8" intervals and found to be free from delamination. No play was detected in the rudder shaft bearings and no damage was detected in the rudder shoe. No impact damage was sighted to the stainless steel rudder.

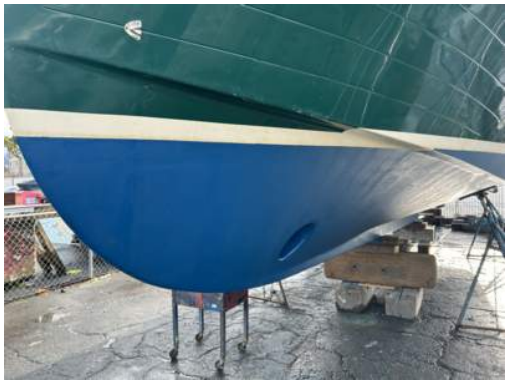
The engine shaft is 1-3/4" stainless steel with a stainless steel skeg and four blade bronze propeller. The shaft, skeg and propeller exhibit no impact damage. **Slight corrosion pitting was found on the tip of one propeller blade.** New anodes are attached to the shaft, rudder and skeg. The stern and bow thruster anodes were in the process of being renewed. No play was found in the cutlass bearing.

The below the waterline through hulls are bronze and protrude beyond the surface of the hull. No corrosion or damage was detected on the exterior surface of these through hulls. The swim platform is supported by stainless steel brackets through bolted to the hull. No corrosion was found on the support brackets.

In general, the hull's wetted surface is found in good condition.

***C.2**

Slight corrosion pitting was found on the tip of one propeller blade.



Wetted bow

Wetted Stern

Propeller and rudder

Propeller pitting

OUT OF WATER INSPECTION

BELOW WATERLINE HULL/MACHINERY*(continued)*

HULL'S WETTED SURFACE AND MACHINERY CONDITION: ***(continued)***

Bow thuster

Stern thruster

New shaft zinc

LIQUIFIED PETROLEUM GAS SYSTEM (LPG)

LIQUIFIED PETROLEUM GAS SYSTEM (LPG)

LPG TYPE/CONFIGURATION AND CONDITION:

A liquefied petroleum gas (LPG) system provides fuel for the rail mounted propane BBQ. One painted steel 20 lb LPG tank was found in a cabinetry locker on the aft deck. The vessel was originally equipped with a propane stove that has been removed from the vessel. All propane lines have been disconnected from the interior of the vessel. A functioning electric solenoid is connected to the vessel's original propane system.

The LPG tank and storage locker are found in good condition, plumbed to ABYC standards with no damage or corrosion sighted.

Propane BBQ

Propane system

SEATRIAL REPORT

INTRODUCTION

SEA TRIAL INTRODUCTION:

A sea trial was performed on "Wee Leda" on February 22, 2024 upon the Alameda estuary channel. The weather was clear with the wind blowing 5 knots and the sea state calm. The owner operated the vessel during the sea trial.

SEATRIAL REPORT

OBSERVATIONS

SEA TRIAL OBSERVATIONS:

The engine started easily without excessive cranking. No unusually colored exhaust was sited and the cooling exhaust water appeared adequate and normal. The engine instruments operated within normal operating limits at idle, cruising speed, and maximum throttle. The throttle and transmission controls operated normally. The engine shifted smoothly into forward and reverse. No excessive vibration or sounds were produced from the engine at idle to maximum RPM. Slight engine oil leaks were sighted but no active leaks were detected while the engine ran. No oil was found in the engine room bilge. The alternator metered 13.33 constant charge voltage while the engine was running. The stuffing box leaked approximately 3 drips per second while the shaft rotated. A custom stuffing box adjustment kit was found under the dinette in the salon.

The engine room is insulated with renewed acoustic foam, wires and hoses are orderly and well routed. The general condition of engine and engine room is good.

The engine's manufacturer recommended max RPM is 2500 - 2700 and the vessel reached 2700 RPM at full throttle. The steering, throttle and transmission operated normally. The vessel turned within 1-1/2 lengths of the boat at full rudder to port and starboard. No excessive vibration or leaks were detected from the engine and back down test was satisfactory. The engine reached 180 temperature after 45 minutes of operation and the alternator metered constant charge voltage while the engine was running. The stuffing box leaked approximately 3 drips per second while the shaft rotated.

The autopilot, GPS plotter, depth/speed, rudder angle indicator and radar all functioned when tested. In general, the vessel performed well under power.

Stuffing box

Stuffing box tool kit

IV. FINDINGS AND RECOMMENDATIONS

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

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

Deficiencies will be listed under the appropriate heading:

A. SAFETY DEFICIENCIES

B. OTHER DEFICIENCIES NEEDING ATTENTION

C. SURVEYORS NOTES AND OBSERVATIONS

A search of the BoatUS "Consumer Protection Database" database revealed no warnings on this particular model.

C. SURVEYOR'S NOTES AND OBSERVATIONS:

C.1 (PAGE 18) ENGINE(S) TYPE AND CONDITION:

FINDINGS	*RECOMMENDATIONS*
Slight engine oil leaks were sighted from the fuel pump attachment at the engine and at the aft valve cover gasket. No oil was found in the engine room bilge.	*These oil leaks are normal and minor for this engine. Investigate the engine oil leaks and seal where possible.*

C.2 (PAGE 34) HULL'S WETTED SURFACE AND MACHINERY CONDITION:

FINDINGS	*RECOMMENDATIONS*
Slight corrosion pitting was found on the tip of one propeller blade.	*The propeller blade pitting is less than 1/16" deep and is minor. The integrity and performance of the bronze propeller does not appear diminished. Closely monitor the condition of the propeller anode and renew if it becomes 50% wasted.*

V. SUMMARY AND VALUATION

STATEMENT OF OVERALL VESSEL RATING OF 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 my investigation, as shown in the **SYSTEMS AND FINDINGS AND RECOMMENDATIONS** section of this **REPORT OF SURVEY,** and by virtue of my experience, my opinion is:

OVERALL VESSEL RATING:

ABOVE AVERAGE

V. SUMMARY AND VALUATION

STATEMENT OF VALUATION:

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.

My analyses, opinions and conclusions were developed, and this report has been prepared in consideration of the Uniform Standards of Professional Appraisal Practice.

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.

Sources for valuation

[redacted]

V. SUMMARY AND VALUATION

[redacted] **''ESTIMATED REPLACEMENT COST''** of the subject vessel is:

$960,000

Nine Hundred Sixty Thousand Dollars

V. SUMMARY AND VALUATION

SUMMARY:

In accordance with the request for a marine survey of the Wee Leda 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 **February 22, 2024** and was found to be a well constructed, appointed and comfortable vessel. The owners of Wee Leda have been conscientious in their maintenance of the vessel, this can clearly be seen throughout the boat. No safety deficiencies were found aboard the vessel. Only minor observations were listed in section IV, C (SURVEYOR'S NOTES AND OBSERVATIONS). This vessel is considered to be suitable for its intended use of recreational, near shore boating. Any other deficiencies should be attended to as soon as possible.

V. SUMMARY AND VALUATION

SURVEYOR'S CERTIFICATION:

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

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

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

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

My compensation is not contingent upon the reporting of a predetermined value or direction in value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulate result, or the occurrence of a subsequent event.

I have made a personal inspection of the vessel that is the subject of this report.

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

Attending Surveyor: Jeff Keiser, SAMS, AMS

SIGNATURE: