Christian & Company
MARINE SURVEYORS

STANDARD SURVEY

Client: Removed for privacy Date of report: March 1, 2022

Current owners: Removed for privacy Our file #: 22 – 20374web

This inspection was performed upon the request of the client listed above on February 25, 2022 while the vessel was hauled at Safe Harbor Boatyard at Shelter Island and afloat at Kona Kai Marina slip XXX, San Diego, CA in clear and sunny conditions, and the listing broker, client, captain and Kells Manthei (undersigned surveyor) attended.

Scope of Services

The vessel was examined by surveyor and/or surveyor's agents from all accessible areas of the interior without removal of secured panels, destructive testing or disassembly. The hull bottom laminate, plating and/or planking was examined by percussion sounding and visual inspection only. No moisture content readings were taken, and no destructive testing was performed. The surveyor may have used a moisture meter if/when they deemed it useful or if specifically requested by client. Exterior hardware was visually examined for damage and drive components were tested by sight only. The inspection of engines, generators, machinery and related mechanical systems is not within the scope of this survey. Only a brief cursory inspection of the machinery was conducted, and no opinion of their overall condition was formed. Client shall retain the services of a qualified mechanic, engine surveyor or other expert to inspect such engine, generators, machinery and related mechanical systems. Tankage was inspected from visible surfaces only and no opinion was rendered as to their overall condition. On sailing vessels, the rig was not inspected aloft, nor were sails inspected unless they were visible during a sea trial. Client shall retain the services of a qualified rig surveyor or other expert to inspect sails, rigging and equipment. The electrical system was visually inspected where accessible, and electronic and electrical components powered only with permission of or in the presence of the vessel's owner or agent. No in-depth testing or examination of the electrical system or electric schematic was conducted. Specifications were taken from published sources, measurements if made, should be considered approximate. The recommendations are based on federal and state regulations, industry standards, and/or surveyor's own personal experience. The market value is based on research of available new/used comparable vessels, with consideration of geographic area where the vessel is located and reported sale prices where available. The surveyor will refer to and may reference CFRs, NFPA and ABYC recommendations (and/or other services) as the surveyor deems reasonable but not all regulations and recommendations will be applied nor should this report be relied upon as full compliance with the aforementioned entities. Every vessel inspection is different, and limitations may alter the scope of this survey, some limitations will be implied in the text of the report and some will be explicitly detailed. A Marine Survey Agreement which is reviewed and signed by the client details the terms governing this marine survey.

VESSEL DESCRIPTION

Builder:	Maxum	Doc. #:	Removed for privacy
Model/type:	4600 SCB / sedan	HIN:	Removed for privacy
Year:	1999 (model year)	Engines:	Two Cummins
Length:	45' 6" (46' to anchor roller)	Name:	Removed for privacy
Draft:	3' 10"	Hailing port:	San Diego, CA
Beam:	14' 3"	Weight:	40,000 (travel lift's scale)
* listing specifications		Dry weight:	30,400 lb. *

HULL & STRUCTURE

Keel & bottom: Molded fiberglass construction, unknown core, modified-V shape, single hard chine, three lifting strakes per side, partial keel, black anti-fouling paint

Topsides & transom: Molded fiberglass construction, unknown core, blue Awlgrip paint on hull sides, white vinyl boot stripe, white transom

Decks & superstructure: Molded fiberglass construction, unknown core, white gelcoat, molded nonskid deck surface

Deck hardware: Stainless steel bow rail with single lifeline, foredeck hatch, foredeck sun pad, transom door, stainless steel flybridge safety rail, opening portlights, stainless steel grab rails, sliding salon windows, fiberglass radar arch, three sets of cleats, full flybridge enclosure, anchor roller

Longitudinals/stringers: Fiberglass encased stringers, unknown core

Athwartships/bulkheads/frames: Plywood bulkheads

Layout/interior components: Flybridge cockpit motor vessel, center transom door, steps up to flybridge to starboard forward in the cockpit, helm center forward on the flybridge with bench seating on either side, generator accessed in the cockpit with a deck hatch, salon accessed with sliding door to port forward in the cockpit, sofa to starboard, engine room accessed with sole hatches in the salon, galley to port forward, steps forward in the salon lead down to the cabins, cabin to starboard includes bunk berths, head to starboard, cabin forward includes island berth and ensuite head

Bilge: Holding minimal water

Comments: The vessel was inspected while hauled and afloat. The hull bottom was visually inspected and randomly sounded. The hull bottom is in good structural condition. The antifouling paint is thin in several spots on the hull bottom. The hull sides and transom were visually inspected and randomly sounded. The hull sides and transom are in satisfactory – good structural and cosmetic condition, except where noted. The vessel has a slight starboard side list. The hull side discharge through hull fittings and the vent fittings are corroded. There is a scratch in the Awlgrip on the port side at the amidships cleat. There is a scratch in the starboard hull side in the Awlgrip at

the forward strap mark. There is rub / material transfer on the starboard side amidships above the boot stripe. The position of the bbq grill prevents opening the transom locker. The deck and superstructure were visually inspected and randomly sounded. The deck and superstructure are in satisfactory – good structural and cosmetic condition, except where noted. The gelcoat is thin above the port salon window. The second from top step to the flybridge is cracked. The deck hardware including safety rails, mooring devices and hatches was visually inspected and most hatches and the port lights were opened and closed. Overall the deck hardware is in satisfactory condition, except where noted. There is corrosion on the forward salon window frames and tracks. The foredeck hatch is crazed. The port portlights are crazed. The roller for the anchor roller is severely deteriorated and missing in the middle. The starboard anchor locker hatch's hinge is broken and the port hatch is "tight" to open and close. The screen door for the salon door does not close flush. The salon door does not latch and stay locked. The structural reinforcements including the stringers and bulkheads were visually inspected and randomly sounded. The structural reinforcements appear to not be in "as-built" condition. One salon sole support / joist (longitudinal support below the sole) is cracked and has a bolt repair, the starboard longitudinal support / joist is also cracked at the same area. The forward support strut for the port salon sole support / joist is not fastened in place. A sound difference was noted when percussion testing aft on the starboard sole support / joist. The bilge is holding water; the origin of the water is beyond the scope of this survey, however, water was seen flowing from below the water heater. There is fuel-water in the bilge forward in the engine room. The interior cabin spaces are neat, clean and orderly. The interior of the vessel is in good cosmetic condition, except where noted. The distribution panel's locker does not latch shut. The port locker latch in the salon is intermittent. The back panel is not installed in the forward locker in the starboard cabin. There are chips in the galley sole. This survey is not a mould inspection. The condition of the coring, in the hull, deck, and elsewhere as applicable, is beyond the scope of this inspection.

Summary: Satisfactory – Good

MACHINE SYSTEMS

Main engines: Two Cummins, port model 6BTA5.9-M3, starboard mode 6B (per tag), 370 h.p. @ 3,000 rpm

Engine application: Diesel, 6 cylinders, turbocharged, aftercooled, inboard

Serial Numbers: P – 45714941, S – 60709474

Transmissions: ZF, port tag missing, starboard model HSW 800 A2 – 2.0, ratios iA = 1.96, iB – 1.96, SN – 18 16708 G

External/peripherals: Suitable application, satisfactory installation

Engine controls: Double lever controls, push-pull cables, Glendenning engine synchronizer, single flybridge helm

Exhaust systems: Wet systems, flexible hoses, fiberglass water lift mufflers, aft hull side exhaust discharges

Propulsion gear/shaft logs: Dripless type seals, 2" diameter stainless steel propeller shafts, single bronze strut per side, bronze four blade 24 x 24 counter rotating propellers

Steering system/rudder ports: Hynautic hydraulic steering, single actuator, tie bar, bronze packing gland seals, bronze rudders, single helm

Ventilation: Natural and one blower

Generator: 8 Kw Westerbeke model 8.0BTD, engine serial number – 111319D808, generator serial number – 32977, in a sound box center in the lazarette, fiberglass water lift muffler, port aft hull side exhaust discharge

Through hulls & components: Bronze through hulls, bronze sea cocks and ball valves, bonded

Location of through hulls as visible: See chart

Seawater systems: Reinforced flexible hoses, double clamped connections

Bilge pumps: Unknown type submersible automatic located forward in the engine room, Rule 1100 submersible automatic located aft in the lazarette, one Johnson submersible automatic located in the forward of amidships bilge

Comments: The engines and transmissions were visually inspected and tested during a sea trial. The client intends to have the engines and transmissions inspected by a mechanic, please refer to the mechanical survey report for greater detail as to the condition of the machine systems. The engine hours were recorded as 669.5 to port and 651.4 to starboard at the start of the survey and 671.4 and 653.4 at its conclusion per the hour meters; the starboard engine is new and the hours are inaccurate (reportedly had approximately 3 hours at the start of the survey). Wide open throttle was recorded as 2,860 rpm and 2,865 rpm per the tachometers with a top speed of 20.4 miles per hour per the multifunction display in one direction in San Diego Bay in calm conditions. The external surfaces and peripheral components of the engines and transmissions appear satisfactory, except where noted. There is fuel below the port engine. There is corrosion on the port engine's heat exchanger. There is corrosion on the port engine's raw water pump. There is corrosion on the port engine's aftercooler. There is corrosion on the port engine's transmission oil cooler. There is soot on the starboard engine's exhaust lagging at the turbo. The starboard engine's exhaust hose to muffler has a crack and staining on the hose. The coolant light below the port engine's aftercooler leaked coolant. The engines' seawater hoses are aged. There is corrosion on the engine's transmission cooler. There is moisture on the bottom of the starboard engine's aftercooler. The engines' seawater intake hoses to the stringers are cracked. The port engine's voltmeter is intermittent. The engine controls functioned normally. The exhaust system is properly arranged and installed. The propulsion components including the propellers, propeller shafts, struts and shaft seals were visually inspected. The propellers were percussion tested and spun with a fixed object adjacent to the blades. The propeller shafts were manipulated in the struts and observed while underway. Overall the propulsion components are in satisfactory condition, except where noted. The port propeller shaft seal was seen leaking more water than the starboard. The

hoses on the propeller shaft seals are cracked and have rust stains. There is corrosion on both propeller shaft seals. The starboard propeller shaft was more difficult to turn than the port. The steering system was visually inspected and test operated. The steering system functioned normally. The engine room blower was energized. The generator was visually inspected, test operated and loaded. The generator functioned normally. There is corrosion on the generator's heat exchanger. The generator's exhaust hose to the muffler is cracked. The through hulls were visually inspected and the valves were manipulated. The through hulls are in satisfactory condition, except where noted. There is corrosion on the engines' seawater intake through hull fittings. There is corrosion on the raw water washdown's seawater intake through hull fitting. The seawater systems were visually inspected and most components were tested. Overall, the seawater systems are in satisfactory condition, except where noted. The starboard trim tab is missing and there is corrosion pitting on the port trim tab. The electric bilge pumps were energized with their float switches.

Summary: Satisfactory

TANKAGE

Fuel: 418 gallon total capacity in two (5052) aluminum tanks that are located on either side of the engine room

Fill & vent: Deck fill fittings are located on either side amidships, marked "diesel", USCG type A2 fill hoses (dated 1998), USCG type A1 vent hoses (dates not seen)

Feed & return: USCG type A1 hoses (dated 1998), Parker Racor fuel filters are located forward in the engine room, electric shut-off solenoid valves are on the filters

Water: 100 gallon capacity * in one plastic tank that is located below the inboard berth in the starboard cabin, deck fill fitting is located to starboard amidships, marked "water"

Holding: 75 gallon capacity * in one plastic tank that is located amidships in a locker inboard in the starboard cabin, deck fitting is located to starboard aft of amidships, marked "waste"

Comments: The fuel system including the tanks, fill, vent, feed and return lines was visually inspected as installed. Where visible the fuel system components are in satisfactory condition, except where noted. The fuel feed, fill and return hoses are dated 1998. We did not see dates on the fuel vent hoses. The condition and age of the fuel (and water) and the integrity of the tanks (fuel, water, holding) and hoses is beyond the scope of this survey. Please consider filling all tanks for a simple, practical test of their integrity. The water pressure system did not function normally. There is a freshwater leak at the water heater (water was seen flowing below the water heater). There is corrosion on the base of the water heater. The transom shower did not properly function. The starboard shower got pressure but did not dispense from the shower head. The heat exchange hoses for the water heater are cracked at the fittings on the water heater. Accuracy of tank level gauges is beyond the scope of this survey.

Summary: Satisfactory

ELECTRICAL SYSTEMS

AC system: 120 volt system, 50A 125V / 250V shore power cord, 50A 125 / 250V shore power inlet located in the starboard transom locker

DC system: 12 volt system, two Lifeline GPL – 8DA 12 volt AGM batteries in secured and covered boxes located to starboard aft in the engine room, one Lifeline GPL – 8DA 12 volt AGM battery in a secured and covered box located in the lazarette, battery switches are located in the starboard transom locker, two Powerstride PS24 SM 12 volt maintenance free batteries in secured and covered boxes located below the aft dinette bench seat

Wiring: Suitable multi-strand wires

Circuit protection: Main AC circuit breaker is located in the starboard transom locker, electrical distribution panel located to starboard forward in the salon at the aft dinette bench seat includes main and branch AC and DC circuit breakers, AC voltmeter, GFCI outlets

Comments: The electrical system including the shore power cord, shore power inlet, batteries, wiring, circuitry components and circuit protection equipment was visually inspected and most components were tested. Overall the electrical system is in satisfactory condition, except where noted. The spotlight did not move up or down. The stereo did not function in the FM mode. We were unable to energize the engine room lights. A lens is missing on one overhead light in the cockpit, one engine room light and the light in the compartment with the water heater. One overhead light is inoperative in the starboard head. Three cockpit courtesy lights are inoperative. One overhead light is inoperative in the salon. There are wing nuts on the bow thruster batteries and the starboard batteries in the engine room. No batteries have lock washers. The condition and age of the batteries is beyond the scope of this inspection.

Summary: Satisfactory

SAFETY AND LIFE SAVING

Portable fire extinguishers: Seven type B:C size I units located – below the port engine (manufactured 2008), aft in the salon behind the sofa (manufactured 2001), in the port salon locker (manufactured 2016), below the helm console (manufactured 2000), in the starboard cockpit locker (manufactured 2000), in two in boxes in aft locker in the starboard cabin (manufactured 2001 and 2016)

Fixed fire system: None

Flotation devices: Four adult type II PFDs, two adult type II PFDs, one adult type III PFD, three type IV throwable PFDs located below the flybridge bench seats, four adult type II PFDs located below the aft salon bench seat, one ring type IV throwable on the flybridge safety rail

Horn/distress flares: Electric horn, seven handheld distress signal flares (expired 2009

and 2004)

Navigational/anchor lights: Separate side lights, steaming light, all-around / anchor light, stern light

Anchor & ground tackle: 20 Kg claw anchor with chain rode only

Other equipment: Whistle, distress signal flag, first aid kit

Comments: Safety equipment for firefighting protection appears satisfactory however the extinguishers have not been inspected, tagged and maintained per N.F.P.A. recommendations. Personal flotation devices are suitable for near coastal use. No current distress signal flares are aboard. A suitable sound signaling device is aboard. There are no CO alarms. There is no smoke alarm. Garbage and oil placards were seen. A waste management plan was not seen. A copy of the navigation rules was not seen. The navigational and anchor lights are properly arranged, installed and functional. The ground tackle including the anchor and rode was visually inspected as installed and appears faulty. The chain rode was heavily rusted in some spots and broke in two while being inspected. There is no secondary anchor or rode. The entire length of the anchor rode was not inspected and should be inspected prior to use.

Summary: Marginal

ACCESSORIES

Transom shower, trim tabs, DC engine room lights, internal sea strainers, ProMariner 60 battery charger, oil placard, Magma BBQ grill, engine instruments include two digital tachometers, two voltmeters, two water temperature gauges, two oil pressure gauges, two hour meters and an engine synch gauge, Ritchie compass, two fuel level gauges, Simrad G09XSE multifunction device with plotter / sounder / radar, Garmin vhf, Simrad autopilot, Side-Power bow thruster model SE 100/185T with flybridge controls, Standard Horizon HX870 handheld vhf (no power), JVC KD-X50BT stereo, flybridge bench seating, freshwater pressure inlet, TV / phone inlet, generator instruments include hour meter, voltmeter, water temperature gauge and oil pressure gauge, HVAC controls are located to starboard in the salon and to starboard in the forward cabin, overhead lights, courtesy lights, Kenmore wine cooler, Yamaha RX-S601 AV receiver, Sharp TV, Sonos connect model S16, U-Line BI95 ice maker, sofa, galley includes two basin sink, Origo three burner electric stove, Nutone blender, Goldstar convection microwave and Norcold DE461 refrigerator / freezer, Marine Air HVAC unit, Samlex Power SEC-2415UL 24V-15A battery charger, shower sump pump, cockpit courtesy lights, dinette, starboard cabin includes bunk berths and reading lights, Kuuma water heater model 111870 with heat exchange to port engine, Flojet 04325143 washdown pump (freshwater pump), Sweet Tank holding tank aeration system, Shurflo freshwater pressure accumulator tank, starboard head includes vacu-flush head, sink, vent fan and shower enclosure, forward cabin includes island berth, reading lights, Insignia TV and ensuite head, forward head includes sink, vent fan, vacu-flush head and bathtub with shower attachment

SUMMARY

The vessel is a production composite fiberglass flybridge cockpit motor yacht equipped with two diesel engines and a diesel generator. The vessel was built in Washington, USA. The listing broker reported that the current owner purchased the vessel from Kusler Yachts in San Diego, CA in fall of 2018. He reported that the starboard engine was replaced in January 2022 and has approximately 3 hours; the installation was performed by Coleman Marine. He reported that the port engine and both transmissions are original. He reported that the generator is original. He reported that the bottom paint is Z-spar and was done in 2019; the bow thruster was installed at that time as well as Awlgrip paint on the hull sides. He disclosed that the starboard trim tab has been removed, new tabs have been ordered and are awaiting delivery to replace. He had no other disclosures and no knowledge of any significant events in the vessel's history such as submersions, collisions, fires, etc. The vessel was inspected while hauled, afloat and underway while off-shore San Diego, CA in calm and clear conditions. The vessel is basically structurally sound and upon completion of the recommendations should be suited for its intended purpose as a near coastal cruising vessel.

Overall Summary: Satisfactory - Good

Standard form key: We use subsection and overall ratings to summarize conditions found, based upon their appearance. Ratings include: Not examined, Not applicable, Faulty, Marginal, Satisfactory, Good, Excellent.

VALUES

ACTUAL CASH VALUE	NEW REPLACEMENT VALUE	INVESTMENT
Removed	Removed	Removed

The actual cash value is the value that our research approximates the selling price of this vessel should be, at the time and place of our inspection. Consideration is given to vessel's condition, geographic location, published listings and guides, comparable sales and listings, and market conditions. The new replacement value is the cost of this or a similar, new vessel, comparably equipped. The investment is the reported investment including purchase price and significant upgrades. No values include maintenance costs, storage or tax. The most relevant data found while researching the value is included below. We primarily use market value analysis methodology for determination of value.

Explanation of value opinion: The value is based on the Soldboats.com reported sales prices, Yachtworld.com and Knoxvilleyachtsales.com current listing prices below. The average reported sales price for similar vessels sold on the West Coast is $149,366. The reported sales prices have a wide range. The vessels that sold for $163,000 in December 2021 in San Rafael, CA and $185,000 in July 2021 in Huntington Beach, CA are the best comparable vessels as they are closest in age, date of sale and have similar h.p. rated engines (370 h.p.). The vessel that sold for $223,000 in June 2021 in Ventura, CA is an outlier; it is a Limited Edition model, two years newer and is equipped with higher h.p. rated engines. There is no information about the 4600 SCB listed for $253,000 in Miami Florida; both vessels are equipped with 450 h.p. Cummins engines, it appears to have many of the same systems as the other 4600 SCB listed in Miami for $154,900, however it does appear to have updated lighting and upholstery (according to photos). The surveyed vessel is in average condition, has recently had Awlgrip system applied to the hull sides, has upgraded navigational electronics and one new engine. These factors place the surveyed vessel above the average.

Length in ft	Boat	Year	Sold Date	Sold Price	Listed Price	Boat Location
46	Maxum 4600 SCB	1999	18-Jan-22	125,000	139,500	Hampton, VA, USA
46	Maxum 4600 SCB	1999	17-Dec-21	163,000	162,500	San Rafael, CA, USA
46	Maxum 4600 SCB	1999	19-Nov-21	160,000	189,900	Page, AZ, USA
46	Maxum 4600 SCB	2000	27-Sep-21	140,500	150,000	Seattle, WA, USA
46	Maxum 4600 SCB	1998	31-Jul-21	185,000	199,900	Huntington Beach, CA, USA
46	Maxum 4600 SCB	2001	29-Jun-	223,000	225,000	Ventura, CA, USA

	Limited Edition		21			
46	Maxum 4600 SCB	1999	18-May-21	145,000	168,000	San Diego, CA, USA
46	Maxum 4600 SCB	2000	18-Feb-21	155,000	159,500	Oxnard, CA, USA
46	Maxum 4600 SCB	1998	10-Feb-21	132,000	149,000	San Rafael, CA, USA
46	Maxum 4600 SCB Limited Edition	1997	20-Dec-20	165,000	169,000	Oceanside, CA, USA
46	Maxum 4600 SCB	1999	13-Nov-20	155,000	169,000	San Diego, CA, USA
46	Maxum 4600 SCB	2000	27-Oct-20	110,000	130,000	San Diego, CA, USA
46	Maxum 4600 SCB	1999	16-Aug-20	130,000	159,000	San Diego, CA, USA
46	Maxum 4600 SCB	1998	21-Jul-20	152,000	165,000	San Diego, CA, USA
46	Maxum 4600 SCB	1997	3-Jul-20	100,000	149,000	San Diego, CA, USA

Maxum 4600 SCB

US$195,000 *

46 ft / 1999

San Diego, California, United States

Kusler Yachts

Maxum 4600 SCB

US$154,900 *

46 ft / 1999

Miami, Florida, United States

Florida Yachts International

Request Info

Maxum 4600 SCB

US$253,000 *

46 ft / 1999

Miami, Florida, United States

Luxury Marine Yacht Sales

1999 Maxum 4600 SCB

- 46 ft
- Motor Yacht
- Knoxville, TN, US

Yacht Price

$129,000

Overview

This Freshwater Only boat has been well cared for and is moored in a covered slip on the TN River. She has a very spacious 2-Stateroom 2-Full Head floor plan that is perfect for long weekends with friends and family. Large storage areas and air draft make it a great option for Great Loop Cruisers.

Her options include...

Twin Cummins 6BTA 370HP Diamond Series with 1,020hrs

Westerbeke 12.5kw Generator w/ Soundshield

NEW Dripless Shaft Seals

NEW Full Bridge Canvas & Enclosure

NEW Interior Commercial-Grade Carpet

NEW JL Audio Marine Speakers

NEW KVH TV1 Tracvision Satellite

NEW Galley Refrigerator

Highlights

SPECIFICATIONS

- MANUFACTURER

  Maxum

- MODEL

4600 SCB

- YEAR

1999

- CATEGORY

Power

- CONDITION

Used

- LOCATION

Knoxville, TN, US

- VESSEL NAME

7th Chucker

- BOAT TYPE

Motor Yacht

- HULL MATERIAL

Fiberglass

- HULL TYPE

- HULL COLOR

- HIN:

- DESIGNER:

- FLAG OF REGISTRY

- AVAILABLE FOR SALE IN U.S. WATERS

Yes

RECOMMENDATIONS

These recommendations are the surveyor's ideas and suggestions for addressing deficiencies with damaged or suspect components or systems found during survey or general improvements. The primary recommendations address safety items, structural issues, operational issues or deficiencies which the surveyor determines are of greater importance or more expense than secondary deficiencies. For instance, items that pose a risk to passenger safety or immediate property damage are listed under primary deficiencies and cosmetic concerns are addressed under secondary deficiencies. Most of the recommendations have been addressed in the comments and usually they are discussed at the time of the inspection.

PRIMARY

1. Maintain the fire extinguishers per NFPA recommendations. Extinguishers should be inspected and tagged annually and inspected by a qualified technician or replaced every six years. Extinguishers should be evenly spaced throughout the vessel for easy access in emergencies. Lockers that have extinguishers stored in them should be properly marked.
2. The client intends to move the vessel to Canada; assure that all safety systems and required carriage items are compliant with federal regulations of the country that the vessel is being moved to.
3. Provide all federally required carriage items if the vessel remains in the US, including: current and approved distress signal flares, a copy of the navigation rules and a waste management plan.
4. The chain rode was heavily rusted and broke in two during our inspection. Inspect the chain rode for any additional deficiencies and address appropriately. Provide a secondary anchor and rode for emergencies or two anchor situations.
5. Determine the source of the freshwater leak that was seen at the water heater and address appropriately. Dry and clean the area to allow detection of future weeps or leaks.
6. The heat exchange hoses on the water heater are cracked. Replace the hoses to eliminate liabilities.
7. There is corrosion about the base of the water heater and a freshwater leak was seen about it. Determine the significance and cause (as possible) of the corrosion and address appropriately; clean the water heater and area to allow detection of future weeps, leaks and corrosion accumulation. We recommend installing a hose onto the pressure relief fitting on the water heater that drains into the bilge.
8. We were unable to energize the engine room lights. Service the lights as necessary and prove them properly functional.
9. Replace the wing nuts on the battery terminals with steel nuts and lock washers and install lock washers on other battery terminals per ABYC recommendations.
10. Replace the lens covers that are missing from several lights, including: one engine room light, one overhead light in the cockpit and the light by the water heater to eliminate liabilities.
11. Determine the source of the fuel below the port engine, eliminate the cause, service or replace components as necessary and clean and dry the area to allow

detection of future weeps or leaks. We recommend placing absorbent rags below the engines to allow detection of future leaks.

12. The fuel feed, vent and return hoses are dated 1998 (we did not see dates on the vent hoses). The industry accepted standard "rule of thumb" for the life expectancy of fuel hoses is ten years. Either replace the hoses or assure they are suitable for continued use and replace as necessary.
13. There is corrosion on several components of the port engine, including: the heat exchanger, transmission oil cooler, raw water pump, aftercooler and on the coolant pipe below the heat exchanger (a coolant leak was seen at this pipe). Determine the cause of the corrosion, eliminate the cause, service or replace components as necessary and clean components to allow detection of future weeps, leaks and corrosion accumulation.
14. The engines' seawater hoses are aged. Either replace the hoses or monitor and replace them as necessary.
15. There is soot on the starboard engine's lagging at the turbo. Determine the cause of the soot (as possible), eliminate the cause, service or replace components as necessary and clean the components to allow detection of future soot accumulation, weeps or leaks.
16. The starboard engine's exhaust hose to the muffler has a crack, appears aged and has staining on the hose. Either replace the hose or monitor and replace as necessary.
17. The hoses on the propeller shaft seals are cracked and have rust stains. Replace the hoses to eliminate liabilities.
18. There is corrosion on both propeller shaft seals. Determine the cause of the corrosion, eliminate the cause, service or replace components as necessary and clean the components to allow detection of future weeps, leaks and corrosion accumulation.
19. The port engine's voltmeter is intermittent. Replace the meter as necessary.
20. The engines' seawater intake hoses to the strainers are cracked. Replace the hoses to eliminate liability.
21. The port propeller shaft seal was seen leaking water more than the starboard seal. Determine the cause of the leak, eliminate the cause, service or replace components as necessary and clean and dry the area to allow detection of future weeps or leaks.
22. Determine the cause of the moisture on the base of the starboard engine's aftercooler, eliminate the cause, service or replace components as necessary and dry the aftercooler to allow detection of future weeps or leaks.
23. The starboard trim tab is missing and there is corrosion pitting on the port tab. The listing broker reported that the new tabs are awaiting arrival to install. Replace the trim tabs and prove them properly functional.
24. The generator's seawater intake hose is cracked. Replace the hose.
25. The anchor roller is severely deteriorated and is missing the middle section. Replace the roller.
26. The salon door does not lock. Service components as necessary and prove the door's lock functional.
27. Determine why the starboard shower had pressure in the hose but did not dispense from the shower head and address appropriately.
28. The spotlight does not move up or down. Service or replace components as necessary and prove the spotlight properly functional.

SECONDARY

1. The port salon sole's longitudinal support / joist is cracked just forward of the aft support strut and has a makeshift repair with bolts and nuts. Determine the significance of the crack and address as necessary. There is similar but lesser cracking in the same area on the starboard joist. Determine the significance of the cracking and address as necessary.
2. A sound difference was noted when percussion testing aft on the starboard sole longitudinal / joist. Determine the significance of the sound difference and address as necessary.
3. The vessel has a starboard side list. Determine the cause of the list and address as necessary.
4. The starboard propeller shaft was more difficult to turn when inspected while hauled. Determine the cause and address appropriately or as necessary.
5. There is corrosion on the raw water washdown through hull fitting and on the engines' seawater intake through hull fittings. Determine the cause of the corrosion, eliminate the cause, service or replace components as necessary and clean the components to allow detection of future weeps, leaks and corrosion accumulation.
6. Properly secure the forward support strut for the salon sole as it is not fastened to the longitudinal support / joist.
7. The vent fittings and the hull side discharge through hull fittings are corroded. Address appropriately or as necessary.
8. There is a scratch in the paint on the port hull side at the amidships cleat and the starboard hull side at the forward strap mark. Address as desired.
9. Address the rub transfer / material transfer on the starboard hull side above the boot stripe as desired.
10. The transom shower did not properly function. Address as desired.
11. The antifouling paint is thin on several spots on the hull bottom. Address as desired.
12. The forward latch on the port locker in the salon is intermittent when locking. Address as desired.
13. The distribution panel's locker does not latch shut. Address as desired.
14. There is corrosion on the forward salon window frames and tracks. Address as desired.
15. Address the thin gelcoat above the port salon window as desired.
16. Address the crazed foredeck hatch as desired.
17. The back panel is not installed in the forward locker in the starboard cabin. Install it as desired.
18. The second from the top step to the flybridge is cracked. Determine the significance of the crack and address as necessary or desired.
19. Address the crazed portlight as desired.
20. The starboard anchor rode locker's hatch has a broken hinge and the port hatch is tight when opening and closing. Replace the hinge and address the tight hatch as desired.
21. Address the chips in the galley sole as desired.
22. The screen door does not close flush. Address as desired.
23. The bbq grill is mounted in a way that hinders opening the port transom locker. Address as desired.

24. Several lights are inoperative including: one overhead in the salon, one overhead in the starboard head and three cockpit courtesy lights. Address as desired.
25. The stereo did not function when tested in the FM mode. Address as desired.
26. The following components were not tested or inspected: trim tabs, bbq grill, TV / phone inlet, freshwater pressure inlet, shower sump boxes, water pressure accumulator tank (the leak prevented the tank from being tested), electric macerator discharge pump, freshwater engine flushes, all functions of entertainment devices and navigational electronics (power up and basic functions were tested).

This survey sets forth the condition of the vessel and components, as specifically stated only, at the time of inspection, and represents the surveyor's honest and unbiased opinion. No part of the vessel was disassembled or removed and no assumptions should be made as to the condition of concealed components. Specifics were obtained from sources available at the time of inspection and are believed correct, but are not guaranteed to be accurate.

I/we certify that, to the best of my/our 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/our personal, unbiased professional analyses, opinions, and conclusions. I/we have no present or prospective interest in the vessel that is the subject of this report, and I/we have no personal interest or bias with respect to the parties involved. My/our compensation is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulated result, or the occurrence of a subsequent event. I/we have made a personal inspection of the vessel that is the subject of this report. This report should be considered as an entire document. No single section is meant to be used except as part of the whole. This report is submitted without prejudice and for the benefit of whom it may concern. This report does not constitute a warranty, either expressed, or implied, nor does it warrant the future condition of the vessel. It is a statement of the condition of the vessel at the time of survey only. The submitting of this report creates no liability on the part of Christian & Company or the individual surveyor.

Christian & Company, Marine Surveyors, Inc.

March 01, 2022

By: Mr. Kells Manthei, SAMS SA Date

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