

## STANDARD SURVEY

Client: Removed for privacy

Date of report: June 4, 2018

Our file #: 18 – 29295web

This inspection was performed upon the request of the client listed above on May 17, 2018 while the vessel was hauled and on May 26, 2018 while the vessel was afloat at Marine Group Boatworks, National City, CA and the crew attended. The vessel was taken on a sea trial offshore San Diego on May 26, 2018.

#### **VESSEL DESCRIPTION**

Builder: Hatteras Doc. #: Removed for privacy Model/type: 118 Cockpit Motor Yacht HIN: Removed for privacy Year: 1997 Engines: Three Detroit Diesel Length: 122' (loa) Name: Removed for privacy Hailing Port: New Bern, N.C 5' 10" Draft: Beam: 21.3 Weight: unknown

vveignt: unknown Displacement: unknown

#### **HULL & STRUCTURE**

Keel & bottom: Composite fiberglass laminate, unknown core, modified V-shape, keel, center and two side propeller pockets, black anti-fouling paint

Topsides & transom: Composite fiberglass laminate, unknown core, white with black boot stripes, painted exterior finish, three staggered rub rails

Decks & superstructure: Composite fiberglass laminate, white paint finish, non-skid particle deck surface

Deck hardware: Integral anchor roller, raised fiberglass bulwarks, stainless steel bow rail, two foredeck hatches, set of bows bit and hawes holes, two sets of side horn cleats and hawes holes, side boarding gates, set of stern horn cleats with hawes holes, set of swim platform cleats

Longitudinals/stringers: Fiberglass encased stringers, unknown core

Athwartships/bulkheads/frames: Plywood bulkheads (likely)

Layout/interior components: Swim platform with center transom door to cockpit, centerline hatch and steps forward in cockpit lead down to main electrical room and through door forward to engine room. Steps on both sides of cockpit forward lead up to covered aft deck with external dining area, wing doors on both sides forward of aft deck lead to walk around side decks with raised foredeck, spiral steps to starboard forward on

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aft deck lead to upper deck, aft on upper deck is boat deck with starboard helm, walk around decks on both sides of boat deck, spiral steps to port forward on boat deck to flybridge and centerline hinged door forward on boat deck to sky lounge. Flybridge has helm console forward and open deck aft. Upper deck interior includes sky lounge aft with day head to starboard forward, door forward of sky lounge to pilothouse with helm forward and wing doors on either side to side decks. Wing helm stations on both sides of exterior / side decks forward on upper deck. Interior on main deck level includes saloon aft, with bar to port aft, gaming table to starboard and L shaped sofa to port forward. Forward of saloon is formal dining area with wing doors to side decks on both sides, starboard side forward are steps down to cabin passageway, centerline forward are steps up to pilothouse and port side is door forward to galley. Galley has port side wing door to side deck and informal dining area to port forward. Aft cabin space includes centerline passageway, master stateroom forward with center island berth, full breath head forward and walk in locker to port aft. Next aft in passageway are twin cabins on both sides with double bunks and ensuite heads aft, aft in passageway are twin cabins with center twin berths and ensuite heads aft. To starboard forward in galley are steps down to crew area with port aft head, cabin to port forward with four bunks and captain's cabin to starboard forward with ensuite head.

Bilge: Dry, some staining in engine room

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 hull sides and transom were visually inspected. The hull sides and transom are in good structural and cosmetic condition. The deck and superstructure were visually inspected. The deck and superstructure are in good structural and cosmetic condition. 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 good - excellent condition. The structural reinforcements including the stringers and bulkheads were visually inspected and randomly sounded. The structural reinforcements appear to be in "as-built" condition. The bilge has minimal staining about the engines. The bilge spaces in the guest cabins were not accessed, the bilge spaces were inspected in the lazarette, engine room and forward. The interior cabin spaces are neat, clean and orderly. The interior of the vessel is in good - excellent cosmetic condition. 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. New underwater lights were being installed during the out of water inspection, the old ones had been left in place. Sacrificial zinc anodes plates were being installed on the transom, water came out of three of the four holes drilled in the transom for the plates. The water was trapped in the coring. A vacuum was connected to the holes following the discovery of water. The coring appears to be balsa and a dark foam. The steps into the crew area are a hatch for access into this space, the strut for the steps is weak. There are several stacks of stone tiles to starboard in the lazarette, they are not presently secure. Many repairs were underway while the boat was in the yard. Most were complete on the second day of the inspection.

Summary: Good

# **MACHINE SYSTEMS**

Main engines: Three Detroit Diesel 12V92, starboard model 8122-7K00, center 8122-K006, port 8122-7K01, 6426 hours on starboard hour meter, 5921 hours on center engine hour meter, 6489 hours on port hour meter, 1,075 h.p. each

Engine application: Diesel, 12 cylinders, twin turbo charged

Serial Numbers: S – 12VF-11038, C-12VF-11012, P – 12VF-10929

Transmissions: ZF2565, starboard serial no. 50007140, center model BW256P, serial no. 4103, port model BW256P, serial no. 3965

External/peripherals: Suitable application, satisfactory installation, PTO on all engines

Engine controls: MTU electronic controls with flybridge, boat deck, pilothouse and two wing stations, servos control push / pull cables in engine room

Exhaust systems: Wet system, high temperature hoses, fiberglass tubes, fiberglass mufflers, two port and one starboard aft hull side discharges

Propulsion gear/shaft logs: Three 4" diameter stainless steel propeller shafts, two bronze struts per shaft, six blade propellers (no visible markings) 53 x 85 Nibral (per documents), center and starboard are right hand and port is left hand rotation, Tides Marine dripless seals

Steering system/rudder ports: Three bronze rudders, hydraulic system, three activators, Tides Marine dripless seals, tie bars, wheel and joy stick controls

Ventilation: Natural, one engine room fan, blower system

Generator: Two Cummins, s – 9397 hours on remote hour meter & 9388 on generator mounted meter, p - 8757 on generator mounted meter, model 75MCGDA, serial nos. A9605962830 and A940547880 (per documents)

External/peripherals: Suitable application, sound boxes, PTO on starboard generator

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

Seawater systems: Reinforced hoses, mostly double clamped connections

Bilge pumps: Twelve bilge pumps per helm panel, many Rule submersible electric / automatic pumps seen

Comments: The engines and transmissions were visually inspected. The engines and transmissions were inspected during a sea trial, offshore San Diego. The port engine had just completed a rebuild. The engines ran and the transmission functioned normally. Wide open throttle of all three engines was 2300, 2200, and 2300 rpms, per

the tachometers, and top speed of the vessel was 20 knots. The center and starboard engines indicated overload error messages at wide open throttle. There was repeated "53" fault codes, which the mechanic believes requires two new electronic control modules on the port engine. He stated that the computers for the center and starboard engines have been replaced. There was a hydraulics technician aboard the vessel during the sea trial; he was trying to sort a problem with the hydraulic system, specifically a problem apparently resulting from failure of the center engine's hydraulic pump's bypass solenoid. At the end of the sea trail the starboard engine died, apparently due to drawing fuel from the bottom of the aft tank, and plugging the filters. The mechanic believes that the engines were rebuilt six years ago; however there is no precise documentation. The port engine's digital hour meter indicates 6505 with the center and starboard engine hour meters indicating 18. The center and starboard engines' electronic control modules were reportedly just replaced and the hours on the meters are reflecting time since those computers were replaced. The external surfaces and peripheral components of the engines and transmissions appear good. There are miscellaneous minor fluid leaks on all of the engines and stains below the engines. The engine controls functioned normally. The captain reports they were tested from all stations recently. The exhaust system is properly arranged and installed. There is staining on the starboard engine's outboard exhaust hose to tube connection, indicative of a weep or leak. A wire is disconnected from a sender on top of the starboard transmission. The propulsion components including the propellers, propeller shafts, struts and shaft seals were visually inspected. Overall the propulsion components are in good condition. The steering system was visually inspected and test operated. The steering system functioned normally. Minor corrosion was noted on the rudders and there are no sacrificial zinc anodes for the struts or bonded below waterline metal components. The sacrificial zinc anodes currently are installed on the rudders and propeller shafts only. The bonding system is being replaced and two sacrificial zinc anodes are being installed on the transom. The starboard rudder had just been installed prior to our inspection and the center rudder was out at the time of our initial inspection. The engine room blower was energized. The generator was visually inspected, test operated and loaded. The generator functioned normally. The through hulls were visually inspected and the valves were manipulated. The through hulls are in good condition. The seawater systems were visually inspected and most components were tested. Overall, the seawater systems are good condition. The electric bilge pumps were energized manually.

# **Summary: Good**

# **TANKAGE**

Fuel: Six fiberglass tanks, diagram states capacities are in gallons 1650 forward center (day), 596 forward port, 596 forward starboard, 840 aft port, 145 aft center (aux), 840 aft starboard, tanks located in guest cabin passageway bilge

Fill & vent: Six deck fill fittings to starboard amidships, flexible fuel grade hoses

Feed & return: Flexible hoses, Racor filters, dual filters with vacuum gauges for main engines, remote fuel shut downs in electrical room

Water: Aft keel tank, fill to starboard in cockpit, two deck fill fittings to starboard, 900 gallon capacity (per documents), two independent systems

Holding: Deck fitting to starboard on step to foredeck, 473 gallon capacity (per documents), tank not seen

**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 good condition. 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 functioned normally. Accuracy of tank level gauges is beyond the scope of this survey.

Summary: Good

## **ELECTRICAL SYSTEMS**

AC system: Two 220 volt / 100 amp shore power inlets in starboard transom locker, numerous shore power cords, two transformers, 120 / 240 volt system

DC system: Eleven battery switches in engine room, eight 8D 12 volt wet cell batteries, four per side in engine room bilge, secure and covered fiberglass boxes, 12 & 24 volt system

Wiring: Multi-strand wires

Circuit protection: GFCI outlets, subpanels below pilothouse console, subpanels in locker outboard of steps to guest cabins, subpanel below steps to cabin, main AC panel aft of engine room includes eight source selector switches, ten primary circuit breakers, 3 ammeters, volt meter and Hz meter, AC and DC panels to port forward in engine room

**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. The shore power cord was not disconnected from the inlets. Overall the electrical system is in good condition. The spa on the foredeck is currently under repair. There is a loose blower in the forward bilge space. The condition and age of the batteries is beyond the scope of this inspection.

**Summary: Good** 

## SAFETY AND LIFE SAVING

Portable fire extinguishers: Thirteen various size dry chemical units with hydrostatic inspection and recharge (October 2017)

Fixed fire system: Fireboy FE241 (Oct. 2017 tag) below pilothouse console, ESL 1500 series system, FE241 unit in forward bilge (November 2017 tag), FE241 unit in lazarette (November 2017 tag), clean agent in engine room tag November 2017, AC fire pump

Flotation devices: Four life rings, numerous PDFs

Horn/distress flares: Air horn, flares aboard, (2021 expiration)

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

Anchor & ground tackle: Navy type anchor (size not legible), chain, two spade anchors

Other equipment: 406 MHz EPIRB with 4/22 battery date, medical supplies, second EPIRB with 2027 battery date, high bilge and smoke detector display panel, escape port lights in engine room and guest cabins, ship's bell, high water senders, smoke alarms

Comments: Safety equipment for firefighting protection appears good. Personal flotation devices are suitable. Current distress signal flares are aboard. A suitable sound signaling device is aboard. 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 satisfactory. The entire length of the anchor rode was not inspected and should be inspected prior to use. The hydrostatic release for the EPIRB on the flybridge is new, but the date has not been indicated on the sticker. Two lockers labeled "fire equipment locker" do not contain fire equipment. At least two portable fire extinguishers did not have inspection tags. The vessel has a tender "gas station", to port aft.

**Summary: Good** 

## **ACCESSORIES**

Fiberglass swim platform, fourteen underwater lights, hydraulic bow thruster, Spurs line cutters, Naid fin stabilizers, radar arch, flybridge sink, flybridge sink, flybridge venturi windscreen and bimini top (canvas not installed), arch and aft flood lights, water toys, systems monitor (flybridge), flybridge helm includes three Mtu electronic engine instruments, two Vei monitors, Icom IC-M324G GPS vhf, rudder angle indicator, Simrad AP70 autopilot, Simrad Fu80 autopilot joystick control, Furuno RCU-016 controller, outriggers, Yamaha GP760 wave runner, Novurania (non-visible ID) rigid hulled inflatable tender equipped with a 115 h.p. Yamaha outboard engine model F115LB and serial no. 6EKL1023223, Nautical Structures Euro 2500 tender davit with winch, rotational and boom controls, boat deck helm console includes three Mtu electronic engine instruments, Furuno Navnet 3D multi-function device, Icom IC-M304 vhf, Simrad AP70 autopilot, Simrad FU80 autopilot joystick control, sky lounge sofa, tv, Zebra skin rug and day head, pilothouse includes dinette, desk and three helm seats, Cruisair chilled water HVAC system with controls in pilothouse, sky lounge, galley (2), master (2). utility room, quest cabins (4), crew cabin, captain's cabin, saloon and dining area, pilothouse instrumentation includes three Mtu electronic engine instruments, two video monitors, Furuno MU-190 monitor, two small Furuno repeaters, Furuno RCU-014 controller, Furuno RD-33 unit, Furuno SC-702 satellite compass display, Simrad AP70 autopilot, Simrad FU80 autopilot joystick controller, Furuno Navnet controller, 2 Icom IC-M126DSC vhf, Furuno hailer, two ACR remote controlled spotlights, Pioneer DEH-P300 IB stereo, three windshield wipers, Crossens and Plath compass, System Monitor in

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pilothouse, Furuno RPU-013 marine radar processor unit, Samsung monitor, walky talkies, Furuno CA-36 sonar, Elbex EXS-128 video controller, video monitor, elevator for sonar and CC tv, two navigational computers, SEA330 HF/SSB, thruster controls at all helm stations, wing helm stations with engine and steering joy stick controls, main saloon includes bar, Samsung tv, sofa and gaming table, formal dining table, several game consoles, entertainment system includes Polk audio SR-H1000 Sirius satellite radio tuner, Sony blu ray player (BDP-S300), Pioneer PD-M426 cd player, Sonance Sonamp260, Yamaha RX-V663 AV receiver, saloon bar includes refrigerator, ice maker and sink, various covers, small walk in refrigeration unit, galley includes informal dining area, two Sub Zero 601R and one 601F refrigeration units, five burner Kitchen and electric stove with hood, Jenn-Air double oven, Kenmore dish washer, double sink, small appliances, pots and pans, dishes, Samsung tv, garbage disposal, Panasonic the Genius Prestige microwave oven. SeaTel satellite system, master head includes spa tub / shower, two heads, bidet and two sinks, cedar lined lockers, Samsung tv, Pioneer PD-M426 cd changer, Sony BDP-S300 blu ray player, Yamaha RX-V663 AV receiver, Kenmore clothes washer and dryer, all four quest cabins include tvs and dvd players / stereos, all four guest heads includes vacu-flush heads, sinks and shower enclosures, African themed and wild animal art, foredeck davit, foredeck fresh water, sea water and dock side fill fittings, two direction hydraulic windlass, foredeck spa, exterior lights, Furuno CH-342 extending sonar, crew head includes vacu-flush head, sink an shower fixture, water pressure pump in forward bilge, captain's cabin includes Samsung tv, B7G H3000 unit, radar and depth alarms and ensutie head with vacu-flush head, sink an shower enclosure. Pioneer stereo, two water tank level gauges, internal sea strainers. aft deck dining area, aft deck camera, aft deck flood lights and speakers, three water pumps to starboard below aft deck dinette, two hydraulic stern capstans, transom shower, tender gasoline station to port aft, two tv / phone inlets, deck side water and fresh water and dirty and clean lube oil fixtures in starboard transom locker, diving tank rack, fifth water pressure pump to port in lazarette, second Cruisair chilled water HVAC system in lazarette, two Sea Recovery Aquamatic water makers, portable passerelle, cockpit sink, two Kenyon electric grills in cockpit, cockpit below deck bait tank, whirlpool refrigerator, Kenmore clothes washer and dryer (second set), starboard generator control panel with oil, temperature and volt meters, AC and DC engine room lights, three Newmar PT-24-95U battery chargers, second set of instruments mounted on starboard generator, tools, spare parts, engine room camera, Alfa Laval MMB304 S-11 fuel centrifuge, engine mounted instrumentation includes tachometers, volt, amp, engine oil pressure, gear oil pressure, gear oil temperature, engine water temperature and hours, fuel transfer system, air compressor, two A.O. Smith ECLN 40200 water heaters, two water pressure accumulator tanks, hot water boot pump, dockside water pressure system

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## SUMMARY

The vessel is a composite fiberglass flybridge cockpit motor yacht build in North Carolina, USA. The current owner is the original and sole owner. The captain reports that the vessel suffered damage in a storm in 2014 and spent three years being repaired at Driscoll Boatworks, Shelter Island, San Diego, CA. Among work that was performed was new upholstery, new LED lights with wires, new entertainment devices, new HVAC system, new water makers, new stabilizer system, new starboard generator and rebuilt port generator, fire and bilge systems were renewed and the vessel left Driscoll Boatworks in February of 2018. Subsequently the vessel had a problem with the port engine. Prior to the sea trail the port engine was rebuilt by McConnell Marine. During the sea trial the engines and transmissions functioned normally. The vessel is well suited for its intended purpose as a coastal cruising vessel.

**Overall Summary: Good** 

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#### **VALUES**

ACTUAL CASH VALUE

NEW REPLACEMENT

VALUE

Removed

Removed

N/A

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. In most instances the data found while researching the value is stored in our file for this survey. We primarily use market value analysis methodology for determination of value.

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Standard Form Key: All systems are rated based upon their appearance, ratings include: Not examined, Not applicable, Faulty, Marginal, Satisfactory, Good, Excellent.

#### 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. Consult with a qualified expert to determine options with a respect to water found in the transom coring and address as necessary. Refer to attached Hatteras through hull installation instructions as necessary.
- 2. Replace the strut for the lifting steps / hatch into the crew area, the current strut is weak and will not hold the steps up.
- 3. Assure that all components are properly secured before the vessel goes to sea, including several stacks of natural rock tiles to starboard in the lazarette.
- 4. Reconnect the wire to the sending unit on the starboard transmission.

## **SECONDARY**

- 1. Address the various and miscellaneous fluid leaks on the engines, clean the bilge space below the engines to allow detection of any future weeps or leaks.
- 2. Determine the significance of the staining on the starboard engine's outboard exhaust hose to tube connection, eliminate any weep or leak. Clean staining to allow detection of any future weep or leak.
- 3. Complete the various services underway including steering system, spa, bonding system.
- 4. Address the loose blower motor in the forward bilge space.
- 5. Indicate the date for the EPIRB's hydrostatic release on the flybridge.
- 6. Either return the fire equipment to the lockers labeled "fire equipment locker" or remove the stickers to prevent confusion in the event of a fire.
- 7. Assure the tenders' "gas station" complies with applicable ABCY and NFPA recommendations.
- 8. Eliminate the repeated fault code, "53" on the engine instruments. Repetitious fault codes can cause complacency.
- 9. Address the intermittent alarm on the thruster system; eliminate the cause of the alarm.
- 10. Assure that the fuel and tanks are clean and suitable for continued use. The starboard engine's fuel filters were plugged as a result of drawing fuel from the aft tank which was nearly empty.
- 11. As the center and starboard engines overloaded at wide open throttle, 100% load, heed the mechanics suggestion and operate engines up to 90% 95% as their top end to prevent overload.

Date

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. The submitting of this report should not be construed as a warranty or guaranty of the condition of the vessel, nor does it create any liability on the part of Christian & Company or the individual surveyor. 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.

Christian & Company, Marine Surveyors, Inc.

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June 4, 2018

By: Mr. Kells Christian, Surveyor

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