

Christian & Company

MARINE SURVEYORS

STANDARD SURVEY

Client: Client Name Removed

Date of report: March 5, 2015

Our file #: 13 – 30279web

This inspection was performed upon the request of the client listed above on January 9 and 31, 2014 while hauled at Herma Shipyard, Mariveles, Bataan, Philippines and on February 26 through February 28, 2015 while the vessel was afloat at HYS Yachts, Subic Bay, Philippines.

VESSEL DESCRIPTION

Builder:	Niigata Engineering, Japan	Belize Reg. #:	Removed
Refit by:	HYS Yachts, Philippines	IMO #:	9047972
Model/type:	Motor Yacht	Engine:	One Niigata
Year:	1992 / 2015	Name:	"Removed"
Length:	45.44 m	Hailing port:	pending
Draft:	3.20 m	Displacement:	450 tonnes (pending final)
Beam:	7.90 m	Tonnage:	386 GT

HULL & STRUCTURE

Keel & bottom: Steel construction, fine entry forward, round chines amidships, flat with minimal dead rise aft with angled lower chine and hard upper chine, keel, black anti-fouling paint

Topsides & transom: Steel construction, blue paint finish with white boot stripe, integral swim platform

Decks & superstructure: Steel construction to bridge deck/main deck overhead, bridge deck and above are aluminum, blue paint finish with white accents, exterior decks are mostly teak planked with a few small areas of paint particle nonskid, white superstructure and white surfaces inboard

Deck hardware: Two sets of stern line rollers, two sets of stern bits, two sets of bow bits, two sets of bow line rollers, anchor rode locker hatch, all windows are fixed

Longitudinals/stringers: Steel longitudinal and frames (drawings available)

Athwartships/bulkheads/frames: Steel bulkheads (drawings available)

Layout/interior components: Primary boarding onto swim platform with port and starboard passageways about center raised steering box, passerelle to starboard aft,

Marine Claims Assistance - Vessel Inspections
1276 Scott Street – San Diego, CA 92106
TEL 619.223.7380 800.944.4789 FAX 619.223.7390
office@themarinesurveyors.com - themarinesurveyors.com

forward of steering box is boat deck with two side garage doors and twin overhead tender beam lifts. Forward from the boat deck is gym to starboard, passageway to port inboard of gym leads forward, spiral steps up to third level deck to port of gym, engine room access forward of spiral steps via door to port of passageway and ladder down, forward of gym to starboard is day head and forward is hinged door to interior passageway. Aft and inboard of the port side passageway is cinema, forward in passageway is library, inboard of library is main deck level elevator, to starboard of library is crew lounge, forward of crew lounge is main spiral three deck stairway (from lower deck to bridge deck). On the centerline forward of library is guest cabin passageway, aft are twin cabins with queen berths and ensuite heads aft, forward are twin cabins with double berths, a Pullman berth in each cabin (aft) and ensuite heads forward. On the lower level aft is engine room with watertight door to port forward leading to port side passageway, engineer's cabin inboard just forward of engine room with outboard raised berth and inboard ensuite head. Forward in passageway is crew dinette and to starboard of dinette is galley. On the centerline forward of crew dining area is crew cabin passageway, aft on both sides of passageway are twin crew cabins with bunk berths outboard and ensuite heads forward, next forward are twin clothes washing stations and forward is crew cabin with port side bunk berths and ensuite head to starboard. The next deck up from main deck is the bridge deck, heli-deck is aft on bridge deck, alfresco deck forward of heli-deck with bbq pit to port and spiral steps to the boat deck forward of bbq pit, walk around decks on both sides to foredeck, double sliding doors forward from alfresco deck to main saloon. Main saloon has bar to starboard aft, seating area to port aft, steps to penthouse to starboard forward of bar, formal dining area to starboard forward, kitchenette, elevator and day head to port of formal dining area, door forward of dining area leads to passageway to pilothouse, office in passageway, captain's cabin with outboard berth and inboard ensuite head to port forward in passageway and pilothouse forward. Day head to port of dining area has a weather tight wing door. Pilothouse has wing doors on both sides and bench seat aft. Portuguese bridge forward of pilothouse. Exterior steps from port walk around deck between bridge deck next deck up, penthouse / owner's suite. Forward on penthouse deck is a spa tub, sliding doors aft of spa tub to owner's lounge, to starboard aft of lounge are steps down to main saloon, passageway to starboard aft to owner's stateroom, ensuite head to port forward of king size berth, double sliding doors aft to private owner's deck and steps up from private aft owner's suite deck to crew's nest.

Bilge: Holding minimal water

Comments: The vessel was inspected while hauled and afloat. The vessel was built in Japan and was reportedly used as a government fishing fleet inspection vessel. It was purchased by HYS Yachts and an agreement was made on March 27, 2013 with our client to have HYS perform a major refit. The undersigned has attended and inspected the project eleven times during the project. The exterior shell, most of the longitudinal and athwartships reinforcements, many steel bulkheads, tanks and the main engine were left in place. All of the general accommodations were reconfigured and the height of the main deck was increased. Hull side and the transom extensions were designed and welded onto the original hull. All of the interior structure up to the bridge deck was designed by HYS, fabricated of steel, and installed by HYS welders. The bridge deck and all structure above the bridge deck level were designed and fabricated out of aluminum. The mating surface of aluminum to steel is insulated with a heavy foam rubber and the flange connection is through bolted. There are areas which were

necessarily welded together, including about the elevator shaft, using Tri-clad material, designed for the welding connection between steel and aluminum. Detailed architectural drawings were rendered and reviewed throughout the process and are available. An ultrasonic thickness gauging of the hull bottom was performed and a copy of the report is included as an attachment. Overall, the vessel was built to a high standard with heavy scantlings and remains in excellent structural condition. In general, the design was in compliance with rules of IACS (International Association of classification Societies) for vessels under 90 meters. The primary design was accomplished by and at the direction of Naval Architect, Mr. Simon Jupe, a principal of HYS Yachts, located in Phuket, Thailand. The hull bottom was visually inspected after cleaning and before painting and again after removal of fixed stabilizers, sand blasting, painting, installation of thrusters, and installation of stabilizers. The hull bottom is in excellent. The hull sides and transom were visually inspected and are in excellent structural and cosmetic condition. One final top coat of paint will be applied to the entire vessel. The hull sides and structure were painted with Alexseal. The deck and superstructure were visually inspected. The deck and superstructure are in excellent structural condition. The deck and superstructure are in good cosmetic condition and should be in excellent cosmetic condition within the next two months. The installation of the last areas of the teak deck was approaching completion during the survey. The deck hardware including mooring devices, hatches and doors were visually inspected and tested. Overall the deck hardware is in excellent condition. The structural reinforcements including the bulkheads, longitudinal and athwartships members were visually inspected throughout the process. The welds for the external modifications were vacuum tested at the ship yard. The structural reinforcements are in excellent condition. The bilge is holding moderate water which was added to test the bilge pumps. The interior cabin spaces are in excellent cosmetic condition. There are areas which are pending completion. A stability book is pending completion by a naval architect.

Summary: Good

MACHINE SYSTEMS

Main engine: One Niigata, model 6PA5L, 1,800 PS @ 1000 rpm rated continuous

Engine application: Diesel, inboard, 6 cylinders, turbo charged, air start

Serial Number: 20258

Transmissions: Nico Model MGN1824V, serial # 018V153, ratio 3.02:3.45

External/peripherals: AC electric seawater and freshwater pumps and remote coolers

Engine controls: Air pressure throttle control, electric solenoid / air pressure transmission control, pilothouse center engine and transmission control and external two wing stations with transmission controls

Exhaust systems: Wet system, metal tubes, muffler and exhaust gas / water separator to starboard, starboard side discharges

Propulsion gear/shaft logs: Kamame propeller, 2200mm x 1640mm four blade RH bronze propeller in bronze stern tube assembly, lip seal with seawater cooling and emergency air seal, spare lip seal, two piece steel propeller shaft with flange in aft bilge

Steering system/rudder ports: Hydraulic system, electric and manual pumps in steering locker by rudder, two actuators, unknown type of bearing, wet rudder locker, steel (92.5" x 62") skeg hung rudder

Ventilation: Variable speed fans (pending installation)

Generators: Two 125 kw and one 80 kw Kohler, model 80E0ZD and 125E0ZD, starboard 125 kw serial # SGM326NPC, port 125 kw serial # SGM326NPD, port 80 kw with serial # SGM326NGT

External / peripherals: Suitable application, satisfactory installation, sound boxes

Seawater systems: Steel pipes, reinforced hoses, double clamped hose connections

Bilge pumps: 15 cub meter/hr. AC electric pump in engine room with two pickups, electric pump for aft void (ballast pump with bilge pump valve), emergency hand pump in engine room, electric pump for anchor rode locker

Comments: The machine systems including the engine and transmission were visually inspected. The engine was test operated at the dock; the transmission was not engaged. The engine was inspected by a Niigata representative and receipt of that report is pending. The engine reportedly overhauled prior to the vessel being acquired by HYS, we have requested that Niigata provide details of that overhaul. The engine was built in December 1991 and is the original engine. The external surfaces and peripheral components of the engine and transmission appear good and most functioned normally. The handle for the manual lube pump for the transmission comes in contact with a storage shelf support. The engine was "hunting", with rpm variations between 520 and 560. The rpms were adjusted down. The initial attempt to transfer the engine control from the engine room to the pilothouse resulted in an over speed condition which tripped an automatic shutoff system. A faulty solenoid was located and service was performed, allowing the successful transfer of the controls. A successful test operation of the emergency shutdown system at the pilothouse was accomplished. The engine uses an air start system, there are AC electric pumps for raw water and freshwater cooling with remote heat exchangers, a pneumatic air control system for the throttle and a combination electric, solenoid and pneumatic air system for the transmission. The cooling system and the starting system and controls were all successfully tested. The transmission controls have not been tested. The exhaust system is the only engine modification performed by HYS. All other components and systems are the original configuration. The original exhaust configuration was a dry stack exhaust that has been modified to include a dry riser, water injection into a muffler / exhaust gas separator and separate exhaust gas and water discharges through the starboard hull side (exhaust gas above the waterline and exhaust water below the waterline). The large exhaust components were purchased from an Italian manufacturer and a very similar system was used on a prior HYS project. The new components have been left accessible pending sea trial. The propulsion components including the propeller, propeller shaft and stern

tube were visually inspected. The propeller was reportedly replaced when the engine was rebuilt. The propeller was percussion tested and at the time of the haul out and inspection was in good – excellent condition. The propeller shaft has not yet been spun and tested underway. The steering system was visually inspected. The steering system is not currently functional, none of the steering system components were tested. A steering control panel located to port outboard forward of the engine room has three or four indicator lights which were inoperative when tested. The wing stations are pending completion and test of the transmission control and steering control at the wing stations was not accomplished. The steering system was briefly tested with the manual pump. The installation of a ventilation system for the engine room is pending completion. The generators were visually inspected, test operated and loaded. All generators were brought on line and synchronized with a new distribution system. The generators are new. The generators appear to have been properly installed and are properly functional. The through hulls were visually inspected and the valves were manipulated. The through hulls and related components are in good – excellent condition. Some of the seawater systems were reused, many pumps and motors were rebuilt and reinstalled, pipes that were reused were cleaned, inspected, serviced and repainted. All through hull components were removed and serviced during the haul out. The electric bilge pumps were test operated and mostly functioned properly. The aft ballast pump was designed to function as the steering locker bilge pump, it did not function properly.

Summary: Good

TANKAGE

Fuel: Seven primary steel fuel storage tanks, FO1 port and starboard forward 11.9 cubic meters each, FO2 port (15.5) and starboard (15.0) amidships, FO3 port (16.7) center (14.4) and starboard (17.3) aft, day tank to port of engine room on main deck level, approximate total capacity 103.1 cubic meters or 27,236 US gallons

Fill & vent: One fill station forward on centerline of boat deck, fuel manifold center forward in engine room

Feed & return: Steel tubes, supply and return for all machines from day tank to port of engine room

Water: One technical water and one fresh water fill fitting per side on boat deck, port and starboard steel fresh water tanks aft of engine room, 7.9 cubic meters each, port and starboard steel technical water tanks aft of engine room, 1.0 cubic meters each, 4,702 gallons total capacity

Holding: One steel 792 gallon/3.0 cubic meter gray and one steel 792 gallon/3.0 cubic meter black water tanks amidships (one on each side of centerline)

Gasoline: One fill fitting on each side of swim platform (Kells complete)

Ballast: Four steel aft tanks, two forward and two in engine room, 11,729 gallon/44.4 cubic meter capacity

Comments: The fuel system including the tanks, fill, vent and feed lines was visually inspected as possible. Through the course of this project all tanks have been internally inspected. The tanks are in excellent condition. At the time of this survey the fuel tanks were not yet filled, the fuel system components were mostly untested. The condition and age of the fuel, (water and waste) 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. We did not test the ballast system. The tank level gauges are not currently functional. The black and gray water systems were not tested. The water pressure pump cycled, the cause is unknown and may be normal devices such as icemakers. Secondary vents for the FOT3 tanks are labeled diesel and appear to be fill fittings. The aft ballast tank was not functioning properly. A valve for the aft day head was stiff. The plumbing to the bar is pending completion. The master head sinks are pending installation. The master head is not properly functional.

Summary: Satisfactory – Good

ELECTRICAL SYSTEMS

AC system: Inteli Compact 3 control board system forward in engine room allows synchronization and load sharing of all three generators, 440 volt transformer, two 440-690volt / 4P / 250 amp shore power inlets to starboard aft of boat deck, frequency converter, 220 volt / 60 Hz system

DC system: Battery switch on each generator, battery switch in port Portuguese bridge locker, eight Powergor DB12-50 (non-spillable) batteries in center Portuguese bridge locker, five battery switches in center Portuguese bridge locker, 24 volt system, two 12-volt sealed batteries by each generator (six total in engine room)

Wiring: Multi-strand wires, much of the wiring is armored cables, wiring in engine room is secured in metal trays

Circuit protection: Sub panel in crew lounge, four sub panels forward of engine room, main distribution panel to port forward in engine room includes relays and ten function AC meters, DC converter, main and branch circuit breakers, main generator control panel on centerline forward in engine room, sub panel in galley, sub panel in pilothouse

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. No 440 volt supply is available at the vessel's location. The shore power inlets were not tested. A temporary shore power cord is hardwired into the system for a source of shore power. The generators and their control systems are properly functional. Some of the minor lighting components are pending installation and completion including a few exterior lights and a few strip lights around windows and recessed overhead areas. All of the interior lights utilize transformers. All interior lights are led lights. A plexiglas panel is pending installation on the outboard side of the main distribution panel. There are combination 110 / 220 outlets in the heads. These outlets cannot withstand a high amperage device. There are side by side 110 and 220 volt outlets in the galley, at the bar and forward in the

saloon. The outlets are not differentiated. There was no power to the 110 outlets at the bar or in the saloon or the bar's icemaker. One 110 volt converter is located forward of the galley in the starboard locker, it is the source of 110 volts, it is noisy. The navigational electronics are installed but pending final setup. The gyro compass is reportedly fully functional. The autopilot has not been tested. The AIS system is not currently functional. The transducer was reportedly installed during the haul out but the depth finder is not functional. Some of the wires and tubes under the pilothouse panel are not properly installed, organized or secured. The Clear View windscreens and the windshield wiper are inoperative. The telephone system has not been completely installed and is not functional. The icemaker and the refrigerator forward on the penthouse deck and the spa tub on this deck are not currently functional. The guest cabin reading lights energize and illuminate simultaneously. The clothes washers and dryers are not yet commissioned and functional. None of the circuit breakers throughout the vessel are labeled. None of the pumps are labeled. The frequency converter is reportedly not properly functional and is pending replacement. The generators' batteries are charged by the generators' alternators. There is no alternative charging system, no parallel system and no monitor system. The 24V DC system to the alarm panel is currently powered by an AC to DC converter. HYS reports they have pulled a cable from the house batteries back to this location for a redundant power source, but it is not connected. The engine room ventilation system is pending installation. The passerelle is not currently functional. The stern capstans' switches are not yet installed. The switch for the boat deck working light is located in the steering locker and is inconvenient. The controls for the beam lifts are not currently conveniently accessible. The beam lift end limits are not homogeneous. The beam lift speeds and the beam lift cable speeds are not synchronized. The beam lift wires are not organized to eliminate potential for damage to the wires, the wires needed to be moved manually during testing of the beam lifts. The crew VHF exhibited an error message. Boxes on top of the water heaters reportedly house relays / over current protection devices which may require manual resets. The box forward of the crew lounge is difficult to access. The elevator became stuck between the lower and first level. When the generators are not running their alarm panel lights in the pilothouse indicate abnormal operation.

Summary: Satisfactory – Good

SAFETY AND LIFE SAVING

Portable fire extinguishers: Items ordered, pending arrival include: ten (10) 2.5 lb. HCFC, nine (9) 10 lb. HCFC, three (3) 20 lb. HCFC, six (6) 10 lb. AFFF foam, three (3) 20 lb. AFFF foam, one (1) 50 lb. AFFF foam, three (3) 5 lb. CO2, two (2) 10 lb. CO2

Fixed fire system: Chemtron FM-200 system with two 95 lb. bottles in engine room, pending final installation, seawater pump with hydrants: starboard aft on main deck, two to port on bridge deck, one forward on penthouse deck, engine room and to port forward on boat deck, control panel in pilothouse, items ordered, pending arrival include: four (4) self contained breathing apparatus with air cylinders, four complete fire fighting suits, fire axe, three (3) fire blankets, fire hoses, nozzles

Flotation devices: Four life rings, other items ordered, pending arrival include: twenty three (23) SOLAS inflatable adult lifejackets with lights and whistles, four (4) SOLAS inflatable child lifejackets with lights and whistles, four (4) 2.5 kg lifebuoys with buoyant

lifeline, two (2) MOB devices with smoke and light

Horn/distress flares: Air horn, items ordered, pending arrival include: flare sets for bridge and three sets for tenders

Navigational/anchor lights: Separate sidelights, masthead / steaming light, stern light, all around / anchor light

Anchor & ground tackle: 420 Kg Pole anchors (Navy style), 22mm stud link chain, six shots per side

Other equipment: Engine room high water alarm, escape hatches from lower / crew cabin passageway and guest cabin passageway, rudder locker and anchor rode locker high water alarm senders, four Survitec 10-person type EMEC 10LPC life rafts (certified until 09/2015) with hydrostatic releases, items ordered and pending arrival include: EPIRB, SART, stretcher, GMDSS handheld VHF, oil spill response kit, safety harnesses, tethers and bo'suns chair, foil blankets, and all required publications

Comments: Portable fire extinguishers have been ordered and are pending arrival and distribution. The engine room's fixed fire suppression system is installed but is not commissioned. Personal flotation devices have been ordered and are pending arrival. The horn is functional from the main helm station but is not functional from the wing stations. The navigational and anchor lights are properly arranged and installed but are not currently functional. Distress signal flares have been ordered and are pending arrival. The ground tackle including the anchor and rode was visually inspected as installed and appears good - excellent. Both windlasses were tested and functioned normally. The size of the anchor rode lockers may allow the chain to tumble. The high water alarm system is not currently functional. The seawater firefighting system was not tested. The escape hatches are not properly identified and the crew cabin passageway escape hatch has not been cut out of the soft overhead panel. The alarm panel is not properly functional. The telephone communication system and alert system between the pilothouse and the engine room is not functional. The vessel has a manned engine room. The elevator shaft is scheduled to have an automatic fire extinguishing system which is pending installation. The elevator door stops with pressure but does not open. The emergency lighting system including the lighting system in the engine room has not yet been installed. The life rafts have current certification. The hydrostatic releases are not dated.

Summary: Pending

ACCESSORIES

Navigational Electronics: ICOM-IC-M802 HF Marine Transceiver, Furuno Universal FA-150 AIS, Furuno NX-300 Navtex, ICOM IC-M504 VHF, four Furuno MU-190 monitors, Furuno FAR-2117-BB 12 KW radar (black box), Furuno DR6A 6 KW radar, Furuno SC-30 Satellite compass, Ritchie compass, Sperry Marine MK2 gyro compass and repeater, Sperry Marine Navipilot 4000 autopilot, rudder angle indicator, Furuno FI-50 wind speed and direction indicator, Furuno BNWAS BR-510 wind speed and direction indicator, Furuno BNWAS BR-510 bridge watch, Furuno FM-8900S VHF, Furuno GP-320B antenna, Furuno DFF-1 network sounder, two Shakespeare 393 antennas, ICOM AT-140 automatic antenna tuner, Maxsec Time Zero unit, Furuno Navnet 3D multi-function model MFDBB (black box)

General equipment: A.O. Smith model ELS40P200 water heater, air conditioning controls in cinema, library / passageway, engineer's cabin, walk in cool room, three crew cabins, four guest cabins, saloon, kitchenette, dining area, pilothouse, pilothouse passageway, captain's stateroom, owners / lounge, stateroom and head, manual lube oil transfer pump, three transmission mounted pressure gauges, stern tube cooling water flow pressure and air seal pressure gauges, galley equipment includes two GE Monogram refrigerated freezers with icemakers, two GE Monogram over and under convection ovens, Wolf electric cooling devices include three double burners, fryer, grill and steamer, two GE Monogram hoods with fans / lights / warmer lights, walk in cool room, GE warming drawer, two GE Monogram dishwashers, galley sink with wash and filtered water, double walk-in refrigerator / freezer, Elevator Concepts four station elevator, A.O. Smith ELLN40 water heater, three crew cabins have bunk berths, ensuite heads with heads, showers and sinks, two Miele T8823C clothes dryers and W5823 clothes washers, guest cabins include Samsung televisions, ensuite heads with electric heads, sinks, showers and fans, two aft guest cabins have queen size berths, two forward cabins have two single berths and a Pullman berth, helicopter deck (1.5 ton rating), heli-deck lights, alfresco deck has a BBQ pit with sink, Waeco refrigerator and two Dometic electric grills, thruster controls at pilothouse helm and two wing stations, two clear view screens, one center windshield wiper, Waeco Perfect Charge IU452A and MCA2440 battery chargers, UMT 1,200 lb. tender davit, two Quick electric windlasses, technical water spigot to port and forward on bridge deck, fresh and seawater anchor washes, Grundfos Hydro MPC-EZCRE5-6 water pressure system, ABT Trac electric stern thruster (75 h.p.), two FCI Aquamiser and water makers (.5 and .6 hours on units), Taiko SBH-15 sewage treatment plant, propeller shaft cooling water supply and emergency air seal, ABT TRAC504 hydraulic fin stabilizers, ThermaSol sauna, engine oil lump pump, .75 KW black water discharge pump, generator mounted instrumentation includes hertz, volts, amps, oil pressure, water temperature, DC volts and hour meter, Dometic Condoria model PCWM/FCL 48004 co3 1.12 chilled water (8 compressor) HVAC system, Alfa Laval MIB303513/33 fuel centrifuge, Tank Sentry tank level unit for 14 tanks, two air compressors and two air pressure storage tanks, Ocean Link APS6060S 50Hz / 60 Kva frequency converter, Head Hunter technical water pump, Taiko Kikai oily water separator, Ocean stainless passerelle, two Quick electric stern capstans (two direction), two aft deck showers, Lotus electric aft deck on demand water heater, 6 tank Tank Sentry unit in steering room, steering room ventilation, tender beam lifts, hydraulic powered garage doors on each side of boat deck, gym with Life Fitness

G7 weight machine, Life Cycle and T5 Treadmill, Waeco beverage refrigerator, Samsung TV & sauna, Head Hunter heads, engine mounted instrumentation includes seawater pressure, freshwater pressure, engine oil pressure, transmission oil pressure, charge air pressure, fuel pressure and tachometer, card table in study, crew lounge includes dinette, Waeco refrigerator, Samsung TV, and ICOM IC-M12 VHF, air conditioning control in crew lounge, sliding doors to saloon from alfresco deck and forward and aft in penthouse, bar, saloon furniture, large saloon television, bar includes GE Monogram icemaker, Kuchen wine cooler, Waeco refrigerator and sink, one 110V AC converter, dining table, Kitchenette includes Waeco refrigerator, sink, Kuchen combination oven, Kuchen 4-burner electric stove with hood, GE warming drawer, ten person dining table, saloon day head includes electric head, sink and fan, safe in captain's stateroom and owner's stateroom are pending installation, pilothouse bench seat, helm chair and Waeco refrigerator, follow up and non follow up steering, engine control air pressure gauge, tachometer and alarm panel, Panasonic KX-TES824 vessel phone system, Penthouse foredeck includes spa tub, GE icemaker, Waeco refrigerator, exterior shower, master head includes head, shower, fan and two sinks, technical water spigot in crow's nest

The vessel will have three tenders, two AB inflatable tenders are pending immediate arrival and include a 19DLX with a Yanmar 4BY3-180Z diesel engine with outdrive as the primary tender, a 11VST center console with a Yamaha 30 h.p. four stroke outboard as the crew's work boat and a fishing tender is a Robalo R200 center console equipped with a 150 h.p. Mercury Verado outboard engine. The Robalo is complete and in transit.

SUMMARY

The vessel was built as a steel government operated, single engine, fishing fleet inspection vessel in Japan. The engine was reported rebuilt just prior to the purchase of the vessel by HYS Yachts and the vessel was delivered to HYS in Subic Bay, Philippines on its own bottom. The vessel was stripped down to very basic structural components below the original main deck, the engine remained installed and the tankage is mostly original. A new design was planned by a naval architect and the vessel was reconfigured and reconstructed as an exploration yacht. The vessel was well built originally, appeared to be well maintained and the reconstruction work has been well planned and completed. The vessel has an enclosed pilothouse, owner's suite on the upper deck, four guest cabins, five crew cabins, a heli-deck, saloon, commercial type galley, cinema, gym and a four station elevator. The vessel is approaching completion and is basically structurally and mechanically sound. Upon completion of the restoration and acquisition of the remaining components, provisioning and successful sea trials, the vessel will be suitable for use as a blue water exploration motor yacht.

Overall Summary: Good

VALUES

ACTUAL CASH VALUE	NEW REPLACEMENT VALUE	INVESTMENT
\$10,500,000	\$20,000,000	\$9,000,000

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 approximate investment price for the vessel, its accessories and associated costs. No values include maintenance costs, storage or tax.

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. Complete the ventilation system for the steering room and prove it properly functional.
2. Provide a safety rail for the inboard side of the steps to port on the penthouse foredeck.
3. Provide a suitable means of egress through the aft engine room deck hatch.
4. Assure the vessel has a means of re-boarding (for an accidental swimmer).
5. Service and prove the steering system properly functional with all steering controls.
6. Assure the engine exhaust system functions properly during sea trial and address any deficiencies.
7. Service the steering control panel to port outboard forward in the engine room, three or four indicator lights are inoperative.
8. The engine rpms varied (hunting) and the Niigata technician suggested that the governor should be checked by its builder (Zexel). Assure that this service is performed and that the engine is properly functional.
9. The Niigata technician suggested that the solenoids for the transmission and the engine controls be serviced, complete this service and assure the controls are properly and reliably functional. Test and prove the wing engine controls for the transmission.
10. Carefully inspect and monitor performance of the propeller shaft, propeller shaft seal, stern tube and propeller underway. Assure that the propeller shaft seal is properly functional and suitable for use. Determine the condition of the emergency / spare seal and the function of the emergency air seal and assure they are suitable for use. Address any deficiencies.
11. Service and prove the ballast pump in the steering room functional as a bilge pump as it did not function properly.
12. Complete the installation of the tank level gauges and prove them properly functional.
13. Service and prove the aft ballast pump properly functional.
14. Service and prove the master head properly functional.
15. Complete the installation of the gasoline system for the tenders and assure compliance with a suitable standard (IACS).
16. Complete the installation of the plexiglas cover on the outboard side of the main distribution panel in the engine room.

17. Differentiate the 110 and 220 volt outlets, in the galley, at the bar and a forward in the saloon below the large television.
18. Service and prove the AIS system properly functional.
19. Properly complete the installation and set up of the Furuno navigational electronic system, including the radars, plotters and sonars. Acquire and install suitable electronic charts.
20. Service and prove the Clear View windscreen and wiper properly functional.
21. Properly label all circuit breakers throughout the vessel.
22. Properly label all pumps and motors throughout the vessel.
23. Complete the replacement of the frequency converter, which reportedly does not function as designed.
24. Design and provide a suitable monitoring / charging system for the generators' batteries.
25. Complete the DC power supply to the alarm panel to assure a secondary power source.
26. Service and prove the passerelle properly functional.
27. Complete the installation of the fixed fire suppression system for the engine room.
28. Complete and prove the seawater fire system at all hydrants. Upon receipt of the firefighting components, distribute and label their storage locations. Develop a written protocol and train appropriately.
29. Complete the service to the alarm panels in the engine room and in the pilothouse, prove all components properly functional.
30. Complete the installation of the communication system between the pilothouse and the engine room.
31. Assure that the emergency engine operation will allow the captain to maintain control of the engine in an emergency situation.
32. Complete the installation of the fire suppression system which is designed to shut off all ventilation components in the event of high heat or smoke. Test and prove the system properly functional.
33. Complete the installation of the elevator shaft's automatic fire extinguishing system.
34. Service and prove the navigation lights and anchor light properly functional.
35. Enable the sounding of the horn from the wing stations.
36. Complete the installation of the emergency lighting system.
37. Complete proper markings and cut out of the escape hatches.
38. Complete the installation of the high water alarm system and prove it properly functional.
39. Service the elevator and prove it properly functional as it became stuck between the lower level and the first level.

SECONDARY

1. A project punch list was created in conjunction with this report. It is not included.
2. Determine why the freshwater pump cycled intermittently and eliminate any deficiencies.
3. Free up and prove the valve for the aft day head properly functional as it was stiff.
4. Remove the screwdriver in the rudder tank.

5. Complete the plumbing to the bar, test and prove the sink and icemaker functional.
6. Test and prove all icemakers functional.
7. Complete the installation of the master head sinks and prove them properly functional.
8. Eliminate the water leak at the engine room bilge pump priming valve stem.
9. Upon completion of the sea trials, build out and finish installation of the gym's sauna and prove it properly functional.
10. Modify to eliminate contact between the storage shelf support and the transmission's manual lube pump handle.
11. Re-label the primary tank manifold located on the centerline forward in the engine room. Assure it is labeled properly.
12. Provide a tank diagram and display it in the engine room. Assure it includes the day tank.
13. Test and prove the ballast system functional upon completion of the tank level gauges.
14. The aft ballast pump empties into the rudder locker, assure that the holes in the rudder locker which allow communication with sea are of sufficient size to handle the flow of the ballast pump. Assure the pump is properly functional.
15. Complete the installation of the telephone system and prove it functional.
16. Complete the installation of the penthouse foredeck icemaker, refrigerator and spa tub and prove them properly functional.
17. Complete the installation of the strip lights throughout the vessel including around windows, recessed areas in the overhead and prove the functional.
18. Complete the installation of all exterior lights and prove them properly functional. Complete the cosmetics of these lights as appropriate.
19. Determine the amperage capacity of the 110 / 220 outlets in the heads and advise all passengers of this limitation to prevent damaging the outlets. Consider appropriate labels.
20. Address the noisy 110 converter forward of the galley, eliminate the noise.
21. Service the guest cabin reading lights so they can function independently.
22. Assure all information for the transceivers is properly programmed including MMSI, time and location data.
23. Upon completion of the power to the bar's icemaker, prove it properly functional.
24. Upon completion of the work on the navigational electronic system assure that wires and tubes below the pilothouse helm console are properly organized, bundled and secured.
25. Set the indicator dials for the various' pumps' ammeters to establish a norm.
26. If possible test and prove the shore power inlets properly functional.
27. Complete the installation of the stern capstan switches.
28. Relocate the switch for the boat deck working lights to a more convenient location.
29. Relocate the controls for the beam lifts to a more convenient location.
30. Provide necessary data to the crew VHF.
31. Consider a more easily serviced and accessible installation for the relays on top of the water makers.
32. During the sea trials and initial voyages, determine if the anchor rode lockers are of a suitable size to prevent tumbling of the anchor rode, modify if / as necessary.
33. Determine if the elevator doors can be made to open with pressure, they currently stop closing but do not open.

34. Clean debris from the bilge spaces including below the lower deck sole. Assure that all open tanks are carefully cleaned prior to closing and filling tanks. Remove the screwdriver from the rudder tank.
35. Obtain and review the stability book once available, maintain copies aboard and remote from the vessel.
36. Service the beam lift end limits so they are homogenous.
37. Service the beam lift speeds and the cable lift speeds on the beam lifts synchronized.
38. Properly punch the life raft's hydrostatic releases with appropriate dates.
39. Properly route and secure the beam lift wires to prevent damage.
40. Label the secondary fuel tank vents which are currently labeled diesel and appear to be tank fill fittings as "vents" to prevent any accidental attempt at filling through these fittings.
41. Equipment that was successfully tested includes: bow and stern thrusters from three stations, water makers, fresh water pressure system, technical water pressure system, HVAC system, generators' control system, both air compressors, both capstans, both beam lifts, both garage doors, elevator, galley equipment, water heaters, tender davit, windlass, dinette equipment, main engine fresh water and seawater pumps, engine room and bo'suns locker bilge pumps, main engine and transmission lube oil pumps, most refrigerators, exterior grill and the freshwater anchor rinse.
42. The following components were not tested or inspected: ballast system, refrigerator on the BBQ deck, fire hose hydrants, salt water anchor rinse, coffeemaker, steamer, fryer, transmission, all bridge controls, gray water system, black water system, most icemakers, shore power inlet, frequency converter, fuel centrifuge, fuel transfer system, sewage treatment system, fin stabilizers, primary AC transformer, all functions of navigational equipment and all functions of audio visual systems (pending installation).

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.



By: Mr. Kells Christian, Surveyor
S.A.M.S. – A.M.S. # 301

March 5, 2015
Date