



**Sun Coast Marine**  
Surveying and Consulting

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**Marine Survey Report For Sample Survey**  
**"2005 Viking Sport Cruisers 70 M/Y"**



**Membership with the Society of Accredited Marine Surveyors and the American Boat & Yacht Council**

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# 18-290 2005 Viking Sport Cruisers 70 M/Y

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## INTRODUCTION

### CERTIFICATION

This Is To Certify that the undersigned Marine Surveyor acting on behalf of Sun Coast Marine Surveying & Consulting, LLC inspected the referenced twin screw fiberglass motor vessel on the dates specified.

### PURPOSE OF SURVEY

The survey was made at the request of the named client Sample Survey for his/her account, in order to ascertain the vessel's general condition and valuation for pre-purchase consideration.

### CIRCUMSTANCES OF SURVEY

The vessel was inspected while afloat in its berth and later hauled for an inspection of the waterline hull, appendages, and machinery. All accessible compartments were entered but do to paneling, liner, tanks, and installed equipment only about 20 percent of the hulls interior surface could be observed. Any reference to bronze, aluminum or stainless steel metals is a color reference for convenience only, as the actual metallurgy cannot be determined without laboratory testing. The specific materials and layup schedule for the fiberglass moldings could not be determined with the non-destructive techniques available for inspection. A formal sea trial was performed. Machinery and equipment were inspected while operating unless specifically noted. Electrical power was available and used during the inspection. The deck and superstructure were examined visually and by way of ransom percussion testing, random moisture meter readings, and thermal imaging. The below draw waterline hull and appendages were examined visually and by of random percussion testing, the use of digital moisture meter and thermal imaging were applicable.

NOTE: Ownership, HIN and Official numbers from documents. Numbers verified on the hull. All specifications included in the report are from official documents or sources such as USCG Documentation, state registration, manufacturer's data or other reference materials and were not measured during the inspection.

### REPORT FILE NO

18-290 2005 Viking Sport Cruisers 70 M/Y

### SURVEYOR QUALIFICATIONS

The surveyor is a member of SAMS (Society of Accredited Marine Surveyors) with the designation of AMS (Accredited Marine Surveyor), and a Certified Standards Technician with ABYC (American Boat and Yacht Council)



### INTENDED USE

Recreational

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### GENERAL VESSEL INFORMATION

DATE OF SURVEY: 09/20/2018  
FILE NUMBER: 18-290 2005 Viking Sport Cruisers 70 M/Y  
CUSTOMER NAME: Sample Survey  
CUSTOMER ADDRESS: Sample Survey  
VESSEL BUILDER: Viking Sport Cruisers, Inc.  
HIN (HULL IDENTIFICATION NUMBER): Sample Survey

A true digital photograph of the hull ID number of the referenced vessel is shown in the report. The photograph has been enhanced for the purposes of this report to provide maximum visibility.

MODEL YEAR: 2005  
LENGTH OVERALL (LOA): 70'0" Per Power Boat Guide  
BEAM: 18'4" Per Power Boat Guide  
DRAFT: 5'2" Per Power Boat Guide  
DISPLACEMENT: 80000 Lbs Per Power Boat Guide  
VESSEL NAME: Elisena  
FUEL CAPACITY: 1320 Gallons Per Power Boat Guide  
WATER CAPACITY: 335 Gallons Per Power Boat Guide  
HOT WATER TANK CAPACITY: Unknown  
HOLDING TANK CAPACITY: 90 Gallons Per Power Boat Guide  
LOCATION OF SURVEY INSPECTION: 4441 Collins Ave, Miami Beach, FL 33140  
LOCATION OF BOTTOM INSPECTION: Norseman Shipbuilding Corp., Miami, FL

### HULL, DECK & SUPERSTRUCTURE

#### DESIGN

Standard manufacture' s hull, deck & superstructure.

**HULL:** Planing type hull with moderately raked bow, vertical with increasing flare forward, straight reverse sheer and square stern with dive platform. The bottom is a deep V design, with a reported 19-degree deadrise aft, lifting strakes and prop pockets steered by twin inboard rudders.

**DECK(S) & SUPERSTRUCTURE:** Single level deck with raised foredeck and recessed cabin house superstructure with FRP hard top.

**WATERTIGHT INTEGRITY:** A single watertight compartment divided into separate cabins by apparently non-watertight bulkheads and an overboard self-draining anchor locker at the forepeak. The hatches and portholes opening to the exterior hull, weather decks, and cockpit were apparently water tight types (ABYC Standards H-3) except for the companionway, cockpit locker hatches which were apparently water tight. The companionway was equipped with a sill and the cockpit was a self-draining type via scuppers located at the aft outboard corners of the cockpits engine compartment hatch gutters.

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### HULL, DECK & SUPERSTRUCTURE

Conventional fiberglass reinforced plastic (FRP) moldings with unknown core material, white gel coat exterior shell below the waterline and white gel coat above the waterline with bulkheads grafted to the hull with FRP laminates. Deck has unknown core with white exterior gel coat surfaces and molded in anti-skid texture in tread areas. Hull-deck joint is a shoe box design sealed with an elastomeric type compound and secured with stainless steel fasteners and FRP tabbing where observed. Joint protection provided by an external type plastic rub rail with a stainless steel striker molding and stainless steel fasteners. See Findings & Recommendations.

**FINDING B-1**

**FINDING C-1**

### STRUCTURAL MEMBERS

The longitudinal and athwartship framing system comprised of FRP encapsulated longitudinal box stringers and frames of an unknown core material. Both stringers and frames laminated to the hull's interior along with full and partial plywood bulkheads and plywood floors grafted to the hull with FRP laminates and full and partial plywood bulkheads secured with mechanical fasteners.

### BOTTOM PAINT

Bottom paint is in serviceable condition showing minimal wear and tear.

### BLISTER COMMENT

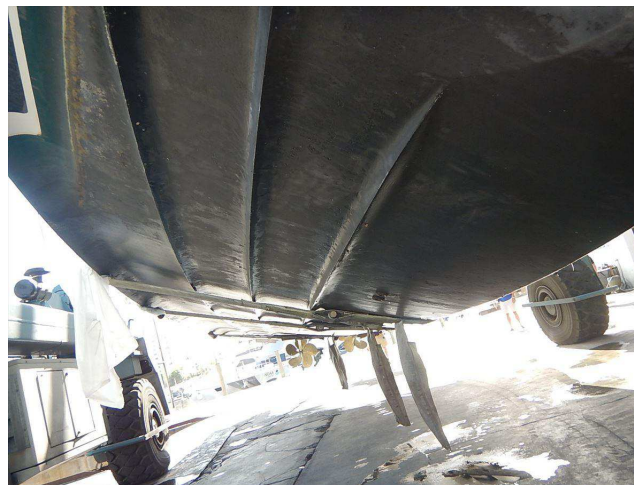
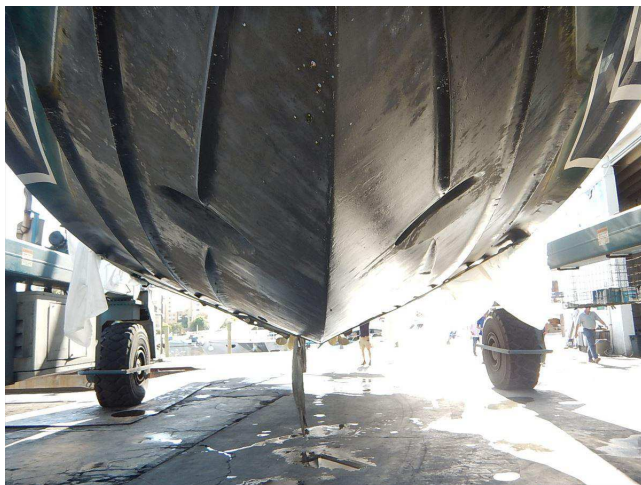
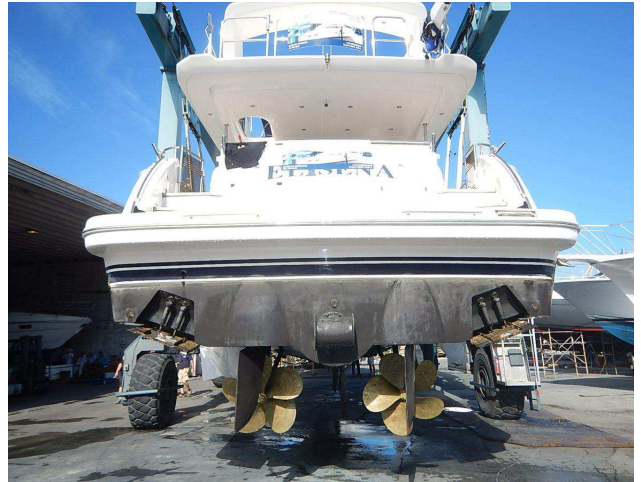
Blisters are an unknown factor on all boats and if not currently present, there is no guarantee that they will not appear in the future. Blisters have a tendency to dry out over winter storage unless severe or large. Blisters (if any) best appear after the vessel has been in the water for an entire season. In addition, the symptomatic evidence of blistering can be obscured by bottom coatings, a dry storage period during which blisters spontaneously depressurize, bottom laminate sanding, and other conditions or actions. Recommend full inspection for blisters immediately after haul-out and power wash. Surveyor has no firsthand knowledge of the history of bottom maintenance, blistering, repairs or prophylactic coatings on this vessel.

### TRANSOM

Well secured, no cracks or defects sighted. Moisture readings were relatively Dry. No delamination when checked with a percussion hammer.



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### ABOVE WATER LINE HULL, DECK SUPERSTRUCTURE, HARDWARE & FITTINGS

#### DECK FLOOR PLAN

Standard manufactures deck layout with no modifications to the original design.

#### ANCHOR PLATFORM

Stainless steel insert integrated with the bow with anchor roller that was functional.

#### TOE RAILS & STANCHIONS & LIFELINES

Molded FRP toe rail, part of deck lay up, polished stainless steel bow and side rails with wire rope mounted to the deck with stainless steel fasteners. The bridge has stainless steel rails in the aft section. Firmly mounted and serviceable except as otherwise noted.

#### **FINDING A-1**

#### MOORING HARDWARE

Polished stainless steel horn cleats firmly attached with stainless steel fasteners.

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### HATCHES, PORTHOLES, PORTLIGHTS, DOORS & WINDOWS

Glass cabin trunk windows and sliding companionway door and aluminum framed hatch with Lexan type window at the forward end of the coach roof. Hatch sufficiently sized to act as a fire escape per NFPA 302. Stainless steel framed portholes with Lexan type windows at the ADWL hull and cord FRP hatches. Intact and serviceable except as otherwise noted.

### EXTERIOR SEATING & TABLES

The exterior seat structures were firmly mounted and the upholstery was serviceable showing average wear and tear for age of the vessel.

### COCKPIT EQUIPMENT

Transom shower that was functional on the aft starboard deck. The bridge had an electric grill that was functional, freshwater sink with pressurized water and a U-Line ice maker that was functional. See Findings & Recommendations.

#### **FINDING B-2**

### ENGINE HATCH

Engine space entered from aft deck door leading to the Crew Quarters and Engine Room.

### BOARDING LADDER

A stainless steel collapsible boarding ladder is mounted on the swim platform in a platform pocket. The ladder shows minimal wear and was secure when tested.

### SWIM PLATFORM

Molded in FRP swim platform with welded stainless steel supports. Serviceably showing moderate wear and tear from normal use except as noted in the findings.

### ABOVE DRAW WATER LINE (ADWL) THRU HULLS

Stainless steel and marelon thru hull fittings, all secure and showing average wear and tear for the age of the vessel.

### PASSERELLE

An Opacmare passerelle was tested and found to be fully operational.

### CAPSTAN

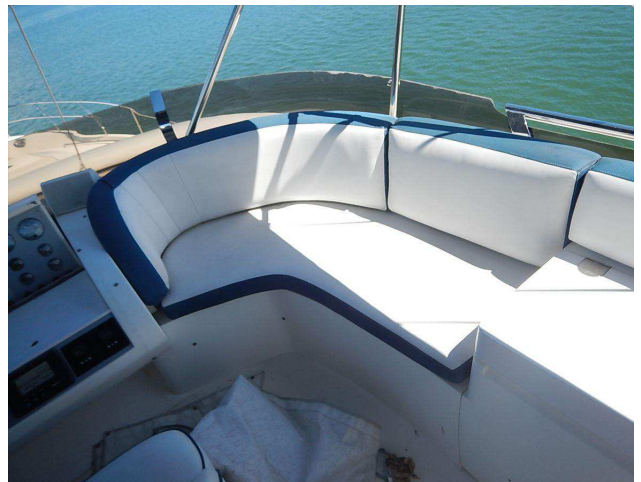
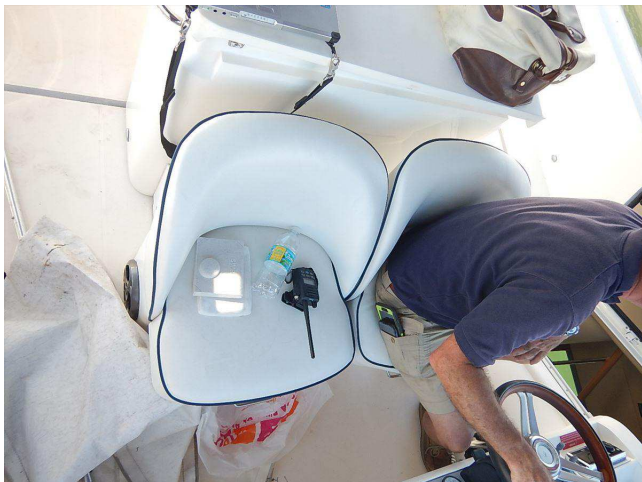
Lewmar capstans with power buttons on the port and starboard aft deck. See Findings & Recommendations

#### **FINDING B-3**

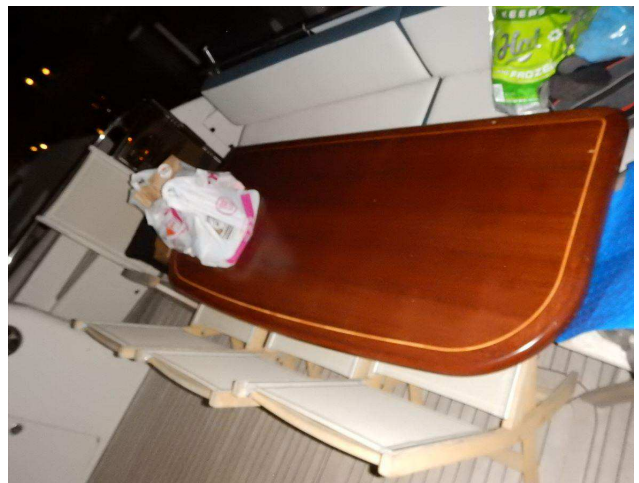
### DAVIT/CRANE

MarQuipt electrically powered davit that is controlled by a remote. The unit is rated to handle a maximum of 800 Lbs. See Findings & Recommendations

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### FINDING B-4

## BELOW DRAW WATER LINE SKIN FITTINGS, MACHINERY & FITTINGS

### BELOW DRAW WATER LINE THRU HULL FITTINGS

Bronze fittings that appear to be in serviceable condition showing average wear and tear for the age of the vessel and secure.

### THRU HULL STRAINERS & SCOOPS

Bronze slot style thru hull strainer covers, appear to be in serviceable condition with limited wastage.

### TRANSDUCER(S)

Plastic type, intact.

### FAIRING BLOCK(S)

Well secured to the hull with no indications of damage.

### SEA VALVES/SEA COCK TYPE

Bronze sea cocks with mounting flanges. See Findings & Recommendations.

### FINDING A-2



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### SEA STRAINERS

Bronze Internal strainer(s) installed. Strainers were inspected visually for cracks or any evidence of blockage. Strainers were not opened and inspected due to destructive testing restrictions. It is recommended the buyer open and inspect each strainer prior to taking delivery.

### TRIM TABS

Bennett brand 12Vdc hydraulic trim tabs with reinforced flex piping, composite struts, stainless steel trim blades. Operable. No hydraulic fluid leaks found.

### BOW/STERN THRUSTER(S)

Bow and stern thrusters, all blades were intact and the thrusters were functional when tested.

### NOTE

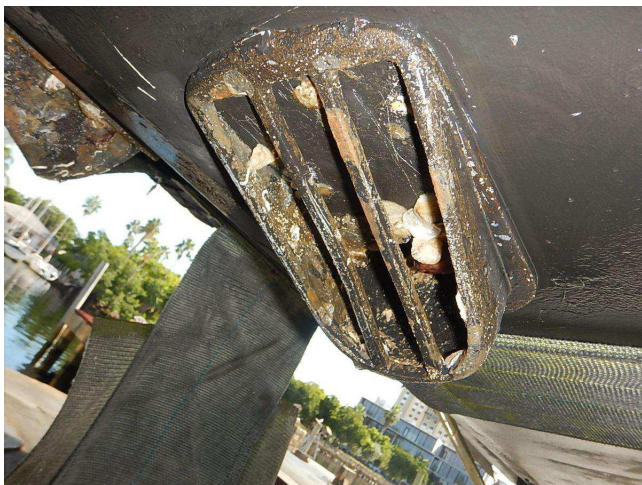
This company suggests the sea cock/ sea valves be serviced according to the manufactures recommendations as a preventative measure upon purchasing a used vessel and thereafter as recommended by the sea cock/ sea valve manufacturer or more frequently as a part of the vessel's regular maintenance program. We also strongly recommend that if the vessel is left unattended that all below waterline sea valves be closed with the exception of scuppers, bilge pump discharge, or other valves that are required to be in the open position to prevent flooding of the vessel during inclement weather. This provides an extra measure of safety for the vessel as well as the added benefit of familiarizing the crew with safety valve locations and to exercise the valves to prevent seizure. Moreover, if not already done so, it is strongly suggested that properly sized tapered wooden plugs be kept in the vicinity of each sea cock/sea valve/thru hull to be used as a plugging device in the case of an emergency. Finally, when renewing the vessels protective coatings, it must be kept in mind that antifouling paints containing copper or other metals must not be applied to metal fittings and/or machinery without first having an insulated coating such as underwater metal primer or epoxy barrier coat applied. Failure to do so can result in harmful galvanic corrosion damage to the fittings and/or machinery.

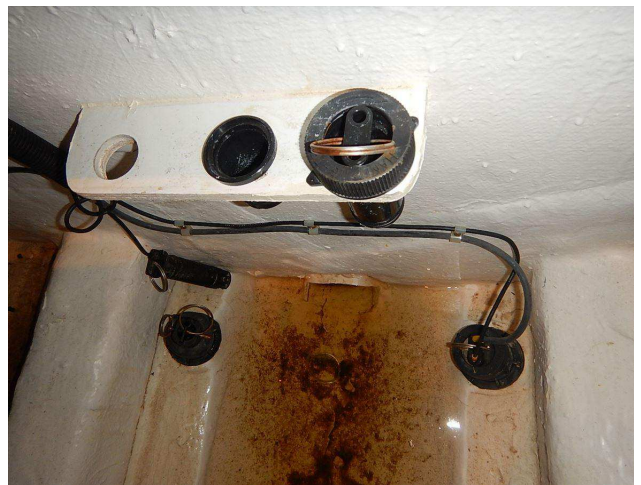
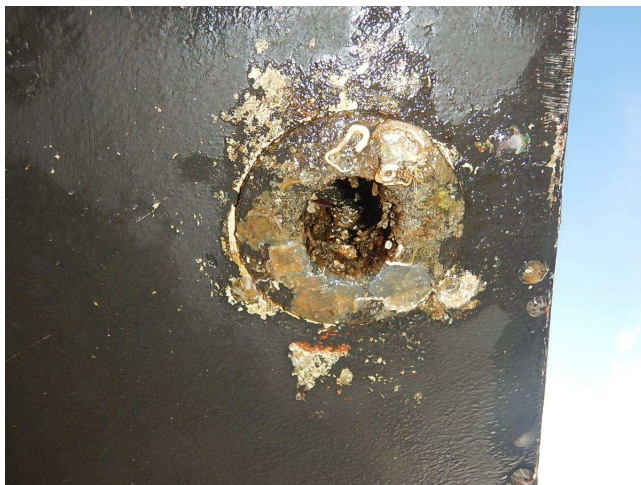
### CONDITION & COMMENTS

In apparent serviceable condition except as noted in the Findings & Recommendations.



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## CATHODIC PROTECTION

### BONDING SYSTEM

The bonding system was found to be using an individual green insulated bonding wire. Appeared to be serviceable were sighted except as indicated otherwise in this report. See Findings & Recommendations.

#### **FINDING B-5**

### GALVANIC ISOLATOR

Two Galvanic Isolators sighted in the engine room. Diode testing confirmed they were functional. See Findings & Recommendations

#### **FINDING B-6**

### LIGHTING PROTECTION

None, but not normally found on boats of this type.

Note: Few boats are actually wired for lightning protection from the manufacture. There is no known way to ensure complete protection for personnel and equipment from a lightning strike. However, we suggest that any owner review the information at [www.marinelightning.com](http://www.marinelightning.com) and ABYC TE\_4.

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### ADDITIONAL REMARKS

A separate bonding system survey was not performed, and a corrosion meter was not used to establish the level of protection. If a more detailed analysis is required, a complete separate bonding system survey is recommended.

### NOTE

A vessel's bonding system should be checked as part of the vessel's regular maintenance program. Each bonding wire should be checked regularly for corrosion, and its connection should be checked for connectivity. Resistance should be less than one (1) Ohm.

## HELM STATION & NAVIGATIONAL ELECTRONICS

### UPPER HELM STATION

Electronics mounted on cockpit bulkhead. A 4" Richie compass in serviceable condition. The accuracy of the compass was not verified. An ICOM M-602 VHF radio, powered up and received transmission using the weather service. Received transmission when tested using the Sea Tow automated service. A Garmin GPSmap 5212 chart plotter with navigational charts that was operational. A Furuno NAVnet vx2 with electronic charts, radar and sonar that was operational. A Furuno RD-33 depth finder. SIMRAD AP26 A Raymarine ST6002 smart pilot autohelm system that was proven operational during the sea trial. See Findings & Recommendations.



**FINDING B-7**

### LOWER HELM STATION/PILOTHOUSE

Electronics mounted on cockpit bulkhead. A 6" Plastimo compass in serviceable condition. The accuracy of the compass was not verified. An ICOM M-602 VHF radio, powered up and received transmission using the weather service. Received transmission when tested using the Sea Tow automated service. A Garmin GPSmap 7212 chart plotter with navigational charts that was operational. A Furuno NAVnet vx2 with electronic charts, radar and sonar that was operational. A Furuno RD-30 depth finder. SIMRAD AP25 A Raymarine ST6002 smart pilot autohelm system that was proven operational during the sea trial. See Findings & Recommendations.

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### FINDING B-8

#### THROTTLE & SHIFT CONTROLS

MAN electronic controls that showed average wear and tear and were operational.

#### ENGINE STATUS

All engine instruments are OEM MAN digital displays and analog gauges.

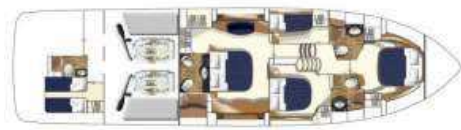
#### BOW & STERN THRUSTERS

Side Power joy sticks that were operational when tested.

## CABIN INTERIOR APPOINTMENTS

#### MANUFACTURES IMAGE

Standard manufacture layout, no interior changes to the original factory designed interior. Not to scale. For general information purposes only.



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### ENTERTAINMENT BERTHING & SALON

Bulkhead mounted 120 VAc Sony brand flat screen TV in the salon located aft on the main level. Bulkhead mounted Samsung TV in the Crew Quarters, a Visio brand TV in the Guest Master Berth (V Berth), port and starboard Guest Berths and a Panasonic bulkhead mounted TV in the Master Stateroom. Clarion M109 AM/FM/CD player in the Crew Quarters, JVC AM/FM/MP3 unit in the Guest Stateroom and two midship Guest Berths. A forward Guest Master Berth (V berth), port and starboard Guest Berths and an aft Master Stateroom. The appliances powered up and appeared to function normally and showed negligible wear and tear unless indicated in the Findings & Recommendations section. Furthermore, the berthing and entertainment provisions were considered to be satisfactory for the vessels type. See Findings & Recommendations.

**FINDING B-9**

**FINDING C-2**

**FINDING C-3**

### INTERIOR LIGHTING

24 Vdc. Operable except as noted in the findings.

### GALLEY/DINETTE & ACCESSORIES

The galley was fitted with a Corian like countertop, storage lockers, cabinets and drawers. A single stainless steel sink with disposal piped with flex type drain hose secured with hose clamp and polished stainless steel faucet. Cabinet mounted Panasonic microwave, fixed mounted NEFF four burner electric stove, cabinet mounted Sub Zero 240 VAc/24Vdc upright refrigerator/freezer with door lock. A Miele brand dishwasher that powered up but was untested due to no fresh water. All of the galley appliances and equipment operated normally and presented low exterior wear and tear. The galley arrangement was also considered adequate for the vessel type.

### WATER CLOSET(S)

Four water closet formed with pre-molded FRP liner module with gelcoat and exterior surfaces and Corian type counter. Wash basin piped with flex hose and secured with a hose clamp to polished stainless steel faucet. Integrated shower stall with drain on sole. 12Vdc exhaust fan. A Sealand brand marine head (Toilet) that operates on a vacuum flush system piped with reinforced hoses and secured with hose clamps. The installed equipment operated normally and presented low wear and tear.

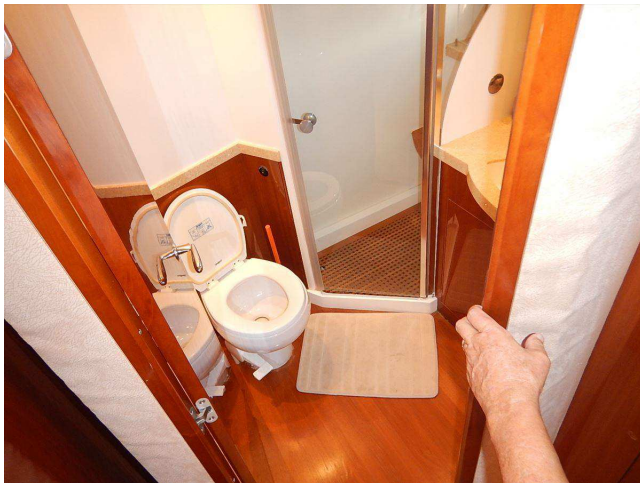
**FINDING C-4**

### CLIMATE CONTROL

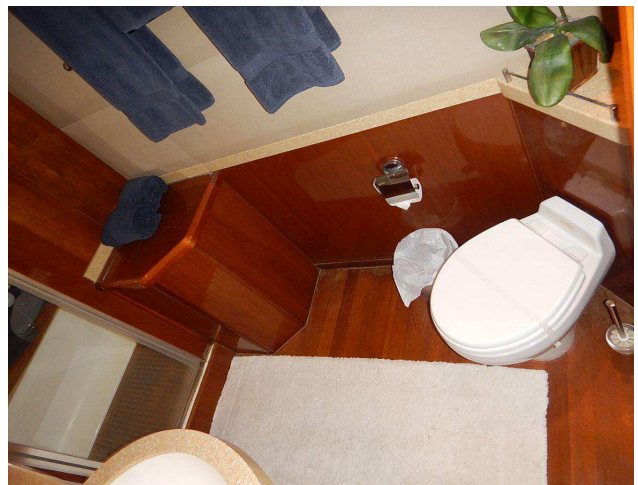
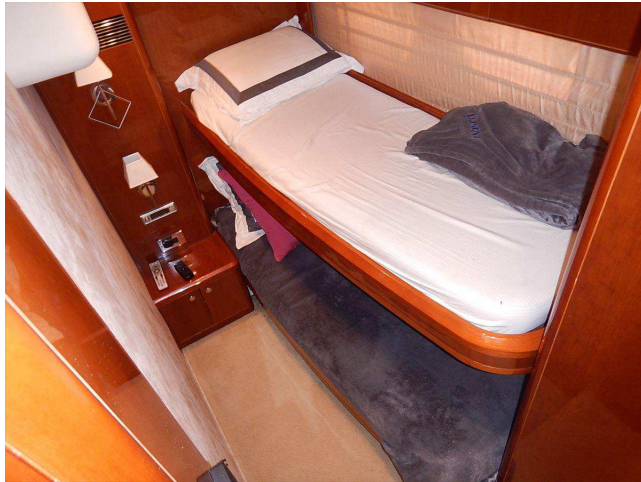
The vessel was equipped with seven 200/230 VAc Cruise Air brand units. A Salon unit that was 24K BTU, 7K BTU Crew Quarters, Port Guest Cabin, 10K BTU Forward Guest Cabin, 7K BTU Starboard Guest Cabin, 16K BTU Master Stateroom and 30K BTU in the Galley. All controls were digital controls. See Findings & Recommendations.



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**FINDING B-10**

### ELECTRICAL SYSTEMS

#### DIRECT CURRENT SYSTEM(S) TYPE

The vessel was equipped with a single 24VDC system consisting of two battery banks. (8) Group 31 12VDC AGM batteries are located in the engine compartment on the port and starboard sides aft of both engines and are in vented FRP battery boxes and secure. The batteries provide power to all 24 V systems to include the engine start batteries, generator start battery, house electrical and anchor windlass. Much of the wire did not appear to have been modified from its factory installation. Furthermore, were observed, no indications of overheating conductor insulation was observed. The terminals where splices could be seen consisted of ring terminals, terminal plugs, spade and blade terminals, fork terminals, common butt splices, and waterproof butt splices. Battery charging was accomplished by 24 VDC unknown amperage alternators on each engine, the onboard generator and shore power by the two Master Volt 24/75 battery chargers that powered up. The main DC panel board is located on the starboard side wall of the main salon. All panels were clearly marked for voltage. Overcurrent protection of the system was provided by a variety of in-line fuses of different types, push-button thermal reset breakers and circuit breakers. See Findings & Recommendations.

Check all battery dates prior to purchase to determine any batteries that are older than 3 years, It is recommended any battery over 3 years be replaced. Batteries are not load tested as a part of the survey and often battery dates are not visible. Verify this information prior to closing.



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### FINDING B-11

#### ALTERNATIVE CURRENT (A.C.) SYSTEM(S)

The vessel was equipped with two 120/240 VAc 50 amp single phase Ac system with Glendinning power controls that were functional when tested. The vessel shore power connections were located on the port transom. The operable main shore power circuit breaker is located at the AC distribution panel in the main salon. All breakers were operable and analog volt and amp gauges were installed at the power panel. Overcurrent protection was provided for with individual branch circuit breakers in addition to the main shore power circuit breaker installed on the panel board. An operable main circuit breaker was also installed at the generator, and the generator/shore power selector switch at the panelboard in the salon was an operable make or break type switch. Where accessible and visible, the shore powers system's consisted of multi-stranded copper conductors with plastic-type insulation, and the terminal's consisted of ring terminals and butt slices. The system's wiring in so far as could be determined did not appear to be modified from its factory installation, and no indications of overheating of the visible portion's of the wiring insulation was found. The Ac panel board was fitted with reverse polarity indicators which were functioning. GFCI protected AC receptacles were installed in the vessel. The systems impedance, voltage drop, polarity and GFCI function were tested at each Ac receptacle with a Suretester device with shore power and generator supplied power and tested normal except as indicated in the Findings & Recommendations. As far as could be determined by general examination without making disassemblies, the system was found to be in apparently good working order.



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### GENERATOR

Located in the engine room is an Onan 27.5 KW 4 cylinder diesel generator. The generator is a freshwater cooled unit, coolant levels were full. The oil level was full when checked. All hoses appeared to be serviceable. The generator started and functioned by holding a full load, all air conditioning units, stove burners, oven and microwave were powered on, the generator maintained voltage.

Serial Number: D040626178

Generator Hours: 7272



### TRANSFORMER

Two Charles C-Charger transformers one for each 50 amp line. The transformers were operational and grounded per ABYC specifications.

## INBOARD PROPULSION SYSTEM

### ENGINE(S)

Two MAN model 1360 in-line twelve-cylinder diesel engines with raw water cooled closed loop cooling system and wet type of exhaust with 1341 SAE rated horsepower. The engines were secured to the vessels longitudinal main stringers made fast by stainless steel engine mount fasteners. No drip pads available, fluid and the debris fall into the bilge area beneath the engines. The engines cooling systems were equipped with engine mounted heat exchangers, engine mounted raw water cooling pumps, engine mounted closed system circulating pumps, remotely mounted closed system expansion bottles and pipe with reinforced hard wall marine water hoses secured with hose clamps, engine mounted OEM type cooling system hoses secured with hose clamps and metal piping. Bronze raw water strainers with site glass were incorporated into the raw water intake hoses, and the raw water was discharged to the exhaust at the mixing elbows. The exhaust systems were wet type with approved high-temperature silicon wet exhaust hose sections, common approved type wet exhaust hoses, metal exhaust tubing and discharged to the aft stern quarters through FRP exhaust tubing laminated into the hull. All sighted exhaust hose connections were not made fast with double hose clamps per ABYC recommendations. All hoses appear to be in serviceable condition. Belt condition appears to be serviceable with no cracks or evidence of belt dust sighted. All fluid levels appeared to be full. See Findings & Recommendations.

Per broker the engines will be inspected at a later date by a qualified technician who will issue a report under sperate cover.



**FINDING A-3**

**FINDING B-12**



### SERIAL NUMBERS

Port Engine: 690 0799 141 0790 Starboard Engine: 690 0799 163 0790

### ENGINE(S) HOURS

Port Engine: 3659 Hours Starboard Engine: 3659 Hours

### OTHER NOTE

It is good practice when buying a used vessel that all fluids (Engine/Transmission or Outdrive ) be changed and the raw water cooling impeller(s) also be changed.

As stated in the Terms and Conditions agreement, It is understood that the attending surveyor is not an engine/transmission surveyor. As such, I recommend that all engines and transmissions be inspected by a qualified expert engine surveyor/mechanic to determine the internal condition and any repairs necessary of the engine(s), transmission gears, and pumps, heat exchangers, coolers, etc.

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### REVERSE GEAR(S)

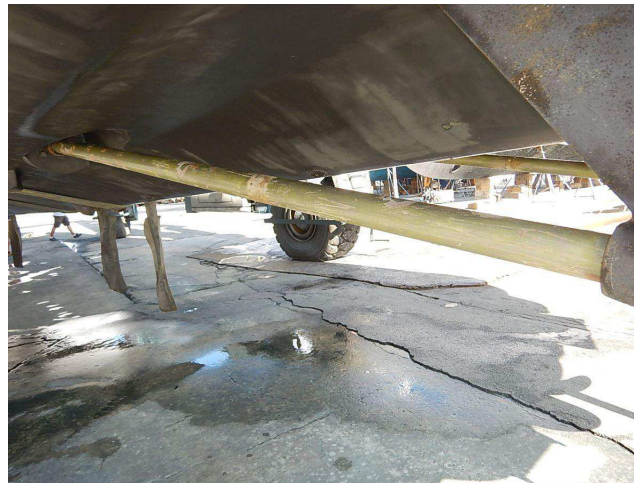
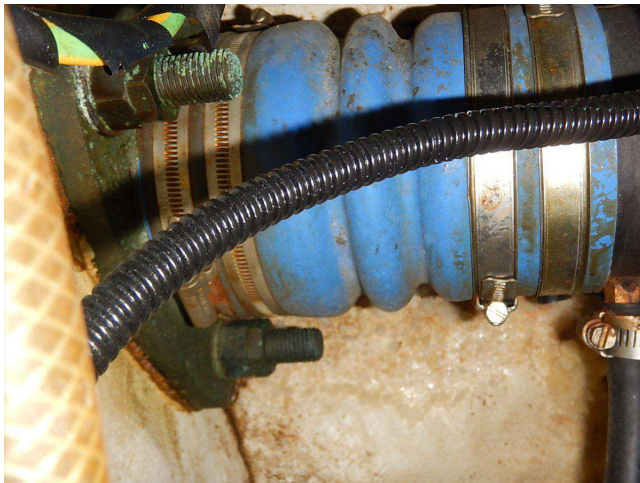
ZF Hurth ZF 2000 models. The gear ratio for the transmissions was rated at 2.519 1A.

Port Transmission Number: 50014796 Starboard Transmission Number: 50014797

Per broker the transmission will be inspected at a later date by a qualified technician who will issue a report under sperate cover.

### SHAFTING & PROPELLER(S)

The shafts were stainless steel 2-3/4" in diameter. The shaft logs were raw water cooled dripless shaft logs. The struts were P type, cutlass bearings did not indicated excessive wear. The props were four bladed bronze props, no indication of damage as noted. The below waterline shafts and props were painted with prop speed anti fouling coating. See Findings & Recommendations.



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### FINDING A-4

#### OIL CHANGE SYSTEM

Reverso oil exchange system that was operational when tested.

### STEERING SYSTEM

#### MANUFACTURE

Hypro Marine

#### STEERING SYSTEM COMPONENTS

Helm pump wheel assembly, reinforced steering system hoses, dual hydraulic rams, stainless steel drag link with clevis ends, autopilot reference sensor, bronze tiller arms with set screws, bronze upper rubber and bear cross members secured to the longitudinal stringers with stainless steel fasteners, bronze rudder ports/packing glands secured to the hull using stainless steel fasteners, and bronze rudders with stainless steel stocks secured by the tiller arms. Where visible the components were adequately mounted and no indication of fluid leaks was noted. The system operated normally, and no evidence of damage was found on the rudders. See Findings & Recommendations.

Note: Upon purchase of a used vessel this company suggests, the steering system is serviced according to the manufacturer's recommendations as a preventive measure and inspected regularly thereafter as part of a regular on-going maintenance program.

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**FINDING C-5**

### TANKAGE

#### FUEL TANK(S) & PIPING

Two tanks located in engine space, on the port and starboard sides with no visible manufactures labels sighted. The tanks were secured with metal straps and due to their location access was very limited and only part of the inboard sides and tops could be observed. Grounding conductors were observed at the tanks and both pipe to weather deck mounted stainless steel pipes marked for diesel. Continuity testing was performed using a multimeter and the results were consistent with tanks and fills that are grounded. The fill hoses were USCG approved Type A hoses secured with double hose clamps where visible. The tanks were vented to topside mounted fittings with flame screens and were plumbed with SAE j1527 hoses secured with hose clamps. The fuel supply and return hoses were also SAEj1527 with swaged mechanical fittings, and the engines were equipped with OEM type flexible fuel lines and metal fuel tubing. Fuel filtration was provided by two remotely mounted Raycor primary fuel filters and engine mounted OEM type fuel filters. Fuel shutoff valves were sighted on tank tops. Tanks appear to be original and in serviceable condition.

#### POTABLE WATER SYSTEM

The potable water system consists of a single FRP water tank secured below the Master Stateroom Berth. The system was equipped with one 24Vdc on demand water pump that was functional. The water heater itself was sighted but access was such that no manufactures label was sighted for capacity. The hot water taken was tested and proven operational. The system's piping was made of semi-flexible polyethylene tubing with compression fittings as well as reinforced vinyl type hose sections secured with hose clamps. A municipal pressure water supply hook up with regulator was also installed in the transom locker but was not proven. The system was operable.

#### HOLDING TANK(S)-BLACK WATER

One Sealand brand 24Vdc Vacu Flush system with four vacuum pumps and reservoirs located below the cabin sole. An operable 24Vdc Sealand macerator was also installed forward of the holding tank. The holding tank itself was FRP and was sighted below the cabin sole between the port and starboard midship Guest Berths. The systems plumbing consisted of polyethylene semi-flexible tubing with compression fittings at the flushing side and PVC fittings and reinforced sanitation type hose secured with hose clamps at the discharge side. No waste odors were noted within the confined spaces of the vessel, and the system was operable. The visible portions of the holding tank were intact as was the port side plastic vacuum reservoir. No active leaks were observed in the visible portions of the systems components.

### SAFETY EQUIPMENT

#### NAVIGATIONAL LIGHTS

All Navigation lights are fully operational.

#### LIFE JACKETS (P.F.D,'S)

The following USCG approved life jackets were sighted on board: (2) U.S.G.G. Type II and (2) U.S.G.G. Type III All appear to be in serviceable condition showing minimal wear and tear.

#### THROWABLE TYPE P.F.D.

The type of USCG approved throwable PFD devices sighted were: (1) USCG approved Ring buoy(s) All appear to be in good condition showing average wear and tear for the age of the vessel.

#### VISUAL DISTRESS SIGNALS

(4) Red hand held signals are current with spares.

#### SOUND DEVICES

See Findings & Recommendations.

#### **FINDING A-5**

## 18-290 2005 Viking Sport Cruisers 70 M/Y

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### U.S.C.G. PLACARDS

See Findings & Recommendations.

#### **FINDING A-6**

### WASTE MANAGEMENT PLAN

A properly documented waste management plan was sighted on board and is in compliance with USCG regulations for vessels over 39'4" (12M).

### FIRE FIGHTING EQUIPMENT

Five Type I portable extinguishers were sighted throughout the vessel.

Fixed firefighting systems were located in the engine room and the generator room and were Clean Agent FM200 systems that indicated charged.

See Findings & Recommendations.

#### **FINDING A-7**

### BILGE PUMPS

Aft Bilge: Behind the engine room is a hatch just forward of the Crew Head with a Jabsco 1950 GPH bilge pump. See Findings & Recommendations.

Engine Room Bilge: Two Jabsco 1950 GPH bilge pumps located in the bilge between the engines. The aft of the two bilge pumps was operational when tested. See Findings & Recommendations.

Midship Bilge: Jabsco 1950 GPH bilge pump. Due to pump location access was not possible to the float switch. The pump was operational using the manual switch at the helm.

Forward Bilge: One Jabsco 1950 GPH bilge pump. Due to pump location access was not possible to the float switch. The pump was operational using the manual switch at the helm.

Sump Tank: On tank located below the cabin sole as sighted in the starboard Guest Berth. The float switch and pump were operational when tested.

Manual Bilge Pumps: On the aft starboard deck is a manual bilge pump with valve to indicated either forward, aft or engine room bilges. See Findings & Recommendations.

#### **FINDING A-8**

#### **FINDING A-9**

#### **FINDING A-10**

### GROUND TACKLE & WINDLASS

(The anchor rodes were inspected as stored without ranging)

Primary: A galvanized steel plow type anchor is mounted at the anchor platform with an undetermined length of raw chain and considered serviceable other than noted in the Findings & Recommendations, showing moderate wear and wastage. See Findings & Recommendations.

Windlass: A Lewmar windlass is mounted on the platform and was functional using the helm control. See Findings & Recommendations. See Findings & Recommendations.

#### **FINDING A-11**

#### **FINDING B-13**



## AUXILIARY EQUIPMENT

### WASHER/DRYER

Bosh Axis washing machine and dryer located just forward of the Master Stateroom. The washing machine powered on and started a cycle but due to not fresh water pump was not tested past a few seconds. See Findings & Recommendations



**FINDING B-14**

## SEA TRIAL

### OBSERVATIONS

A formal sea trial was conducted while in route back from the vessel haul out. Weather conditions were partly cloudy skies, a temperature of approximately 95°F and a moderate chop on the waterway. The vessel was operated by a professional captain hired by the seller. The total operational time considered sea trialing was from 10:35 AM and completed at 11:24 AM. Total sea trial time was approximately 45 minutes.

The vessel responded to throttle, trim tabs and helm manipulation in a normal and predictable manner and visibility from the helm considered adequate for the vessels type. All observed engine temperatures, oil pressures and RPMs as per the vessels gauges appeared to operate at acceptable temperature ranges and pressure ranges.

### STATISTICS:

Indicated engine wide open throttle speed (WOT): 2330 RPM Port and 2342 RPM Starboard which resulted in a speed over ground of 37.3 mph. Max RPM for the engines is 2300 RPM.

Indicated engine temperature: 187 degree Port and 189 degree Starboard.

Indicated oil pressure: 68 PSI Port and 61 PSI Starboard.

## Findings & Recommendations

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### A: SAFETY DEFICIENCIES

#### **FINDING A-1** TOE RAILS & STANCHIONS & LIFELINES

The bridge deck aft rails are not secured to the stanchions and lift out with ease presenting a potential slip and fall accident.

#### **RECOMMENDATION**

Secure bridge rails to prevent accidental fall.

#### **FINDING A-2** SEA VALVES/SEA COCK TYPE

Sea valves for the raw water engine intake were stiff and unable to operate. The starboard engine valve handle is excessively corroded.

#### **RECOMMENDATION**

Lubricate, service and exercise all sea valves to enable ease of operation. Replace the starboard raw water intake valve handle.



#### **FINDING A-3** ENGINE(S)

Starboard engine exhaust coming off the turbos has only a single hose clamp at the top of the first exhaust hose.

#### **RECOMMENDATION**

ABYC P-1 states "Every exhaust hose connection shall be secured with at least two non-overlapping clamps at each end to produce a secure, liquid and vapor-tight join", comply with ABYC P-1.

## Findings & Recommendations

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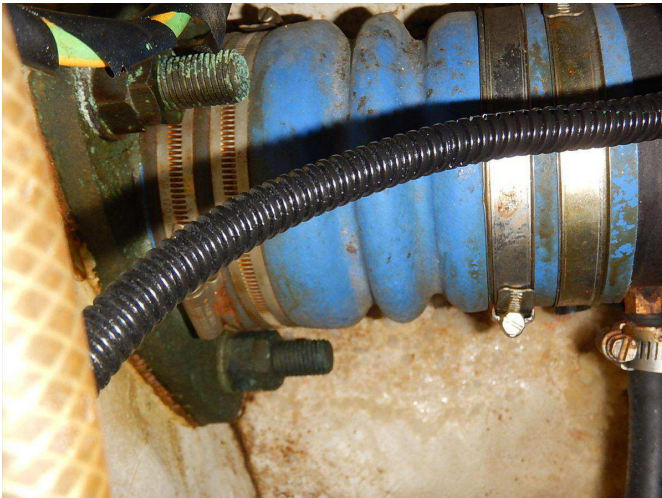


### **FINDING A-4** SHAFTING & PROPELLER(S)

Corrosion was sighted on some of the hose clamps on the port side shaft log.

### **RECOMMENDATION**

Replace corroded hose clamps.



### **FINDING A-5** SOUND DEVICES

No sounding device sighted and vessel horn was inoperable.

### **RECOMMENDATION**

Recommend a sound device like a horn, whistle or bell be made readily available to comply with USCG regulations.

## Findings & Recommendations

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### **FINDING A-6 U.S.C.G. PLACARDS**

No placards sighted for oil or garbage. These are required for any vessel 26' or longer.

### **RECOMMENDATION**

To avoid a potentially large fine, install a USCG "No Discharge of Oil" placard in or near engine space to comply with - 33 CFR 155.450 and post a trash disposal placard near the waste area to comply with USCG 33 CFR 151.59.

### **FINDING A-7 FIRE FIGHTING EQUIPMENT**

Fixed fire extinguisher in engine space has outdated or no certification tag. The portable extinguishers' gauge indicated serviceable but appeared to be of considerable age and no inspection tags were observed.

### **RECOMMENDATION**

ABYC A-4 and NFPA 302 recommends that fixed fire protection systems be inspected and reweighed at one year Recommend compliance. NOTE: Halon or other "clean agent" type fire extinguishers must be weighed to determine true contents. Monitor lights and gauges only show there is pressure available and do not reflect the quantity available. Annual inspection and a tag to show date is recommended to meet ABYC A-4 and NFPA 302 standards. Have portable fire extinguishers inspected annually per ABYC A-4.

### **FINDING A-8 BILGE PUMPS**

The forward engine room bilge pump was not operational when tested.

### **RECOMMENDATION**

Take corrective action to have fully operational forward engine room bilge pump.

### **FINDING A-9 BILGE PUMPS**

The aft bilge pump just aft of the engine room was not functional when tested.

### **RECOMMENDATION**

Take corrective action to have operational bilge pump.

### **FINDING A-10 BILGE PUMPS**

No handle was sighted for the manual bilge pump.

### **RECOMMENDATION**

Manual bilge pump handle must be mounted in the bracket provided for easy access in the event of an emergency.

## Findings & Recommendations

### **FINDING A-11** GROUND TACKLE & WINDLASS

Anchor shackle is not seized.

### **RECOMMENDATION**

Seize anchor rode shackles with galvanized or monel seizing wire to help prevent loss of anchor.



## **B: OTHER DEFICIENCIES REQUIRING ATTENTION**

### **FINDING B-1** HULL, DECK & SUPERSTRUCTURE

Part of the rub rail is missing on the starboard aft side.

### **RECOMMENDATION**

Repair and replace missing run rail.



## Findings & Recommendations

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### **FINDING B-2** COCKPIT EQUIPMENT

The electric grill lid hinges and not properly attached.

### **RECOMMENDATION**

Attach and secure the hinges.



### **FINDING B-3** CAPSTAN

The port side capstan was not operational when tested.

### **RECOMMENDATION**

Repair or replace as required to make operational.

### **FINDING B-4** DAVIT/CRANE

The unit raises and lowers but did not turn from side to side.

### **RECOMMENDATION**

Repair as required to enable unit to function properly.

### **FINDING B-5** BONDING SYSTEM

Multiple bonding wires were sighted connected to sea valves by use of a hose clamp.

### **RECOMMENDATION**

ABYC E-11 specifies all terminals are to be connected by use of fasteners and specifically prohibits the use of hose clamps for securing bonding wires. Re-secure bonding wires properly.

## Findings & Recommendations

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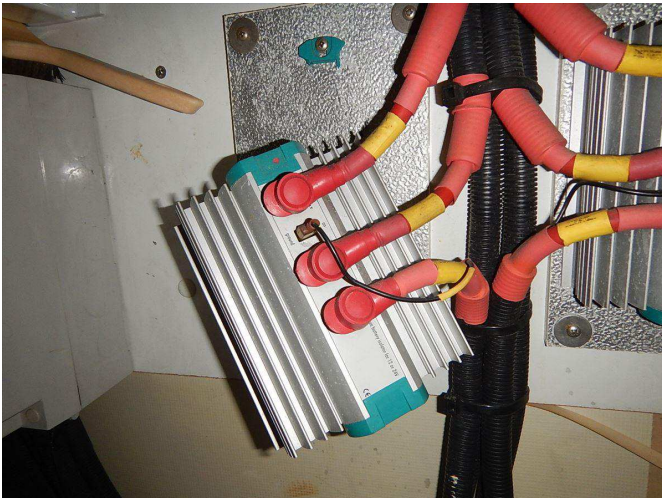


### **FINDING B-6** GALVANIC ISOLATOR

One of the galvanic isolators was not properly attached to the bulkhead.

### **RECOMMENDATION**

Re-attach the loose galvanic isolator.



### **FINDING B-7** UPPER HELM STATION

The Furuno RD-33 depth finder was not operational.

### **RECOMMENDATION**

Take required actions to enable the unit to function.

## Findings & Recommendations

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### **FINDING B-8** LOWER HELM STATION/PILOTHOUSE

The Furuno RD-30 read incorrect depth levels.

#### **RECOMMENDATION**

Investigate further and take actions to repair.

### **FINDING B-9** ENTERTAINMENT BERTHING & SALON

The TV's in the Master & Guest Staterooms did not power on when tested.

#### **RECOMMENDATION**

Investigate further and take corrective action to make operational.

### **FINDING B-10** CLIMATE CONTROL

The Crew Quarters, Guest Stateroom, Master Stateroom and Salon air conditioning systems were not operational.

#### **RECOMMENDATION**

Take corrective action to have fully workable air conditioners.

### **FINDING B-11** DIRECT CURRENT SYSTEM(S) TYPE

The house batteries would not hold a charge and when vessel returned from haul out/sea trail there was no 24VDC power available to the vessel.

#### **RECOMMENDATION**

Replace batteries.

### **FINDING B-12** ENGINE(S)

The starboard engine turbo side exhaust hose support bracket fastener is backing out of position and soon will render the supports unattached.

#### **RECOMMENDATION**

Re-attach and secure support bracket fastener.



## Findings & Recommendations

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### **FINDING B-13** GROUND TACKLE & WINDLASS

The bow windlass remote has a cut wire and is not functional.

### **RECOMMENDATION**

Repair as required to make bow remote windlass control functional.



### **FINDING B-14** WASHER/DRYER

The dryer was emitting a sound consistent with a fault alarm of some sort. We were unable to get the dryer to function, power was active to the unit.

### **RECOMMENDATION**

Investigate further and take corrective action to repair as required to make functional.

## Findings & Recommendations

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### C: SURVEYOR'S NOTES & OBSERVATIONS

**FINDING C-1 HULL, DECK & SUPERSTRUCTURE**

Blisters were sighted in the above waterline gelcoat below the port side gunnel door. Moisture meter readings were elevated.

**RECOMMENDATION**

Investigate further and take action to repair if desired.

**FINDING C-2 ENTERTAINMENT BERTHING & SALON**

Some of the upholstery covering the bulkheads in the cabin is loose and not adhering properly and soiled.

**RECOMMENDATION**

Repair or replace interior wall coverings if desired.



## Findings & Recommendations

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### **FINDING C-3** ENTERTAINMENT BERTHING & SALON

Cuts in the bulkhead lining sighted in the midship port guest berth.

### **RECOMMENDATION**

Replace lining if desired.



### **FINDING C-4** WATER CLOSET(S)

The fan in the forward Guest Master Stateroom and midship starboard side heads were not functional.

### **RECOMMENDATION**

Repair or replace to make functional.

### **FINDING C-5** STEERING SYSTEM COMPONENTS

There was no access by the way the vessel is designed to check for leaks in the lower rudder posts.

### **RECOMMENDATION**

Investigate further and determine if some access is available.

## Report Summary

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### VALUE

#### CONDITION & VALUATION

##### CONCLUSION:

Insofar as could be determined by general examination without making removals to expose concealed parts, the vessel was considered to be in good overall general condition, and it is my considered opinion that upon compliance with the recommendations stated above, it would be in satisfactory condition for the intended use of its designer and builder.

##### VALUATION:

The definition of "Fair Market Value" as used in this report is that as issued by the Machinery & Technical Specialties of the American Society of Appraisers-July 25, 2010.

The "Fair Market Value" "is, "an opinion, expressed in terms of money, at which a property would change hands between a willing buyer and a willing seller, neither under any compulsion to buy or sell, and both having a reasonable knowledge of relevant facts, as of a specific date." Implicit in this definition is the consummation of a sale as of a specified date and of the passing of title from seller to buyer under conditions whereby:

- a. Buyer and seller are typically motivated.
- b. Both parties are well informed or well advised, and acting in what they consider their own best interest.
- c. A reasonable amount of time is allowed for exposure in the open market.
- d. Payment is made in terms of cash in US dollars or in terms of financial arrangements comparable thereto, and
- e. The price represents a normal consideration for the vessel sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

The valuation offered in this report is based on the vessel's apparent condition on the date of the survey and assumes that the vessel's engines and/or other installed equipment not proven during the survey inspection are in fact operational. Discoveries made as a consequence of additional testing/inspection procedures may significantly lower this valuation. Also, there is no warranty given, or implied, of the future useful life of engines or machinery described herein. Valuations are developed by using some or all of the following resources; commercially published used boat price guides(BUC, NADA, Boats & Harbors, Soldboats.com, Yacht World, etc.), commonly accepted Marine depreciation schedules, and consultations with knowledgeable boat brokers not involved with this specific transaction. The "ESTIMATED REPLACEMENT COST" indicates the retail cost of a new vessel of the same make/model with similar equipment offered by the same manufacturer or comparable vessel with the same equipment.

##### A. Comparable Sales Market Approach:

1. The current NADA provides no value range for the vessel.
2. The current BUC ValuePro provides a value range for an average condition of approx. \$1,115,000.00
3. The current Power Boat Guide provides no value range for the vessel.
4. The following were the only verified sales found of the same make, model and year vessel between Jan. 2016-Sept. 2018 found on SoldBoats.
  - a. Vessel Year: 2005 Location: TN Sold Date: 11/16 Sale Price: \$1,300,000.00

## Report Summary

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### 5. Calculations:

- a. NADA Average: N/A
  - b. BUC Book Average: \$1,115,000.00
  - c. PBG Average: N/A
  - d. Sold Boats Average: \$1,300,000.00
- Average Valuation: \$1,207,500.00

### B. Cost Approach Method:

If the Cost Method of appraisal is considered using the Martin Scale with research indicating the same make and model vessel would now cost \$4,000,000.00 new, this 13-year-old vessel in 2018 would be worth approximately \$2,000,000.00. Based upon the Soldboats, BUC and NADA data the Cost Approach Method of appraisal is not considered the most accurate. We will, therefore, rely on the Comparable Sales/Market Approach Method. Therefore, consideration of the reliability of the data, the extent of the necessary adjustments and condition of the vessel the:

Estimated Fair Market Value is: \$ 866,000.00

Estimated Replacement Cost is: \$4,000,000.00 (Per BUC research)

### CERTIFICATION:

Acting on behalf of Sun Coast Marine Surveying & Consulting, LLC, the undersigned surveyor certifies that to the best of his or her knowledge and belief: I have made a personal inspection of the property that is the subject of this report. The statements of fact in this report are true and correct. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions at the time of inspection and are my personal, impartial and unbiased professional analyses, opinions and conclusions. I have not performed services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment. I have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved. I have no bias with respect to the property that is the subject of this report or to the parties involved with the assignment. My engagement in this assignment was not contingent upon developing or reporting predetermined results. My compensation for completing this assignment was not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client or seller, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of the report content including the appraisal. No one provided significant appraisal assistance to me.

REPORT SUBMITTED WITHOUT PREJUDICE

Sun Coast Marine Surveying and Consulting LLC

*J. Chet Stephens*

By:

Operating Manager

J. Chet Stephens, SAMS-AMS