Bussmann Marine Surveying



AT THE REQUEST OF

Ms. Jessica Ward and for her account, the undersigned marine surveyor conducted a PrePurchase, Condition, Valuation, and Suitability for Service Survey, on June 1st, 2022 on the *M/V Belafonte* while the vessel was afloat at Cape Fear Marina, hauled ashore for inspection at Off the Hook Yacht Services, and while underway along the Cape Fear River, Wilmington, North Carolina.

11. ATTENDING FOR SURVEY

Jim Bussmann

Bussmann Marine Surveying



2.0 VESSEL PARTICULARS AND BACKGROUND



Vessel Name : Belafonte Official Number : 690184

Hailing Port : Wilmington, North Carolina

Hull Identification Number (HIN) : SAN36068G585

Year/Make/Model : 1985, Monk, Seahorse 36 Trawler

Designer : Ed Monk

Builder : Taiwan, Republic of China

Length Overall: 36 FeetWaterline Length: 33 FeetBeam: 13 FeetDraft: 4 Feet

Weight : 21,000 Pounds

Propulsion : Single 145 Horsepower, Yanmar; 6PMH-TE, inline 6 cylinder

turbo charged diesel engine.

Fuel Capacity : 320 Gallons (Reported)
Fresh Water Capacity : 120Gallons (Reported)
Holding Tank Capacity : 40 Gallons (Reported)

Date of Last Drydock :

Normal Maintenance : Regular and Scheduled

Intended Navigation Area : East Coast US

3.0 GENERAL DESCRIPTION AND ARRANGEMENTS

3.1 External Arrangement

The *M/V Belafonte* is a production built 1985, single diesel screw trawler constructed of fiberglass, designed with curved stem, semi displacement underbody with 3/4 length keel, transom stern, flush weather decks and stern deck, raised trunk cabins fore and aft, raised wheelhouse through amidships with flying bridge atop.

The hull is of solid hand laid fiberglass construction from a female mold utilizing woven roving, stranded mat and polyester resin throughout. The semi displacement hull underbody showing 3/4 length keel, single spade rudder, and hard chines. The hull is reinforced by a framework of longitudinal and transverse corded stringers, main engine bedlogs, structural bulkheads and interior joinery, all of which is bonded to hull. Where inspected all tape and attachment points appear good with no obvious separation or tearing from hull noted. The port and starboard stringers starting just forward of the engine room appear to have coring that has deteriorated due to moisture intrusion, a possible cause for the starboard side stringers core







deterioration is a limber hole being drilled through the bottom of the stringer to allow a hose to pass through and not being sealed properly, how far forward the deterioration extends was not determined due to access, a qualified laminate technician should be engage to evaluated the extent of the deterioration and make recommendations for possible repair. The hull topsides are the original

white gelcoat finish with red boot stripe, and blue bottom. Teak rub rails are provided at shear with stainless steel striker. Wooden lower rubrail extends from midship thru to stern with stainless steel striker. Transom is fitted with a teak swim platform with retractable stainless steel reboarding ladder. Platform is supported by (4) four substantial stainless steel brackets, through bolted to transom.

Weather decks are plywood/balsa (not confirmed) laminated between layers of fiberglass with molded in nonskid at walking surfaces, encircled by raised gunwale with a teak cap. Numerous areas of significant moisture penetration and core deterioration were discovered with a moisture meter and hammer, discovered areas were marked for the buyer to observe; around windlass foot switches, around hawse pipe, portside forward deck, random spots along raised deck portside from portside from saloon door to aft deck, isolated areas at aft deck, there are numerous gelcoat stress cracks at aft deck, minor spots at base of steps to upper helm deck, a qualified laminate technician should be engaged to evaluate decks for repair. Stainless steel bow rail extends back to a teak handrail, with canvas covers, atop stainless







steel stanchions, boarding gates are provided port, starboard side, and at transom. At bow, teak pulpit with dual anchor rollers extends back to single stainless steel Sampson post. 12VDC windlass well secured with foot switches and helm controls. Side decks extend alongside cabin with teak handrails fitted at cabin sides. Scupper are provided in deck aft of amidships and at stern. Stainless steel hawse cleats are provided forward, amid and aft in the raised gunwale. *Periodically lifting, rebedding and resetting highly loaded deck hardware (cleats, windlass, etc.) will serve to minimize

moisture intrusion at the deck penetrations for mounting this equipment and the inevitable resulting

degradation of the wood core in the deck sandwich laminate.

Fiberglass, cored superstructure has forward cabin trunk with aluminum framed escape/ventilation hatch atop fitted with canvas cover. Wheelhouse is octagonal forward with teak trim around wind screens. Forward windows with 12volt wipers.

Cabin sides are of gelcoated fiberglass, plywood cored as are cabin tops. All cabin windows are

trimmed in teak. Windows appear to be laminated safety glass, some with cracks and fogged due to moisture intrusion, no evidence of significant leaks, attend at owner's discretion and convenience. Sliding cabin entry doors are provided port and starboard. Timber signal mast and boom is installed in stainless steel tabernacle,

gooseneck in good condition, equipped with stainless steel wire stays with swaged ends. Mast is fitted with spreader lights, anchor light, radar antenna atop, in good condition. Boom supported via stainless steel boom crutch.

Flybridge is encircled by raised cowl with venturi windshield atop. Bridge is sheltered by a stainless steel framed maroon canvas bimini top with clear vinyl windows in serviceable condition. Engine controls are on







center. Pedestal helm seat, companion seating over storage pods, cushions with cracking vinyl from sun exposure. Stainless steel aft rail is well secured with teak stairs provided aft.

Hull bottom was visually inspected and manually percussion sounded. Stern tube at keel end with cutlass bearing found in good condition, P strut with cutlass bearing in good condition. Semi balanced rudder appears to be in good condition no slop was noted in the rudder operation. Shaft as much as visible appears to be in good condition. Thru hulls do not show any excessive deterioration.

There was evidence of blister repairs at the hull bottom, though overall the wetted surfaces appeared to be in good condition. The undersigned surveyor has no firsthand knowledge of the history of hull maintenance, construction methodology, repair history, prior blister treatments or repairs, or prophylactic coatings. If a scientific analysis of the future potential for a blistering condition is required, it is recommended that hull coupons be removed for a ply by ply laboratory evaluation or other laminate profile be considered after consultation with qualified glass reinforced plastic laminate experts.

3.2 Internal Arrangement

Forward cabin with teak plywood for furnishings, perforated vinyl overhead with teak trim. 3/4berth offset to port. Ample locker and drawer storage below with teak and holly sole. Hanging closet to starboard with access to back of main electrical panel and lower helm station. To port is enclosed head with white mica bulkheads, stainless steel sink with faucet/shower fixture and recessed storage. Shower drain to bilge is provided below teak grate to remote sump. 12volt electrical marine toilet appears to be well mounted functioned properly. At forward bulkhead is access to rope locker. Forward cabin is fitted with 12Volt lighting and opening stainless steel ports, port and starboard. Some minor water damage portside aft at veneered partition, moisture meter indicated this is no longer an area of an active leak. Up three steps to main saloon with main electrical panels inboard at helm console. Control station is to starboard with complete engine monitoring instrumentation and warning lights. Fore and aft facing dinette is to port.







To starboard is in-line galley with double stainless steel sinks, Magic Chef, 4 burner propane stove

top with oven, under counter 120volt refrigerator, mica counter top, with ample drawer and cabinet

storage over and under. Saloon is fitted out in all teak plywood and teak trim, vinyl overhead with exposed teak beams, curtains, teak and holly flooring.

Upholstery over seating in very good condition, ample overhead lights and natural lighting. Aft cabin with companionway to port. Hanging closet to port with double berth over storage and water tank. Drawer and locker storage outboard port and starboard. Head closure is starboard forward fitted out in teak trim with white mica covered bulkheads, vanity with mirror and stainless steel sink, molded shower/tub. Cabin is fitted with (2) two large sliding windows, one large fixed window aft and one opening port, vinyl overheads with teak beam, teak and holly sole. Cabin spaces with ample storage, flush fit bilge access plates, adequate heating





and cooling in all spaces, good lighting AC and DC, ample ventilation, food preparation area well laid out with adequate appliances for food preparation, clean up, and storage. Head compartments with well secured marine toilets, vanities with sinks and faucet fixtures, showers with drains to remote sumps, found clean and well maintained. Cabinets and lockers were found clean, gear was

stored properly. Interior surfaces and soft goods show little wear and tear. The general appearance of the housekeeping reflects conscientious attention to cleanliness with good maintenance and care.

4.0 NAVIGATION EQUIPMENT

- (1) One Sitex, SP110 autopilot, upper helm
- (1) One Ritchie Powerdamp compass, upper helm.
- (1) One Garmin Echo Map, GPS, sounder, upper helm.
- (1) One Standard Horizon Eclipse VHF radio, upper station.
- (1) One West Marine VHF 480 VHF radio, lower helm.



Navigation lighting was found to be fully operational and in compliance with USCG regulations.

Navigation and communication equipment was powered up, but proper operation and calibration

was not confirmed.

5.0 MAIN ENGINES

The vessels propulsion machinery is based on a single Yanmar model 6PHM-TE, inline six cylinder, turbo charged, fresh water cooled diesel engine rated at 145 horsepower @2800 RPMs, serial number 190299132. Engine drives via Borg Warner Velvet Drive marine transmissions with reduction gears, rated at 2.0:1, coupled to 1-3/4 inch stainless steel shaft. Prop shaft exit hull via standard flange bolt flax packing stuffing box, connected to bronze shaft log. Shaft is supported under water by bronze stern tube with water lubricated cutlass bearing and a "P" strut with a water lubricated cutlass bearing. Shafts turn 3 blade 22" (estimated) bronze propeller. All couplings were found to be secured and packing gland assembly was in good order as were cutlass bearings.

The main engine is set upon resilient adjustable mounts that are in turn lag bolted upon longitudinal engine beds. Engine is 12 volt DC electric started. Fresh water cooled via engine mounted heat exchanger and having wet exhaust with water







injected elbow. Exhaust exits at transom via approved hose and composite aqua-lift muffler in the engine compartment. Attached units include (1) one each, seawater circulating pump and 12VDC

alternator.

Engine room ventilation is provided via vents inboard at gunwale. The engine gauge and alarm

system consists of gauges and warning lights for revolutions, oil pressure, water temperature, and charge output. Engine is controlled through Morse dual lever controls using push-pull cables, one set each at upper and lower helm. Current metered hours are, 4,538 on recently removed original gauge, new gauge shows 2 hours. Accuracy was not confirmed.



Engine started promptly and ran in forward and reverse

gear at various speeds, without any abnormal indications, the gear shift engaged smoothly, throttle and gear shift function was normal. The engine was run to full throttle and achieved 2,250+ RPM's under load, (the no load WOT was 2,500 RPMs), below rated RPMs, no excessive vibration was felt over the whole speed range. Cooling water and lubricating oil pressures were normal and remained constant within the speed range, the vessel tracked well without excessive adjustments of the helm, Steering response was good. No leaks were observed of cooling water or lubricating oil during or after trial run. There was no diesel mechanic aboard at the time of inspection and only a visual inspection of the engine installation and exterior components was done, no reference or information should be construed to indicate an evaluation of the internal condition of the engines and the propulsion system's operating capacity, which is beyond the scope of this survey.

Complete inspection of machinery, plumbing, electrical systems and equipment could only be made by disassembly or by continuous operation. This has not been done. No mechanical tests were performed on propulsion or auxiliary generating equipment. No compression tests were performed. No fluid samples were drawn. Only the installation and external condition of machinery and ancillary equipment were inspected. A full engine, transmission, and generator evaluation should be conducted by a qualified marine mechanic.

6.0 AUXILIARY EQUIPMENT, SYSTEMS, AND MACHINERY

Thru-Hulls

Vessel is equipped with bronze through hull fittings below waterline and bronze above water line, below water line through hulls and near waterline thru hulls are fitted with bronze sea valves. Below

waterline thru hulls where of bronze construction with external flanges, all where secure and in small areas paint and fouling was removed, none showed significant electrolytic or galvanic deterioration or attack. Hoses and clamps appears to be well maintained and in good serviceable condition. A

number of thru hull valves were reportedly replaced in 2020. As a matter of normal routine maintenance, now and periodically at time of each haulout it would be prudent to

disassemble and better inspect one or more thru hulls and

related valves on an alternating schedule.

Miscellaneous plumbing and hosing fixtures throughout the vessel were of a marine grade and in generally serviceable

condition. Most hose connections at or below the waterline that are concerns of vessel watertight integrity were double clamped and clamps were free of significant rusting. All connections should be gone over methodically now and a turn put on all clamps. Monitor clamps on a frequent basis and changeout promptly when needed with ABA-style (non-serrated bands, all non-magnetic 316-grade stainless steel





construction) clamps. Where adequate room is safely available, double clamp any single clamped connection that is a concern of vessel watertight integrity. Caution on double clamping hose connections over barbed hose adapters that are designed for only a single clamp width as this can needlessly cut hoses resulting in flooding of the vessel. Optimally, upgrade single clamps to ABA-grade type that are inherently more reliable over the long run. Periodic inspection and replacement of plastic thru hull

fittings, hosing, and clamps should be performed by a competent individual on an on-going basis.

**Provide tapered soft wood plug adjacent to each thru hull in case of emergency.



Vessel's steering is Sea Star Capalano hydraulic steering with single hydraulic ram, recently overhauled. Steering



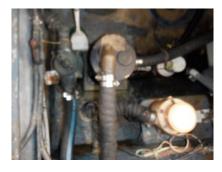
is controlled through wheels at both helms, through approved copper lines and flexible hose, bronze rudder with stainless steel rudder post and bronze tiller arm. Post is supported on hull bearings that incorporated standard bronze packing gland and top collar bearing supported in an alloy shelf. As much as possible all components were inspected and found to be in good order. System fitted with a VDO rudder position indicator.

Pumping Systems & Plumbing

The vessel is equipped two Rule bilge pumps with float switches in engine compartment wired for automatic and manual operation. One- 2000GPH and one 3000GPH.

CAUTION: Bilge pumps are high maintenance items. Bilge pumps are only the initial part of a de-watering system, which may include a strum-box, check-valves or occasionally anti-siphon loops and valves, piping, a seacock if the exit is below waterline and a thru-hull tailpiece. This entire system must be understood and maintained. Bilge pumps may fail at any time. No warranty as to longevity can be expressed or implied at survey. Tapered





wooden plugs tied to seacocks are an inexpensive safety item and highly recommended under current ABYC standards. Keeping bilges clean and free of debris is a vital part of insuring proper operation. It is also recommended that each bilge pump be periodically tested by filling the immediate bilge area with water, to ensure the pumps and float switches are operating as designed. **Safety note:** Ultimately bilge pumps should not be relied upon for preventing flooding of the vessel. A prudent owner will insure that his vessel is not "making any water" through frequent inspections and especially whenever the vessel is to be left unattended. The installation of a <u>bilge pump cycle counter</u> is suggested with the installation of automatic bilge pumps that otherwise might maintain dry bilges and create a false security of watertight integrity.

Pressure hot and cold water is provided to galley and head fixtures via pressure demand pump, 12VDC, with accumulator tank. A hot/cold shower fixture is located at the aft deck, its performance was poor. All components and installation appear to be good with no signs of leakage apparent.

The vessels forward head is fitted with a 12volt electric marine toilet plumbed directly to holding tank. The aft head is fitted with a 12VDC electric head and plumbed to the holding tank, the tank may be emptied via Y-valve thru a 12volt macerator pump for overboard discharge while at sea or via deck fitting dockside. All components and installations appear good with the exception of the holding tank no being properly secured in place.

A 40 gallon (reported) polyethylene holding tank located in the bilge space forward of the engine

compartment.

Hot and cold pressure water is supplied via cooper tubing and flexible hose, plumbing fixtures and hosing through-out appear to be of quality marine grade with all components in generally good serviceable condition.

Air Conditioning & Heating

The vessel is equipped with a two recent 16,000 BTU Marine Aire reverse cycle air conditioning units, with electronic thermostat control. Raw water intake lines are fitted with basket

strainers and separate circulating pumps. The forward unit showed 56 degree output air, the aft unit initially had difficulty starting properly and showed 67 degree output air with 105 degree input air. A Webesto diesel heater is installed starboard side outboard in the engine compartment, the unit was reported to be inoperative at the time of the survey, a qualified technician should be engaged to examine the unit for service/repair before any attempted use.



Domestic Systems

The vessel's domestic systems consists of the following:

(1) One Majic Chef, 4 burner propane stove top with oven, system fitted with remote solenoid shut off. A leak down test was performed.

The vessel's propane tank is mounted in a locker that opens from the side below the seating on the upper deck. This arrangement was compliant when the vessel was built and upgrading to meet current standards would be prohibitively expensive and would not really do much to enhance the safety of the vessel. A leak down test should be performed regularly.

- (1) One Raritan model R12, 120 volt AC hot water heater. Heat exchanger plumbed to main engine.
- (2) Two Majic Chef 120 volt under counter refrigerators, one in the galley and one on the upper deck.
- (1) One Kenwood microwave oven.

The above equipment appears to be well maintained, in good condition, and was tested and found to be operational.

7.0 TANKS & PIPING

Diesel fuel is stored in two, what appear to be original, welded mild steel tanks located outboard port and starboard in engine compartment. Each tank with separate deck fill at weather deck and vents at hull sides. Due to attached insulation only a very limited visual inspection was possible. Tanks appear to be

covered in fiberglass, chopped mat, and painted with blue enamel. Large cleanout/ inspection ports are fitted at each tank, no leaks or fuel smells where detected. Tanks appear well secured. Fuel is suppled through approved type hose, through selector/shut off valves to Racor model 900 FG fuel water separator filter and small secondary Racor filter. A 12VDC filter priming pump is also installed. Visible components and installations





were accessible appear to be in good serviceable condition. **Due to the type of material of the tanks and their age the buyer should be prepared for tank replacement sometime in the future which is very common/typical for this type and age of tank.

Ultimately, tank leakage can only be confirmed through the application of a suitable amount of test air pressure which is beyond the scope of this inspection. All tanks should be pressed full and inspected for leakage and gauge operation and accuracy should be confirmed. Fuel tanks should be kept pressed full to prevent condensation and accumulation of water both inside and around the exterior that can promote corrosion.

The actual condition and longevity of the fuel tanks was not determined.

Drinking water is stored in (2) two separate stainless steel tanks one located below the aft berth and

one located portside in the lazarette, fills for tanks located at weather deck, with vents at gunwale. Visible tank appears to be in good condition and securely mounted. The present owner's report that they drink regularly from the tanks.

8.0 ELECTRICAL

DC Electrical System

The vessel's primary electrical system is 12-volt D-C in nature and is based on four lead acid ship's service batteries secured in the engine room in timber boxes with ventilated lids, the age of the batteries was not reported and there

long term condition was not determined. Two 1,000 CCA Marine AGM starting batteries are located portside forward in the engine compartment and are properly secured in PVC battery boxes with ventilated lids. Wiring is of stranded copper with thermo-plastic insulation, and where inspected appears to be of quality marine grade and well installed. The 12 volt Master D-C panel is located inboard at the helm,



panel contains one vapor proof 4 position battery selector switch, thermal breaker switches for subcircuits.

AC Electrical System

The 12 volt system is supplemented by a single 30 amp shore side system via approved type 30 amp shore power cord and inlet fitting, no evidence of overheating was evident at the cord ends or inlet fitting. A Xantrex automatic marine battery charger starboard side forward in the engine compartment and an engine driven alternator.



Distribution panel fitted with single pole main breaker, polarity indicator, analog voltage meter, and subcircuit thermal breakers. *The 120 volt distribution panel is equipped with 50 amp main breaker and should be changed to 30 amp to match installed components.*

Components of the 120 volt system and wiring appear to be in generally good order with quality marine grade wiring used through-out where inspected. As much as possible 120 volt distribution equipment was tested and found to be operational. Polarity was normal at outlets *except as noted in recommendations*. 120VAC outlets with GFCI protection at some outlets, <u>see recommendations</u>.

Generator

The vessel is fitted with a Northern Lights, 6.5kw., 3 cylinder diesel generator, serial number 190299132 (reported) located forward in the engine compartment. Operational hours are approximately 300, accuracy was not confirmed. Unit is a replacement for the original generator, date of installation not reported. Unit appears

to be in generally well maintained condition. Generators fuel feeds via approved hose feeding Racor fuel/water separator filter, engine mounted secondary filters and fuel pump. Installation of hosing and fuel distribution was found to be in good order and in compliance with regulatory standards. The generator's cooling and exhaust system is based on raw water intake through bronze strainer, feeding engine driven





raw water pump, engine mounted heat exchanger, then mixing at injection elbow and discharges out hull side via approved type flexible exhaust hose through composite aqualift type muffler, hoses and clamps were in well maintained condition. The generators auto shutdowns where not tested for proper operation. Starting and preheat service is provided at the unit and a remote cabin panel. The unit started easily was run up to operating temperature and tested under moderate load, output was 116 volts @ 61 Hertz.

Galvanic Protection

The rudder is fitted with a sacrificial zinc anode, transom with two small plate zincs thru bolted. The underwater metallic components appear to all be interconnected via the bonding system, a number of new and repaired connections were sighted, a complete audit was not performed.

9.0 DECK MACHINERY EQUIPMENT & FITTINGS

- (1) One Properly sized galvanized Delta Fast Set anchor with 200' of all chain rode, in bow roller.
- (1) One Adequately sized Danforth anchor with section of galvanized chain and undetermined length of 5/8 inch anchor rode, in second bow roller.
- (2) Two Additional spare Danforth anchors and rode.
- (1) One Chrome plated bronze hawse pipe with cap
- (1) One Stainless steel bow rail
- (1) One Simpson Lawrence, Horizon 1500 12VDC electric windlass at bow. With foot switches, helm controls, overcurrent breaker mounted forward in the forward cabin.



10.0 FIRE FIGHTING & SAFETY

- (1) One Oil Discharge Placard.
- (1) One Waste Discharge Placard
- (6) Six type II near shore PFD's
- (1) One Jim Buoy 20 inch type IV throwable ring with retrieval line.
- (1) One Horseshoe Buoy with retrieval line.
- * Change nylon retrieval lines to floating poly lines to aid in crew recovery.
- (4) Four dry chemical fire extinguisher, Type B:C size 1, mounted in proper brackets through out vessel.
- (1) One Hand held Signal Horn.
- (1) One Raytheon, Kannad 406, EPIRB, registration expired Nov. 2013, replace unit if operating offshore.
- (1) One Carbon Monoxide Detector, tests operational.
- (1) One Fireboy, Model 100CG Halon 1301 automatic fire suppression system in the engine compartment, date of last inspection not known.





**ABYC A-4 recommends that portable fire extinguishers have a full maintenance check performed at least once per year by a qualified fire extinguishing service company a tag should be attached showing the date of the maintenance check. · Fire extinguisher pressure gauges should be checked monthly to assure that readings are full or in the green area. Other notes: NOTE: NFPA recommends that dry chemical fire extinguishers be periodically shaken to ensure the dry chemical powder is loose and is not compacted. If in doubt, replace the extinguisher.

**ABYC A-4 and NFPA 302 recommends that fixed fire protection systems be inspected and reweighed at one year intervals and tagged accordingly. Recommend compliance.

**Smoke detector(s): None sighted. Since 2004, NFPA 302-12.3 has recommended RV tested or more recently marine tested Smoke Detection devices for all vessels 26 ft (8m) or more in length with accommodation spaces intended for sleeping and is installed and maintained according to the manufacturer's instructions.

11.0 MISCELLANEOUS GEAR

- (1) One Tohatsu 5 horsepower, 2 stroke outboard engine mounted on bracket at aft cabin top, not tested or examined.
- (1) One Set of aluminum davits on stainless steel through bolted mounts.

Surveyor's Comments;

The undersigned surveyor's observations, explanations and opinions are provided to be helpful to interested parties in considering their decisions



about the subject vessel, but the statements and analysis as to the extent of wear and damage are by no means intended to be construed as any guarantee of damage, condition, operational status or reliability, either on or beyond the day of inspection. The undersigned surveyor offers observations and opinions but does not make decisions on behalf or in lieu of vessel owners, prospective buyers or insurance underwriters, the latter who have the sole responsibility for determining policy coverage and both the nature and extent of needed repairs for the vessel to be considered a safe marine risk. This surveyor accepts no part of the owner's, prospective buyer's or insurance underwriter's responsibility to exercise their own due diligence prior to making any decisions regarding the subject vessel, including understanding the surveyor's reported observations and recommendations, seeking a second survey opinion, or securing additional specialized inspections by naval architects, mechanics and system's technicians.

Circumstances of survey: No remarks can be made regarding the condition of the hull or machinery in these areas. • Behind, beneath and outboard of all tankage. • Behind and outboard of all ceiling

and liners above the floorboards and berths. • Behind, above, below and outboard of cabin and deck headliners. • Behind, above, below and outboard of all cabinetry, built in machinery, equipment and appliances and applied decorative attachments. • Beneath the engine and oil pans and outboard of the engine(s). • Areas obscured by any personal belongings and equipment aboard during the survey. • Beneath the anchor chain and rode in its storage area, if not easily removed. • Areas beneath the floors obscured by the vessel's construction method. • All areas with normally restricted access. • The inside of all tankage was not inspected. • All areas obscured by yard blocking, jack stands, lifting straps, structural parts of marine ways and any exterior attachment. • Spars and rigging were visually inspected from deck level only. • No determination of stability characteristics or inherent structural integrity has been made and no opinion is expressed thereto.

Additional to the limitations particular to this vessel and the unique circumstances of its survey being completed in a relatively short amount of time as per industry standards, the undersigned surveyor specifies to all parties that many faults can require considerable time actually operating the vessel to become apparent. As a result, this preliminary condition inspection will most likely not discover all deficiencies that might have existed at time of survey or which might become apparent at a later time during the vessel's use. Any concerned party to this inspection and issuing report that desires protection against defects, failures and resultant damages to the vessel, her equipment and or personnel is advised to procure the services of certified marine specialists for detailed internal fault finding and troubleshooting, full standards compliance checks, and both hull and equipment engineering concerns. This reporting does not address the subject vessel's stability characteristics or inherent defects.

Standards referenced are intended as a guide only and do not encompass all standards that may apply or mitigate any of the findings. Many standards are quoted only in part. The reader is advised to obtain copies of applicable standards for his own information and interpretation. Standards organizations referenced are: The American Boat and Yacht Council (ABYC) 410-956-1050 and The National Fire Protection Association (NFPA) 800-344-3555, both of which are voluntary standards, and The United States Coast Guard, Code of Federal Regulations Title 33 & 46 (CFR) & Rules for Preventing Collisions at Sea (COLREGS) 800-368-5647 which are legal requirements.

12.0 RECOMMENDATIONS

- 1. The galley 120volt outlet by the sink shows an open neutral, have a qualified marine electrician repair outlet, insure outlet is GFCI protected.
- 2. The engine room 120 volt outlet, the upper deck 120 volt outlet do not appear to have GFCI when tested, have a qualified marine electrician insure that all of the 120 electrical outlets throughout the vessel are properly GFCI protected.
- 3. Properly secure the poly holding tank against movement.
- 4. A high bilge water alarm system should be installed aboard with an alarm loud enough to be heard by dock personnel.
- 5. Have a qualified service center recertify the automatic fire suppression system in the engine compartment and note the date of inspection on a tag affixed to the unit.
- 6. The upper helm engine start button fails to operate, have a qualified mechanic trouble shoot

- and attend as needed for reliable operation.
- 7. The engine gauge panel warning lights and alarms did not appear to operate properly at start up, have a qualified mechanic evaluate the warning systems and attend as needed for reliable operation.
- 8. Have a qualified engine mechanic do a full evaluation of the main engine, transmission and the generator, and make recommendations for service and repair.
- 9. Carbon Monoxide Detectors and Smoke Detectors are recommended for each living space, install detectors in each cabin and the main saloon.
- 10. Main 120VAC breaker is rated at 50 amp, this should be removed and replaced with a 30 amp main breaker to match the shore power cord and inlet fitting. Have a qualified marine electrician evaluate the single shore power system for the demands imposed by the two 16,000 BTU air conditioners and if a second shore power system is needed to meet the power demands.
- 11. Provide proper Visual Distress Signals aboard with consideration to vessels intended use.
- 12. Insure that the bitter end of the all chain anchor rode is attached to a strong point in the anchor locker with a strong nylon pennant that can be cut away in an emergency.

Observations and Suggestions;

- 13. There is no outlet for the air conditioner in the forward cabin.
- 14. The transom shower has poor water flow, check water flow after disconnecting lines, replace fixture if needed.
- 15. Some damage to the plywood from water leaks was sighted at the portside aft partition in the forward cabin, moisture meter readings indicated that there is no longer an active leak.
- 16. Change the nylon retrieval line on the Life Ring and Horseshoe Ring to floating poly line to aid in crew recovery.
- 17. Have owner provide a diagram showing the valve locations and operation of the fuel supply/return system.

13.0 VALUATION

15.1 Estimated Current Market Value : \$55,000- \$58,000

15.2 Estimated Replacement, New Vessel : \$450,000

Notes on Valuation

- Replacement value refers to a vessel able to perform like function, profitability or usefulness.
- The foregoing valuations are exclusive of expendable items, removable fishing equipment, personal possessions, spare parts, stores, tenders, or bunkers.

13.1 Attestation of Report

- The undersigned surveyor has personally inspected, and has reported upon, the subject vessel.
- The attending surveyor has no financial interest, or contemplated future interest in vessel appraised.
- Fees charged for the appraisal are based upon a standard fixed fee and are not contingent upon the vessel value.
- The values set forth in this report are presented as the appraisers considered opinion, and are based upon the data set forth in this report.
- This report is confidential, and provided to the requestor only, unless other agreed arrangements have been made. Additional reports may be provided to third parties only with the requesters approval.
- We have made no investigation into the issues of property ownership, nor have we taken into consideration any encumbrances which may be against it. Our appraisal work is limited to the estimate of values. Any information provided to us is received and reported in good faith: We are not able to verify all second hand and third party information.

14.0 SUMMARY AND CONCLUSIONS

As far as can be ascertained from a general examination of the vessel while afloat and ashore, it is the opinion of the undersigned as here in after qualified, that the vessel is in good condition and is suitable for operation in the intended service upon compliance with the enclosed recommendations, and provided the vessel is properly watered, fueled, manned, and operated in a prudent manner in keeping with the condition and limitations of the vessel.

This examination constitutes a physical description of the condition of the vessel as then found, without making removals, making borings, opening up to expose parts ordinarily concealed, testing for tightness, trying out machinery, or performing destructive testing and is subject to any conditions which would have been revealed if such procedures had been accomplished, further no determination of stability characteristics or inherent structural integrity has been made, and no opinion is expressed there to.

The above report is not to be construed as a warranty as to quantity, quality, dimensions, merchantability or otherwise. The undersigned surveyor is not a guarantor of fitness of the hull and or machinery, nor does this report guarantee that the hull and/or machinery is free from damages or

defects. The surveyor assumes no responsibility for any defects and is to be held harmless for conditions subsequently found or arising.

Further more, in accepting this report, it is agreed that the extent of the obligation of this firm is limited to furnishing a surveyor believed to be competent, who has performed his function in a workman like manner with the appropriate standard of care. In the making of this report, the surveyor is acting on behalf of the person, company, and/or firm requesting the same, and no liability shall attach to this firm for the accuracy, error, or omissions thereto.

This report should be considered as an entire document and no single section is meant to be used except as part of the whole. Use of this report is contractually limited to the above named prospective buyer who commissioned and paid for the survey and his/her designated underwriters and lenders for a one time use and is considered current for thirty days (30) of undisturbed lay-up or the vessel's first use. Subsequent updating and/or transfer of this survey report is solely the right of the undersigned surveyor.

This report does not warrant (expressly or implicitly), or guarantee the condition of the above vessel, or its parts. You and your assigns hereby exempt and release the undersigned surveyor and Bussmann Marine Surveying from any and all liabilities, claims, demands, actions or causes of action whatsoever arising out of any damage, loss or injury to the vessel or to any person.

The observations, opinions and recommendations contained in this report constitute the entire written risk evaluation report as of its date and are intended to supplement and incorporate all prior oral or written comments and communications. If anything in this report is, in the opinion of the above named client, inconsistent with any prior communications from the undersigned, then the client must request clarification as soon as possible or else proceed at his own risk. All of the provisions of this report are not transferable, except for the above named client's purposes of insuring and/or financing the vessel.

JAMES J. BUSSMAN

Bussmann Marine Services

James J. Bussmann

Certified Marine Surveyor (#133-882) National Association of Marine Surveyors