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Surveying and Consulting
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APPRaisal SURVEY

Tiara 4000 Express
1994

“UN-NAMED VESSEL”

Keiser Marine – Jeff Keiser jeff@keisermarine.com (253) 249-1914
REPORT OF APPRAISAL SURVEY

OF THE VESSEL

“UN-NAMED VESSEL”
1994 TIARA 4000 EXPRESS

SURVEY CONDUCTED BY:

Jeff Keiser SAMS® SA
Marine Surveyor

PREPARED EXCLUSIVELY FOR:

Un-named person
Monday, November 30, 2009
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SCOPE OF SURVEY

This survey report is for the benefit of an Un-named person only and may not be relied upon by any other person without written consent of the surveyor or the above beneficiary.

Acting at the request of an Un-named person, the attending surveyor did attend onboard the 1994 Tiara 4000 Express, “Un-named vessel” on Monday, November 30, 2009, from 11:15am to 3:00pm, where she lay afloat at her moorage at Un-named Marina, FL. The Hull Identification Number (HIN) was verified from the transom, and a photo is included at the end of this report. A sea trial was not performed at the time of the survey. An out-of-the-water inspection of underwater machinery and the exterior of the hull’s wetted surface area was not performed. One access hatch in the salon was inaccessible for inspection. The reason for the survey was to ascertain the physical condition and value of the vessel for appraisal purposes. AC and DC power was available and was used to check the operation of the systems as specified in this report. Electronic equipment was checked for power-up only on specific systems as listed within the report. The report does not address the condition of any surface or machinery below the water line in that the vessel was not hauled.

- No reference or information should be construed to indicate evaluation of the internal condition of the engine or the propulsion system’s operating capacity.

- This vessel was surveyed without removal of any parts, including fittings, tacked carpet, screwed or nailed boards, fixed partitions, instruments, personal items, miscellaneous materials in the bilges and lockers, or and other fixed or semi-fixed items.

- Locked compartments or otherwise inaccessible areas would also preclude inspection. Buyer/owner is advised to open up all such areas for further inspection.

- No determination of stability characteristics or inherent structural integrity has been made, and no opinion is expressed.

This survey report represents the condition of the vessel on the above date, and is the unbiased opinion of the undersigned, but it is not to be considered a complete inventory or a warranty, either specified or implied.

NOTE: It is recommended that all diesel engines be surveyed by a qualified Engine Surveyor to determine the condition of the engine’s gears and pumps, heat exchangers, coolers, etc. It is also recommended a sea trial be performed and evaluated by a competent marine surveyor, and that the vessel be hauled out for dry dock inspection of hull and underwater machinery.

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CONDUCT OF SURVEY

This survey report represents the condition of the vessel as inspected by the undersigned surveyor on the date of survey. This survey report makes no representation and does not purport to describe any condition that may have changed since the date of the survey, and the recommendations herein are limited to those that in the opinion of this surveyor are reasonably necessary and appropriate based upon the conditions and circumstances, as they existed at the time of the survey. This survey report has no force and effect after November 30, 2010 and may not be relied upon for any purpose after that date.

The services rendered herein and the report rendered herewith are done with the distinct understanding that the undersigned is not responsible or liable under any circumstances whatsoever for any error, omission, negligence, or failure to properly perform the requested services and that all matters and statements contained in this report are of opinion only. They are not to be construed as representations, warranties, or guarantees. No statement made herein, or with services performed hereunder, or work done in connection herewith shall be the basis for any claim, demand, or action against the undersigned. If the work performed is deficient in any material respect, the surveyor shall correct his report or refund the fee paid. In no event shall he be liable for incidental and consequential damages, or damages exceeding the fee actually received for the work.

The market value quoted is the best estimate of the price a willing buyer would pay a willing seller, both parties having reasonable access to the relevant facts, neither party under any compulsion to buy or sell, and under market conditions at the time and place of the survey.

THE MANDATORY STANDARDS PROMULGATED BY THE UNITED STATES COAST GUARD (USCG), UNDER THE AUTHORITY OF TITLE 46 UNITED STATES CONDE (USC); TITLE 33 AND TITLE 46, CODE OF FEDERAL REGULATIONS (CFR), AND THE VOLUNTARY STANDARDS AND RECOMMENDED PRACTICES DEVELOPED BY THE AMERICAN BOAT AND YACHT COUNCIL (ABYC) AND THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAVE BEEN USED AS GUIDELINES IN THE CONDUCT OF THIS SURVEY.

- The American Boat and Yacht Council “Standards and Recommendations,” are defined by reference to “ABYC”. These standards were developed in cooperative effort with the National Marine Manufacturers Association to complement the mandatory standards promulgated by the United States Coast Guard under the authority of the Federal Boat Safety Act of 1971. The ABYC Standards and Recommendations are considered to be voluntary, but are highly suggested by this surveyor.

VESSEL DESCRIPTION

The 1994 Tiara 4000 Express was the first ever mid cabin built by Tiara. The 4000 Express was a popular model during her production years with several desirable features. The vessel has an eleven-foot salon lounge, two staterooms, offers seven feet of headroom throughout the mid cabin, contains two heads, and has a spacious cockpit. Access to the lazarette and the aft engine room space are operated by hydraulic ram lifts. A hydraulic operated table is also available in the cockpit.

The Tiara 4000 Express is powered by Twin 450hp Cummins Diesel engines. Factory specifications indicate cruising speed to be approximately 23-24 knots with a top speed of approximately 27 knots. An Onan 9kw generator is also included within the engine compartment.

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GENERAL INFORMATION

SURVEY FILE NUMBER: XXXXXXXX
SURVEY PREPARED FOR: Un-named address
ADDRESS: (XXX) XXX-XXXX
PHONE: info@XXXXXX
EMAIL: 

TYPE OF SURVEY: Appraisal
DATE OF SURVEY: Monday, November 30, 2009
“Un-named vessel”
NAME OF VESSEL: XXXXXXXXXXXX
HULL IDENTIFICATION NUMBER (HIN):
STATE REGISTRATION NUMBER:
MANUFACTURED BY: FL 1234 XX
CITY: S2 Yachts Inc.
YEAR: Holland, MI
MAKE: 1994
MODEL: Tiara
4000 Express

LOCATION OF SURVEY:
HAILING PORT:
VESSEL’S INTENDED SERVICE:
WATERS TO BE NavigATED:

FLORIDA
Florida
Florida
Pleasure
Inter-coastal

HULL MATERIAL:
Fiberglass
HULL TYPE:
Modified-V
DEADRISE: 18°
LENGTH W/ PULPIT:
43’ 3”
HULL LENGTH:
40’6”
BEAM:
14’ 6”
DRAFT:
4’ 0”
WEIGHT:
26,500 lbs

PROPULSION SYSTEM:
Twin Cummins V-Drive 450hp
FUEL TYPE:
Diesel
FUEL CAPACITY:
444 gal
FRESH WATER CAPACITY:
160 gal
HOLDING TANK CAPACITY:
57 gal
DC POWER: 12V
AC POWER: 110/220V

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DEFINITIONS OF TERMS

Please associate the following terms with the given definition as they appear throughout the following Report of Survey.

APPEARS:

➢ Indicates that a very close inspection of the particular system, component or item was not possible due to constraints imposed upon the surveyor (e.g. no power available, inability to remove panels, or requirements not to conduct destructive tests).

SERVICEABLE: FUNCTIONAL:

➢ Sufficient for a specific requirement.

POWERS UP:

➢ Power was applied only. This does not refer to the operation of any system or component unless specifically indicated.

EXCELLENT CONDITION:

➢ New or like new.

GOOD CONDITION:

➢ Nearly new, with only minor cosmetic or structural discrepancies noted.

FAIR CONDITION:

➢ Denotes that system, component or item is functional as is with minor repairs.

POOR CONDITION:

➢ Unusable as is. Requires repairs or replacement of system, component or item to be considered functional.

SYSTEMS

A. HULL, DECK, AND SUPERSTRUCTURE

HULL DESCRIPTION & CONDITION:

➢ Fiberglass modified-V hull with a 18 degrees deadrise aft.
➢ White gelcoat with dark blue boot stripe at waterline.
➢ Cosmetic gelcoat damage was found against both the port and starboard outer transom edges above the waterline. No internal fiberglass damage was detected.
➢ A semi-circular gelcoat crack was found measuring 3 inches in diameter located 2 1/2 ft below the sheer on the port bow, below the forth stanchion from the bow. Internal fiberglass damage could not be accessed.
➢ The vinyl tape depicting the vessel name was damaged but does not obscure the legibility of the vessel name and hailing port.
➢ Starboard Transom step serving also as a weather cover for the shore power receptacles was damaged on edges and delaminated.
➢ Overall fiberglass condition is good.
STRINGERS & BULKHEADS:
◆ Bulkheads were only visible in the engine compartment. They appeared serviceable where sighted.
◆ Stringers were only accessible in the engine room. They appeared serviceable where sighted with no indication of water intrusion or structural damage.

BILGE:
◆ The bilge was inspected at the engine compartment, and at midship in the access ports of the salon. The bilge at the engine compartment was dirty with indication of oil leaks. An inspection by a qualified marine engine mechanic is recommended to determine the source of oil.
◆ 3 bilge pumps on the vessel. 1 in the lazarette. 1 in the bilge of the engine compartment. 1 in the bilge of the forward berth.
◆ All 3 bilge pumps powered up from float switches.

DECK/COCKPT:
◆ Deck/Cockpit are white gelcoat with minor oxidation.
◆ Deck and cockpit were sounded with phenolic hammer at intervals of 6 to 8 inches and were found to be free from delamination.
◆ The white cockpit upholstery for both the navigation station and the aft bench show wear, discoloration and ripped seams.

HULL-TO-DECK JOINT:
◆ Overlap style hull-to-deck joint sighted through the transom wet locker inspection ports.
◆ Fasteners are stainless steel screws at 6 inch intervals. No elasstometric sealant was visible within the joint.
◆ Fasteners show no corrosion and appear strong functional.

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HULL, DECK, AND SUPERSTRUCTURE (cont.)

◆ No water intrusion is evident.

RAILS & STANCHIONS:
◆ Rails, stanchions and bow pulpit are of a solid one piece 1 1/4 inch stainless steel construction and are through bolted to deck. Rail was secured with stainless fasters, type could not be determined. The rail and stanchions were serviceable and exhibited no wear or corrosion.

BIMINI & SUPPORT ARCH:
◆ Bimini is constructed of cored fiberglass with fiberglass support arch. Fiberglass in both the bimini and arch appeared to be in good condition. Aluminum support bracket for arch showed corrosion and peeling of paint both to port and starboard.
◆ Bimini contain 2 Bomar 20 inch forward opening hatches. Hatches opened and could be secured but support rod, tightening knobs were seized on both hatches.
◆ Plastic, flexible, snap-on wind screens were clear and appeared to be in serviceable condition.

DOORS & WINDOWS:
◆ Companion way is accessed by a plastic sliding door. The sliding track functioned but affords a loose and uncontrolled sliding motion. Locking mechanism exhibited corrosion and would not function.

CLEATS:
◆ Cleats were 8 inch stainless steel, four to port and four to starboard. Fasteners were stainless steel, type could not be determined. All cleats were firmly attached and appeared serviceable.

DOCKING LINES:
◆ Dock lines were braided 3/4 inch nylon and appeared serviceable with little visible wear.

FENDERS:
◆ One, 8 inch diameter bumper was stored in the transom trunk. It appeared to be serviceable.

SWIM STEP:
◆ Swim platform is cored FRP and seemed well supported with no visible wear. Swim ladder was retractable and folded into swim platform. Ladder and cover appeared serviceable.

B. GROUND TACKLE

ANCHOR(S):
◆ Anchor is a Danforth style at approximately 30lbs.
◆ Anchor is in poor condition. Recommend monitor and renew as required.

CHAIN & RODE:
◆ There is an estimated 6 feet of galvanized chain and approximately 100 feet of rode.
◆ Chain & rode are in fair condition. Recommend monitor and renew or service as required.

WINDLASS:
◆ Lewmar windlass with local and helm station controls.
◆ Model#: V165001067#2
◆ Windlass was not tested during inspection.

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C. PROPULSION SYSTEM

DESCRIPTION OF PROPULSION SYSTEM:
◆ Vessel is equipped with twin 1996 Cummins inline 6 cylinder 450hp diesel engines with V-Drive ZF gearboxes.
◆ The engines were not started at the time of survey and all observations were strictly visual.

<table>
<thead>
<tr>
<th>YEAR:</th>
<th>1996</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAKE:</td>
<td>Cummins</td>
</tr>
<tr>
<td>FUEL TYPE:</td>
<td>Diesel</td>
</tr>
<tr>
<td>HP:</td>
<td>450 hp</td>
</tr>
<tr>
<td>HOURS:</td>
<td>P: 1676 S: 1673</td>
</tr>
<tr>
<td>SERIAL #:</td>
<td>P: 45342484 S: 45342435</td>
</tr>
<tr>
<td>GEARBOX:</td>
<td>ZF V-Drive</td>
</tr>
<tr>
<td>GEARBOX SERIAL#:</td>
<td>P: 92.14699 S: 92.14700</td>
</tr>
</tbody>
</table>

ENGINE OBSERVATIONS & COMMENTS:
◆ A fluid leak was sighted on both engines at the seam between the head and the block. Marine Engine survey is recommended for further information.
◆ The hoses to both engines for the raw water intake at the sea strainers display bulging and corrosion. Recommend service to avoid system failure.
◆ The bilge below the starboard engine contains standing water. During sea trial performed on November 23, 2009 a water leak was observed from the engine’s raw water pump resulting in the starboard engine to overheat during sea trial. Recommend renewing water pump to avoid overheating and engine damage.
◆ Main engine beds are heavy longitudinal stringers inboard and outboard. In conjunction, adjustable motor mounts are bolted to the stringers and are used to adjust the prop shaft alignment as well as secure the engines to the hull stringer structure.
◆ A lubrication transfer system by – X-Changer – was sighted during inspection. The system was not tested.
◆ Tags on the transmission indicate that the gearbox ratio is: 1.65:1.
◆ Safety pins for the engine room ladder are connected with a cable that crosses the first rung of the ladder. Positioning of cable allows for easy disconnect of pins resulting in safety hazard. Recommend reconfiguring the pin restraints.

EMERGENCY SHUT DOWN:
◆ There are emergency shut down pull cables located at the helm. Cables are clearly marked. Emergency shut down was not tested during survey. Equipment appears serviceable.

EXHAUST SYSTEM:
◆ The exhaust system is water cooled with cast iron risers and flexible connection of 6 inch pipes that run to the outboard frame supports before exiting through side mounted fittings with rubber flappers at the transom.
◆ All hose to pipe connections are double clamped and are serviceable.

COOLING SYSTEM/CLAMPS & HOSES:
◆ Stainless steel clams and reinforced rubber hoses are used in the cooling system.
◆ All hoses connections originating below the waterline are double clamped and well routed with supports.

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PROPULSION SYSTEM (cont.)

SEACOCKS & STRAINERS:
◆ The raw water strainers are: Perko bronze alloy with sight glass. No blockage was sighted and the system is serviceable.
◆ All seacocks accessible for testing were seized. Service is required on all seacocks to ensure functionality.

SHAFTS & SHAFT SEALS:
◆ Shafts are a stainless steel 2” in diameter.
◆ Shaft seals are dripless and show no signs of water intrusion.
◆ Overall condition of shafts and seals is good. Full inspection was not possible because the vessel was not lifted from the water.

PROPELLER(S):
◆ 2 spare 3 blade bronze propellers were sighted mounted to the aft bulkhead in the engine compartment and are serviceable.
◆ Diameter and pitch dimensions were unidentifiable due to corrosion on the blades.
◆ The shaft propellers were not inspected during the survey because the vessel was not hauled out of the water.

BLOWER & VENTILATION:
◆ 4 blowers were installed in the engine compartment. 2 blowers on the port side forward of the engine, and 2 blowers starboard side forward of the engine.
◆ Blowers were not tested during the survey.
◆ The port most blower motor had no hose attached on the outlet side. Recommend renewing hose to ensure proper ventilation.
◆ Natural flow ventilation is provided from vents in the hull.

D. FUEL SYSTEM

DESCRIPTION OF FUEL SYSTEM:
◆ The vessel has three diesel fuel tanks with a total capacity of 444 gallons as indicated in Power Boat Guide.
◆ Fuel Tank material is 5052 Aluminum and is .125” thick.
◆ Labels on the tanks have worn and are unreadable.

LOCATION:
◆ 1 tank located in the port side quarter berth.
◆ 1 tank located in the starboard side quarter berth.
◆ 1 tank located mid ship below the deck in the salon.

FILLS:
◆ 1 fill at the port midship gunwale.
◆ 1 fill at the port aft bow gunwale.
◆ 1 fill at the starboard midship gunwale.
◆ All fills are serviceable.

FUEL LINES:
◆ All fuel lines are USCG Type A1 spec hose.

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FUEL SYSTEM (cont.)

- Fuel line connection at the fill was not inspected during the survey due to inaccessibility to the area.
- All fuel line clamps that were inspected during the survey are serviceable.

FUEL VENTS:
- 2 vents located on the portside. 1 vent on the starboard.
- The fuel vents do not have screens.

FUEL FILTERS:
- There are 4 remote mounted Racor filters.
- There are 2 engine mounted fuel/water separator filters.
- Duel Racor units are plumbed in parallel to facilitate fast easy switch over and maintenance.
- Fuel filters were clean a serviceable at time of inspection.

E. STEERING SYSTEM

DESCRIPTION OF STEERING SYSTEM:
- Sea Star Hydraulic single station steering system
- Hydraulic cylinder pump at the crossbar between the rudder posts is corroded. Monitor deterioration and repair as required.
- Port side rudder post shows signs of water intrusion through the packing gland. Recommend renewing packing gland inside the port side rudder post.
- The rudder position indicator analog gauge located at the helm dash does not work. Service or renewal is recommended.
- System operation was smooth and displayed no indication of malfunction.

F. CONTROL SYSTEM

DESCRIPTION OF CONTROL SYSTEM:
- Single station 4 lever mechanical control layout. 2 gear select levers at the port side of the helm and 2 throttle control levers at the starboard side.
- Levers use a mechanical system based on Morse cables to control both gear select and throttle control.
- The gear select levers are loose in their housing. Recommend further inspection and tightening of components as required.
- Throttle control levers operated smoothly at time of inspection.
- All levers show signs of corrosion cosmetic in nature to their operation. Monitor and service as required.
- Hydraulic steering relays show signs of corrosion.

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CONTROL SYSTEM (cont.)

SYNCHRONIZATION:
◆ Control system is capable of synchronization using the port engine as the Slave, and the starboard engine as the Lead.
◆ Observations made during Sea Trial on November 23, 2009 indicate that the synchronization is operating correctly. While underway the RPM for both engines synched at cruise speed as indicated by analog gauges at the helm. The port engine (Slave) lagged by a couple hundred RPM as power was being applied, but at steady throttle the RPM for each engine matched.

G. FRESH WATER SYSTEM

DESCRIPTION OF FRESH WATER SYSTEM:
◆ 160 gallons of fresh water are available when all tanks are full.
◆ Tank material is 5052 Aluminum and is .125” thick.

WATER PUMP(S):
◆ Fresh water pump was not sighted at the time of survey.
◆ Fresh water pump appears to be inaccessible and was not tested.
◆ Raw water cockpit wash down pump was sighted in the lazarette but was not tested. Inspection indicated that system was no longer in use, and was inoperable.
◆ Raw water pump shows signs of corrosion. Recommend further inspection of pump. Clean and service or renew as required.
◆ A municipal water inlet connection is located in a deck opening at the base of the starboard cockpit stairs.
◆ The municipal water system was not tested during the inspection.
◆ Recommend a pressure relief valve is installed.

F. SANITATION SYSTEM

◆ Type III Sanitation System.
◆ Dock side pump out is located starboard mid ship gunwale.
◆ Two Vacufush toilets. One is located in the forward head, and one in the aft cabin. Both flow into a holding tank sighted under cabin deck in the aft salon.
◆ No raw water intake was sighted for the heads during inspection. MSD system may be a fresh water system.
◆ Discharge hose sighted through the starboard transom inspection plate was kinked restricting the discharge through the seacock. The discharge seacock is seized in the open position. Recommend renewal of discharge hose and service to bronze seacock.

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G. CABIN INTERIOR

MAIN SALON:
◆ Main salon is accessed by a sliding companionway. Three steps lead down into galley and main salon. The galley/salon bulkheads and cabinetry are white stained oak in good condition. The cabin sole is planked with golden stained oak in good condition. Three access ports through the cabin sole were found. The forward two ports provided access to the bilge and forward fuel tank. The aft most access port was seized closed. A large leather upholstered settee was found to port with a 6 ft. long, height adjustable table. The settee and table were serviceable and in good condition. The headliner throughout the salon, galley and cabins appeared dirty but free of rips or visible wear.

![B9. Hatch Support Knob](image1)
![B8. Kinked discharge hose](image2)
![C2. Vinyl Transom lettering](image3)

CABIN APPOINTMENTS:
◆ Aft cabin was found immediately to starboard from companionway. Cabin contained a double bed white oak storage cabinetry, head found under upholstered seat cushion and 10” sink molded in to plastic counter top. A 12 inch port hole through bulkhead allowed air passage to cockpit navigation station.
◆ V-birth was accessed though salon door or dual doors of forward head. V-birth contain double bed, white stained oak hanging lockers to port and starboard and 8 top hinged storage lockers on either side of bed. Bed and cabinetry appeared in serviceable condition with no visible signs of wear.

FORWARD HEAD:
◆ Forward head contained a Lavac toilet, 14 inch plastic sink with pressurized fresh water supply and stand up glass enclosed shower. Drainage from shower could not be determined. Fresh water pump was tested from sink, it powered up and produced water.

HATCHES:
◆ Salon contained one, 16 inch Bomar, forward opening hatch. The hatch could be secured closed but the support rod, tightening knob was seized so the hatch could not be opened.
◆ Forward head contained one, 16 inch Bomar, forward opening hatch. The hatch was seized closed.
◆ V-birth contained one, 20 inch Bomar, forward opening hatch. The hatch could be secured closed but the support rod, tightening knob was seized so the hatch could not be opened.
◆ 5 hatches were seized in the closed position due to corrosion around the support locking knob.
CABIN INTERIOR (cont.)

GALLEY:
Galley was found immediately to port from companionway. Against the port hull was found white stained oak cabinetry, a white formica counter top with double sink. Appliances are as follows:

- Three burner electric stove, make and model undetermined, did not test for power up
- Microwave, Panasonic Dimension 4, powered up
- U-Line 120v Refrigerator, model 75R, powered up
- U-Line 120v Freezer, model 15R, powered up
- Black & Decker Spacemaker 120v coffee maker, powered up
- Seth Thomas 4” weather barometer
- Seth Thomas 4” ship clock, not functioning.
- Kidde Carbonmonoxide alarm, did not power up (no batteries)
- Fireboy Xintex Carbon monoxide alarm, hardwired DC, did not power up
- Two GFCI protected 120v AC outlets, powered up and GFCI trip functioned

H. ELECTRONICS & NAVIGATION EQUIPMENT

HELMSTATION DESCRIPTION:

- Electronics at the helm station include: Chartplotter, Radar, Sounder, Auto Pilot, VHF, and a Compass. These electronics were tested for power up only

CHARTPLOTTER/GPS:

- Northstar 6000i – Chartplotter, radar, sounder all in one. Powered up at time of survey.
- Magellan Nav 5200DX – Did not power up.

RADAR:

- Northstar 6000i – Chartplotter, radar, sounder all in one. Powered up at time of survey.

SOUNDER:

- Northstar 6000i – Chartplotter, radar, sounder all in one. Powered up at time of survey.
- Autohelm Depth Sounder – Did not power up.

AUTOPILOT:

- Autohelm ST7000 – Did not power up.

VHF:

- Standard Horizon Omni VHF – Powers up.
- Northstar NS100 VHF – Powers up.
- The cable leading into the handheld device of the Northstar NS100 is deteriorating leaving the wires at the connection exposed. Recommend repair or renewal to avoid future failure of the VHF.

COMPASS:

- Ritchie Powerdamp Plus – Compass was in good condition.

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NAVIGATION LIGHTS:
◆ The navigation lights that were tested for operation are: Port light (Red), Starboard light (Green), Anchor light (White), Stern light (White).
◆ The starboard, anchor, and stern light functioned when power was supplied.
◆ The Port light (Red) does not work. Service is required

I. SAFETY EQUIPMENT

PFD TYPE I, II, III, IV: (SEE: Safety Regulation Notes)
◆ 3 type I PFD’s were sighted at time of survey.
◆ 1 type IV throwable was sighted at time of survey. (SEE: Safety Regulation Notes)

FLARES: (SEE: Safety Regulation Notes)
◆ 3 handheld flares with the expiration date GOOD till January 2010.
◆ 5 Handheld flares have EXPIRED. Recommend disposing in guidance with USCG requirements and replacing with new.
◆ 6 Aerial flares have EXPIRED. Recommend disposing in guidance with USCG requirements and replacing with new.
◆ 2 Aerial flares – Olin Winchester Marine Signal Kit – no expiration date printed on the flares.

EXTINGUISHERS: (SEE: Safety Regulation Notes)
◆ 4 handheld extinguishers were sighted aboard the vessel. No tags of service date were included. Extinguishers require annual inspection.
◆ A Fireboy Engine Shutdown system is installed on the vessel including Fireboy halon extinguisher. No service tag was sighted at the extinguisher. Annual service inspection is required.

J. ELECTRICAL SYSTEMS

DESCRIPTION OF AC ELECTRICAL SYSTEM:
◆ The AC electrical system as displayed at the AC Distribution Panel reads: 110/220V.
ELECTRICAL SYSTEMS (cont.)

SHORE POWER INLET:
- There are shore 3 shore connections: 50A 125/250V, 30A 125V, Phone/TV – located at the base of the starboard cockpit stairs.
- All 3 shore inlets show signs of corrosion.
- The 50A 125/250V, and the Phone/TV plugs are badly corroded and require service prior to next use.
- Fuse covers and fasteners at shore power inlet are wasted. Renewal is recommended.
- Fuses were not inspected during survey. Condition of fuse covers made fuses inaccessible.
- Condition is poor at the shore power inlet. Recommend a Marine Electrician to service the system.

SHORE POWER CABLE:
- 3 shore power cables were inspected during survey: Primary 30A 125V shore power cable, and 2 spare 30A 125V shore power cables located in the lazarette.
- The primary shore power cable that was in use during the survey was in fair condition with light chaffing present at the cable where it travels through deck enclosure. Monitor wear and replace as required.
- The 2 spare shore power cables are in poor condition. Corrosion is present at plug exposure, and a burn mark exists on an inlet end. Recommend service or renewal of both spare shore power plugs.

AC PANEL:
- AC panel is located on your port side as you enter down the stairs into the salon.
- Panel has 3 AC lines: Generator, 220 Volt Dock Side, 110 Volt Dock Side.
- During inspection only the 110V line was tested with a digital gauge indicating 121V of shore power. Testing results indicate system to be serviceable.
- Polarity indicator light lit green intermittently when tested. Recommend having a Marine Electrician service the panel to ensure proper operation of all visual indication components.

INVERTER/CHARGER:
- Heart Interface Freedom – Inverter/Charger
- The Heart Interface monitor at the AC/DC Distribution panel lit up indicating that there was AC input, Inverter/Charger was powered on, there was a presence of 13 DC Volts, and 10 DC Volts.
- The inverter was not tested during survey and it’s operational status is unknown.

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DESCRIPTION OF DC ELECTRICAL SYSTEM:
❖ The DC system is 12 Volts supplied from 2 battery banks that are secured and covered at the port and starboard aft engine compartment.

DC PANEL:
❖ The DC panel indicated 13.3 volts during testing at the time of survey.
❖ All breakers are well labeled.
❖ All Visual indications lights at the breakers were functional.
❖ Overall condition of the DC panel was serviceable.

PORT BANK:
❖ The port side battery bank is made up of 4 – 6V Crown Deepcycle batteries wired in series-parallel producing 12 Volts.
❖ All DC powered devices tested during the survey were run with power supplied from the Port Battery Bank.
❖ The DC distribution panel located on your port side as you enter down the stairs into the salon had a digital voltage reading of 13.3 Volts during survey testing.
❖ All 4 batteries are dirty with signs of corrosion. Recommend cleaning batteries and servicing terminals.
❖ Corrosion is present on the conductor at the positive terminal on the forward starboard most battery. Recommend service or renewal of conductor.
❖ Overall condition of the port side battery bank is serviceable.

STARBOARD BANK:
❖ The starboard side battery bank is made up of 2 – 8D batteries wired in parallel.
❖ Voltage on the starboard battery bank was not tested during the survey.
❖ Both batteries are dirty with signs of corrosion. Recommend cleaning batteries and servicing terminals.
❖ The conductors at the positive terminal on the starboard most battery in the back are badly corroded. Terminal is also corroded. Recommend renewal of conductors and service to the terminal.
❖ A BLACK conductor cable is wired from positive terminal to positive terminal between the two batteries for the purpose of running the batteries in parallel. Recommend conductor is replaced with RED conductor or labeled to identify it as a positive conductor in accordance with ABYC Standards E-11.14.
❖ Battery cover removal was not possible as the raw water intake hose for the starboard engine blocked access. Recommend reconfiguring cover setup for easy removal.

BATTERY CHARGER:
❖ Xantrex True Charge 40 amp Multi-Stage Battery Charger.
❖ Charger was powered up at the time of survey.

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ELECTRICAL SYSTEMS (cont.)

GENERATOR DESCRIPTION:
◆ Onan 9 KW Marine Diesel generator.

MAKE: Onan
FUEL TYPE: Diesel
HOURS: 950
SERIAL #: D973668419

GENERATOR NOTES:
◆ The generator is sealed in a quiet case and there is no access port sighted for fire extinguisher access.
◆ The enclosure housing the generator shows signs of rust and deterioration. Recommend monitor and service as required.

K. BONDING SYSTEMS

DESCRIPTION OF BONDING SYSTEM:
◆ The bonding system installed in the vessel uses individual green insulated wire.
◆ Bonding terminal mounted in the lazarette by the rudder posts is corroded. Recommend cleaning and service.
◆ All thru-hull fittings sighted are bonded properly. Recommend continued monitoring and service as required.
◆ Overall condition is serviceable.

L. THRU-HULL FITTINGS

THRU-HULL SEACOCKS:
Below the waterline thru-hulls:
◆ Four Bronze below the waterline thru-hulls were found (see diagram)
◆ One raw water intake for each engine, both were double clamped with minimal corrosion evident, both were seized in open position
◆ One raw water intake for the generator, double clamped with minimal corrosion evident, seized in open position.
◆ One for sewage discharge, seized in open position.

Above the waterline thru-hulls:
◆ Four plastic bilge pump in the port quarter
◆ One generator raw water discharge port midships
◆ Two engine room vents at cockpit rail port and starboard
◆ One galley sink drain with plastic seacock, poor accessibility under sink and seized open
◆ Two AC discharge with plastic seacocks located at starboard bow and midships, midship valve is seized
◆ Five unidentifiable plastic through hulls, no access was permissible to confirm source of thru-hull

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Thru Hulls

Thru Hulls and Fills Below the Water Line:

Thru Hulls and Fills Above the Water Line:

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FINDINGS & RECOMMENDATIONS

All safety equipment aboard this vessel, including VHF channel 16, fire extinguishers, flares, and PFD’s have been checked and deficiencies noted. New NFPA (National Fire Protection Association) or ABYC (American Boating and Yacht Council) standards, as quoted, may have gone into effect since this vessel was built. Noted under SAFETY DEFICIENCIES is where these standards apply to the safety of the vessel and it occupants, and should be addressed before the vessel is next underway. Findings may also be in violation of U.S.C.G. Regulations. While NFPA and ABYC standards are not always retroactive, except for where there is a distinct hazard of life or property, this firm suggests their compliance for safety reasons. All CFR (Code of Federal Regulations) and 72 COLREGS (Navigation Rules) quoted herein are mandatory for correction.

These findings represent an endangerment to personnel and/or the vessel’s safe and proper operating condition. Findings may also be in violation of U.S.C.G. REGULATIONS.

Deficiencies noted under OTHER DEFICIENCIES should be corrected in the near future so as to maintain standards and help the vessel to retain its value.

A. SAFETY DEFICIENCIES

B. OTHER DEFICIENCIES REQUIRING ATTENTION

C. SURVEYORS NOTES & OBSERVATIONS

SAFETY REGULATION NOTES:

- All vessels 16ft. and larger are required to be equipped with one Type I, II, or III PFD per person aboard the vessel. In addition one Type IV throwable PFD is also required to be aboard the vessel. (33CFR175.15).
- All fire extinguishers require annual service and tagging per NFPA (10 4-4).

A. SAFETY DEFICIENCIES

- A1. The Port light (Red) does not work. Service or renewal is required.
- A2. 4 handheld and 1 halon extinguishers were sighted aboard the vessel. No tags for service date were included. Extinguishers require annual inspection.
- A3. There are shore 3 shore connections: 50A 125/250V, 30A 125V, Phone/TV – located at the base of the starboard cockpit stairs. All 3 shore inlets show signs of corrosion. The 50A 125/250V, and the Phone/TV plugs are badly corroded and require service prior to next use. Fuse covers and fasteners at shore power inlet are wasted. Renewal is recommended by a qualified marine electrician. (SEE photo pg.16).
- A4. The 2 spare shore power cables are in poor condition. Corrosion is present at plug exposure, and a burn mark exists on an inlet end. Recommend service or renewal of both spare shore power plugs.
- A5. All of the below the water seacocks are seized in the open position. All 4 of these seacocks were bronze and showed corrosion. Recommend service or renewal as required.
- A6. Safety pins for the engine room ladder are connected with a cable that crosses the first rung of the ladder. Positioning of cable allows for easy disconnect of pins resulting in safety hazard. Recommend reconfiguring the pin restraints.

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B. OTHER DEFICIENCIES REQUIRING ATTENTION

- **B1.** A semi-circular gelcoat crack was found measuring 3 inches in diameter located 2 1/2 ft below the sheer on the port bow, below the forth stanchion from the bow. Internal fiberglass damage could not be accessed. (SEE photo pg. 8)
- **B2.** Starboard Transom step serving also as a weather cover for the shore power receptacles was damaged on edges and delaminated. (SEE photo pg. 8)
- **B3.** A fluid leak was sighted on both engines at the seam between the head and the block. Marine Engine survey is recommended for further information.
- **B4.** The hoses to both engines for the raw water intake at the sea strainers display bulging and corrosion. Recommend service to avoid system failure.
- **B5.** The bilge below the starboard engine contains standing water. During sea trial performed on November 23, 2009 a water leak was observed from the engine’s raw water pump resulting in the starboard engine to overheat during sea trial. Recommend renewing water pump to avoid overheating and engine damage.
- **B6.** The port most blower motor had no hose attached on the outlet side. Recommend renewing hose to ensure proper ventilation.
- **B7.** Port side rudder post shows signs of water intrusion through the packing gland. Recommend renewing packing gland inside the port side rudder post. (SEE photo pg. 12)
- **B8.** Discharge hose sighted through the starboard transom inspection plate was kinked restricting the discharge through the seacock. The discharge seacock is seized in the open position. Recommend renewal of discharge hose and service to bronze seacock. (SEE photo pg. 13)
- **B9.** 5 hatches were seized in the closed position due to corrosion around the support locking knob. (SEE photo pg. 13)
- **B10.** Corrosion is present on the conductor at the positive terminal on the forward starboard most battery in the port side bank. Recommend service or renewal of conductor.
- **B11.** The conductors at the positive terminal on the starboard most battery on the starboard bank are badly corroded. Terminal is also corroded. Recommend renewal of conductors and service to the terminal.
- **B12.** 3 plastic above the water thru-hull seacocks were seized in the open position. 2 were AC discharge drains on the starboard midship hull. The third seized seacock serviced the galley sink on the midship portside. Recommend service or renewal as required.
C. SURVEYORS NOTES & SUGGESTIONS

- C1. Cosmetic gelcoat damage was found against both the port and starboard outer transom edges above the waterline. No internal fiberglass damage was detected. (SEE photo pg. 8)
- C2. The vinyl tape depicting the vessel name was damaged but does not obscure the legibility of the vessel name and hailing port. (SEE photo pg.)
- C3. The white cockpit upholstery for both the navigation station and the aft bench show wear, discoloration and ripped seams. (SEE photo pg. 8)
- C4. Hydraulic cylinder pump at the crossbar between the rudder posts is corroded. Monitor deterioration and repair as required. (SEE photo pg. 12)
- C5. The rudder position indicator analog gauge located at the helm dash does not work. Service or renewal is recommended.
- C6. Kidde Carbonmonoxide alarm, did not power up (no batteries). Fireboy Xintex Carbon monoxide alarm, hardwired DC, did not power up
- C7. Raw water pump shows signs of corrosion. Recommend further inspection of pump. Clean and service or renew as required.
- C8. Magellan Nav 5200DX – Did not power up. Autohelm Depth Sounder – Did not power up. Autohelm ST7000 auto pilot– Did not power up.
- C9. The cable leading into the handheld device of the Northstar NS100 is deteriorating leaving the wires at the connection exposed. Recommend repair or renewal to avoid future failure of the VHF.
- C10. All batteries are dirty with signs of corrosion. Recommend cleaning batteries and servicing terminals.
- C11. On the starboard battery bank a BLACK conductor cable is wired from positive terminal to positive terminal between the two batteries for the purpose of running the batteries in parallel. Recommend conductor is replaced with RED conductor or labeled to identify it as a positive conductor in accordance with ABYC Standards E-11.14.

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CONDITION

STATEMENT OF OVERALL VESSEL RATING OF CONDITION:

It is the surveyor’s experience that develops an opinion of the overall vessel rating of condition after a complete survey has been performed and the findings organized in a logical manner.

The grading of condition as developed by BUC RESEARCH, found within BUC USED BOAT PRICE GUIDE, is widely accepted in the marine industry for a vessel at the time of survey. It determines the adjustment to the range of base values for a similar vessel sold within a given time period as a consideration to determine the Market Value.

The following is the accepted marine grading system of condition:

EXCELLENT (BRISTOL) CONDITION:
➢ Is a vessel that is maintained in mint or Bristol fashion – usually better than factory new – loaded with extras – a rarity.

ABOVE AVERAGE CONDITION:
➢ Has had above average care and is equipped with extra electrical and electronic gear.

AVERAGE CONDITION:
➢ Ready for sale requiring no additional work and normally equipped for her size.

FAIR CONDITION:
➢ Requires usual maintenance to prepare for sale.

POOR CONDITION:
➢ Substantial yard work required and devoid of extras.

RESTORABLE CONDITION:
➢ Enough of hull and engine exists to restore the boat to usable condition.

As a result of my investigation, as shown in the SYSTEMS and FINDINGS & RECOMMENDATIONS section, my opinion is:

POOR OVERALL VESSEL RATING:
VALUATION

STATEMENT OF VALUATION:

The **FAIR MARKET VALUE** is the most probable price in terms of money which a vessel should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently, knowledgeably, and assuming the price is not affected by undue stimulus.

Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- Buyer and seller are typically motivated.
- Both parties are well informed or well advised, and each acting in what they consider their own best interest.
- A reasonable time is allowed for exposure in the open market.
- Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto.
- 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.

SOURCES OF VALUATION:

NADA **2007** Average retail $182,600
**BUC 2008** Retail Low ….. $184,500
Yachtworld Low Florida same vessel better general condition $134,00

REPLACEMENT VALUE:

**TIARA 2009** 4300 SOVRAN used similarly equipped $758,000
**TIARA 2009** 3900 SOVRAN used (smaller interior and engines) $500,000

Therefore, after consideration of the reliability of the data, the extent of the necessary adjustments and condition of the vessel, it is your surveyor’s opinion that the **FAIR MARKET VALUE** of the subject vessel is:

$ 100,000.00
One hundred thousand dollars and zero cents

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. **ESTIMATED REPLACEMENT COST** of the subject vessel is:

$ 600,000.00
Six hundred thousand dollars and zero cents.

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CONCLUSION

In accordance with the request for the marine appraisal survey of the 1994 Tiara 4000 Express for the purpose of evaluating its present condition, and estimating its Fair Market Value & Replacement Cost, I herewith submit my conclusion based upon the preceding report. The subject vessel was personally inspected by the undersigned on Friday, November 30, 2009, and was found to be a well constructed, appointed, and comfortable vessel.

In consequence of this inspection, I am of the opinion that the vessel is in suitable condition and fit for her intended service, subject to the above recommendations for safety.

SURVEYORS CERTIFICATION:

I certify that, to the best of my knowledge and belief:

- The statements of fact contained in this report are true and correct.
- The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are of my personal, unbiased professional analyses, opinions, and conclusions.
- I have no present or prospective interest in the vessel that is the subject of this report, and I have no personal interest or bias with respect to the parties involved.
- My compensation is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of stipulate results, or the occurrence of a subsequent event.
- I have made a personal inspection of the vessel that is the subject of this report.

This report is submitted in good faith. The statements and information contained in it are not to be construed that other unforeseen or undetected defects or damages do not exist. All the findings reflect conditions observed at the time of the survey. The surveyor reserves the right to amend or extend this report upon receipt of additional relevant information.

The above report is a statement of opinion made, signed and submitted without prejudice.

Respectfully submitted,

Jeff Keiser

11/30/2009

Jeff Keiser  SAMS®  SA

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