# MIKE FIRESTONE

### MARINE SURVEYOR, INC.

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## **Vessel Condition & Valuation Survey**

<u>A Pre-Purchase Survey For Chris Ruckman</u> 2000 HUNTER 310 "Margaritaville" August 21, 2014

## SURVEY PARTICULARS

DATE OF ISSUE:	August 26, 2014
REPORT NUMBER:	SV-082114
ON BEHALF OF:	Chris Ruckman 830.623.0865 Email: <u>chrisruckman@satx.rr.com</u>
TYPE OF SURVEY:	C&V for pre-purchase considerations
DATE/PLACE OF SURVEY:	August 21, 2014 0900 - 1800
-Afloat at	Corpus Christi Municipal Marina in Corpus Christi, Texas
-Quick-hauled at	Corpus Christi Municipal Marina in Corpus Christi, Texas
-Underway trial run	Performed at the Corpus Christi Municipal Marina; behind the breakwater: wind 30 knots
ALSO ATTENDING:	Chris Ruckman - prospective buyer John Lillard - listing yacht broker

#### **PURPOSE OF SURVEY:**

\*The objective of this report is to describe the vessel and it's condition at the time of survey, and to set recommendations for correcting deficiencies found which may have a negative effect on it's value, structural integrity and/or fitness for intended service.

\*The further objective of this report is to set forth an opinion as to the approximate Fair Market Value and Replacement Cost New of the vessel at the time of survey.

## VESSEL PARTICULARS

NAME OF VESSEL	"Margaritaville"
MODEL / YEAR BUILT	2000 Hunter 310 Sloop
BUILDER	Hunter Marine Corp Alachua, Florida
DESIGNER	Hunter design team
HULL ID NUMBER	HUN31355H900 (embossed at starboard stern)
OFFICIAL NUMBER	1200681 USCG documentation (ship's papers)
PORT OF REGISTRY	Corpus Christi, Texas
REPORTED DIMENSIONS	
-LENGTH OVERALL	30.83'
-LENGTH WATERLINE	28.0'
-BEAM	10.83'
-DRAFT	4' 4" as measured at haul-out
-DISPLACEMENT	8,500# (3,250# external ballast)
REPORTED SPEED	5 - 7 Knots
REPORTED TANKAGE	Fuel: 28G Water: 50G Holding: 24G

#### **GENERAL DESCRIPTION:**

A 31' production fiberglass sloop rigged auxiliary sailboat. Aft cockpit with pedestal wheel steering, rounded bench seating, and forward-raked stainless steel pipe mainsheet traveler arch with canvas bimini. Raked bow with stainless steel anchor roller. Open, stair-stepped, walk-thru reverse transom with in-deck lockers and boarding ladder. White hullsides with blue and grey boot stripes, grey cove stripe, two plastic fixed port-lights, and white plastic rub-rail. White & grey non-skid decks with integral fiberglass toe-rails, stainless steel pipe bow/stern rails and stanchions with stainless steel wire lifelines. White wedge-style cabin with stainless steel pipe grab-rails and (4) aluminum hatches. Fractional "B&R" rig with aluminum spars and stainless steel wire (and stainless steel strut) standing rigging. Conventional hoist mainsail and roller furling headsail. Blue canvas sail covers. Inboard diesel auxiliary engine with conventional direct drive shaft.

#### Factory installed accommodations:

Enter via the cockpit centerline companionway ladder - The engine is contained inside of the box below/aft of the ladder. The U-shaped galley is immediately to starboard, and the private head is opposite to port. A private cabin with double berth is aft of the head/ below the cockpit sole. Moving forward into the main cabin: A bench settee is to port, and an L-shaped settee with centerline dining table is to starboard. Storage lockers are outboard and below the settees. Continue forward; the private V-berth cabin is in the bow section.

## VESSEL HISTORY

The vessel's listing yacht broker was questioned, concerning this vessel's history:

HISTORY OF USE:	Current owner purchased 6 years ago; used for sail-training by a local sailing school. Has been sitting unused for the past 2 years or so.
MODIFICATIONS / UPGRADES:	New marine air conditioner Summer 2014
DAMAGES / REPAIRS:	None reported
DATE OF BOTTOM PAINT:	3 Years ago

## **GALLEY** (ref. ABYC Standards A-1, A-3, A-6, A-14, A-22, A-26, A-30)

Ventilation	Next to cockpit companionway - satisfactory
Stove	Force 10 LPG 2 burner - good condition, functioned properly
-Fuel Tank	(1) Horizontal aluminum cylinder - good condition
-Tank Location	Inside transom port sealed locker - satisfactory
-Locker Ventilation	Sealed from ship's interior, drains overboard at the transom - satisfactory
-Tank Shut-off Valve	Manual hand valve at the tank, 12V remote controlled solenoid - functioned properly
-Tank Plumbing	Approved neoprene hose with swaged end fittings - good condition where accessible
Refrigeration	Top loading insulated ice box with Adler-Barbour 12V air- cooled refrigeration - fair condition, functioned properly
Sink	Single stainless steel with Formica countertops - good condition
Sink Drain	Drains directly overboard through a 1 1/2" bronze ballvalve below starboard settee aft - good condition, seized "open"
Appliances	Origo microwave oven - good condition

#### COMMENTS:

The galley and it's equipment were found in fairly good condition.

The refrigeration air-cooled unit is located below the starboard settee mid-section. Measured 5 degrees inside of the refrigeration freezer plate after 3 hours running time. The ice box water drains directly into the near-by bilge.

### HEAD (ref. ABYC Standards H-27)

Toilet	Jabsco manual sea water flushing - good condition, functioned properly
Plumbing	White "Sanitation" type neoprene hose - fair condition
Holding Tank:	Molded polyethylene - below port settee
- Capacity	24 Gallons reported
Seacocks:	All are Conbraco "Apollo" bronze ballvalve type
- Intake	3/4" Bronze ballvalve (next to the toilet) - good condition, functioned properly
- Discharge	1" Bronze ballvalve (below port settee - serves the macerator pump overboard discharge) - fair condition, functioned properly
- Sink Drain	Drains directly overboard through a 3/4" bronze ballvalve below the port settee) - fair condition, seized open
Shower	No separate stall; handheld "wand" type - functioned properly

#### COMMENTS:

The head and it's accessories were found in good condition.

The toilet discharges directly into the holding tank. The tank may be emptied via conventional marina dockside deck pump-out; or may be emptied overboard via a 12V macerator pump (circuit breaker and push-button switch) - functioned properly. The macerator pump is next to the overboard seacock located below the port settee aft. Means of measuring the holding tank's waste level is provided via an electric gauge - did not function. The tank appeared to be "1/5 full", per visual inspection at the tank. The vessel complies with United States Coast Guard federal regulations regarding the storage/handling of waste.

The head compartment shower pan water drains directly into the bilge - not a desirable arrangement.

## FRESH WATER SYSTEM (ref. ABYC Standard

Water Tank:	(1) Molded polyethylene - below the forward V-berth
- Capacity	50 Gallons reported - no label at tank
- Accessibility	Very limited
- Secured	Satisfactory
- Plumbing	Butyl pipe with compression fittings; and reinforced plastic hose - good condition
- Deck Fill	(1) Inside the anchor rode locker - blue cap labeled "Water"
- Ventilation	Vents overboard at the port hullside sheer forward - satisfactory
Pressure System	Jabsco "Par-Max" 50# PSI sealed 12V pump (below starboard settee aft) - good condition, cycled on/off frequently
Water Heater	Seward steel 6 gallon 120V with engine heat (below starboard settee aft) - fair/poor condition, fair performance

#### COMMENTS:

The fresh water system was found in fairly good condition. Found no signs of water leakage throughout the system, however, the 12V pressure pump cycled on/off frequently.

Access the water tank by removing a plywood panel below the forward V-berth mattress - access is very limited. Found no signs of water leakage around/adjacent to the tank; the tank was filled "full" during this inspection.

Removable inspection/clean-out plates are not installed at the tank.

Means of measuring the water level in the tank is via the electric gauge in the aft cabin at the main electrical panel = "3/4 full".

If ever required, removal of the tank would be very easy; with no noteworthy cutting removals required - unfasten the V-berth plywood panels.

## FUEL SYSTEM (ref. ABYC Standards H-24, H-32, H-33)

Fuel Type	Diesel
Fuel Tank:	(1) Molded polyethylene - below cockpit port aft section
- Capacity	28 Gallons reported - no label at tank
- Accessibility	Fair; difficult
- Secured	Lightly secured
- Plumbing	USCG-approved neoprene hose - good condition
- Deck Fill	At transom port upper corner - green cap labeled "Diesel"
- Ventilation	Vents overboard at the transom port corner adjacent to the deck fill plate - satisfactory
Shut-off Valves	Engine fuel supply shut-off valve at the tank - seized "open"
Filtration System	Engine: Racor #110A in-line in-line fuel/water separator (below aft berth) and engine mounted element

#### COMMENTS:

The fuel system was found in good condition; and does comply with ABYC and NFPA Standards. Access the fuel tank by removing the cockpit port aft locker's plywood bottom panel; and by climbing into the cockpit starboard aft locker - access is difficult. Found no signs of fuel leakage throughout the system, or adjacent to the tank. No removable inspection/clean-out plate is installed at the tank.

Means of measuring the fuel level in the tank is via the electric gauge at the helm console (ignition key must be "On") = 1"/4 full".

The fuel inside of the filter's sight bowl was found could not be seen; filter has no clear sight bowl - did not appear to have been changed in quite some time.

If ever required, removal of the tank would be fairly difficult; poor access and too large to fit through the cockpit locker openings.

Due to practical considerations (cost of fuel, as well as time constraints), the tank was not filled "full" during this inspection.

\*Access to the fuel, holding and water tanks was extremely limited; only very small areas of the panels and seams could be accessed for inspection. **The remainder of the tanks could not be inspected.** The tanks were not opened and inspected; nor were they pressure-tested. Every effort was made to inspect as much of the tanks as possible; no "tell-tale" signs of leakage (odors or residues) were found adjacent to the tanks. No signs of prior repairs were found at the accessible areas of the tanks.

## **ENGINE** (ABYC Standards A-33, P-1, P-4, P-6, P-14, P-24)

Make / Model	Yanmar 2GM20F naturally aspirated
Horsepower	Continuous 16hp (11.8kw) at 3400 rpm Maximum WOT 18hp (13.4 kw) at 3600 rpm
Serial Number	E04432
Year Installed	Reported original
Re-build History	None reported
Hours	847.0 at start - 847.0 at conclusion Meter did not function
Number of Cylinders	2
Controls	Single-handle mechanical controls with jacketed stainless steel Morse cable - fair condition, did not function properly
Gauges	At helm console: Tachometer - did not function
Warning Alarms	Audible alarm sounded very "weakly" at start-up
Appearance	Poor condition - widespread heavy corrosion and rust
Fluid Levels	Engine oil - 1/2 full, coolant and transmission oil - full
Cooling System	Closed system: Fresh water cooled with sea-water heat exchanger - functioned properly
Sea Water Intake	3/4" Bronze ballvalve with plastic in-line water strainer - fair condition, functioned properly
Mounts	Steel/neoprene isolation flex mounts on a molded fiberglass bed - fair/poor condition
Belts / Hoses	Fair condition
Exhaust System	Wet system with a sea water-injected cast iron elbow; through a fiberglass water-lift muffler, with overboard discharge at the transom bottom starboard side - fair condition, functioned properly
Alternator	Stock Hitachi 12V belt-driven - charging all three batteries at 14.35V

Transmission	Kanzaki model KM2P 2.62:1 ratio #53556 - functioned properly
Shaft Coupler	Heavily rusted
Prop Shaft	1" Stainless steel - appeared sound where accessed
Prop Shaft Seal	Bronze conventionally flax-packed stuffing box - fair condition, light water leakage
Propeller	Martec bronze fixed 2 blade - good condition
Alignment	Appeared "True" while underway and running at various rpm
Ventilation	12V blower with air intake & exhaust at the transom - functioned properly
Wiring	Good condition
Engine Space	Very dirty and neglected
Bilges	Wet with 2" water; and very dirty/neglected

#### COMMENTS:

Access to the engine and related equipment is very good at all sides; located inside of the removable companionway box - set on hinges; additional access is gained below the aft cabin berth.

The engine compartment was found in fair condition - very dirty and neglected. Access to the prop shaft stuffing box is very good, below the aft cabin berth on center. The stuffing box was found in fair condition - light water leakage; hose clamps are rusted.

The engine and its accessories were found in poor condition. Noted heavy rust and corrosion at all of the engine's exterior surfaces - signs of long-term neglect. The engine's painted surfaces were found in poor condition - flaking away in most areas. Found no signs of fluid leakage at the engine, though the exhaust elbow is cracked and appeared to have leaked at some point.

As a matter of routine maintenance; all recommended scheduled maintenance should be performed on the engine (replace fluids, filters, zinc anodes, pump impellers; cleanout heat exchangers, ect.)

#### Underway motor trial run observations:

The engine cold-started quickly and easily on demand, and ran smoothly for approximately 1 hour while the vessel was underway motoring to/from the haul-out facility, and during the motor trial run. No excessive vibration at the engine or prop shaft (except at low rpm - typical of these engines) was noted, and no unusual smoke was found in the exhaust discharge. The engine's cockpit throttle/gear shift control was in poor condition; and did not function properly - would not allow the engine rpms to come down to "idle" rpm - should be around 600 rpm. The throttle could be manipulated at the engine. Due to the high idle situation, the transmission shifted abruptly and loudly into forward and reverse, though it did appear to have normal power in both directions. The tachometer did not function; gauge was stuck at 3200 rpm; even when the engine was not running. No unusual fluid leakage was found at the engine, transmission or related accessories. Visibility from the helm station is good.

Observed performance after the haul-out; 3 adults onboard, nearly "empty fuel and water loads:

Maximum WOT 3200 rpm at 175 degrees temperature - as measured with a handheld photo-tachometer and an infrared digital thermometer. No GPS was onboard; could not obtain speed data.

Due to practical time constraints, no mechanical tests were performed, no internal inspections were made, nor were any fluid samples drawn or analyzed. The engine's general installation and exterior appearance were visually evaluated while the engine was at rest, and while running under a normal load. **Complete analysis of the engine is beyond the scope of this survey.** Additional investigation is always encouraged; recommend employing a qualified "brand specific" marine engine technician to perform a more "in-depth" engine survey.

# **ELECTRICAL SYSTEMS** (ABYC Standards A-16, A-31, E-2, E-10, E-11, H-28, T-17, TA-27, TE-4)

Voltage AC	120VAC shore power
Shore Power System	(1) 30 Amp service with marine cord - good condition, functioned properly
Voltage DC	12VDC ship's batteries; negative ground
120 Volt Outlets	All functioned properly with correct polarity; GFCI type at the galley and aft cabin
Wiring	Factory installed wiring found in good condition; "Marine Grade" stranded copper wire
Batteries	<ul> <li>(1) Interstate "Cranking" 12V lead/acid #SRM-27 rated 600 CCA (May 2013)</li> <li>(1) West Marine "Starting" 12V sealed lead/acid #24 rated 650 MCA (no date)</li> <li>(1) Interstate "Deep Cycle" 12V #SRM-24 rated 550 CCA (Feb. 2005)</li> <li>**All batteries secured inside of cockpit starboard seat locker</li> </ul>
Battery Charger	Professional Mariner "Pro-Matic 30-3" 12V 30 amp output (inside transom starboard locker) - functioned properly
Circuit Protection	AC and DC circuit breakers; DC fuses
Main Disconnects	-Guest battery disconnect/parallel switch in cockpit starboard seat locker next to the batteries -Main shore power double-pole circuit breaker above/ outboard at aft berth -Main circuit breaker at the AC panel
Switchboards	Original Hunter Marine AC/DC panel - good condition
Lights:	
- Cabin	All are 12VDC type - most functioned properly
-Navigation	At bow and stern rails - functioned properly
- Steaming	At masthead - functioned properly
- Anchor	At masthead - functioned properly

#### COMMENTS:

The electrical systems were found generally in good condition. All materials are of good quality "Marine grade" type.

The electrical panel was opened and inspected. Workmanship and organization at the wiring in the panel is of good quality.

The panel's wiring, breakers and connections were monitored with an infrared digital thermometer, while normal house loads were "on-line"; no unusually high temperatures were noted. A Professional Mariner "Zinc Saver" 30 amp Galvanic Isolator is installed in the shore power grounding/bonding circuit inside of the panel locker.

The 120 volt outlets' polarity tests = "Good". GFCI type outlets are installed at the aft cabin and galley - tripped properly when tested.

The air conditioner's sea water cooling system is located below the aft cabin berth on center: A 3/4" bronze ballvalve intake seacock, plastic in-line strainer and 120V water circulation pump. The self-contained air conditioner unit is located in the space below the galley sink.

Air conditioner's performance: 90 degrees cabin ambient temperature/63 degrees A/C cold air output - satisfactory. The air conditioner did not adequately cool the vessel. The air conditioner's condensate water is plumbed to drain into the bilge; not an ideal

arrangement.

A bonding/grounding system is installed; included: the engine, batteries, keel bolt, all 120VAC electrical equipment and outlets. The system was found in fair condition.

Batteries:

-The forward two batteries are wired together in parallel - serve as a single 12V "House" bank. The aft battery serves as a single 12V "Starting" bank. The adjacent battery switch allows the two banks to be isolated from each other, or connected in parallel to act as a single 12V bank.

-Measured 14.47V at all three batteries with the ship's battery charger "on" (battery select switch set to "Both").

-Measured voltages with the ship's battery charger "off": forward inboard battery = 12.76V. Forward outboard battery = 6.10V. Aft-most battery = 12.66V.

-The batteries were tested with a Midtronics conductance tester:

Inboard forward battery (rated 600 MCA) test = 819 MCA "Good" Forward outboard battery (rated 550 CCA) test = "Bad cell" - replace Aft-most battery (starting - rated 550 CCA) test = 686 CCA - "Good"

Much of the vessel's electrical wiring and connections could not be accessed for inspection. The majority of the wiring was not traced to and from electrical panels and equipment.

## HULL & DECKS CONSTRUCTION

(ref. ABYC Standards H-3, H-4, H-27, H-31, H-41)

Hullsides	Fiberglass laminates with original gelcoat finish - appeared sound; cosmetics in fairly good condition
Decks	Fiberglass / Balsa and plywood sandwich with original gelcoat non-skid finish - appeared sound, cosmetics in fairly good condition
Internal Members	Molded fiberglass interior modules that are fiberglass bonded to the hull - good condition where accessible
Bulkheads	Plywood full or partial height that are fiberglass bonded to the hull, or mechanically fastened to the interior modules - good condition
Hull-to-Deck Joint	Outboard-turned deck-to-hull flange with mechanical fasteners, bedding adhesive, and external rubrail cover - limited access
Exterior Finish	Fair condition - dirty and neglected
Interior Finish	Fair condition - dirty and neglected
Bottom	Fiberglass laminates with original gelcoat and antifouling paint - appeared sound, cosmetics in good condition
Keel	Lead externally bolted-on fin with winglets - good condition
Keel Bolts	(6) 3/4" Stainless steel with 3" square backing plates - appeared sound where accessed; water in bilge prevented a full assessment
Thru-Hull Fittings	Bronze mushroom type below the waterline - appeared sound, and tightly fastened to the hull
Strut	Bronze thru-bolted P-bracket type - appeared sound, tightly fastened to the hull
Cutless Bearing	Good condition; shows no wear
Sacrificial Anodes	At prop shaft - replaced during the haul-out

#### COMMENTS:

At quick-haul for bottom inspection: The bottom antifouling paint was found in fair condition - the paint was found lightly fouled all over; and the metal fittings/running gear was heavily fouled with hard growth. The paint is due for renewal within the next 2-3 months. The bottom appeared sound, and was found fair and free of blisters, damages or distortions. The bottom and rudder were percussion sounded, no areas of delamination or suspect were found. The bolted-on lead keel was found in good condition, though the port "winglet" was found bent upwards approx. 30 degrees. The yacht broker used a hammer and wood block to maneuver the winglet close to its original position. Found no cracking or open gaps along the full length of the keel's hull sump-to-lead ballast joint-line. The joint-line was found tight and stable during a "pushswing" test, as no opening was observed along the joint-line during the test. All underwater metal hardware and fittings appeared sound where accessed; and were tightly fastened to the hull. The running gear was found in good condition, with no damages. The propeller/prop shaft could be easily rotated by hand, with no unusual binding or resistance noted. The rudder appeared sound; and no excessive slack was found in its hull bearing. A new sacrificial zinc anode was fastened to the prop shaft during this haul-out.

The vessel's exterior cosmetics were found in fair condition - generally dirty and neglected. The hullsides appeared sound, and were found fair and free of notable damages or distortions. The hullsides' original gelcoat finish was found in fairly good condition, though moderately chalked/faded; showing signs of neglect. Noted a number of minor cosmetic scratches or gouges (port side aft of midship) at the hullsides' gelcoat finish. The taped-on boot stripe is damaged in a number of areas. The soft plastic rubrail was found gouged in a few areas. The hullsides were percussion sounded; and checked with a Tramex moisture meter; no clear areas of suspect were found, though found an area of possible suspect - 3' long - at the starboard hullside immediately above the blue boot stripe: in-line with the "R" in Hunter (aft end) and extending forward to the adjacent thru-hull fitting. The decks/cabin top original gelcoat finish was found in fairly good condition, though moderately caulked/faded; and showing signs of neglect. Noted a number of areas of cosmetic cracking at the gelcoat finish; most notably at the starboard fiberglass toe-rail's aft section. The decks and cabin were percussion sounded, and checked with a Tramex moisture meter - no areas of suspect were discovered. The cabin's wrap-around tinted windows were found in fairly good condition; though scratched/crazed in areas. Found no signs of compression at the cabin top at/ around the mast's deck step area. Noted rust and or corrosion at much of the exterior metal rails, hardware and fittings - showing signs of neglect. The canvas sail covers and cockpit bimini top were found heavily weathered and due for replacement.

The vessel's interior cosmetics were found in fairly good condition; generally dirty and showing signs of neglect. The interior wood panels and trim have been oiled; finish is in fairly good condition, though several water-stained areas were noted. Suspect rain water leakage in several areas. The teak/holly veneer plywood sole was found in fair/ poor condition. Noted delamination and discoloration at most of the panels; particularly at the main cabin long port panel and at the companionway - the panels are weak and unusually flexible. Several of the plywood sole panels have been previously repaired. The bilges were found generally dirty; with approx. 2" of water present; no fuel or oil present. Attempts were made to dry-out the bilge, however, water appeared to have been trapped at areas within the molded fiberglass modules, and flowed into the main bilge when the bilge pump was in operation. Additionally, a large amount of water leaked back into the vessel when the pump was in operation - from the bilge pump's overboard discharge thru-hull fitting-to-discharge hose joint - appeared to have been a long-standing problem. Noted areas of typical light surface rust at the exposed keel bolts' ends, nuts and stainless steel backing plates. Did not find areas of cracking around the bolts/backing plates, though the presence of the dirty water did inhibit the inspection. The bolts/nuts were rapped with a hammer; no movement was noted. Access to the keel bolts was extremely limited; only to exposed upper ends of the bolts and nuts could be inspected. all other areas could not be inspected. Found no areas of broken or released fiberglass tabbing at the molded fiberglass interior module's hull bonds in the bilge and other areas. The mast compression post's bilge frame support showed no signs of compression or damages. The main cabin settee cushions were found in good condition; the two berth cushions were found in fair condition. The presence of the vessel's molded fiberglass and hull liners prevents access for a complete inspection of much of the hull, decks and reinforcing members. Easily removed access panels throughout the vessel were opened to allow inspection of internal members and spaces. Major joinery assemblies and glued-on panels/covers were not disassembled to gain such access; and is beyond the scope of this inspection.

## STEERING SYSTEM

#### (ref. ABYC Standards H-1, H-30, P-17, P-21, P-22, P-27)

System Type	Edson wheel with CD-i mechanical geared system - fairly good condition, functioned properly
Rudder	Fiberglass/foam semi-balanced spade type - appeared sound
Rudder Post	Composite 3" stock - no access
Rudder Post Seal	Molded fiberglass sealed tube - good condition, no water leakage
Hardware	Edson CD-i cast aluminum tiller arm, tie-rod and gear - functioned properly; widespread surface corrosion
Autopilot Assist	Wheel-mounted 12V unit - did not function properly
Emergency tiller	One-piece steel tiller inside cockpit starboard forward locker - moderately rusted; not fitted or tested

#### COMMENTS:

The steering system functioned smoothly and easily; the rudder moved smoothly from side-to-side, without binding or chatter.

Access to the steering system is very good; must unfasten (two screws) and remove the cockpit centerline aft sole section; and additional access by removing the drink box in the helm console below the drink holders. The system was found in fairly good condition, though surface corrosion was noted at most areas; needs routine cleaning and service for preservation.

At the helm station, 1 1/4 turns of the steering wheel = "lock-to-lock".

Most all areas of the rudder post could not be accessed for inspection, as those areas are hidden inside the hull bottom's passages and tube.

Visibility from the helm station is good.

During the underway motor/sail trial run, the steering system functioned properly and was observed as very light and responsive.

The autopilot did not function properly.

## RIGGING, SAILS & SPARS

Mast	Selden anodized aluminum - good condition
Spreaders	Selden aluminum single swept-back foil-shaped - good condition
Boom	Selden anodized aluminum - good condition
Mast Step	Deck stepped atop the cabin-top - good condition
Rails & Stanchions	1" Stainless steel pipe bow/stern rails and stanchions - fairly good condition
Lifelines	Coated stainless steel wire with swaged end fittings (2 course) - fair condition
Standing Rigging	1 x 19 Stainless steel wire - appeared sound, surface rust in areas
Wire Terminals	Original swaged stainless steel studs, eyes and J-hooks - appeared sound, surface rust in many areas
Turnbuckles	Gibb chromed bronze open body - good condition
Stem Fitting	Stainless steel flat plate type thru-bolted at the stem - good condition
Chainplates	-Single outboard stainless steel flat plate type that are fiberglass bonded to the interior sides of the hullsides - good condition where accessible; limited interior access -Single inboard welded stainless steel thru-bolted deck tangs - good condition where accessible
Compression Post	3" Stainless steel pipe sitting atop a bilge frame - good condition
Running Rigging	Fair condition
Spinnaker Pole	Under-sized for this vessel
Deck Hardware	Blocks, cars, cleats, line clutches - good condition, functioned properly
Reefing System	Selden single-line "slab" reefing - functioned properly

Winches	Lewmar: (1) #30 2-speed self-tailing, (1) #16 single-speed self-tailing - both functioned properly
Traveler	Harken mid-boom line controlled atop the cockpit arch - functioned properly
Boom Vang	4:1 Line purchase - functioned properly
Sail Inventory	-Mainsail with 2 reef points -Roller furling working jib with canvas sunshield *Both sails original in fair condition by UK Sailmakers
Additional Equipment	-Furlex 100S headsail roller furling - functioned properly, though needs repair -Mainsail "StackPack" canvas cover with built-in lazy jack system - canvas is in poor condition -Stainless steel pipe cockpit arch

#### COMMENTS:

The rigging system consists of: A "B&R" fractional rig with no backstay. Conventional hoist mainsail, and roller furling headsail. Aluminum spars with stainless steel wire standing rigging, and stainless steel pipe "strut". Inboard and outboard chainplates; and inboard headsail sheeting. Internal halyards; all sail-handling lines and halyards led aft to the cockpit. Fractional rig with discontinuous uppers, and diagonals, stainless steel pipe aft lower mast "strut", and forestay with roller furling foil.

All standing rigging mast-to-deck leads are fair and properly toggled.

The spars, standing rigging, equipment and sails were original. The spars' anodized finish was found in good condition. The standing rigging appeared sound, though a number of areas of light surface rust was noted along the wires and swaged end fittings. The general mast/standing rigging is properly tuned, as inspected at dockside, and while underway.

During the underway trial sail, due to high wind conditions (30-35 knots), the sails were used "one at a time". The mainsail was hoisted with no unusual or excessive effort/ resistance. The sail appeared heavily used, and appeared to be generally sound, though its shape was very "deep", with the draft well aft of original. After the mainsail was struck, the headsail was unfurled, though would not unfurl completely - the furling line jammed inside of the drum (due to excessive line on the drum). The drum's final two turns were made manually by hand, and when the forestay foil was exposed, found it broken in two at the lower joint. The headsail appeared heavily worn, with the leech sections stretched and the sail's draft was deep and had moved aft. The canvas sunshield stitching was rotten in many areas. All sail-handling gear functioned properly. All standing rigging, spars and hardware were visually inspected only; no dyes, X-rays or destructive tests were performed.

The mast and standing rigging were inspected at deck level, and aloft from a Bosun's chair.

#### **SAFETY EQUIPMENT** (ref. ABYC Standards A-4, A-23, A-24, H-22, H-40, H-41, T-5, TH-22, TH-23)

Life Jackets	(6) Type II - inside cockpit starboard locker
Fire Extinguishers	(3) Handheld dry chemical type at: in cockpit port locker, galley, aft cabin
Fixed Fire Extinguishers	Kiddie "FyreWatch" model 85 automatic Halon 1211 - laying unsecured on a shelf above the engine box
Carbon Monoxide Alarm	None
Trash Placard	Yes
Oil Discharge Placard	Yes
Distress Flares	(4) Handheld type in cockpit port locker - expired
Sound Signal Device	Portable handheld pressure air canister type
Bilge Pumps	-Rule 500 GPH 12 volt automatic submersible - functioned properly, though discharge needs repair -Manual hand pump at cockpit transom walk-thru - operation not confirmed
High Water Alarms	None
Bell	None
Throwable Rescue Device	Yes
First Aid Kit	None
Life Raft	None
Ground Tackle	Bruce #33 with 12' chain and approx. 100' nylon

#### COMMENTS:

The ground tackle arrangement consists of: The anchor is secured in the bow roller. The anchor rode is stored inside of the recessed in-deck locker - accessed via the hinged deck lid. The locker is sealed from the ship's interior; it's water drains overboard at drain hole on the stem starboard side. The bitter end of the anchor rode is secured to the vessel.

## ADDITIONAL EQUIPMENT

Cruisair 10,000 BTU self-contained marine air conditioner with SMXir digital control Raymarine ST4000+ wheel mounted autopilot - did not function properly Raytheon RAY52 VHF radio Autohelm ST40 depth sounder Raytheon ST60 wind - did not function properly Autohelm ST 40 knotmeter Ritchie 4" helm compass Fiberglass cockpit table Cockpit canvas bimini - fair/poor condition Cockpit stern rail "Perch" seats Magnavox 14" flat panel color TV - not operated Sanyo VCR/DVD player - not operated Sony #CDX-M10 FM/CD stereo

\*All equipment found in good condition and functioned properly, during limited testing, unless noted otherwise.

## **OBSERVATIONS** (Lower priority issues addressing any deficiency which could affect value, maintenance or preservation of the vessel)

1.Noted a broken weld at the port midship stanchion's base support. The stanchion is fairly unstable. Recommend the base be repaired.

2.Noted a few chafed/worn wire strands at the port upper shroud; where the adjacent lifeline makes contact. Recommend the wire strands be regularly inspected for signs of additional wire or breakage. Recommend the lifeline be routed on the inboard side of the shroud; or fitted with chafe protection.

3. The icebox lid's securing latches are broken, and the lid does not seat fully into the countertop cut-out - results in a loss of cold air from the box. Recommend the lid be repaired.

4.Noted minor prior impact fractures at starboard toe-rail's gelcoat finish below the lifeline entry gate forward stanchion. The cracking was found to be rather shallow; and did not penetrate into the underlying fiberglass laminate. No repairs are required.

5.Noted duct tape has been applied over the forward port deck hatch's perimeter seal. Suspect the hatch leaks. The hatch may need to be removed and re-bedded; and/or replace the gasket.

6. The galley's forward overhead light fixture is not secured into the overhead panel.

7. The standing rigging wire and end fittings were found very dirty (particularly aloft), with some surface rust in many areas. Recommend all of the standing rigging - from deck level to the mast ends - be fully cleaned of all dirt and surface rust.

8.At the mast aloft; the headsail halyard's mast exit point-to-roller furling swivel connection length is 26" long. The maximum recommended length is 6", to avoid possible wrapping of the halyard around the forestay during furling operations. Recommend a halyard guide/deflector be installed on the mast to provide the recommended length and angle.

9. The masthead "Windex" mount is loose.

10.Found a broken-off handle/lock-down at the main cabin port overhead hatch. Recommend a new handle/lock-down be installed.

11. The bottom antifouling paint is due for renewal within the next 2-3 months.

12. The lead keel's starboard "winglet" outboard end had been pushed upward approx. 6" above horizontal. During the haul-out, the yacht broker used a hammer and wooden block to coax the winglet back to its original orientation (more or less).

#### 13.Exterior:

-Noted numerous cosmetic scratches at the starboard hullside aft of midship, and the "Hunter 310" decals are badly damaged; cosmetic issue only.

-The hullsides' blue gelcoat boot stripe is badly faded in many areas.

-Noted a few deep cosmetic gouges in the port hullside's gelcoat finish aft of midship.

14. The headsail's blue canvas sunshield was found in poor condition; much of the stitching is rotten and has released. Several of the canvas panels are worn. Noted an open seam (8" long) at the sail's 2nd panel leech section - appeared to be a result of rotten stitching. The sail showed heavy use, with a stretched leech and deep draft.

15. The engine's in-line Racor fuel filter did not appear to have been changed in quite some time - noted heavy corrosion at the filter canister.

16.Headsail roller furling unit:

-The roller furling forestay luff foil's bottom section has been broken in two at a point 4' above the furler drum. The resulting ragged edge has torn the sail's adjacent luff section. Recommend a new foil section be installed.

-The headsail would not unfurl completely - the furling line jammed inside of the drum; due to excessive line wraps on the drum. The drum's final two turns were made manually by hand. Recommend 8 or more wraps be removed from the drum.

#### 17.Steering:

-The autopilot did not function properly; the control unit appeared to function properly, however, the wheel drive clutch was loose; would not engage. Suspect the situation can be easily remedied by adjusting the clutch/arm.

-Noted widespread surface corrosion at the steering system's cast aluminum components located below the cockpit sole center aft section. Recommend clean the surface corrosion away and spray with a corrosion block coating.

18. The bimini and sail covers' canvas is heavily weathered; due for replacement.

19. Though the air conditioner did function properly; it did not adequately cool the vessel - due to sunlight heat through the cabin's large side and forward windows. Recommend install insulated covers on the windows' exterior when not underway.

#### 20.Head:

-Noted a crack, with sea water leakage during operations, in the top edge of the toilet's pump body. A new pump will be required, though the pump was operational. -The holding tank's waste level gauge did not function. 21.Fresh water system:

-At the water heater, noted large areas of heavy rust across the lower sections and bottom - at least 8" high all-around. The water heater did not produce hot water. Suspect the water heater will soon need to be replaced.

-The 12V water pressure pump cycled "on/off" continuously (after the tank had been filled), though no water leakage was discovered in the plumbing system. Recommend the fresh water system be re-inspected for signs of a leak; may need to replace the pressure pump's pressure regulator switch. Noted a foul odor at the fresh water, when delivered to the sinks. Recommend the tank be flushed-out.

22.Lights:

-The port settee forward overhead light did not function.

-The forward berth's starboard aft light fixture is missing.

-Two of the three overhead lights above the dining table did not function.

23.Noted salt crystals/residue and evidence of deck water leakage inside the forward berth's port hanging locker; suspect the water has previously run downward onto the plywood panel at the aft lower end of the berth - the panel's veneer is delaminated. The source of the deck water leakage was not determined.

24. The main cabin sole's teak/holly veneer has delaminated from the plywood in several areas. The panels are swollen - appeared to have been previously in contact with water, or perhaps, submerged. The plywood at several areas of the panels is partially rotten and weak; the panels are unusually flexible, most notably at long port side panel. A few of the panels have been previously epoxy repaired. The entire sole may need to be replaced.

## **RECOMMENDATIONS** (Higher priority issues addressing any deficiency which could affect the structure or safety of the vessel and crew)

1.No spin-on securing "ring" fitting is installed on the shore power cord's end (at the vessel connection); that allows for a tight connection to the vessel. Recommend the cord end be fitted with a new securing "ring".

2. The anchor chain's is heavily rusted along it's initial 6' length; needs to be replaced, or cut-off the rusted portion.

3. The 12V bilge pump's overboard discharge hose is not properly seated onto the hullside overboard discharge thru-hull fitting, thus, the pump's discharge water is leaking back into the vessel during operations (inside the head's outboard locker). The hose is too short to allow a proper connection. A longer hose will be required; it must be routed in a loop several inches above the overboard thru-hull. Found a large amount of water standing in the space below the adjacent port settee. Suspect much of the water has leaked into the space from the above-described issue. Additionally, suspect possible water leakage at the chainplate or adjacent stanchion. Found similar evidence of deck water leakage on the opposite, starboard side - along the shelf outboard of the starboard settee's aft section. Suspect the outboard chainplates, and adjacent stanchions may need to be re-bedded.

4. The aft cabin's GFCI outlet appeared to be wired to also protect the port side outlets, including the head's outlet. The aft cabin's GFCI outlet did not trip when tested. Recommend the outlet be replaced with a new GFCI outlet; and test to confirm that the outlet does protect the port side outlets.

5. The engine compartment's automatic fire extinguisher was found laying loose on a shelf above the engine compartment. Recommend the extinguisher be inspected and tagged by an authorized agent; and recommend it be firmly mounted inside of the compartment.

6. The engine's sea water intake water strainer, and the adjacent air condition's intake water strainer are each connected directly to their respective seacocks via solid bronze pipes; not a recommended arrangement due to vibration and possible metal fatigue. Noted slight sea water leakage at the air conditioner intake water strainer's pipe connections. Recommend the bronze pipe be removed from each circuit, and replace with heavy duty, reinforced neoprene hose. The two in-line water strainers and their hose/pipe connections are plastic. Recommend they be replaced with robust bronze strainers and connections.

7. The LPG fuel tank locker's overboard drain hose thru-hull connection's hose clamp is in poor condition. Recommend the clamp be replaced; firmly secure the hose end onto the transom thru-hull fitting.

8. The galley sink drain and head sink drain overboard seacocks are seized in the "open" position.

#### 9.Engine:

-The engine and its accessories were found in fair/poor condition. Noted heavy rust and corrosion at most all of the engine's exterior surfaces - unusual for a vessel of this age, with signs of long-term neglect. The engine's painted surfaces were found in poor condition - flaking away in most areas.

Found no signs of fluid leakage at the engine, though the exhaust elbow is cracked and appeared to have leaked at some point. Some rust was seen inside of the transmission, as seen through the small slots on the upper aft side of the bell housing - could not access for an adequate inspection. Has the engine ever been partially submerged/ exposed to a "high water" situation?

-The cockpit throttle/gear shift control was found in poor condition - cannot disengage the gear shift to allow "throttle" only mode; as the neutral detent lever is seized. -The throttle adjust did not function properly - would not allow the engine rpms to come down to "idle" rpm - should be around 600 rpm. The throttle could be manipulated at the engine. Recommend a new shift/throttle lever control and associated cables be replaced. Due to the high idle situation, the transmission shifted abruptly and loudly into forward and reverse, may be leading to pre-mature wear on the gear components - how long has the engine been used in this condition? Recommend the transmission be closely inspected for signs of unusual wear or damages, due to the high idle shifting situation.

-The tachometer did not function; is stuck at 3200 rpm.

-The tachometer's hour meter did not function; no estimate on the actual engine's running time.

-Several of the engine's hoses were found cracked and in poor condition; including: -The sea water intake hose (clamps are heavily rusted also), and the water heater

coolant heat exchange hoses. Recommend these hoses and clamps be replaced immediately.

-The exhaust elbow is heavily rusted and cracked at both sides. Recommend install a new elbow.

-The prop shaft stuffing box appeared to leak slightly; it's hose clamps were moderately rusted and due for replacement. Recommend the box be adjusted or re-packed. -During the underway motor trial run, the engine did not run-up to it's maximum WOT rpm of 3600 rpm; maximum observed rpm at 3200 rpm (using a handheld photo-tachometer). 10.During battery tests, the forward outboard battery was found in poor condition with a "Bad Cell". Recommend the battery be replaced. When replacing this battery, recommend also replace the forward inboard battery, as these two batteries are wired together in parallel as the "House" bank. Recommend both batteries be "Deep Cycle" type, as they serve as the ship's house bank.

11. Recommend current distress flares be installed.

12.Recommend a Carbon Monoxide fume detector/alarm be installed in the aft cabin and main cabin.

13.Recommend a bilge high water alarm system be installed with an automatic float switch in the bilge adjacent to the bilge pump, and a loud audible alarm that can be heard outside of the vessel.

14.Recommend the manual bilge pump's operation be tested and confirmed.

## SUMMARY OF REPORT

BASED ON THE GENERAL EXAMINATION of the vessel afloat and while quick-hauled; personally performed by this surveyor using non-invasive techniques, and without making destructive removals to expose concealed areas (except for standard access hatches), it is this surveyor's **opinion** that the **2000 HUNTER 310 AUXILIARY SLOOP "MARGARITAVILLE"** was structurally sound at the time of survey, with all exceptions noted within this report.

The overall condition is **FAIR - BELOW AVERAGE** for a vessel of this type and age. The vessel is of average production-line type construction by a very well-known builder. The vessel was found fairly dirty and neglected, was moderately equipped, and requires a number of repairs - more than typically expected of a vessel of this age. The vessel shows heavy use, and a lack of maintenance. Given the apparent water damages throughout the vessel, suspect there may have been a prior "high water level" incident inside of the vessel. The engine/transmission should be inspected/evaluated by a Yanmar technician. The estimated fair market value assigned to the vessel in this report does assume that the engine or transmission will not require major over-haul. \*Please note: the survey photos (approximately 75-80 were taken) were not available at the time of this writing.

Time of survey: 0900 - 1800 hours

This document represents the condition of the vessel as found on the date of the survey, and is the unbiased opinion of this surveyor, with no warranty; either specified or implied. The reader of this report should remember that many areas of the vessel (ie. core materials in hulls, rudders/keels and decks) and it's equipment (tanks and engine or machinery internals) are not accessible, or are only partially accessible for inspection, and thus, cannot be completely evaluated.

The mandatory Standards published by the United States Coast Guard (**USCG**), under the authority of the Federal Boat Safety Act, and the voluntary recommended standards and practices developed by the American Boat and Yacht Council (**ABYC**), and the National Fire Protection Association (**NFPA**); as well as the surveyor's knowledge of accepted industry standards and "common sense" practices have been used as general guidelines in the conduct of this survey.

## STATEMENT OF VALUATION

The **Fair Market Value** is the **surveyor's opinion** of the most probable price in terms of U.S. Dollars that a vessel should bring in a competitive and open market (allowing for a reasonable amount of exposure time on the market) under all conditions requisite to a fair sale, with the willing buyer and willing seller each acting prudently, knowledgeably and assuming the price is not affected by unusual circumstances.

In calculating the vessel's current fair market value, the surveyor considered the vessel's age, condition (cost of repairs to all deficiencies that were noted) and quantity/ quality of standard and optional equipment.

Comparable vessels found offered for sale and/or sold on the local and national market; as researched using web-based services such as <u>www.yachtworld.com</u> and <u>www.soldboats.com</u>, were also used as aids in the calculation.

After consideration of all pertinent influencing factors known or reported, it is the surveyor's opinion that the valuation of the vessel at the time of survey was approximately as follows:

Fair Market Value is approximately:Thirty-Two Thousand Dollars\$32,000

Replacement cost new (similarly equipped) is approximately: One-Hundred and Thirty Thousand Dollars \$130,000 I, the undersigned, certify that I have no interest, present or contemplated, in the vessel referred to in this document, that I have no personal interest or bias with respect to the parties involved, and that the statements in this document are true to the best of my knowledge and belief. The reported analysis, opinions and conclusions are limited only by the reported assumptions and limiting conditions; and are my personal, impartial and unbiased professional analysis, opinions and conclusions.

I also certify that my compensation is in no way contingent upon the objective valuations stated in this report, or upon the reporting of a predetermined value or direction in value that favors the cause of the client. I also certify that I have personally inspected the vessel that is the subject of this report.

I further certify that this assignment was carried out in accordance with the professional and ethical standards of the National Association of Marine Surveyors (**NAMS**); and my analysis, opinions and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice (**USPAP**).



Attending Surveyor Mike Firestone NAMS CMS #143-719 President of the corporation

This report consists of: 32 pages and ? photos.