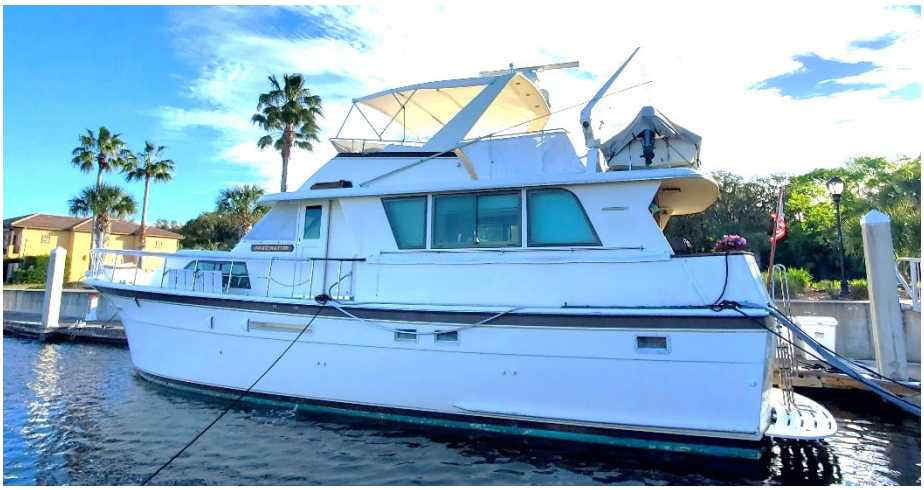
GLADDING MARINE SURVEYING AND CONSULTING, LLC
1738 PICKWICK PLACE-FLEMING ISLAND-FLORIDA-32003
PHONE: 904-945-0511 EMAIL: gladdings@msn.com



SURVEY REPORT VESSEL: *xxxxxxxxxxx*

Prepared by: Bill Gladding SAMS-AMS® #810
Society of Accredited Marine Surveyors

TABLE OF CONTENTS

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SURVEY BASIC DETAILS

SURVEY PURPOSE: prepurchase
REQUESTED BY: xxxxxxxxxxx
FILE #: 2024-03-06 Hatteras 53 EDMY 1983
REPORT DATE: March 7, 2024

CLIENT INFORMATION: xxxxxxxxxxxx

SURVEY DATE: March 6, 2024
SURVEY LOCATION: Marinas at Hammock Beach Resort, Palm Coast, Florida
ATTENDING: xxxxxxxxxxxx
ENGINE SURVEYOR: basic external checks & lab lube oil analysis by hull surveyor

VESSEL & MACHINERY DATA

Vessel identification numbers (source: found on hull)
Hull ID #: xxxxxxxxxxxx Documentation #: xxxxxx

Vessel type and dimensions (source: 2015 Powerboat Guide)
Manufacturer: Hatteras Model: 53 Extended Deck Motor Yacht Model year: 1983 Length: 53'1"
Beam: 15'10" Draft: 4'0" Weight lbs.: 57,000 Hull composition: fiberglass
Engines (source: owner's manual & engine room hour meters)
Type and #: inboard twin Horsepower: 450@2,300 rpms Fuel type: diesel Manufacturer: Hatteras
Model: 8V71TI 71C Serial #: port (8VA428960), stbd (8VA428774) Hours: port (xxx), stbd (xxx)
Transmissions (source: owner's manual)
Manufacturer: Allison Model: M20 (L&R) Ratio: 2.0
Serial #: port (0910058564), stbd (0910058073)
Alternating current generator (source: owner's manual & engine room hour meter)
Manufacturer: Kohler Model: 20ROP63 KW: 20.0 Fuel type: diesel Serial #: 118279 Hours: xxxx

TENDER DATA

Tender (source: found on hull & measured)
Hull ID #:xxxxxxxxxxxx (check against registration to verify accuracy) Registration #: xxxxxxx
Manufacturer: Boston Whaler Model: 11 Super Sport Model year: 1988 Length: 11'5" Beam: 5'0"
Engine (source: data plate)
Type and #: outboard single Horsepower: 15 Fuel type: gas Manufacturer: Yamaha Model: 15SF
Serial #: 884CS075089

RECOMMENDATIONS

(Items on this list should be addressed on a priority basis)

1. **Unexpired visual distress and/or electronic distress signals & flags not found aboard; put aboard at least three unexpired USCG approved day/night visual distress signals or other type USCG Approved system that satisfies the requirement (certain battery powered beacons accompanied with day signal are now approved).**
2. **Fixed and portable fire extinguishers are due for inspection; a full maintenance check should be made by a qualified fire extinguishing service facility in accordance with the**

maintenance instructions on the name plate of the extinguisher. A tag should be attached showing the date of such maintenance check.

3. **Engine room portable handheld fire extinguishers have exceeded their useful service life; replace with new.**

(In addition, see Summary Remarks and Notes section at end of survey where the above are also cited)

This vessel was surveyed using the USCG 33CFR requirements and NFPA and ABYC standards and recommendations in effect today for guidance. This survey addresses those items thought to be necessary for safety but does not suggest complete compliance with current regulations or standards and recommendations.

INTENDED USE: recreational
SUITABLE FOR INTENDED USE: yes (upon completion of recommendations cited above)
NAVIGATIONAL LIMITS (as equipped): warm coastal waters

*****For regular use more than 12 miles offshore suggest carrying Epirb and offshore type life jackets*****
*****Warm water means water where the monthly mean low water temperature is normally more than 59 degrees Fahrenheit*****

VALUATION

Subject vessel was found to be in overall average condition with less than average wear and tear to its exterior cosmetic finishes. It requires considerable work to return to regular cruising to ensure its convenient reliable function. In the valuation determination, cost and market comparison approaches to value were considered on March 7, 2024. In the sales comparison approach Yachtworld.com and the subscription website Soldboats.com was reviewed. Current listings and actual reported sales figures were taken into consideration. Price Guide "Book" values were also taken into consideration. In the opinion of the undersigned the following values should apply:

Estimated current fair market value: $xxxxxxx
Market value assumes correction of significant survey findings

Replacement cost: $2,250,000 (Bucvalupro.com)
Values are dependent on the limiting conditions and assumptions noted in the report.
These values are statements of opinion. No guarantee can be given that these opinions of value will be sustained or that they will be realized in an actual transaction.

Specific references

Pricing guides
Abos.com…….....$95,772 to $122,294 ($147,342 retail)
Bucvalupro……..$167,000 to $183,500
Jdpower.com…….……..$70,600 to $78,450
Powerboat Guide..…….. prices not given
(Options not added to guide values unless noted otherwise)
Current listings
Yachtworld.com……. $199,900 to $315,000
(5 results – searched all years of production)
Reported sales
Soldboats.com…….$150,000 to $239,900
(7 results – searched Eastern USA sold since January 2021)

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APPROVAL

This survey may be used for valuation, insurance, or mortgage requirements. This survey checks for compliance with U.S. Coast Guard regulations and American Boat and Yacht Council, Inc. Recommended Standards and Practices. In addition, the general structural condition of the vessel and suitability for its intended service will be examined.

The undersigned has conducted this survey and issued this report for the sole use of the specified requesting party for an agreed fee based upon the intended use of the report; accordingly, others are not to use this report and not rely upon the contents of this report without payment to the Company of an additional agreed fee based upon the reevaluation of the same factors.

The survey contains opinions and observations based on my skill, experience and training as a marine surveyor and consultant. Acceptance and use of this report by the client acknowledges the client's understanding that the report has been composed of information that is believed to be true after reasonable investigation and inquiry but is not warranted to be so. The information was obtained without drilling, diving, ultrasonic testing, cleaning, or opening up to expose parts or conditions ordinarily concealed. There were no tests for tightness or soundness conducted other than the conditions noted visually.

Acceptance and use of this report acknowledges the client's understanding that no determination of stability or structural strength has been made, and no opinion is expressed. Acceptance and use of this report acknowledges the client's understanding that Gladding Marine Surveying and Consulting, LLC does not accept any responsibility for damage or deterioration not found or discovered during the course of survey, nor for consequential damage, deterioration, or loss due to any error or omission.

The Client hereby undertakes to keep the Surveyor/Consultant and its employees, agents and subcontractors indemnified and to hold them harmless against all actions, proceedings, claims, demands or liabilities whatsoever or howsoever arising which may be brought against them or incurred or suffered by them, and against and in respect of all costs, loss, damages and expenses (including legal costs and expenses on a full indemnity basis) which the Surveyor/Consultant may suffer or incur (either directly or indirectly) in the course of the services under these Conditions.

Notwithstanding the above clause, in the event that the Client proves that the loss, damage, delay or expense was caused by the negligence, gross negligence or willful default of the surveyor/Consultant aforesaid, then, save where loss, damage, delay or expense has resulted from the Surveyor's/Consultant's personal act or omission committed with the intent to cause same or recklessly and with knowledge that such loss, damage, delay or expense would probably result, the Surveyor's/Consultant's liability for each incident or series of incidents giving rise to a claim or claims shall never exceed a sum calculated on the basis of ten times the Surveyor's/Consultant's charges.

William K. Gladding, AMS® #810
Society of Accredited Marine Surveyors
Gladding Marine Surveying and Consulting, LLC

SCOPE OF SURVEY

The vessel was inspected in the water without making removals or opening parts normally concealed and without making borings to ascertain thickness or condition of structural members. Because of this, some areas were not reached behind cabinetry, under decks and other areas not readily accessible. Fixtures and appliances were powered up and exercised where indicated. Locker doors and drawers were worked and examined for proper function. Potential leak sources such as portlights and deck hatches were examined for evidence of water stains or other indications of leakage. The hull exterior was inspected visually for defects. In addition, other non-destructive methods may have been used such as tap testing or employing moisture detection equipment.

Key to highlighted comments as follows:

- Positive comment related to safety or functionality
- Informational comment no finding generated
- High priority finding related to safety, utility, or reliability
- Moderate to low priority finding related to utility or reliability

Test equipment that may be referenced in the report:

- Tramex Skipper or GE Aquant moisture meter
- Flir® C3 infrared camera
- AC electrical circuit analyzer
- AC electric three light plug in tester
- Non-contact digital tachometer
- Multi-meter electrical tester
- Assorted hammers and measuring devices
- Loos gauges to check rigging tension

VESSEL GENERAL DESCRIPTIONS

Exterior arrangement – mono-hull powerboat noted the following:

- Hull – modified V-bottom planing type with ¾ length keel and hard chines; stem is raked, curves sheer is nearly level from bow to stern; plumb full height transom with bolted on swim platform
- Decks and superstructure – flush main deck from bow to stern with open foredeck and ample walkways around the trunk cabin and pilothouse to the main cabin, open shaded aft deck from main cabin to stern; superstructure consists of main deck level trunk cabin followed by the pilothouse with attached full beam main cabin; flybridge above the pilothouse with upper deck that extends aft shading the stern deck area; flybridge has aluminum spoiler and Bimini shade
- Helm(s) - flybridge

Interior arrangement – lower cabin forward, raised deck over the generator room, aft lower cabin to the stern with engine rooms at forward end; pilothouse/main cabin at main deck level noted the following:

- Staterooms – one forward and two aft
- Heads – one forward and two aft
- Galley – raised deck over generator room
- Dinette – raised deck over generator room stbd side
- Saloon – main cabin
- Helm(s) – pilothouse centerline
- Other – spacious generator room and two stand-up engine rooms

Structural elements

- Hull skin material and type cosmetic finish – molded fiberglass, painted cosmetic finish
- Hull grid system layout and materials – four continuous molded fiberglass stringers, transverse supports at various intervals between
- Hull deck joint – overlapping flanges mechanically fastened and fiberglassed
- Continuous transverse bulkheads locations and materials – fiberglassed plywood at anchor locker and each end of generator room; partial bulkheads and partitions between
- Decks and superstructure materials and type cosmetic finish – solid and balsa cored molded fiberglass, painted cosmetic finish and varnished teak trims

SURVEY FINDINGS

UPGRADES/REBUILDS

Vessel remains as originally constructed without significant changes

HULL ABOVE WATERLINE AND RELATED

Structural elements

Condition: above average

Condition of structural elements such as stringers, transverse framing, bulkheads, partitions, and other similar type hull supports based upon visual inspection to ensure they are maintaining their proper shape and remain securely attached, tap tested to insure they are not delaminated or deteriorated and in some cases examined using a moisture meter

Topsides

Structural condition: above average

Structural assessment based upon visual examination of hull's shape for damage, distortions, sagging, hogging or other signs structure is failing or is not adequately supported; moisture testing to locate areas where abnormal readings may indicate deterioration of laminates or cores; and tap testing areas that are suspect because of abnormal indications from visual inspection and readings from moisture meter

Cosmetic condition: average or better

Cosmetic condition of paint, gelcoat and varnish based upon surveyor's opinion of appearance compared to similar type vessels considering factors such as gloss, extent of oxidation, flaking, discoloration, wear and tear or other factors

Condition other features: above average

- Chaffing gear:
  - Hull deck joint (stainless-steel on molded fiberglass rub rail)
  - Hull sides at stern (stainless-steel on painted wood rub rail)
- Swim platform – molded fiberglass bolted on stern
- Permanently installed means for reboarding – folding stainless-steel ladder

Comments - Reboarding ladders should be secured in a way they can be deployed by passengers who may find themselves in the water unexpectedly, so they may reboard unassisted.

Deck drainage

Primary drainage system: direct overboard
Other drainage systems: scuppers Condition: average or better
Weather decks with in-hull drain systems: side decks aft end & aft deck corners

Comments - Surveyor has witnessed several sinking and flooding events due to clogged deck drains backing up rainwater on deck then flooding to hull interior. In order to prevent this type of event from occurring deck drain fittings, and piping should be maintained leak free, kept clean and free of debris and hatch seals maintained to prevent water from leaking to hull interior or accumulating on weather decks and spilling to hull interior.

Decks & superstructure

Structural condition: above average

Structural assessment based upon visual examination of hull's shape for damage, distortions, sagging or other signs structure is failing or is not adequately supported; moisture testing to locate areas where abnormal readings may indicate deterioration of laminates or cores; and tap testing areas that are suspect because of abnormal indications from visual inspection and readings from moisture meter

Cosmetic condition: average or better

Cosmetic condition of paint, gelcoat and varnish based upon surveyor's opinion of appearance compared to similar type vessels considering factors such as gloss, extent of oxidation, flaking, discoloration, wear and tear or other factors

Exterior soft goods

Condition/appearance: above average Wear & tear: not significant Serviceable: yes
Location & type (installed at time of survey):

- Anchor pulpit cover (canvas)
- Seat cushions (vinyl skins)
- Foredeck seat cover (canvas)
- Pilothouse windows covers (Textilene® screen)
- Safety rail covers (canvas)
- Searchlight cover (canvas)
- Flybridge helm cover (canvas)
- Tender cover (vinyl)
- Flybridge Bimini (vinyl on stainless-steel frame)

Exterior hardware

Condition/appearance: above average Anchoring & bedding appeared adequate: yes
Location & type:

- Bow pulpit (stainless-steel)
- Side deck safety rails (varnished teak cap on stainless-steel stanchions)
- Handrails (stainless-steel)
- Aft deck safety rail (varnished teak cap on stainless-steel stanchions and composite dodgers)
- Transom ladder (stainless-steel, varnished teak treads)
- Upper deck safety rails (stainless-steel, canvas privacy cover)

Tie-up gear

Condition/appearance: above average Anchoring & bedding appeared adequate: yes
Location & type – stainless-steel:

- Foredeck (2 x horn cleats & fair leads)

- Amidships (4 x horn cleats)
- Aft deck (4 x horn cleats & 2 x fair leads)

Anchoring gear

Condition/appearance: above average Function: normal
Descriptions:

- Anchor pulpit – molded fiberglass bolted on foredeck
- Chute(s) – single stainless-steel chute & roller

Glazing materials

Condition/appearance: above average Function: appeared serviceable
Gaskets and seals: appeared serviceable
Location & type:

- Fixed & sliding windows (aluminum frame, glass glazing)

Exterior hatches, portlights and doors

Condition/appearance: average or better Function: appeared serviceable
Gaskets and seals: appeared serviceable
Location & type:

- **Secondary egress (escape) – foredeck & transom**
- Hull sides – portlights (plastic)
- Transom – extra-large portlights (aluminum frame, plastic lens)
- Foredeck – hinged hatch (molded fiberglass)
- Pilothouse sides – sliding doors (painted wood, glass glazing)
- Main cabin aft end – hinged doors (varnished teak, glass glazing)
- Various locations – locker lids (molded fiberglass)

Comments - Hatches, portlights, doors, etc. used for primary and emergency ingress/egress, and access to gear and equipment were thoroughly checked for condition and function. Others were examined for general condition and evidence of leakage but not operated.

HULL BELOW WATERLINE AND RELATED

Hull below the waterline

Structural condition: above average

Structural assessment based upon visual examination of hull's shape for damage, distortions, sagging, hogging or other signs structure is failing or is not adequately supported; tap testing for purposes of comparing variations in tap sound indicative of previous repairs, delaminating, moisture intrusion or blistering; and moisture testing if hull is sufficiently dried and does not have coatings that interfere with moisture meter function to locate areas where abnormal readings may indicate deterioration of laminates or cores

Cosmetic condition: average (based upon appearance around waterline)

Cosmetic condition based upon surveyor's opinion of hull appearance compared to similar type vessels considering factors such as paint build-up, smoothness of hull, blistering and other features that affect its appearance

Underwater gear

Condition/appearance: average Exceptions noted: none

- Propellers – 28" x 31" 4-blade bronze alloy
- Shafting – 2" Aquamet 22 stainless-steel
- Shaft support – V & 2 x I-type bronze each side
- Bearings – rubber Cutless® type
- Shaft log – integral fiberglass, bronze thru-hull
- Shaft seal – self-aligning bronze packing gland
- Spare shaft seals installed – n/a
- Fasteners – appeared secure
- Test performed – examined for evidence of damage and leakage
- Comments – exterior hardware descriptions above based upon owner's manual diagrams

Rudders & linkages

Condition/appearance: average Exceptions noted: yes (see summary remarks & notes)

- Rudder description – cast bronze spade
- Thru-hull seal – fixed bronze packing gland
- Supports – plywood table, bronze bearings & collars
- Linkages – bronze tillers & tie-bar
- Steering components – bronze hydraulic cylinder
- Emergency tiller – n/a
- Test performed – examined for evidence of damage, leakage and excessive slack in linkages
- Comments – exterior hardware descriptions above based upon owner's manual diagrams

Trim tabs

Condition/appearance: average Exceptions noted: none

- Manufacturer – Bennett Marine
- Type – 32-volt electric hydraulic
- Controls - joystick
- Pump – transom in aft berth
- Planes – recessed molded fiberglass, single actuators
- Test performed - none

Thru-hulls, seacocks, transducers

Condition/appearance: average Exceptions noted: yes (see summary remarks & notes)

- Underwater - bronze alloy fitted with ¼ turn valves, bonded with stainless-steel clamps on hoses connections at the following bilge locations:
    - Forward stateroom below sole – **forward toilet inlet & overboard discharge**
    - Generator room forward end below sole – **AC generator inlet**
    - Aft of port engine – **air-conditioner & port engine inlets**
    - Forward of stbd engine – **mid-toilet overboard discharge**
    - Outboard of stbd engine – **mid-toilet intake**
    - Aft of stbd engine – **stbd engine inlet**
    - Aft stateroom stbd side cabinet – **aft toilet inlet (unused) & overboard discharge**
- Topsides - bronze

- Transducers – not sighted

ACCOMMODATIONS, HOUSEHOLD SYSTEMS & COMFORT SYSTEMS

Interior spaces

Bulkheads, partitions, and cabinetry were found to be solid and in good condition, locker and cabinet doors and drawers found to be in average or better condition and working order. Interior décor was found to be in overall average condition with normal age-related wear and tear descriptions as follows:

- Doors - hinged
- Decks – carpeted except as follows:
  - Galley & pilothouse (varnished teak parquet)
  - Head enclosures (vinyl)
- Cabinetry – varnished teak & Formica
- Bulkheads and partitions – varnished teak, papered & padded vinyl
- Ceilings – vinyl headlinings
- Counters - Formica
- Cushion covers – vinyl skins
- Natural ventilation – opening appliances
- Powered ventilation – head enclosures
- Fixtures – serviceable
- Test performed – operated doors, drawers & fixtures as required to perform inspections

Entertainment equipment

Condition/appearance: average Exceptions noted: none
Locations/descriptions:

- Main cabin:
  - TV (Toshiba 43")
  - DVD player (Sony DVP-NS72HP)
- Test performed – not operated

Galley & household equipment

Condition/appearance: average or better Exceptions noted: none
Locations/descriptions - Located in galley except as noted:

- Oven (LG LWS3063ST/00)
- Range (LG Studio Built-in 5-burner)
- Dishwasher (LG LDF7774ST)
- Microwave (GE JES1136WK01)
- Single sink (stainless-steel)
- Disposal (Moen 1/3-hp)
- Water cooler (Primo)
- Refrigerator (Ice Jungle D150)
- Main cabin:
  - Single sink (stainless-steel)
  - Freezer (Vitrifrigo BT-series)

- Test performed – observed refrigerator & freezer working

Sanitary system

Condition/appearance: average Exceptions noted: yes (see summary remarks & notes)
Locations/descriptions:

- Quantity - three
- Manufacturer – Galley Maid
- Type – 32-volt marine toilets, raw-water & freshwater rinse
- Y-valves (direct overboard discharge) - yes
- Vented loops (if required) – n/a
- Test performed – attempted to operate all

Air-conditioning

Condition/appearance: fair Exceptions noted: yes (see summary remarks & notes)
Locations/descriptions:

- Quantity - four
- Manufacturer - Cruisair
- Type – split-type heat pump
- Controls – SMXii:
  - Forward stateroom
  - VIP stateroom
  - Aft stateroom
  - Main cabin
- Equipment – port engine room aft bulkhead (4 x condensing units)
- Cooling pump – port engine room aft end outboard side (Dometic AC-5C-MD 115V)
- Test performed – all units operated on cool program

TANKS, PIPING AND RELATED

(Capacities listed in this section are based upon published specifications for this model unless stated otherwise. Accuracy of tank level monitors should be verified prior to relying upon their readings.)

Fuel

Found the following to be in average condition without evidence of leakage to level filled where accessible for inspection:

- Tanks – 702-gallon capacity fiberglass secured in aft lower cabin centerline:
  - Forward (340-gallon)
  - Aft (362-gallon)
- Fills – port side deck aft end (2)
- Vents – hull sides
- Plumbing materials – copper tubing & flexible fuel hose
- Shut-off valves – stbd engine room aft bulkhead (manifold)
- Filters:
  - Engines - engine room inboard sides (Dahl 200M)
  - AC generator – generator room forward end (Dahl)

- Pumps – engine rooms forward end (32-volt)
- Level gauges – top of tanks
- Test performed – examined for evidence of leakage

Potable water

Found the following to be in average condition without evidence of leakage to level filled where accessible for inspection:

- Tanks – 287-gallon capacity fiberglass in two tanks secured in VIP stateroom inboard berth and aft stateroom berth:
  - VIP stateroom (157-gallon)
  - Aft berth (130-gallon)
- Fills – top of transom port side (1)
- Vents – hull side
- Plumbing materials – copper & plastic tubing
- Shut-off valves – not found
- Filters – not found
- Pressure pump – stbd engine room hull side (120-volt shallow well type)
- Accumulator tank – stbd engine room hull side (The Water Worker)
- Water heater – stbd engine room aft bulkhead (20-gallon 240-volt)
- Dock water connection – side decks amidships
- Level gauges – not found
- Test performed – examined for evidence or leakage

Black water

Found the following to be in average condition without evidence of leakage to level filled where accessible for inspection:

- Tanks – 165-gallon fiberglass secured in forward stateroom below sole & generator room stbd side:
  - Forward stateroom (105-gallon)
  - Generator room (60-gallon)
- Deck fitting – stbd side deck by pilothouse (2)
- Vents – hull side
- Plumbing materials – sanitary hose
- Y-valves – on each overboard discharge fitting
- Overboard valve:
  - Forward stateroom below sole
  - Stbd engine room forward end
  - Aft stateroom stbd side cabinet
- Discharge pump - none
- Vented loop (if required) – n/a
- Treatment device – aft stateroom stbd side cabinet (Raritan Engineering Purasan)
- Level gauges – ¾ full indicators each head enclosure
- Test performed – none

- Comments – plumbing diagram indicates forward and aft toilets discharge into forward tank and mid-toilet to AC generator room tank

ENGINES, AND ENGINE AND VESSEL CONTROLS

Engines

Condition/appearance: average Exceptions noted: yes (see summary remarks & notes)

- Location - amidships
- Type/description – diesel 2-cycle V8-cylinder turbocharged aftercooled
- Cooling system – closed loop freshwater, raw-water heat exchanger
- Power transmission – close coupled straight-drive
- Mounting:
  - Foundations – hull stringers
  - Beds – welded aluminum
  - Mounts – vibration isolator type
- Cleanliness – average or better
- Fluid levels and condition – visual inspection of the following (full/low/add):
  - Engine oil – full/normal
  - Engine coolant – full/normal
  - Transmission oil – full/normal
- Accessibility - good
- Test performed – examined the following:
  - Cold start
  - Exhaust smoke
  - Raw-water flow
  - Noise/vibration
  - Leaks
  - Charging

Exhaust systems

Condition/appearance: above average Exceptions noted: none

- Exhaust manifolds – freshwater cooled cast iron
- Risers – saltwater cooled stainless-steel
- Exhaust fittings – stainless-steel collectors/surge tubes
- Muffler – straight fiberglass
- Exhaust outlet – transom outboard sides (integral fiberglass)
- Straight runs – fiberglass pipe
- Connection of fittings:
  - Engine room (blue silicon hose)
  - Remainder (black rubber hose)
- Hose connection clamps – double stainless-steel
- Test performed – examined for evidence of damage and leakage
- Comments – engine room stainless-steel exhaust parts appear to have been replaced

Engine ventilation

Condition/appearance: above average Exceptions noted: none
Location & type:

- Thru-hull vents – hull sides amidships
- Powered – 2 x 32-volt discharge blowers
- Test performed – verified function of blowers

Engine controls

Condition/appearance: above average Exceptions noted: none

- Locations – pilothouse & flybridge
- Manufacturer/model - Morse
- Description – dual lever type sleeved cable manual system
- Neutral safety interlock (prevents starting in gear) – not checked
- Test performed – operated at pilothouse & flybridge

Engine instrumentation

Condition/appearance: average or better Exceptions noted: yes (see summary remarks & notes)

- Manufacturer – AC Delco
- Type – analog electric
- Locations – pilothouse & flybridge except as noted below:
  - RPMs
  - Oil pressure
  - Water temperature
  - Drive oil pressure
  - Volts
  - Engine rooms – hour meters
- Alarms – yes
- Test performed – observed working while engines were running

Steering

Condition/appearance: average or better Exceptions noted: none

- Locations – pilothouse & flybridge
- Manufacturer/model - Hynautic
- Description – wheel type manual hydraulic
- Reservoir – port engine room on hull side
- Test performed – operated lock to lock upper & lower helm

EQUIPMENT

Air-compressors

Condition/appearance: average Exceptions noted: yes (see summary remarks & notes)

- Location – port engine gear train housing
- Manufacturer/model - unknown

- Type – reciprocating pump
- Accumulator tank – port engine room inboard side (approximately 5-gallon capacity)
- Test performed – observed working when engine was running

Pumps dewatering and utility

Condition/appearance: average Exceptions noted: none
Type & location – DC electric unless noted otherwise:

- AC generator room forward end below sole – dewatering (Rule 2000 gph)
- AC generator room forward end port side – sump box (Rule 2000 gph in fiberglass box)
- Forward of engines – dewatering (Rule 2000 gph each side)
- Inside aft berth aft end below sole:
  - Dewatering (Rule 2000 gph)
  - Dewatering/sump box (Rule 2000 gph in fiberglass box)
- Test performed – verified all pumps run

Rigging utility

Condition/appearance: average Exceptions noted: none
Type & location:

- Tender crane – upper deck aft end port side (Marquipt Sea-Davit 800-lb. capacity)
- Test performed – verified winch motor runs

Windlass

Condition/appearance: average Exceptions noted: yes (see summary remarks & notes)
Descriptions (windlass located at foredeck unless noted otherwise):

- Manufacturer/model – Galley Maid
- Type – 32-volt vertical with wildcat & warping head
- Control locations – foredeck & helm
- Battery service-disconnect – inside anchor locker
- Overcurrent protection – disconnect is breaker
- Clutch lever location – foredeck stbd deck box
- Test performed – anchor lowered to water and back, attempted to freefall anchor

Accessories

Condition/appearance: average Exceptions noted: yes (see summary remarks & notes)
Description:

- Boarding stair – port side deck (Marquipt 6-step)
- Boarding ladder – stbd side deck (Marquipt 4-step)
- 2 x storage boxes – foredeck (molded fiberglass)
- Engine synchronizer – stbd engine room aft bulkhead (Glendinning)
- Clock & barometer – galley aft bulkhead (Seth Thomas)
- Test performed – operated synchronizer

ELECTRICAL SYSTEMS

Galvanic corrosion protection

Condition/appearance: average Exceptions noted: none
Descriptions:

- Anodes (zinc unless noted otherwise) – not inspected
- Bonding system - yes
- Isolation transformers – AC generator room (2)
- Test performed - none

AC electrical system

Condition/appearance: average or better Exceptions noted: none
Locations & descriptions of significant components:

- Voltage – 240 & 120
- Inlet types & locations – pilothouse sides (2 x 240-volt, 50-amp each side)
- Inlet circuit protection location (within ten feet unless noted otherwise) – adjacent to inlets & main panel
- Main panel:
  - Location - pilothouse
  - Instrumentation – voltmeters, ammeters & Hz meter
  - Source selector switches – rotary & toggle with interlock
  - Reverse polarity indicator – n/a
- Panel locations:
  - Switching panel – lower helm console
  - No. 1 & No. 3 – pilothouse stbd side
  - No. 2 – port engine aft bulkhead
- Condition of shore cord – average or better
- Condition of shore cord inlet – average or better
- GFCI protection – yes
- Tests and examinations:
  - Shoreline output - normal
  - Generator output – not operated
  - Inverter output – n/a
  - AC/DC grounding connection – yes
  - AC current leakage <30ma – not checked (transformer equipped)

DC electrical system

Condition/appearance: average or better Exceptions noted: none
Locations & descriptions of significant components:

- Voltage – 32 & 12
- Panel locations – pilothouse & engine room:
  - No. 1 & 12-volt – pilothouse stbd side
  - No. 2 – port engine room forward bulkhead
  - 32-volt electronics – stbd engine room inboard side

- Panel instrumentation - voltmeter
- Branch circuit protection – breakers
- Main disconnect switch – engine rooms bulkheads
- Primary circuit protection – engine rooms bulkheads (fuses)
- Test performed – various DC equipment operated

Alternating current generators

Condition/appearance: fair Exceptions noted: yes (see summary remarks & notes)
Description:

- Location – galley below sole
- Engine type – diesel 4-cycle 4-cylinder naturally aspirated
- AC generator mounting – close coupled
- Circuit protection:
  - Generator – yes
  - Main panel – yes
- Accessories – drip pan, sound shield & remote control
- Fuel, exhaust, cooling water and electrical connections – serviceable
- Vented loop (may be necessary for deep draft installation) – none
- Test performed – operated briefly

Battery charging devices

Condition/appearance: average Exceptions noted: none
Locations/descriptions:

- AC electric:
  - 32-volt – port engine room aft bulkhead (LaMarch A40-30-32V-BI)
  - 32/12 Charge divider – port engine room aft bulkhead (LaMarche CD40-20/30-12/32-N2)
- Alternators – engines
- Renewable – none
- Controllers – n/a
- Test performed – various DC equipment operated

Storage batteries

Condition/appearance: average Exceptions noted: yes (see summary remarks & notes)

- Batteries – flooded lead acid wet cells located as follows:
  - 32-volt - generator equipment room port side (2 x 4D & 1 x 8-volt)
  - 32-volt - generator equipment room stbd side (4 x 8-volt)
  - 12-volt – generator room aft end (8D)
- Disconnects – engine rooms
- Test performed – batteries conditions not evaluated

Comments:

- Battery disconnects or primary circuit protection for high amperage DC systems such as engine & AC generator cranking, windlasses, capstans, bow & stern thrusters and davits should be

toggled off when not in use to prevent them from energizing unexpectedly due to failed components or short circuits that can lead to equipment damage or fire while vessel is not in use or unattended

ELECTRONICS AND NAVIGATION EQUIPMENT

Condition/appearance: average Exceptions noted: yes (see summary remarks & notes)

- Pilothouse:
  - 3 x windshield wipers & irrigators
  - Magnetic compass (Danforth Constellation)
  - Multifunction display (Furuno)
  - Digital data display (Furuno RD-30)
  - Autopilot control (Simrad AP20)
  - VHF radio (Icom IC-M602)
  - Radar (Furuno)
- Flybridge:
  - Magnetic compass (Danforth Constellation)
  - Multifunction display (Furuno)
  - Digital data display (Furuno RD-30)
  - Autopilot control (Simrad AP20)
  - VHF radio (Icom IC-M602)
- Autopilot pump – not sighted
- Autopilot compass – not sighted
- Test performed – attempted to operate all

SAFETY EQUIPMENT

(Items in this section checked for compliance with Code of Federal Regulations & ABYC Standards)

Fire safety equipment

Equipment types and quantities USCG compliant yes (due for service):

- Fixed – stbd side engine room (Engineered CO2 system [indicated fully charged)
- Fixed fire system indicator – not found
- Fixed fire system manual activator – galley/pilothouse stbd side
- Portable handheld USCG Approved Sizes located as follows – (indicated fully charged):
  - Forward stateroom (BCI 2016)
  - Galley (BCI 2016)
  - VIP stateroom (BCI 2016)
  - Owner stateroom (BCI 2016)
  - Engine rooms (BCI +12 years old)

Gas detection systems

Equipment types and quantities compliant yes:

- CO – aft lower cabin companionway
- Smoke – aft lower cabin companionway
- Test performed – self-test

Emergency bilge pumps and high-water alarms

Configuration compliant yes:

- Dewatering pumps – vessel is equipped with one per bilge compartment
- Audible alarms – yes (inoperative)
- Test performed – all pumps operated

Signaling devices

Equipment types and quantities compliant no:

- Distress signals – one of the following required:
  - Pyrotechnics – flybridge port side lounge seat (expired)
  - Electronic & flag – not found
- Sound signaling devices – one of the following required:
  - Hull mounted sound - yes
  - Handheld sound – not found
- Epirb – not found
- Test performed – operated horn

Navigation lights

Configuration defects: none Function: normal

- Side – flybridge sides
- Mast head – front of flybridge
- Stern – upper deck aft end
- Anchoring – mast on front of flybridge
- Test performed – all working

Flotation devices

Condition/appearance: average Equipment types and quantities compliant yes:

- Lifejackets – flybridge console, flybridge lounge seats & inside aft berth:
  - 12 x Type II adult
  - 1 x Type I adult
- Throwables – main cabin aft end (ring buoy)
- Liferafts – not found
- Immersion suits – not found

Ground tackle

Condition/appearance: above average Equipment types and quantities compliant no:
Locations/descriptions:

- Ready anchors & rodes – not found:
  - Mantus plow type, all chain rode
- Back-up anchors & rodes – not found
- Bridles – not found

Additional required (non-safety)

Equipment types and quantities compliant no:

- Pollution placards (Vessels 26 feet and over with a machinery compartment) – machinery rooms
- Marpol Trash Placard (Vessels 26 feet and over) – not found
- Written trash disposal plan (Vessels 40 feet and over) - not found
- Navigation rules (Vessels 39.4 feet and over) - not found
- Vessel identification locations:
  - HIN – transom upper stbd corner
  - Documentation # - AC generator room
  - Name – pilothouse sides & transom

SUMMARY REMARKS AND NOTES

Items on the following lists are grouped into several categories according to the surveyor's opinion of their importance:

- **Items in bold face are also listed in the Recommendations section at the beginning of this report and should be addressed on a priority basis.**
- Underlined items should be considered for timely action at your convenience.
- Remaining items on the lists that follow will likely not interfere with the safe and reliable function of the vessel but may improve its utility, and/or convenience, and value.

REGULATORY AND/OR STATUTORY DEFICIENCIES

Items on this list may not affect vessel safety but if ignored may result in fines and/or penalties:

1. All toilets are discharging directly overboard; service all toilets plumbing and thru-hulls to restore their normal function and direct flows to blackwater tanks except when operating in areas untreated discharge is permitted.
2. **Unexpired visual distress and/or electronic distress signals & flags not found aboard; put aboard at least three unexpired USCG approved day/night visual distress signals or other type USCG Approved system that satisfies the requirement (certain battery powered beacons accompanied with day signal are now approved).**
3. Code of Federal Regulations requires the following placards and documents be carried aboard, placards in one or more readily accessible locations:
    a. Marpol Trash Placard.
    b. Written Trash Disposal Plan (http://www.gladdingmarinesurvey.com/pdf/uscgwaste.pdf)
    c. Copy of Navigation Rules.

STANDARDS DEFICIENCIES

ABYC Standards and Technical Information Reports *are advisory only; their use is entirely voluntary. They are guides to achieving a specific level of design or performance, and are not intended to preclude attainment of desired results by other means:*

4. **Fixed and portable fire extinguishers are due for inspection; a full maintenance check should be made by a qualified fire extinguishing service facility in accordance with the maintenance instructions on the name plate of the extinguisher. A tag should be attached showing the date of such maintenance check.**
5. **Engine room portable handheld fire extinguishers have exceeded their useful service life; replace with new.**
6. Audible signal not heard when bilge high-water alarm level switches are raised; service bilge alarm system as necessary to restore its normal function.

SUGGESTED REPAIRS AND/OR CHANGES

Items based upon surveyor's observations or experience that may improve the vessel's reliability, utility, or longevity:

7. Hull above waterline & related:
    a. Deck is crushed below mooring cleat stbd side aft end outboard of dodger; repair deck and refasten cleat.
    b. Foredeck is solid but has elevated moisture around aft end of anchor pulpit from windlass foot switch leaking; repair leaking windlass foot switch.

c. Flybridge exterior sides are solid but have elevated moisture; recaulk fasteners around flybridge flanges.
d. Two areas outboard of flybridge stbd side do not give a solid report when tap tested; monitor for progression and repair if necessary.
e. Bare wood is exposed hull sides around vent openings; renew protective coatings on exposed plywood.
f. Aft deck port side triangular filler piece core is bad; repair and refinish filler piece as necessary.
g. Swim platform deck has broken and missing fasteners; replace all swim platform fasteners.

8. Hull below waterline & related:
   a. Underwater thru-hull basket strainers are corroded; rebuild all basket strainers.
   b. Engine seawater intakes are fitted with basket strainers; suggest replacing them with exterior hull strainers.
   c. Rudder packing glands are leaking; replace packing in rudder packing glands.
9. Accommodations, household systems & comfort systems:
   a. AC condensate is leaking down from port engine room overhead aft end; locate and repair source of condensate leakage.
   b. Stbd engine room AC condensate drain is not attached to seachest; reattach hose to seachest.
   c. Port engine room AC condensate drain seachest connection is leaking; repair as necessary.
   d. Clothes washer was not operated due to reported drainage issue; prove function of clothes washer.
   e. Mid-toilet did not flush well; service as necessary.
   f. Aft toilet rinse water valve does not close completely; service toilet as necessary to prevent overflowing bowl.
   g. Air-conditioning equipment appears original except for one condensing unit; employ an HVAC specialist to inspect and service equipment to ensure its reliable function or replace if necessary.
10. Tanks, piping & related:
    a. Holding tank and toilet plumbing is subject to build-up forming inside discharge and vent hoses that may degrade system performance and increase odors at hull interior due to reduced aerobic activity within the holding tanks; suggest thorough inspection and testing of tank plumbing and various appliances to insure they are clean and working as designed service if necessary.
    b. Potable water system has leak AC generator room forward end stbd side corner; locate and repair leak as necessary.
    c. Aft stateroom waste treatment system is corroding metal in its vicinity; remove waste treatment and restore original toilet plumbing.
    d. AC generator fuel filter has been abandoned in place; service as necessary to return it to service.
    e. Engines are equipped with single fuel filter/water separators; suggest installing dual filter setup to ensure reliable fuel delivery to engines.

f. Stbd engine room potable water intake is plumbed with PVC nipple; replace PVC fitting with bronze type.
g. Blackwater tanks have deck pump-out fittings but no means to discharge overboard; install discharge pump(s) to allow direct overboard discharge where permitted.

11. Engines, controls & related:
    a. Port engine has rough idle and discharges raw fuel out of the exhaust; investigate further and service engine as necessary.
    b. Both engines have excessive corrosion on various components; descale, clean, service and repaint corroded components as necessary.
    c. Engines have seen little underway use in recent years; employ a Detroit Diesel specialist to inspect and service them as necessary to ensure their reliable function prior to returning to regular use.
    d. Engine instruments other than RPMs and volts are inoperative at all locations; investigate further and repair as necessary.
    e. Mechanical engine gauges provide more reliable readings than analog electric types; install mechanical engine gauges in engine rooms.
    f. Engine room hull vents allow regular exposure to dirt, pests, and circulation of damp air during periods vessel is not in use; suggest covering engine room vents when vessel is not in use to preserve and protect machinery from exposure related wear and tear.
    g. AC generator is not running properly; service as necessary to restore its normal function and verify it produces AC power correctly or replace with new.
    h. AC generator platform is deteriorated; reinforce or replace as necessary.
    i. AC generator muffler inlet hose connection has one clamp; install second clamp.
    j. Stbd engine would not cold start without parallelling the batteries; service as necessary to restore its normal function.
12. Equipment & related:
    a. Port engine room air compressor accumulator tank has pin hole leak; replace tank with new (needed to blow horn).
    b. Windlass does not freefall anchor when its clutch is released; service windlass as necessary to restore its freefall function.
13. Electrical systems & related:
    a. Engine alternators are not working; service as necessary to restore their normal function.
    b. Port side 32-volt batteries are mismatched; replace batteries with a matched set.
14. Navigation equipment & related:
    a. Navigation electronics except for radar & lower helm Furuno RD-30 are inoperative; service as necessary to restore their normal function.
15. Safety equipment & related:
    a. Vessel is not equipped with back-up anchor and rode; suggest putting aboard at least one additional anchor and rode to replace primary in the event it becomes lost or fouled in anchor locker or if additional holding power is required.

(End of report photo pages to follow)

PHOTOS