

MORMAN MARINE SURVEYORS

AMERICAN BOAT AND YACHT COUNCIL  SOCIETY OF ACCREDITED MARINE SURVEYORS® NATIONAL FIRE PROTECTION ASSOCIATION

MARINE SURVEY OF CONDITION AND MARKET VALUE

DATE TYPED: October 8, 2018

DATE SURVEYED: October 5, 2018

SURVEY REQUESTED BY: Estate of Douglas J. Hertz
405 Madison Ave, Ste. 1000
Toledo, OH 43604

TELEPHONE: 419-242-1400

TYPE OF VESSEL: Twin screw, flybridge, Chris Craft 38 Commander Sedan



OFFICE: 586.469.3898 **SERVICING THE MARINE INDUSTRY SINCE 1963** FAX: 586.469.3906
37790 LAKESHORE DRIVE . HARRISON TOWNSHIP, MICHIGAN 48045



LOA: 38'
BEAM: 13'
DRAFT: 36"
DISPL: 17,736 lbs.

There were no actual measurements or calculations made by this surveyor during the inspection; most measurements and capacities reported were taken from published sources.

HULL NUMBER: FDA385007R

MODEL YEAR: 1969

BUILDER: Chris Craft Marine
Holland, MI

DOCUMENTATION: NO590304
VESSEL NAME: None

ENGINES: Twin Crusader marine gas engines
PORT ENGINE SERIAL #: Unobserved
MODEL #: CH350
HOURS: 1229.6
PROP: Unobserved, vessel in water

STARBOARD ENGINE SERIAL #: Unobserved
MODEL #: CH350
HOURS: 1236.8
PROP: Unobserved, vessel in water

PARAGON MARINE GEARS
PORT MODEL #: P-44-L
PORT SERIAL #: 5M-1008
STRBOARD MODEL #: P-44-R
STARBOARD SERIAL #: 5M-1026

HULL SHAPE: Hard chine, modified deep V, planing hull with keel
HULL CONSTRUCTION: Fiberglass reinforced plastic
TRANSOM CONTRUCTION: Fiberglass reinforced plastic
FASTENINGS: Stainless steel
FRAMES: Fiberglass reinforced plastic covered plywood
STRINGERS: Fiberglass reinforced plastic with wood tabbed to top at engines
BULKHEADS: Plywood, fiberglass reinforced plastic tabbed
DECKS: Fiberglass reinforced plastic with core and Synkore
CABINS: Molded with deck

BILGES:
Aft - Signs of water, no signs of oil
Mid - Signs of water, no signs of oil
Fwd - No signs of water, no signs of oil

BILGE PUMPS:

Aft - 12 Volt Rule 800 GPH pump with auto/manual switch

BERTHS:

6 Total
2 Mid cabin dinette
2 Main cabin
2 Forward cabin

CANVAS COVERS/TOPS:

Blue canvas bimini top, good condition
Stainless steel frame for bimini top

CARPETING:

Sand colored indoor/outdoor bridge deck carpeting, fair condition
Beige cabin carpeting, fair condition

DRAPERY:

Off-white fabric at main cabin, good condition
Blue fabric at forward cabin, good condition

ELECTRICAL SYSTEMS:

125 Volt 30 amp shore power inlets, aft port and starboard
4-12 Volt groipu-24 wetted lead acid parallel batteries, ship's power system
secured to vessel
2-125 Volt 30 amp shore power cords
125 Volt 30 amp male to 125 volt 30 amp female Y-adaptor
Fused and circuit breaker ship's power system
Circuit breaker shore power system residential grade, **see Items Noted**
GFCI receptacle needed **see Items Noted**
2 On/Off battery switches
Reverse polarity indicator
Crossover lockouts not working at time of survey
AC Voltmeter
Cruisair 12 Volt Marine Battery Charger
Model #: SM1220/2
Serial #: 00C030

The visible wiring appears to meet current ABYC chapter E-11 standards,
except as noted.

ELECTRONICS:

Garmin GPS/Chartplotter
Model #: GPS Map 541S
Serial #: TJ9026270
Dual engine instrumentation to include: RPM Sport Comp, solenoid battery
parallel switch
Compass not working at time of survey
Danforth Sniffer gas detector not working at time of survey
JN Sniffer
Danforth Charginator Indicator

EXTERIOR DECKS:

Chris Craft white gelcoat, fair condition

EXTERIOR HULL:

Chris Craft white gelcoat, fair condition

EXTERIOR TRIM:

Blue waterline stripe, appears to be good condition
Bottom paint condition unknown, vessel in water

FIRE PROTECTION:

1 Hand held type B-I USCG approved fire extinguisher at bridge deck locker, not
Mounted-2 required

The fire extinguisher showed fully charged at time of survey.
We recommend that all fire extinguisher systems aboard be re-certified.

FIRST AID EQUIPMENT:

Not aboard at time of survey-required equipment

FUEL SYSTEM:

2 Galvanized steel fuel tanks, grounded with manual shutoffs
Quicksilver in-line fuel filters at fuel tanks

Appears to meet current ABYC H-24, NFPA Chapter 5 standards and
USCG (33 CFR) Subpart J Sec. 183.514 requirements.

GALLEY:

Built-in countertop, self-contained, brown, 110-volt Princess stove with three
burners and oven
Goldstar Microwave Oven
Stainless steel single galley sink
Beige laminate countertop

GENERATORS:

Kohler 6.5 kW marine gas generator [see Items Noted](#)
Model #: 6.5a23
Serial #: 290979
Hours: 0298.1

GROUND TACKLE:

13S Danforth anchor in lazarette
20 H Danforth anchor with approximately 6' chain and approximately ¾" x 100' rode, stored on bow in chocks
Hawse pipe
4 Inch by 6 inch teak and stainless steel bitt

HEAD:

Enclosed, single entry, 12-volt operated Dometic head with holding tank and deck pump out
Beige fiberglass head sink and countertop
Shower in head

INTERIOR CONDITION:

Fair condition

INTERIOR CUSHIONS/FURNISHINGS:

Blue and beige fabric

INTERIOR TRIM:

Woodgrain bulkheads, good condition
Bright mahogany hull covering, fair condition
Off-white vinyl headliner, fair condition
Fiberglass laminate countertops, good condition

LIFE SAVING EQUIPMENT:

Single lifelines with gates
Stainless steel flybridge side rails handrails
Stainless steel flybridge single aft rail
Stainless steel cabin top handrails
Welded stainless steel single bow rail
All other lifesaving equipment was not aboard at time of survey.

It is suggested by this surveyor that to insure compliance with local marine laws, a USCG courtesy examination be done on all vessels.

MOORING EQUIPMENT:

- 4 Dock lines
- 3 Cylindrical medium fenders
- 2 Cylindrical large fenders
- 4 Chromed-bronze 7.5-inch torpedo horn spring cleats; 2 forward, 2 amidships
- 2 Chromed-bronze 6-inch bitts astern
- Stainless steel and teak 6-inch bitt at bow with guides

NAVIGATION LIGHTS:

Meets current USCG standards, were working at time of survey

REFRIGERATION:

Two door, 110-volt, Criterion refrigerator/freezer

STEERING:

Mechanical cable steering station at flybridge and bridge deck

THRU-HULLS:

- 3 Bronze, below the waterline seacocks, operated, visually inspected, double hose clamped
- 2 Transducers

VENTILATION SYSTEM:

12 Volt blower motor, was working at time of survey [see Items Noted](#)

WATER SYSTEM:

- 12 Volt pressure system by Shurflo
- 110 Volt Raritan 6-gallon hot water tank with engine take-off

ACCESSORIES:

- 2 Hull mounted port lights
- Electric trim tabs
- 2 Windshield wipers [see Items Noted](#)
- Stainless steel and aluminum 25 outriggers
- Webasto FCF 16,000 BTU air conditioner/heater unit with digital control
- Engine blower

THIS SURVEY REPORT WAS CONDUCTED SUBJECT TO THE FOLLOWING CONDITIONS:

This survey is not meant to imply the "condition" of any area that could not be seen because of bulkheads, false soles, molding, liners, or any other area that could not be removed for visual inspection. This survey does not include any destructive testing or core samples.

This survey assumes that there are no hidden or unapparent conditions to the vessel, equipment or devices, which would render it more or less valuable. The surveyor assumes no responsibility for such conditions, or for engineering, which might be required to discover such factors.

Some of the USCG (33 CFR) Codes, NFPA Codes, and ABYC Recommendations that are in effect today may have been enacted after this vessel was manufactured. The recommendations thought to be necessary for safety have been addressed in this survey. However, complete compliance with current requirements and standards may not have been suggested. ABYC Recommendations are being upgraded all the time, mostly as a result of accidents, injuries, and/or fatalities. There is considerable pressure from safety officials and insurance companies to prevent and eliminate the causes of accidents. New boat builders, following ABYC Recommendations, NFPA Codes, and CFR Codes try to redesign problems that have been identified as causes of accidents. Boats built in earlier years may have system or faults not meeting current Recommendations and Codes. Boats are surveyed to present standards as part of the process of trying to reduce accidents. Please keep in mind that ABYC Recommendations are voluntary; insurance companies use them because there are no other recommendations and/or standards available. Your insurance company may request that you update the findings in this survey so as to lower the risk of having to pay a claim. Compliance is up to you; coverage is up to them.

Information, estimates, and opinions furnished to the surveyor, and contained in this survey, were obtained from sources considered reliable and believed to be true and correct. However, the surveyor can assume no responsibility for accuracy of such items furnished the surveyor.

On all surveys, subject to satisfactory completion of repairs, or alterations, the survey report and value conclusion are contingent upon completion of the improvements in a workmanlike manner.

This survey did not include inspection of any "condition" of the interior of any mechanical equipment or device.

This survey is an unbiased and honest opinion of this vessel's condition on the day of inspection, to the best of my ability; however, no warranty is either issued or implied.

GROUP A ITEMS (FEDERAL LAWS and REGULATIONS):

1. A ground fault receptacle is needed first in-line.
2. Handheld USCG flares are needed in order to meet current requirements.
3. The wiring behind the lower helm has twist and tie connections at a limited number of wires. These need to be crimp connections, and unused wiring should be removed.
4. The engine starters need positive terminal protection. All wiring over the engines need to be secured away from the engines.
5. Wire nuts need to be replaced with crimp connectors throughout the vessel.
6. The air conditioner duct has a clearance hole in the engine room bulkhead. This should be air tight.

7. There was no waste management plan aboard at the time of survey. Code of Federal Regulations requires this on vessels of this size.

Sec. 151.57 Waste management plans.

This section applies to the following:

- a. Each manned oceangoing ship (other than a fixed or floating platform) of 40 feet or more in length that is documented under the laws of the United States or numbered by a state and that either is engaged in commerce or is equipped with a galley and berthing.
 - b. The master or person in charge of a ship under paragraphs (a)(1) and (a)(2) of this section shall ensure that the ship is not operated unless a waste management plan meeting paragraph (c) of this section is on the ship and that each person handling garbage follows the plan.
 - c. Each waste management plan under paragraph (b) of this section must be in writing and-
 - (1) Provide for the discharge of garbage by means that meet Annex of MARPOL 73/78, the Act, and Sec. 151.51 through 151.77;
 - (2) Describe procedures for collecting, processing, storing, and discharging garbage; and
 - (3) Designate the person who is in charge of carrying out the plan.
8. Two shore power inlets need to have separate circuit breakers at each inlet to avoid live prongs at an unused inlet.
 9. The battery switch at the starboard engine rotates with switch. This should be secured and positive terminals should have protection.
 10. The fuel line for the generator is detached and the dynamo is disassembled at the electrical output box. Inspect and repair/remove as necessary.
 11. The water heater is disassembled with exposed connections forward of the starboard engine. This should be inspected and repaired or removed, rusty and disconnected.
 12. There is loose wiring from the port battery switch and parallel solenoid is at the false sole along the port inboard stringer. This should be secured every 18-inches and boat cable should be used where new equipment has been installed. (Battery charger, etc.)
 13. The port engine has single hose clamps at the down hoses for the exhaust, starboard the same, with the aft inboard connections on both engines only secured with single hose clamps. The exhaust needs to be supported over a 3-foot run to the outboard output hose. Double hose clamps are required at all exhaust connections.
 14. The carburetor flame arrestors are dirty and need cleaning. Locknuts are also needed to secure to the carburetor.

GROUP B ITEMS (Voluntary recommendations from safety agencies):

- A. The American Boat and Yacht Council, Chapter 24.7 recommends that the interior of vessels be equipped with a carbon monoxide detector installed in each accommodation space.

- B. It is recommended by NFPA 302-44 (12.3) that all vessels 26-feet or more in length with sleeping accommodations be equipped with a single station smoke alarm, that is installed and maintained to manufacturer's instructions, that is listed to UL 217 Standards.

GROUP C MAINTENANCE/RECOMMENDATIONS: THIS SURVEYOR SUGGESTS THESE ITEMS BE ADDRESSED OVER THE OWNERSHIP OF THIS VESSEL:

- i. It is recommended that double hose clamps be added at all below the waterline thru hull fittings.

- ii. It is recommended that all below the waterline thru-hulls have a proper size wooden or foam plug attached to function as an emergency-plugging device.

- iii. It is recommended that all deck hardware and all hull fittings have their bedding renewed to insure against water intrusion as part of a continuing maintenance plan.

- iv. The ground tackle shackles should have seizing wire locking the thumbscrews in place in order to insure against equipment loses and/or damage to the vessel.

- v. The fuel line should be upgraded to A1-15 if ethanol blended fuel is to be used.

- vi. Below the port engine is transmission fluid and green coolant is below the starboard engine. Inspect and remove oil/clean bilge. Find source and eliminate.

- vii. There is approximately 1-foot of water in the bilge at the engines. Find water source and stop. The lazarette scuppers appear to be overflowing in the aft bilge.

- viii. The starboard rudder needs seizing wire at the upper rudder bearing.

- ix. There is a water pump on the water tank, not installed.

- x. The aft bilge float switch is mounted at thread rob. It works but does not activate as installed. Inspect and attach as necessary.

- xi. The chrome exterior fittings are peeling and pitting.

- xii. The aft Par bilge pump was detached from wiring. Inspect and repair as necessary.

- xiii. The cockpit hatches are delaminating and water logged.
- xiv. The bow capstan is leaking and has signs of old water staining.
- xv. The flybridge deck is soft and flexing. Vinyl/wood board has been removed.
- xvi. The starboard wiper arm was not aboard at the time of survey.
- xvii. The only tachometers are only reliable engine instruments.
- xviii. The generator does not run.
- xix. The engines are not original to this vessel, causing modifications to the engine stringers that removed one hull number stamp.
- xx. The compass at the lower station was missing.
- xxi. The aft burner on the stove was not working.
- xxii. The 110-volt system did not have a GFCI. One needs to be added.
- xxiii. The electrical system is all run through residential circuit breaker boxes.
- xxiv. The headliner in the forward cabin was coming loose and the trim was missing
- xxv. The head and galley sinks discharge direct above the waterline. These should have water traps installed.
- xxvi. The shower sump pump was not working. This should be serviced.
- xxvii. The flybridge windscreen is missing.

SURVEYOR'S REMARKS

The above captioned vessel was surveyed, while in the water, at River View Yacht Club, Toledo, OH; for the purpose of hull condition and marine market value. Any systems that were not commissioned at the time of survey were inspected but not operated.

BOTTOM:

The bottom was not sounded or inspected because the vessel was in the water.

TOPSIDES:

The topsides were observed and appeared to be in good to fair condition. There are signs of deterioration, [see Items Noted](#). This vessel meets/does not meet the ABYC recommendations H-41.9 for unassisted re-boarding of this vessel.

DECKS:

The decks were sounded and inspected and appeared to be in good to fair condition, showing no signs of delamination but deterioration in the core [see Items Noted](#).

INTERIOR:

The interior of the vessel was inspected where accessible and found to be in good condition. All frames, partitions and bulkheads were inspected where accessible and found to be in good condition, showing no signs of weakness due to delamination or deterioration of the marine plywood or the fiberglass. The interior stringers were measured, where accessible, for moisture content using a Protimeter Aquant moisture meter. The readings were 150-190 on the meter. This appears to be within normal limits for a vessel of this age. The thru-hull valves should be routinely operated to insure that they are functioning properly. All thru-hull fittings below the waterline were noted to be in good condition. All hoses were inspected where accessible and were found to be in good condition. The American Boat and Yacht Council, Chapter 24.7 recommends that the interior of vessels be equipped with a carbon monoxide detector installed in each accommodation space. As recommended by NFPA this vessel should be equipped with a smoke alarm. It is also recommended by this surveyor that this vessel be equipped with an elbow sink trap at each sink to insure against carbon monoxide exhaust from entering into the living quarters of this vessel. This vessel does not meet the USCG display regulations for discharge of oil and refuse.

ELECTRICAL:

The visible wiring has been inspected where accessible and found to be in need of attention, [see Items Noted](#). This vessel was built 49 years ago when the electrical technology was not as good as it is today. This vessel has had electrical work done over the years, some by people who may not been marine electricians. This surveyor recommends that a qualified marine electrician be hired to do a thorough inspection, and the necessary changes or upgrades be performed. The engine compartment was found to have an adequate ventilation system and the bilge exhaust blower was in working order at the time of survey but [see Items Noted](#). The bilge pump was not in working condition on float switch during the survey.

ENGINES:

The engines were inspected and showed no signs of abuse. This surveyor is not a qualified engine mechanic; therefore, it is always recommended that a qualified Crusader marine mechanic be retained to ascertain the operational condition of the engines. The stringers were sounded and found to sound good. They were measured

for moisture with the moisture meter. They read 10-12 on the GRP-33 meter. This appears to be within normal limits for a vessel of this age.

Fuel, holding, and water tanks were inspected where accessible and appear to be sound. No obvious leakage was noted; however, it is not known if the tanks were at full capacity at the time of the inspection. The tanks should be filled with their appropriate liquid and checked under full-tank status, or pressure tested to attest to their conditions.

The general condition appears good to fair structurally, poor cosmetically, and is in need of restoration.

We, at Morman Marine Surveyors, stand behind our work. If there are any errors or omissions in this survey report, or if there are any perceived or real problems that surface upon delivery, or commissioning of the surveyed vessel, please notify our office immediately. The surveyor should be consulted before any service work is performed, or any expenses incurred. If any work is performed or expenses incurred without our prior knowledge we cannot be held responsible.

This survey was performed for Estate of Douglas J. Hertz and is not intended for any other use except those related to Mr. Hertz.

The enclosed invoice reflects my fees for services rendered to date. The below signed surveyor represents that he is an Accredited Marine Surveyor, and that he is actively and regularly engaged in the practice of marine surveying and vessel appraisals on a full-time basis. Although I have exercised due diligence in accordance with generally accepted inspecting and appraisal practices, I cannot be responsible for any costs or liability which you might incur. I will, upon your request, make myself available in the future to assist you for whatever related reason and I will, of course, make my notes and files available for that purpose. The survey fee is not based upon a percentage of the current market value. My fee for any future work will be based upon my then applicable hourly rate.

Although I understand that you have retained my services for the purpose of establishing value of your vessel, it must be understood that any such valuation is subject to challenge and you are advised that my opinion of value is based upon appropriate investigation and market analysis which includes review of recent sales of comparable vessels.

Valuation:

The **Comparable Vessel Calculation** is the most probable price in terms of money which a vessel should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller, each acting prudently, knowledgeably and assuming the price is not affected by undue stimulus. Implicit in this definition are the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

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

The **Boat Value Guide Comparison Calculation** is an average of the Low and High values in each of the published current year value guides where the subject vessel is listed. BUC, ABOS, and NADA Guide values may be considered. The Value Guides have a "condition" factor imbedded in their values. The condition used in the guides should be indicated ("BUC CONDITION" per BUC definition etc.). Ten comparable 1968-1970 Chris Craft Commanders (not including the subject vessel) were found listed on current brokerage websites; YachtWorld.com, Powerboatlistings.com, and Boats.com. The average asking price of these 10 comparable vessels was \$22,071. Soldboats.com listed one 1967 Chris Craft 38 Commander sold April 2017. The asking price of this vessel was \$24,900 and the sold price reported was \$24,900. (That is 100% of the average asking price and how the "adjusted" price was calculated for the currently listed boats.) BUC Book places a 2018 Retail Range on a Great Lakes vessel in "BUC Condition" between \$35,500 to \$39,400 with the average being \$37,450. The 2018 NADA Value Guide listed this vessel.

Valuation Summary:

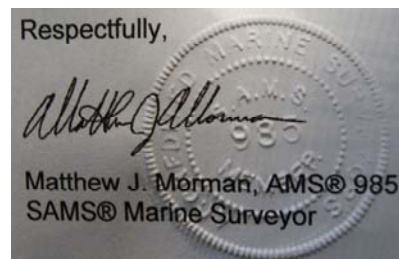
The actual sale of a comparable 1967 Chris Craft 38 Commander for vessel sold in 2017, in the state of Ohio. The actual sale price for the vessel was \$24,900. "*Subject Vessel*" was/was not located in the SoldBoat.com data. Compared to many of the vessel's sister ships the vessel fares well when it comes to equipment. The advantage "*Subject Vessel*" has is that it was a freshwater vessel. The actual sales data for freshwater boats enjoys a slightly higher average retail value than saltwater vessels. Legal and Safety Deficiencies notwithstanding, the list of deficiencies is relatively high and the vessel is in need of restoration. Considering the overall condition and weighing the actual sales data and current listings data, the valuation of "*Subject Vessel*" is placed at the low-range of the market values.

Comparable Approach:

Comparable Adjusted Listings Values \$22,071
Soldboats.com data sold price average \$24,900
BUC Book 2017: Low \$25,500 High \$39,400 Average \$37,450
NADA Guide: Low \$14,800 Average \$16,700
Comparable Approach Average \$26,350

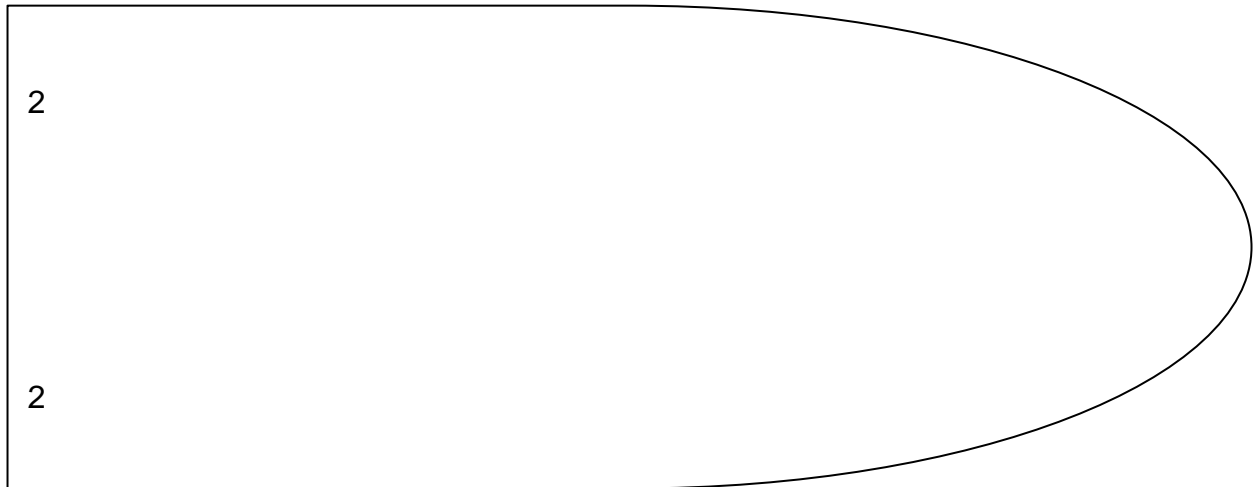
Therefore, after consideration of the reliability of the data, the extent of the necessary adjustments and the "as is, where is" condition of the vessel, its equipment as surveyed, it is your surveyor's opinion that the **"ESTIMATED CURRENT MARKET VALUE"** of the subject vessel & equipment is: \$12,000

ESTIMATED REPLACEMENT VALUE: \$425,000



DECK FILLS AND FITTINGS: DESCRIPTION (Marked)

1. Waste
2. Fuel (Gas)
3. Water



NOTE: All deck fills and fittings should be inspected minimally, annually. All hoses and clamps should also be inspected for deterioration, and replacements made as found.

DEFINITIONS

ABYC	American Boat and Yacht Council
AMS	Accredited Marine Surveyors
CFR	Code of Federal Regulations
NFPA	National Fire Protection Agency
SAMS	Society of Accredited Marine Surveyors
USPAP	Universal Standards for Professional Appraisal Practices
USCG	United States Coast Guard
PFD	Personal floatation device
Bristol	A boat or area of a boat that has been maintained in mint or is in better than factory new condition, and is loaded with extras. A rarity.
Excellent condition	A boat in remarkably good; extraordinary; prime; admirable condition.
Good condition	A boat or area of a boat that is ready for no additional work and is equipped normally for her size.
Fair condition	A boat or area of a boat that requires usual maintenance to prepare for sale.
Poor condition	A boat or area of a boat that requires substantial yard work and is devoid of extras.
Restorable	Enough of the boat hull and engine(s) exist for the boat to be made in usable condition.
Marelon	A particular type of plastic thru-hulls.