MARITIME
SURVEYORS

Ludovic Francois
XX
XX

DATE: April 26, 2016 PAGE: 1 of 11

REPORT OF MARINE SURVEY

The following is a marine survey report of, 'HOTEL CATALINA' a 1988 Catalina 36 auxiliary built by Catalina Yachts. The vessel was surveyed while in and out of water at Long Beach, CA and accomplished at the request of Ludovic Francois, the prospective owner. The purpose of the survey is a condition and valuation for purchase and insurance.

VESSEL

OFFICIAL NAME:	Catalina 36
OFFICIAL HAILING PORT:	Long Beach, California
OFFICIAL DOCUMENT NUMBER:	941638
OFFICIAL GROSS / NET TONS:	8 / 7
HULL IDENTIFICATION NUMBER:	CTYR0883E888
YEAR:	1988
BUILDER:	Catalina Yachts
DESIGNER:	Frank Butler
L.O.A:	36' 04"
L.W.L.:	30' 03"
BEAM:	11' 11"
DRAFT:	05' 10"
DISPLACEMENT:	14,300-lbs.
BALLAST:	06,000-lbs. - Lead
HULL CONSTUCTION:	FRP
DECK CONSTUCTION:	FRP/CORE
CABIN CONSTUCTION:	FRP/CORE

ENGINE & RUNNING GEAR

MANUFACTURER:	UNIVERSAL
MODEL:	M-25XPB
FUEL:	Diesel
FUEL FILTRATION:	External & Engine
FUEL LINES:	Hoses
CYLINDERS:	3
HORSEPOWER:	26 @ 3,000 RPM (Maximum Rating)
COOLING:	Freshwater / Coolant, Heat Exchanger
HOURS:	No Meter Sighted
TRANSMISSION:	Hurth
TRANSMISSION MODEL:	HBW50
TRANSMISSION SERIAL NUMBER:	14236
SERIAL NUMBER:	4C31362-E405
HORSEPOWER:	23 @ 3200 RPM - Rating
PROPELLER SHAFT:	1" Bronze
PROPELLER:	15” X RH X 9” X Bronze
PROPELLER SHAFT SEAL:	PSS ‘Drip-Less’ Unit
ENGINE STRINGERS:	Fiberglass Wood
ENGINE MOUNTS:	Flexible Type
VENTILATION:	Passive & Forced

TANS

DIESEL:	32 Gallons (+/-)
WATER:	69 Gallons (+/-)
WASTE:	20 Gallons (+/-)

Note: Specifications are estimates

DESCRIPTION/ACCOMODATIONS

The vessel was built in 1988 by Catalina Yachts and is a fin keel, masthead sloop rigged sailing auxiliary designed as a coastal cruiser / racer that has a fin keel and spade rudder. Her foredeck area has an anchor roller, anchor locker, electric windlass. A trunk cabin leads aft along port and starboard side decks to the aft cockpit.

The cabin top is equipped with grab rails, sail handling gear and tackle and the mast is stepped on the keel. The cockpit is equipped with a dodger over the companionway cockpit lockers and wheel steering. Double lifelines are provided on deck stanchions.

Interior Layout (Bow to Stern) The forward cabin is equipped with a custom mattress, overhead hatch and storage. Passageway with storage to starboard and the head to port. The head is equipped with a toilet, sink and shower arrangement.

The mast is stepped on the keel in the forward portion of the main cabin. A large U-shaped dinette with table is to port and storage behind and below the seating. To starboard are two settees with storage behind them and batteries below. The centerline bilge is accessed by a hatch board with electric and manual bilge pumps.

A navigation station is to starboard with a chart table, storage and the main electrical panels. To port is the galley that is equipped with an icebox with refrigeration unit (non-op), LPG (Propane) stove/oven, sinks, pressure hot/cold water, countertops and storage.

The engine is mounted below the companionway and cockpit and accessed on the front, sides and aft. An aft berth is also provided with a small settee and a large berth as well as some storage and steering system access.

The interior of the vessel is lined in Teak and Teak veneer and trim in interior hull sides. The cabin sole is teak/holly veneer ply. All interior accommodations are professionally finished and upholstered.

CONSTRUCTION

The vessel hull is constructed of molded fiberglass reinforced plastic of varying thickness. The decks and cabin are of uniformly laminated sandwich construction of fiberglass reinforced plastic with a core. Interior furnishings are also uniformly molded of fiberglass reinforced plastic. The interior is then installed and laminated to the hull. The deck, cabin and cockpit areas utilize similar construction in that it is also uniformly laminated and bonded to the hull by overlapping joints. The joint is bonded, sealed and fastened.

Secondary supporting bulkheads, longitudinal supports and cabin furnishings are of plywood and are fastened to the hull along their respective lengths. The keel is a fin keel with externally mounted cast lead ballast. The ballast is encapsulated with fiberglass sheathing at the keel seam and gel coated throughout.

A balanced FRP/foam cored spade rudder is provided and operated by a wheel, chain, cable and quadrant. Emergency tiller operation is also provided. Thru-hull fittings are of Marelon and bronze construction. Marelon and bronze valves have been provided at each below the waterline thru-hull except the transducers.

The strut and propeller are of bronze. The propeller is three bladed and fixed. The propeller size is 15” X RH X 09” pitch. The shaft is 1” bronze.

GENERAL COMMENTS AND CONDITION

The vessel was inspected over her complete exterior both above and below the waterline and over approximately 60% of her interior. The inspection covered all accessible areas. Fixed cabinetry, cabin and ceiling liners, soles and tanks rendered certain areas unobservable. The internal elements of the tanks cannot be commented on.

Overall condition of the vessel is good.

STRUCTURAL

The inspection of the vessel exterior hull areas noted her to be in good general condition. Her decks were noted to be in serviceable condition and the deck and cabin areas tested sound. The hull to deck seam appeared in good order.

Inspection of the hull areas below the waterline indicated that the bottom with good paint coverage but with blisters. Inspection of the interior of the vessel noted all accessible interior bulkheads, longitudinal supports, cockpit supports and tank chocks well secured and laminated.

RIGGING AND DECK FITTINGS

The rigging and deck fittings were inspected while on the vessel. Both standing and running rigging were inspected by physical observation only. No fittings or connections were tested under load.

The mast shows some light corrosion, as does the boom, which should be treated. All lower swage fittings were inspected – none showed any visible (to naked eye) cracks or defects.

Both bow and stern rails, stanchions, deck cleats, chocks and genoa track were observed secure. The lifelines are double scored and in generally serviceable order. The main sheeting and traveler system, the winches were noted operational but will require normal maintenance. A Profurl roller furling unit is installed.

SAILS

- Mainsail
- Genoa

WINCHES

- (2) Lewmar 46 Self-Tailing Primary
- (2) Lewmar 30 Self-Sealing Cabin Top

MECHANICAL

Auxiliary power is provided by a Universal, 23 (26 @ 3,000 RPM Maximum Rating) horsepower diesel engine. The propeller shaft is one-inch and propeller two blade (15” X RH X 9”). The propeller shaft is lead through a ‘drip-less’ shaft seal.

The entire engine exhaust system should be tested under operation now periodically to ensure that it is air and water tight to the vessels interior. Marine quality, marine UL-listed, carbon monoxide detectors should be installed in the accommodation spaces of the vessel.

Thru-hulls and their attending valves were inspected. Each was noted to be operational. Periodic inspection of these valves is necessary. Ensure that tapered soft wood plugs of appropriate size should also be attached to each thru-hull for emergency use.

Keel bolts were inspected only at their heads. No opinion can be offered as to their condition into the keel though the heads appeared in good condition. Keel bolts will require tightening from time to time.

ELECTRICAL

The vessels electrical system includes 12-volt DC and 120-volt AC systems.

12-Volt DC System

Two house and one engine starting battery are provided and secured below the starboard settees in the main cabin. A battery selector switch isolates the batteries and a dedicated electrical panel is mounted at the navigation station with fuses and circuit breakers. A windlass circuit breaker is mounted in the starboard main cable in locker forward. Various other fuses and circuit breakers are installed throughout t vessel. A marine battery charger and the engine alternator service the batteries.

120-Volt AC System

Over current protection is provided by way of panel with a main double-pole circuit breaker and subsidiary circuit breakers. The AC ground and the DC negative system were confirmed to be connected. AC power is provided by the shore power cord. A portable type inverter was sighted but not connected.

NAVIGATION GEAR

- Ritchie Compass
- Charts & Chart Light at Chart Table
- Clock
- Bell
- Barometer
- Navigation Book – Chapman
- Raymarine Ray101 Hand-Held VHF Radio (Battery Discharged)
- Navigation Lights
- Signet Knot Log
- Signet Depth
- Raymarine 4000 Autopilot
- Garmin GPS 182C Display
- Uniden ES UM525 VHF Radio with Remote Wireless Microphone/Controller
- Small Compass at Chart Table
- Micrologic Explorer Loran (Out Dated – Do Not Use)

SAFETY GEAR

- Manual Bilge Pump
- Electric Bilge Pump
- Type II PFDS
- Square Throw Cushions
- Horn
- Safety Flares
- Bell
- Throw Device
- First Aid Kit
- Emergency Tiller
- Man Overboard Pole

ADDITIONAL GEAR SIGHTED

- Whisker Pole
- Custom V-Berth Mattress
- Bose Speakers
- Pioneer Stereo CD Player
- Passive Type Dehumidifier
- Winch Handles
- Cockpit Cushions
- 12-Volt Outlets
- Refrigeration (Not Operating When Tested)
- Stainless Steel BBQ Units

FINDINGS, RECOMMENDATIONS & OBSERVATIONS
(All repairs should be made to American Boat and Yacht Council standards)

1. Ensure that all state and federal required equipment, safety gear, placards are aboard and kept current. Install marine quality, marine UL-listed carbon monoxide detection system in the accommodation spaces. Ensure that the compass is adjusted and has a deviation card supplied to the helm.

2. The engine to propeller shaft is out of alignment and the cutless bearing is worn. Properly align the engine to the propeller shaft after the cutless bearing has been replaced. In addition, the age of the PSS 'Drip-Less' propeller shaft seal is not known – the unit is required to replaced at six (6) year intervals – determine age of unit and replace or service as necessary.

3. Install GFCI protection to the AC electrical system.

4. Install insulated covers to the windlass motor, solenoid and circuit breaker exposed fittings.

5. Replace the corroded electrical fittings found behind the electrical panel on the bus bar secured to the hull side.

6. Chain plate leaks were sighted – remove plates and inspect/test for corrosion/pitting/cracks.

7. The alternator bracket was found very close to the alternator pulley – advise better connection here to avoid chafe. Consult with mechanic to determine if two belts are recommended based on the size (physical and electrical output) of the alternator

8. The toilet did not operate when tested – repair as necessary.

9. The refrigeration did not operate when tested.

10. The hull was found with many blisters which are quite common for this manufacturer and model – repair if and / or necessary. It appears that a repair was accomplished at the leading edge of the keel to hull stub area – most likely a result a ballast to hull stub seam separation but could have also been some other damage.

11. Replace the 'wire-nut' connectors in the electrical system with properly sized crimp fittings.

12. Replace zinc anodes.

13. The forward cabin overhead hatch does not stay in the raised position – the friction hatch no longer operates properly – the hatch is heavy and could fall onto a person's head. Replace the hatch hinge.

14. An LPG (Propane) tank was found in the port cockpit locker – Only store LPG in dedicated approved LPG lockers. This is especially important as the tank is next to the refrigeration compressor. Also found next to the tank was un-terminated wires – terminate / disconnect the wires. Wires to the refrigeration system are poorly crimped and were found with exposed bare, un-insulated wires – properly connect wiring and ensure that wiring has insulated covering. The dedicated LPG locker lid located in the aft cockpit locker needs to the secured on all four (4) sides).

15. The headsail was found with rips and tears – repair or replace as necessary. The mainsail should be inspected by a sailmaker to determine its condition but the sail is old and should be replaced soon.

16. The engine exhaust hose is chafing against a wood partition aft of the galley unit – ensure that the wood is cut back so that no chafing can occur and closely examine the hose and replaced if ANY chafe is found. Ensure that all engine electrical and hoses are chafe and strain protected as necessary.

17. Replace the waste hoses that show ‘salts’ on exterior portions – indicates permeating of waste and sea salts from the interior to exterior of the hose.

18. Ensure that the fuel hoses are secured and chafed protected.

19. The engine gear and throttle cables are a bit stiff.

20. Clean the corrosion on the steering quadrant and ensure that the cables have no wire strand breaks.

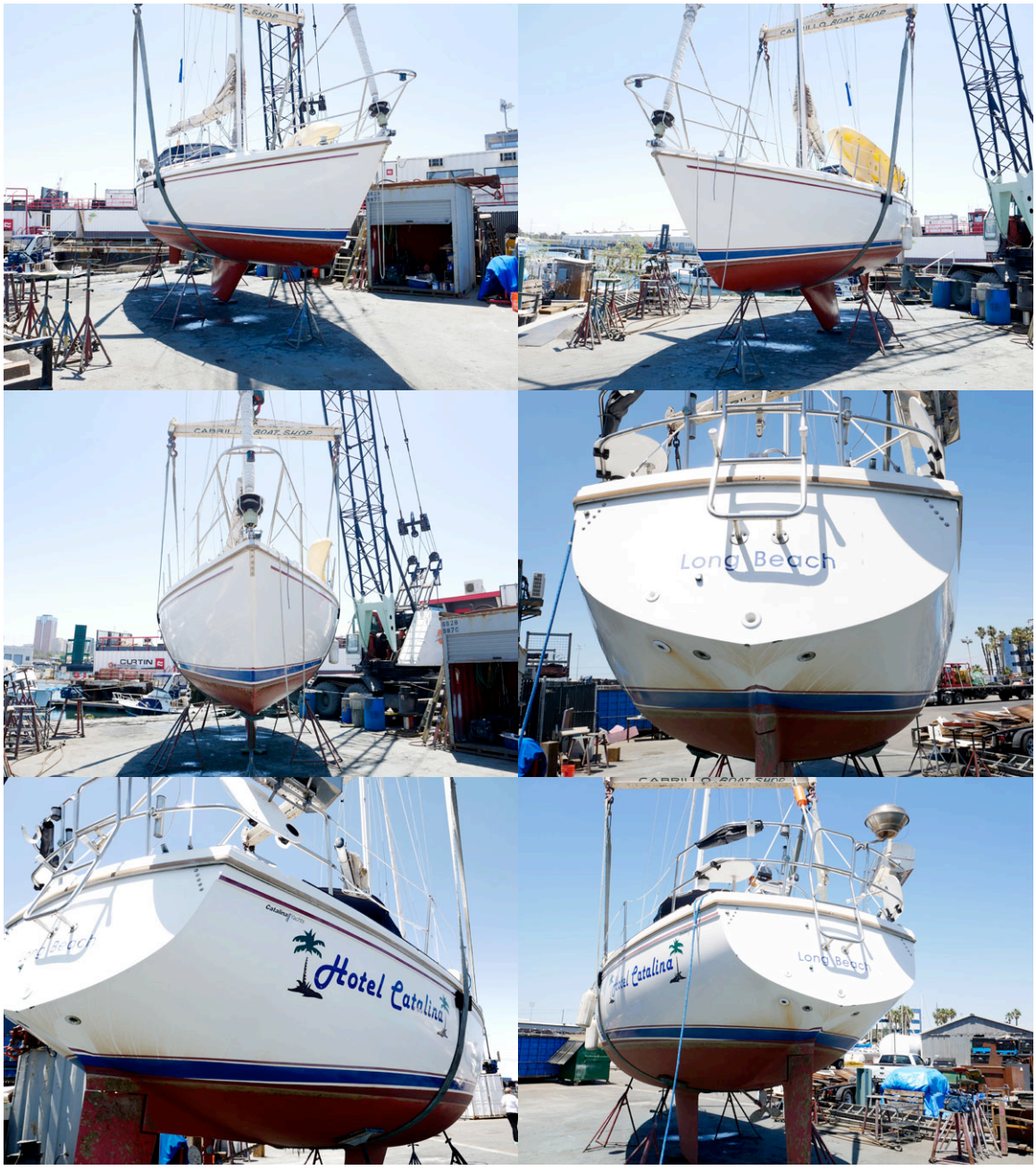
21. Provide a cover to the back of the engine panel to insulate so that stored items in the cockpit locker do not come in contact with the electrical system.

22. Gasoline tanks should not be stored in the anchor locker as the navigation light electrical fittings are not ignition protected.

ADVISORY, NOTES & COMMENTS

- Place/Tape tapered soft wood plugs of appropriate size at each thru-hull for emergency use.
- Ports and hatches show crazing.
- Install a LPG leak detector.
- The plastic cover over the back of the electrical panel is cracked.
- Secure the bilge pump to the bilge bottom, provide larger capacity bilge pump(s), fire extinguishers, and a high water alarm.
- Replace the mast boot.
- A ‘tray’ that was once secured below the v-berth area is no longer secured.
- Seize the anchor shackle(s) with Monel wire.
- Replace the above waterline plastic thru-hull fittings with Marelon or Bronze. Plastic is subject to UV damage.
- Replace the circle retaining pins on the lifeline clevis pins.
- Canvas covers are in fair to good condition.
- Replace the engine gear/throttle levers.
- Periodically inspect maintain and otherwise prove all of the vessels thru-hulls and valves.
- Ensure that the head discharge valve is closed when not in use.
- Continue to maintain, lubricate and otherwise prove all rigging screws, lifeline fittings, sheet and halyard winches.
- Have refrigeration inspected – corrosion noted.
- Have engine inspected by qualified mechanic.
- Have sails inspected.
- Keep all through hull vales closed when not in use.
- Consider purchasing an EPIRB.

PHOTOS



This report was prepared for, Ludovic Francois, and is simply a written statement of the opinions and observations made by the undersigned marine surveyor during the course of the survey and please note that a marine survey is but a "snapshot" of the vessel condition on the day of the survey.

There is no warranty expressed or implied by way of this report of marine survey.

Additional items and conditions will be noted when vessel is used at sea and in the future that are not able to be detected when dry-docked and not dynamically tested - keep this in mind and always keep an eye out for problems/changes. A maintenance log should be prepared and followed - most problems can be detected before they become larger problems - monitor all systems and maintain the vessel to high standards and your boating experience should be pleasurable.

If you have any questions or comments you should call the undersigned immediately at (800) 200-8839.

The given value is this surveyor's best opinion of the market value of this vessel.

ESTIMATED REPLACEMENT VALUE:	$ 260,000.
ESTIMATED MARKET VALUE:	$ 37,500. - $39,000.

Ross Hubbard
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