

## STANDARD SURVEY

Client: Removed for privacy  
Las Vegas, NV 89121

Date of report: August 31<sup>st</sup> 2006  
Our file #: Removed for privacy

This inspection was performed upon the request of the client listed above on August 28<sup>th</sup> 2006 while the vessel was hauled and afloat at Shelter Island Boat Yard, 2330 Shelter Island Drive, San Diego, California and attended.

## VESSEL DESCRIPTION

Builder:	Beneteau	Doc. #:	Removed for privacy
Model/type:	445	HIN:	Removed for privacy
Year:	1994 (model year)		Removed for privacy
Length:	44' *	Engine # & MFG.:	(1) Yanmar
Draft:	5' 9" *	Name:	Removed for privacy
Beam:	14' *	Hailing Port:	Sausalito, CA
		Weight:	25,000 lbs. (travel lift's scale)
		Displacement:	22,500 lb. *

\*\* sister ship's listing specifications

## HULL & STRUCTURE

Keel & bottom: Molded fiberglass, unknown core, bolt on external ballast, fin keel with bulb and winglets, black anti-fouling paint, ballast weight unknown

Topsides & transom: Molded fiberglass, unknown core, transom stern, white with blue boot stripe, red and blue accent stripes

Decks & superstructure: Molded fiberglass construction, unknown core, white, molded pattern nonskid deck surface

Deck hardware: Stainless steel bow and stern rails, stainless steel stanchions, double life lines, cleats, wood grab rails, stern rail seats

Longitudinals/stringers: Fiberglass hull liner

Athwartships/bulkheads/frames: Fiberglass hull liner, plywood bulkheads

Layout/interior components: Aft cockpit, center companionway to saloon, engine below companionway with access from both sides and aft, cabins on both sides aft with heads forward and second doors from heads to saloon, saloon has navigation station to starboard aft and galley to port, cabin forward with two doors.

Bilge: Dry, dirty in sump area

**Comments:** The vessel was inspected while hauled and afloat. The hull bottom and keel were visually inspected and randomly sounded. The hull bottom and keel are in satisfactory – good structural condition. There are rust spots visible on the keel. There is impact damage visible on the leading edge of the rudder and the rudder coring is apparently wet. The age of the anti-fouling paint is unknown; it exhibits satisfactory – marginal coverage. There is a crack in the fiberglass hull liner visible on the inboard side of the starboard saloon, below the sole boards. There is very little access to the hull bottom about the keel bolts. There is a second crack in the hull liner in approximately the same plane, to starboard. There is a very minor audible difference noticed when percussion testing the hull bottom just aft of the keel. The limitation of this survey due to inaccessible laminates and non-destructive testing methods was discussed with the client. The hull sides and transom were visually inspected and randomly sounded as possible while the vessel was hauled. Overall the hull sides and transom appear to be in satisfactory – good structural condition and satisfactory – marginal cosmetic condition. The hull sides are oxidized and the stripes are worn. The vessel has a slight list to port. The deck and superstructure were visually inspected, randomly sounded and randomly tested with a moisture meter. There are miscellaneous small gelcoat stress cracks on the deck. The deck and superstructure are in satisfactory structural and cosmetic condition. The deck hardware including safety rails, mooring devices and hatches was visually inspected and the hatches were opened and closed. The deck hardware appears satisfactory. The two port bow rail stanchion bases are cracked, most of the other stanchion bases exhibit corrosion. The starboard anchor roller is a “pivoting” device; the aft roller is thin and is either worn or designed much smaller. There is corrosion on the windlass at the bracket for the “chain wiper”. There is standing water in the transom lockers. The structural reinforcements including the fiberglass hull liner and bulkheads were visually inspected and appear to be in “as-built” condition. There are cracks in the liner as listed above. The interior cabin spaces are generally clean, neat and orderly. The vessel has been used in charter; the cosmetics of the vessel reflect the charter usage, though the wear is relatively light. There is movement of caulking at the overhead to mast cabinet seam, in the forward cabin. I did not access and inspect the mast step; the client reports it was accessed with the rigger and exhibited minor surface corrosion.

**Summary: Satisfactory**

**MACHINE SYSTEMS**

Main engine: One Yanmar model 4JH2E, 50-hp @ 3600-rpms

Engine application: Diesel, inboard, 4-cylinders, freshwater cooled, 4,365-hours on meter

Serial Number: 06663

Transmissions: Kanzaki model KBW20, ratio 2.62, serial number 7137

External/peripherals: Suitable application, satisfactory installation, plastic remote coolant reservoir, engine driven refrigeration compressor

Engine controls: Push/pull cables, single lever control, engine kill cable with knob at helm

Exhaust systems: Wet system, flexible hoses, metal muffler, starboard aft discharge

Propulsion gear/shaft logs: Three blade bronze RH propeller, 1 3/8" (or metric equivalent) stainless steel propeller shaft, Volvo dripless shaft seal, stern tube with bearing

Steering system/rudder ports: Wheel steering on console, cable/quadrant system, fiberglass encased (unknown core) spade type rudder, large fiberglass support structure (internally in vessel) to unknown type seal

Ventilation: Engine room blower

Generators: None

Through hulls & components: Bronze through hulls, bronze valves, not bonded

Location of through hulls as visible in travel lift slings: Port – five aft of amidships, two forward of amidships, one transducer forward, Starboard – four aft of amidships

Seawater systems: Reinforced hoses, single clamped connections

Bilge pumps: Manual pump to starboard aft in cockpit, electric pump below saloon bench seat, electric/automatic submersible pump in saloon

**Comments:** The engine and transmission were visually inspected and the vessel was operated about the boat yard. This survey is not a mechanical survey; please consult with a qualified technician for greater detail as to the condition of the machine systems. The vessel was not taken on a sea trial during the survey. A cold start was not witnessed; no wide open throttle test (under load or no load) was performed. The external surfaces and peripheral components of the engine and transmission appear satisfactory. There is corrosion on and below the cooler, located to port aft on the engine. There is corrosion on and below the sea water pump located to port forward on the engine. There is red fluid in the bilge below the engine. I did not observe the engine operating. The engine appeared to start and run normally and the transmission shifted normally. The exhaust system was visually inspected and appears properly arranged and installed. The propulsion components including the propeller, propeller shaft, propeller shaft seal and external components of the shaft tube/bearing were visually inspected. The propeller was percussion tested and the propeller shaft was manipulated. Overall, the propulsion components appear satisfactory. The propeller exhibits pink discoloration and rough edges (galvanic corrosion). The steering system was visually inspected and tested. The rudder was visually inspected and percussion tested. The rudder exhibits problems as listed under hull and comments above. The steering system appears satisfactory. The steering cable is somewhat loose. The delivery captain reports that the friction control on the steering wheel is inoperative. The delivery captain reports that the autopilot is not properly functional. The engine room blower was not energized. The through hulls and related components were visually inspected, scratched and tapped externally and I attempted to move most of the valves. Overall, the through hulls appear satisfactory. There is corrosion on the main engine's raw water through hull and valve assembly. There is corrosion on the starboard head through hull and valve assembly. A large through hull valve located in the starboard head was stiff and it was not moved. There are through hulls in both heads that have

two valves attached in line to a through hull. The manual bilge pump was not tested. The electric bilge pumps were energized; the diaphragm pump was energized with a toggle switch and the submersible pump was energized with the float switch. There was no water in the bilge to test their function. The transom shower fitting does not function correctly.

**Summary: Satisfactory**

### TANKAGE

Fuel: 200-liter metal tank below port aft berth

Fill & vent: Flexible hoses

Feed & return: Flexible hoses, Racor fuel/water separator filters

Water: Fiberglass tanks in saloon bilge and below forward berth, apparently three tanks, unknown capacity, manifold below saloon sole

Holding: Small plastic tank below starboard saloon bench seat

**Comments:** The fuel system including the tank, fill, vent, feed and return lines was visually inspected as installed. Where visible the fuel system components appear satisfactory. The condition and age of the fuel (and water) and the integrity of the tanks (fuel, water and holding) is beyond the scope of this survey. Please consider filling all tanks for a simple, practical test of their integrity. The water pressure system was inoperative. There is a water leak near one of the water pressure pumps. The galley foot pump is inoperative. An emergency fuel shutoff device apparently has been disconnected from the valve at the tank.

**Summary: Satisfactory**

### ELECTRICAL SYSTEMS

AC system: Hard wired cable, 110-volt system

DC system: Three 12-volt sealed batteries below port aft berth, battery switches on berth, 12-volt wet cell battery below starboard berth, 12-volt system

Wiring: Multi-strand wires

Circuit protection: Two main distribution panels - AC & DC to starboard aft in saloon, main and branch AC circuit breakers, branch DC circuit breakers

**Comments:** The electrical system including the shore power cord, batteries, wiring, circuitry components and circuit protection equipment was visually inspected and most components were tested. Overall, the installation of the electrical system appears satisfactory. The condition of the batteries is beyond the scope of this survey. There is an electric wire hanging from the top of the mast and running to the aft deck. There is a video display screen at the main helm, it reportedly requires a computer to feed it useful data; there is no computer currently aboard the vessel. The fuel gauge is inoperative.

The paddlewheel transducer is broken. There are two electric freshwater pressure pumps, neither function. There are disconnected wires near the electric water pumps. There was no apparent circuit protection for the DC refrigerator; the DC compressor was energized with all DC circuit breakers off. The engine room blower was not energized. One circuit breaker is unlabeled. The AC circuit breakers are not labeled in English.

**Summary: Satisfactory**

### **SAFETY AND LIFE SAVING**

Portable fire extinguishers: Three dry chemical units (US), several others

Fixed fire system: None

Flotation devices: Horseshoe buoy, two type III, numerous "unapproved" PFDs

Horn/distress flares: Flares aboard (expired), mouth horn

Navigational/anchor lights: Combination bow light, masthead steaming light, stern light, all around/anchor light

Anchor & ground tackle: 35 lb. CQR anchor, mostly chain (some line) rode, second CQR anchor and "Navy" type anchor in lazarette

Other equipment: MOB pole, 8-person Zodiac life raft (not current), emergency tiller handle, radar reflector

**Comments:** Safety equipment for fire fighting protection appears marginal. None of the American extinguishers have been inspected and tagged in the past year, per N.F.P.A. recommendations. There are several "unapproved" type (foreign) fire extinguishers aboard. Flotation devices are minimal. There are numerous unapproved personal flotation devices aboard. I did not test the mouth operated horn. Distress signal flares are aboard however their certification dates have expired. The navigational and anchor lights appear properly arranged and installed. The bow light's lens is faded and the light is difficult to see. The stern light is broken. The ground tackle including the anchors and rode was visually inspected as installed and appears satisfactory. The entire length of the anchor rode was not inspected at the time of the survey and should be inspected prior to use. No secondary means of securing the bow anchor is in use. The windlass is inoperative.

**Summary: Satisfactory – Marginal**

### **LP GAS SYSTEMS**

Tanks: Two tanks in dedicated vented locker to port aft in cockpit

Devices: Galley range, valve by range

**Comments:** The LP gas system including the tank, tank locker and galley range was visually inspected and the galley range was visually inspected and tested. The installation of the LP gas system is satisfactory – marginal. The installation is basic and

does not include a visible reducing regulator, electric solenoid valve or pressure gauge. The vessel is not equipped with a propane detector. The vessel is not equipped with a carbon monoxide alarm. The propane system is equipped with an "in-line" shutoff valve in the galley.

**Summary: Satisfactory – Marginal**

### **SAILING SYSTEMS**

**Mast & rig type:** One aluminum keel stepped mast, sloop rig, aluminum boom, two sets swept back aluminum spreaders

**Standing rigging:** Multi-strand stainless steel wires, swage end fittings, forestay, two backstays, one discontinuous upper, two lower and one jumper shroud per side

**Hardware:** Profurl roller furling head sail assembly, Z spar boom vang, two Lewmar # 54 self tailing winches, Lewmar # 40 self tailing winch, Lewmar # 40 winch

**Sails:** Roller furling main, roller furling jib, spinnaker

**Comments:** The mast and associated rigging was visually inspected from the deck level only. The client had a rig survey performed, please refer to that report for greater detail as to the condition of the sailing system. The sails were not opened and inspected. The vessel was not taken on a sea trial and sailed during the survey. The age of the standing and running rigging is unknown. The running rigging exhibits "weathering". The connection between the boom and the mast is made with a bolt, the hole through the fitting on the mast appears to have been damaged and the bolt is inappropriately sized (too small and threads exposed). There is a cracked shiv at the base of the mast. The client reports that the jib exhibits small tears. It was reported that the main sail was not used during the sea trial as it was stuck in the mast.

**Satisfactory: Satisfactory**

### **ACCESSORIES**

**Navigational & operational electronics:** Multi-purpose display, Raymarine ST60 tridata, Autohelm ST7000 autopilot, Raymarine ST60 wind, ICOM IC-M56 VHF

**General equipment:** Foredeck floodlight, windex, radar arch, stern anchor roller, stern rail seats, cockpit bimini top, outboard engine – no visible identification information except OP978044, Lofrans Tigres electric windlass, double anchor rollers on bow, mast base safety rail, deck vent, sail locker forward with deck hatch, Plastimo compass, folding cockpit table, head (toilet) plunger, portable BBQ grill, Water Tender 9.4 plastic tender with HIN-LLT2535OK304, boarding ladder, hinged aft cockpit seat/walk through transom, transom shower, engine instruments include tachometer and hour meter with indicator lights and audible alarm, fuel level gauge, solar panels, line cutter on propeller shaft, cabin fans, Tecpro 12V 25-amp battery charger, Xpower inverter 1000, inflatable tender, Audiovox TV, two manual heads, two shower sump pumps, Plastimo ship's clock and barometer, Alpine CDM-9821 stereo, Sangean ATS818ACS receiver, Garmin GPS II plus, DC voltmeter, DC ammeter, chart table, Raritan water heater, two water pressure pumps with accumulator tank, DC refrigeration compression, Eno 2-burner LP gas

range, Emerson TV/DVD

### SUMMARY

The vessel is a fiberglass performance cruising sailboat equipped with a diesel engine. The vessel was apparently manufactured in France and was reportedly used as a charter vessel. The listing broker reports it was in charter service in Tahiti. No disclosure statement was available regarding any known problems with the vessel or any significant events in the vessel's history, such as submersions, collisions, fires etc... The vessel appears basically structurally and mechanically sound. The vessel is in satisfactory – marginal condition but is in better condition than most ex-charter vessels. The vessel should be suitable for its intended purpose as a near coastal cruising vessel upon completion of the recommendations.

#### Overall Summary: Satisfactory

VALUES		
ACTUAL CASH VALUE	NEW REPLACEMENT VALUE	INVESTMENT
\$110,000	\$375,000	N/A

The actual cash value is the value that our research approximates the selling price of this vessel should be, at the time and place of our inspection. Consideration is given to vessel's condition, geographic location, published listings and guides, comparable sales and listings, and market conditions. The new replacement value is the cost of this or a similar, **new vessel**, comparably equipped. The investment is the reported investment including purchase price and significant upgrades. No values include maintenance costs, storage or tax.

Standard Form Key: All systems are rated based upon their appearance, ratings include: Not examined, Not applicable, Faulty, Marginal, Satisfactory, Good, Excellent.

## RECOMMENDATIONS

1. Replace the cracked and corroded stanchion bases.
2. Properly address the corrosion about the bracket for the chain wiper on the windlass.
3. Dry the rudder, laminate to seal the rudder. The condition of metal components within the rudder is beyond the scope of this survey.
4. Repair the cracks visible in the hull liner below the sole to starboard in the saloon. Consider performing further inspections to attempt to determine the cause and any possible further damage, which exists as a result of this cause; address appropriately.
5. Monitor the mast and cabin top while under sail, particularly in heavy weather conditions. There is slight movement of the sealant about the mast cabinet overhead in the forward cabin. Address appropriately.
6. Have the propeller inspected by a qualified technician, service or replace as necessary. Properly secure the zinc anode to the propeller to reduce further galvanic corrosion.
7. Service to eliminate the cause of the corrosion to port aft on the engine, apparently from the cooler, clean corrosion to allow detection of any future leaks.
8. Service to eliminate the apparent leaks at the engine's seawater pump. Clean corrosion to allow detection of any future leaks.
9. Determine the source of the red fluid below the engine, service to eliminate any leaks and remove the red fluid to allow detection of any future leaks.
10. Service the through hulls, which exhibit corrosion and possible weeping, disassemble, inspect, service or replace as necessary.
11. Free-up the seized through hull valve in the starboard head or replace the through hull valve.
12. Modify the through hull and valve assemblies in both heads, which currently have two valves attached directly to the through hulls, assure through hull and valve installation is in compliance with applicable A.B.Y.C. recommendations.
13. Tighten the steering cable.
14. Assure that the loose antenna cable hanging from the mast running to the aft deck does not present any hazard to the safe operation of the boat, particularly to the main sail. Modify if/as necessary.
15. Service and prove the fuel gauge properly functional.
16. Replace the paddlewheel transducer and prove the knotmeter properly functional.
17. Service and prove the autopilot properly functional.
18. Service the water pressure system aboard the vessel and prove it properly functional, test and prove all components including the zincs and the transom shower.
19. Assure that the disconnected wires near the water pumps are de-energized, reuse the wires if appropriate or remove the wires.
20. Service to eliminate the water leak at the port water pressure pump.
21. Assure there is proper over current protection for the DC refrigeration compressor.
22. Label the AC circuit breakers in English.
23. Properly label the unlabeled DC circuit breaker.

24. Address the apparent damage at the connection between the boom and the mast, replace or repair the fitting mounted on the mast and assure that the pin is of proper type and size. Assure that the three holes for this fitting are the same size.
25. Replace the cracked shiv at the mast base.
26. Address and modify if/as necessary the main sail's roller furler system. The main sail was reportedly stuck in the mast during the sea trial.
27. Upgrade the propane system and assure compliance with A.B.Y.C. and N.F.P.A. recommendations. This upgrade should include the installation of a pressure gauge, reducing regulator and an electric solenoid valve in the tank locker. Remove the inline manual valve in the propane system located in the galley locker.
28. I strongly encourage the installation of a propane alarm aboard the vessel.
29. Certify the portable fire extinguishers per N.F.P.A. recommendations.
30. Provide U.S.C.G. required and approved personal flotation devices. Discard the unapproved PFDs.
31. Provide U.S.C.G. required, approved and current distress signal flares.
32. Service and prove the stern light properly functional.
33. Assure that the bow light has suitable visibility, modify if/as necessary.
34. Provide a secondary means to secure the bow anchor and use this secondary means to secure the anchor to the bow.
35. Service and prove the windlass properly functional.
36. Certify the life raft per the manufacturer's recommendations.

#### **NOTES**

1. Upgrade the vessel cosmetically as desired, the exterior of the hull is oxidized and the stripes are worn.
2. Service the starboard anchor roller if/as necessary, the aft roller appears worn.
3. Eliminate the spots of rust on the keel, address appropriately and recoat to prevent further corrosion.
4. Service to eliminate water accumulating in the transom lockers.
5. Monitor the hull just aft of the keel as minimal audible differences were apparent, address if/as necessary.
6. Modify to eliminate the slight list to port if/as desired.
7. Repair or replace the transom shower's fitting which did not function properly.
8. The captain whom delivered the vessel stated that the steering wheel lock is not functional, repair and prove.
9. Assure that the large electronic display on the console is functional, address appropriately.
10. Assure that the engine room blower is properly functional.
11. Clean the reported light corrosion from the mast step, inspect and service if/as necessary.
12. Repair the small tears reported on the jib.
13. Service and prove the galley foot water pump properly functional.
14. Service and prove the emergency fuel shutoff system properly functional, the handle is located near the battery switches in the port cabin.
15. The following components were not tested or inspected: sails, autopilot, solar panels, inflatable tender, outboard engine, engine driven refrigeration, and inverter.

**This survey sets forth the condition of the vessel and components, as specifically stated only, at the time of inspection and represents the surveyor's honest and unbiased opinion. The submitting of this report should not be construed as a warranty or guaranty of the condition of the vessel, nor does it create any liability on the part of Christian & Company or the individual surveyor. No part of the vessel was disassembled or removed and no assumptions should be made as to the condition of concealed components. Specifics were obtained from sources available at the time of inspection and are believed correct, but are not guaranteed to be accurate.**

Christian & Company, Marine Surveyors, Inc.

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By: Mr. Kells Christian, Surveyor

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Date