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CONDITION AND VALUATION SURVEY
REPORT NO. 02-391
16 May 2002

GENERAL DESCRIPTION

1. (a) Name of Vessel: UNNAMED (ex-House Boat, possibly ex-"SHADOW")
(b) Model Name: Catalina 27
(c) Hull Identification Number: CTYL3459M77K (not visible on hull, seen on pink slip)
(d) Official Numbers: CF 5599 KH, Sail No. 77421
(e) Owner:
(f) Address:
(g) Home Port: Berth 603, O Dock, Berkeley Marina, Berkeley, California
(h) Waters Navigated: San Francisco Bay, tributaries and 30-mile radius of Mile Rock
(i) Year Built: 1977
(j) Built By: Catalina Yachts
(k) Where Built: Woodland Hills, California
(l) Type: Auxiliary sloop
(m) Service: Private pleasure
(n) Maximum Speed: Estimated 6 1/4 knots/sail
(o) Hull Length: 26'10"
(p) Beam: 8'10"
(q) Draft: 4'0"
(r) Material: Fiberglass
(s) Hull Colors: White with blue stripes and canvas
(t) Designer: Frank Butler and Bob Finch

POWER

2. (a) Number of Engines: 1
(b) Type: 4-cylinder gasoline, direct-cooled
(c) Make: Universal Atomic Four Model 5101, S/N 200435
(d) H.P. Each: 30 h.p. @ 3500 r.p.m.
(e) Year Built: Estimated 1977
(f) Year Installed: 2002

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(g) Engine Hours: Estimated 2 hours since rebuild
(rebuilt 2002)
(h) Reduction or V Drive: Direct
(i) Exhaust System: Wet through fiberglass waterlift to transom
(j) How is Eng. Room Ventilated: Natural and blower
(k) Apparent Condition: Satisfactory

TANKAGE

3. (a) Number of Fuel Tanks: 1
(b) Capacity: 18 gallons
(c) Material: Aluminum
(d) How Filled: With hose from aft starboard deck fill
(e) How Vented: With hose to atmosphere at transom
(f) Fuel Lines: Type A1 approved hose
(g) Shut-Off Valves At: Tank top
(h) Apparent Condition: Satisfactory
(i) Number of Water Tanks: 1
(j) Capacity: 18 gallons
(k) Material: Polyethylene plastic
(l) Apparent Condition: See Remarks.

DRIVE TRAIN

4. (a) Tail Shaft Material: Bronze
(b) Apparent Condition: Satisfactory
(c) Size: 1"
(d) Propeller: 12" x 7" RH 2-blade
(e) Condition of Bearings: Satisfactory

ELECTRICAL SYSTEM

5. (a) Power Source: Batteries and breaker-protected shore power
(b) Auxiliary Generator: None
(c) Number of Batteries: 2 (1 Group 27, 2000; 1 Group 24, 1998)
(d) Volts: 12-volt DC
(e) Covers: Yes
(f) Type of Wiring: Heavy insulated through vaporproof master selector switch to panel
(g) Apparent Condition: See Recommendations.

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EQUIPMENT

6. (a) Steering System: Tiller
(b) Number of Anchors: 1
(c) Type(s) and Weight(s): 13-S Danforth
(d) Chain Size: 1/4"
(e) Amount of Chain: Estimated 33'
(f) Rope Size: 3/8"
(g) Amount of Rope: Estimated 200'
(h) Compass(s): 1 (on cockpit bulkhead)
(i) Make(s): Ritchie
(j) Size(s): 4"
(k) Deck Machinery, Winches, Etc.:
1 RWO adjustable mainsheet traveller
2 Barlow 23-260 sheet winches
2 Barlow 160 secondary sheet winches
Painted aluminum mast and boom
(l) Mast, Spars, Etc.: 1 mainsail
(m) Sails, Sail Covers, Etc.: 1 100% furling jib
1 Harken #0 roller furler
1 mainsail cover
1 tiller cover
(n) Small Boats: None
(o) How Carried: ----
(p) Stoves: Origo 4000 2 burner cooktop
(q) Fuel Used: Non-pressurized alcohol
(r) Use: Cooking
(s) Properly Installed: Yes
(t) Other Equipment:
Stainless steel bow and stern pulpits
Single lifelines
12" wood bowsprit
Dodger with window covers
4-part boom vang
Split backstay with Lackle
One Magma stainless steel propane barbecue
Various lines and fenders
Engine and equipment manuals

REQUIRED AND RECOMMENDED EQUIPMENT FOR SAFETY AND REGULATIONS

7. (a) Number of Life Jackets: 4
(b) Type/Kind: Type II adult
(c) Condition: Satisfactory
(d) Throwable Device(s): 2 Type IV cushions, 1 horseshoe ring buoy
(e) Bell: Not required

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(f) Horn:	1 mouth horn
(g) Flares:	Olin flare kit (outdated)
(h) Registration or Documentation Numbers Displayed Properly:	Yes, with 2001 stickers
(i) EPIRB:	ACR/RLE-14 Class "A", S/N 28069 (battery expired 1993)
(j) Holding Tank:	9-gallon plastic
(k) Navigation Lights:	See Recommendations.
(l) Bilge Pumps, Manual:	Guzzler 400 1" diaphragm
(m) Bilge Pumps, Powered:	1 Rule 500 automatic (direct-wired to battery)
(n) Discharge of Oil Plaque:	At galley
(o) No-Dumping Plaque:	At companionway
(p) Waste Management Plan:	Not required
(q) Escape Hatch:	Forward
(r) Other Safety Equipment:	1 first-aid kit
	Wire deck safety jack lines

FIRE FIGHTING EQUIPMENT

Number	Size	Type	Location	Date Serviced
1	2 1/2 lbs.	BC Halon	In salon	1988 (weight okay)
1	2 lbs.	BC dry chemical	In salon	1977

SPECIAL ELECTRICAL EQUIPMENT

8. (a) Radar:	None
(b) Radio Phone:	1 Standard Horizon 25 (inoperative)
(c) Depth Sounder:	None
(d) Loran:	None
(e) G.P.S.:	None
(f) Auto Pilot:	None
(g) Knotmeter:	1 Signet MK 267 (inoperative)
(h) Battery Charger:	1 Statpower True Charge 10
(i) Other Electronic Equipment:	1 Kenwood KRC4003 cassette/stereo

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SEA CONNECTIONS

Use	Location	Valves	Hull Fitting	Apparent Condition
1 engine intake	Under quarter berth	Plastic ball valve	Bronze	Satisfactory
1 galley sink drain	Under galley cabinet	Plastic ball valve	Bronze	Satisfactory
1 head intake	Under stbd settee	Plastic ball valve	Bronze	Satisfactory
1 head discharge	Under stbd settee	Plastic ball valve	Bronze	Satisfactory

RECOMMENDATIONS

(should be followed to correct significant deficiencies, to ensure the structural integrity of the vessel and/or its safety, or to meet current Federal U.S. Coast Guard requirements)

1. The engine room exhaust blower hose is separated at the aft bulkhead; it does not exhaust to the deck cowl. Connect the hose and ensure that the blower pickup hose pulls vapor from below the level of the carburetor.
2. The starboard running light, stern light and bow steaming light don't work. Make them light.
3. There is an open ground in the AC circuit. Correct the wiring and ensure that there it is properly grounded.
4. The exhaust hose is deteriorated near the transom fitting. Replace the hose from the waterliit to the transom fitting.
5. The gas tank vent fitting on the transom is missing its flame arrester screens. The vent hose is loosely attached to the fitting. Replace the fitting or fit new screens. Secure the hose at the fitting.
6. There are two in-line plastic fuel filters. All fuel line components should withstand a 2 1/2 minute flash fire. Remove the filters.
7. There are scorch marks at the AC outlet outboard of the stove. The fitting appears to be rusty. Dismantle and inspect the wires and outlet connections. Fit a knockout clamp to the wire connection when reinstalling.

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8. All of the AC wires terminate at a single double-pole/single throw master breaker. Each subcircuit or appliance should have its own overcurrent protection. Installing a breaker for the outlets and charger is advised.
9. There is no ground fault protection for the AC outlets. Fit a GFCI in the first outlet in the series.
10. The manual bilge pump is not securely fastened or in an easily reached location. It does not have a separate pickup hose. Mount the pump so it can be easily used in an emergency, preferably through the existing cockpit gasket. Fit a dedicated pickup and discharge hose.
11. The gasoline tank fill doesn't appear to be grounded to the tank. Ensure that it has a ground with less than 100 ohms of resistance.
12. The aft starboard engine mount nut is loose. The shaft turns stiffly. Verify the engine alignment and lock the nut.
13. The 4-year-old Group 24 battery is showing its plates. Fill and load-test. Replace as necessary. Secure both batteries. It is recommended that the size of paired batteries match. If replacing the Group 24, it should be up-sized to a Group 27.
14. The upper shrouds feel slack. The mast is slightly deflected to starboard above the spreaders. Have the mast professionally tuned.
15. The head intake and discharge valves are open and not plumbed. Plug or plumb the through-hull valves.
16. The VHF doesn't work. Carry a portable VHF or have a working radio when underway.
17. The plastic-nozzle fire extinguisher is as old as the boat. Replace the fire extinguisher. Install an automatic gas-type fire extinguisher in the engine space, or fit a fireport so a gas-type fire extinguisher can be manually discharged directly into the engine compartment, without lifting a hatch, per ABYC 4.5, enclosed. The engine compartment is not enclosed. Fit a door or hatch over the compartment so that a fire extinguisher will be effective.
18. There is no carbon monoxide detector. Install a CO detector below decks.
19. Because gasoline is potentially explosive, installing a gas vapor detector is advised.
20. ABYC 20.6.3 recommends that "battery chargers shall not be installed directly over batteries." Relocating the battery charger is advised.
21. The flares are past their expiration date. Have a minimum of three up-to-date flares aboard.

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REMARKS AND ADDITIONAL FINDINGS

(items found during the course of inspection that are mentioned for owner's or underwriters' consideration and reflect the condition of the vessel)

Captioned vessel is a fiberglass, stock, Catalina 27 auxiliary sloop of proven design and construction. She has a fin keel and spade rudder. The boat was inspected in her regular berth and in slings. Ms. Judy Blumhorst was in attendance during survey. Mr. [REDACTED], the present owner bought the boat in August 1999. The boat was reportedly sailed twice to Hawaii by the previous owner.

The bottom is in good condition. No stress cracks, blisters, or signs of delamination are visible. The bottom was stripped to gelcoat by the Berkeley Marine Center in 1999. Four coats of Int'l Interprotect 2000 barrier epoxy were then applied after a short dry out. A few pocks are visible forward, but no blisters are obvious. A few approximately 2mm blisters were seen near the water line at the last haulout.

The bottom was painted with red Pettit Trinidad in September 2001. The paint is in good condition. The float waterline indicates about a 1" list to port with the boat in her present trim. The water tank and gasoline tank are both on the starboard side. Neither one is full.

The keel is tight to the bottom. There is no demarcation crack at the keel joint and the bolts are new. The keel was dropped, rebbed and refit with new bolts by Berkeley Marine Center in 1999. The bottom nuts were fit through side pockets. The plywood in the stubby may have been removed. There is new glass in the bottom of the keel stubby. The keel tip appears to be about 2" to port.

The rudder is solid and secure in the alley. The tiller straps rattle on the rudder head. The retaining bolt appears to have ovalled the rudder head ears. As discussed, rehousing and refitting a larger bolt is advised if the rattle is to be eliminated.

The underwater metal is in good condition. No pinking, pitting, thrown paint, or other signs of unusual corrosion are visible. The zincs are wasted. The shaft zinc was slightly loose on the shaft.

All of the plastic through-hull valves operate. The galley sink drain and head intake valve are mounted to glassed-in-place bronze nipples. There are no visible leaks at the nipples. Ms. Blumhorst says that she intends to replace the two glassed-in-place through hull nipples with standard through hull fittings and flanged sea cocks. There is a tapered wood plug protruding from the hull to port of the engine. The outside has reportedly been glassed.

The topsides are in good condition and show a fair gloss. The transom was painted in the past few years after it was repaired. There is no name on the transom and the Hull Identification Number has apparently been filled with

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paint. The shadow of the original name, which might be "SHADOW" or "SHADOW", is visible both sides abeam the cockpit. The 2001 registration stickers on the hull are not current. Ensuring that the registration is paid and current is advised.

The decks were hammer-sounded and spot-checked with a Protimeter moisture meter. Hammer-sounding found no anomalies. There is high moisture at the chainplates. There are some open holes at the lower chainplate U-bolts. There is elevated moisture in the wood bulkhead at the upper chainplates. As discussed, removing the upper chainplate bolts, inspecting and treating the holes if necessary, and rebedding the cover plates is advised. The aft U-bolts are not angled to the mast. The lower shrouds pull sideways against the U-bolts. If the U-bolts are rebedded, they should be properly aligned. The cockpit gelcoat is lightly crazed. There are a few open fastener holes. Four of the six cabin side windows have reportedly been rebedded. Once the obvious holes and gaps have been sealed, the deck should be given a careful leak test.

The starboard midship stanchion bases is slightly loose to the deck. It should be removed, rebedded and refastened with a backing plate. The Seaway jib sheet block on the starboard genoa track has a loose sheave and is broken. The lifelines were new in 1999.

The single spreader masthead rig is stepped on the keel. It is the "tall rig", i.e., 18" taller than the standard rig. There is a 12" wood bowsprit. The mast and rigging were inspected from deck level and with an 8x scope only. The standing rigging was purchased from Svendsen's Rig Shop and installed in 2001. It appears to be in good condition. Halyards are internal. There is no toggle to the headstay at the masthead. There is a slight knuckle in the head foil where the jib head intersects a joint. If the foil is to be refit, installing a toggle at the masthead is advised.

The boom has been painted with Brightside. It shows to be in good condition. The mast may not be original, or has been painted since new. Strontium chromate primer is visible at chips. There is some bubbling of paint and signs of minor corrosion at attached hardware and the heel. A stainless steel deck organizer has been fit at the step. The compression post below deck is water-stained at the bottom, but appears to be sound.

The jib was unfurled. It has been recut and new leech and foot covers have been fit. The mainsail was raised. It is tired, but appears serviceable. Judy Blumhorst says it looked "blown out" during a light air sea trial.

The mainsail cover is in good condition. The tiller cover is torn and worn. The dodger stitching is open and sun burned. The dodger could use restitching.

The engine was rebuilt and reinstalled about two weeks ago. It is painted a bright yellow. A new head was fit. The crankshaft was reworked and the block

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was boiled and fluxed. As Recommended, the engine alignment should be checked. There is oil at the transmission flange. There may be a seal leak.

The fuel tank fill hose is not marked A1 or A2. Replacing it with approved hose is strongly advised.

The water tank vent fitting is not plumbed. There is a vent hole in the below deck cap. As discussed, plugging the open vent fitting is advised.

The knotmeter doesn't work and the VHF radio doesn't work. The dated Emergency Locating Beacon battery expired nine years ago.

There is soot in the port cockpit seat locker, aft, and on the inside of interior lockers. There may have been an exhaust leak at one time. There is a rusty tide line in the bottom inboard corner of the port settee. There is saltwater inside the starboard settee. As discussed, thoroughly cleaning inside all the lockers and compartments, and testing the deck and hull-to-deck joint for leaks is advised.

The bilge is clean and dry. Fastening the access panel to prevent people from slipping into the bilge is advised.

It appears that Mr. [REDACTED] has spent at least \$10,000 in new rigging, rebedding the keel, barrier coating the bottom, rebuilding the engine, reworking the jib, and replacing the upholstery. A few interior areas are obscured by liner, tankage and cabinetry. Where open and accessible, however, no signs of structural movement or weakness are visible. The hull and its subassemblies appear to be sound.

Once Recommendations are met, this boat should be well suited for her intended purpose.

With Exception of Defects Noted Do You Recommend the Physical Hazard? Yes

REPLACEMENT VALUE: \$45,000.00

MARKET VALUE: \$9,300.00

(this model is no longer being made; was
in production from about 1970 to 1989)

DATE: 15 May 2002

Afloat Drydock X

INSPECTED AT: Berth 603, O Dock,
Berkeley Marina, Berkeley,
California

BY: Peter Minkwitz

BY REQUEST OF: Judy Blumhorst

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PURPOSE OF SURVEY: Prior to purchase--to inspect the vessel, note its general condition, inventory on-board equipment, document registration and hull numbers, make recommendations, and place a market value on the craft in its present condition.

I certify that I have no present or prospective interest in this vessel and have no personal interest or bias with respect to the parties involved. My compensation is not contingent on reporting a pre-determined value that favors the cause of the client, broker or underwriter, or takes any position contrary to my own knowledge or opinion for any direct or indirect monetary gain. The statements of fact in this survey report are believed to be correct. I have made a personal inspection of the vessel that is captioned herein. The consequent report has been prepared and submitted in good faith.

This survey report is the result of a verbal contract between the Surveyor and the requesting party. If, upon receipt of this document, you, as the requesting party, disagree with any of the following terms and conditions, please contact the Surveyor immediately. This report represents the condition of the vessel only on the date of survey, and may not be relied upon thereafter. Inspection is made upon the facts presented and discovered, based upon my opinion, without warranty, either specified or implied. Information furnished by others is assumed to be correct, but the Surveyor makes no warranty as to the correctness of information not capable of being readily confirmed by inspection. Defects that cannot be found without invasive coring and opening of sheathing, joister work, deck covering and/or disassembly of machinery, plumbing, wiring, or other parts of this vessel are not covered in this report. Deficiencies may exist. If this survey does not list or discuss a specific item, area, piece of equipment or machinery, it may not have been seen or inspected. The Surveyor assumes no responsibility for defects not found, and shall be held harmless for any condition, event, or cost of repairs, that may subsequently arise. The internal condition of engines and machinery is not known or included in this report. In the event the Surveyor is found negligent, or omits information, it is agreed by all concerned that the limit of the Surveyor's liability is restricted to the rendered service fee(s) for the report in question only. This survey is not a warranty of seaworthiness or a determination as to the state of the vessel relative to its original design, stability or construction.

The Survey and Recommendations are based on the guidelines of the American Boat & Yacht Council (ABYC), the National Fire Protection Association (NFPA-302) and, where applicable, the Offshore Racing Council (ORC) regulations. Recommendations are also based on United States Coast Guard (USCG) regulations, California state requirements and my opinion and personal experience. "Satisfactory", where used to describe a condition, is a pass/fail designation. It is not meant to be a weighted opinion. The contracting party agrees to pay for this report in full at the time services are rendered. The use of this report constitutes acceptance of, and agreement to, all of the terms and conditions stated above.

Submitted without prejudice.



PETER MINKWITZ,
MARINE SURVEYOR