

## STANDARD SURVEY

Client: Removed for privacy  
Removed for privacy  
Millersville, PA 17551

Date of report: August 23<sup>rd</sup> 2006  
Our File #: 06-25378

This inspection was performed upon the request of the client listed above on August 18<sup>th</sup> 2006 while the vessel was hauled and afloat at Shelter Island Boat Yard, 2330 Shelter Island Drive, San Diego, California and Mr. X and his broker attended.

## VESSEL DESCRIPTION

Builder:	Mikelson	Documentation:	Removed for privacy
Model/type:	Mikelson 60	Reg. #:	Removed for privacy
Year:	1995	HIN:	Removed for privacy
Length:	60' *	Engine # & MFG.:	(2) Man
Draft:	4' 6" *	Name:	Removed for privacy
Beam:	17' 2" *	Hailing Port:	Portland, OR
* sister ship's listing specifications		Weight:	64,000 lbs. (travel lift's scale)
** per Document		Displacement:	55,000 lb. *

## HULL & STRUCTURE

Keel & bottom: Molded fiberglass construction, Divinycell foam core (reported), keel, propeller pockets, hard chines, chine has knuckle amidships, flat hull sections outboard and aft, blue anti-fouling paint

Topsides & transom: Molded fiberglass construction, Divinycell foam core, off white with blue boot stripe

Decks & superstructure: Molded fiberglass construction, Divinycell foam core, (foam at windlass foredeck switches), molded pattern nonskid deck surface, off white with blue and gold stripes, "black out" areas on superstructure

Deck hardware: Stainless steel bow rail, cleats, wood and metal grab rails, three foredeck hatches

Longitudinals/stringers: Fiberglass encased, unknown core

Athwartships/bulkheads/frames: Plywood bulkheads

Layout/interior components: Flybridge cockpit sport fisherman, raised deck forward of cockpit, engines below raised deck, walk around decks forward, ladder to flybridge to port. Flybridge has helm stations forward and aft and seating between helms. Sliding door on center between aft deck and saloon. Saloon has seating on both sides, down and forward from saloon is galley to port, "laundry room" below saloon sole forward with access from lifting steps. Passageway forward with cabin to port (bunk berths), starboard stateroom with head forward and berth aft, second door from head to

passageway, cabin forward with head to port.  
Bilge: Holding minimal water and fuel

**Comments:** The vessel was inspected while hauled and afloat. The hull bottom was visually inspected and randomly sounded. The age of the anti-fouling paint is unknown; the anti-fouling paint is failing in numerous small areas. The starboard exhaust scoop is slightly loose. There are small scrapes on the hull bottom. The interior of the hull bottom was randomly sounded and randomly tested with a moisture meter. There were no areas of high moisture located. There are through hulls, which have been installed with the interior laminate (skin) and core removed, directly on the interior of the outer laminate (skin). Some through hulls are installed on the interior laminate (skin), without the removal of the inner skin and core. The dealer reports that coring was properly removed around through hulls, no destructive testing was performed. The dealer stated no knowledge of any moisture in the coring of the vessel. The hull sides and transom were visually inspected and randomly sounded as possible while the vessel was hauled. The hull sides and transom are in good structural and satisfactory – good cosmetic condition. There are repairs visible in several areas on the hull sides including to starboard amidships. There is a ding in the starboard side of the swim platform. There was apparent movement of the “upper reverse chine”, just forward of the “knuckle” on both sides where the travel lift’s straps contacted the hull. The decks and superstructure were visually inspected, randomly sounded and randomly tested with a moisture meter. The decks and superstructure are in good structural and cosmetic condition. There are visible stress cracks near the base of the anchor plank and paint lines indicative of prior repairs. The hull identification number is located under a swim platform bracket and is partially obscured. There is an Oregon registration number visible; the registration decal is from the year 2000. There is a rectangular patch visible aft on the port walk around deck. There are broken pieces of teak in the cockpit sole. The deck hardware including the safety rails, mooring devices and hatches was visually inspected and many hatches and windows were opened and closed. Overall, the deck hardware appears satisfactory. The flybridge venturi windscreen is weathered, crazed and cracked. The wooden trim is loose below the flybridge icemaker. The plastic trim is off of the flybridge AC electrical outlet. The caulk around the radar arch is weathered and there are cracks at the lower edge of the radar arch. The flybridge freezer is not secure. The aft flybridge pedestal seat is loose. The tender is mounted on the foredeck, preventing the foredeck hatches from functioning as escape hatches. There is a plywood separator located forward in a port side cockpit locker; it is delaminated. The plexiglas cover on the cockpit sink was stuck and not removed. Many of the deck hatches exhibit damage and several have prior repairs. There have been fiberglass repairs on the starboard aft cockpit deck hatch and on the inboard edge of the opening. The center aft deck hatch, between the engines, is cracked at a hinge. Both main engines’ hatches have had damage and repairs at the lift connections. It is likely that water is leaking onto the engines through the engine hatches. The starboard forward saloon window is cracked. The port lights’ gaskets are weathered and cracked. The structural reinforcements including the longitudinals and athwartships were visually inspected and randomly sounded. Overall, the structural reinforcements appear to be in “as-built” condition. The interior cabin spaces are clean, neat and orderly. There are water stains below the windows in the port cabin. There is a small water stain below the forward windows to starboard in the saloon. There has been apparent “movement” of interior components indicated by minor wood trim separation and cracks aft in the companionway and in the port cabin. The bilge is holding minimal water and fuel. There is apparently fuel and coolant in the forward bilge.

There was standing water to starboard in the engine room upon our arrival. The cover over the port propeller shaft's packing gland is not secure.

**Summary: Satisfactory – Good**

### **MACHINE SYSTEMS**

Main engines: Two MAN, type D2840LE401, 2213 and 2217 per the hour meters, unknown horsepower

Engine application: Diesel, inboard, 10-cylinders, twin turbocharged, after cooled

Serial Numbers: S - 4737263097A3, P – 4737263113A3

Transmissions: ZF type IRM 350 AL, ratio 2.0777/1, Port serial number 94-16235, Starboard serial number 95-17868

External/peripherals: Suitable application, satisfactory installation

Engine controls: Hydraulic controls, dual levers, two flybridge stations and cockpit station

Exhaust systems: Wet system, flexible hoses, fiberglass tubes, fiberglass mufflers, aft through the bottom discharges with pressure relief tubes through transom

Propulsion gear/shaft logs: 32 x 37 5-blade bronze counter rotating propellers, 3" diameter stainless steel propeller shafts, one bronze V-strut per shaft, bronze packing glands

Steering system/rudder ports: Hydraulic hydraulic system, stainless steel rudders, bronze packing glands, two flybridge stations

Ventilation: Engine room blowers and natural

Generators: 15 KW Onan with 431 hours, 8 KW Onan with 2027 hours per the hour meter 15 KW serial number 53141621, 8 KW serial number not seen

External/peripherals: Suitable application, satisfactory installation, sound boxes

Through hulls & components: Bronze through hulls, bronze ball valves, bonded

Location of through hulls as visible in travel lift slings: Port – three forward, one forward of amidships, transducer amidships, two aft of amidships, one aft (two with external screens), Starboard – one aft, two aft of amidships, two amidships, three forward, two at waterline on transom

Seawater systems: Reinforced hoses, single and double clamped connections

Bilge pumps: Manual pump to starboard in cockpit, two Rule 3700 electric/automatic aft in engine room, two Rule 3700 electric/automatic in forward bilge

**Comments:** The engines and transmissions were visually inspected, test operated and

the vessel was taken on a sea trial during the survey. The client had a mechanical survey performed, please refer to that report for greater detail as to the condition of the machine systems. Overall, the engines appear to be in good condition. The engines exhibit "deferred" maintenance. The engines' oil pressures, per the forward flybridge gauges, were 120 to port and 85 to starboard, upon startup. Many of the engine instruments did not function properly. The flybridge aft helm tachometer for the port engine is inoperative. There was no reading from the flybridge aft transmission oil gauge for the starboard engine. The flybridge aft oil pressure gauge for the port engine is inoperative. The transmission oil pressure gauge for the port engine forward on the flybridge functioned improperly. The port aft flybridge transmission oil gauge functioned intermittently. Wide-open throttle under load was approximately 2200 and 2250-rpms per the vessel's tachometers. The average top speed was 24.8-knots. The engines were started cold and started quickly. The engines appeared to run and the transmissions shifted normally. The external surfaces and peripheral components of the engines and transmissions appear satisfactory. The engines' exhaust blankets were recently painted; an unusual odor, in the engine room, underway may have been this paint "burning". There appeared to be exhaust soot by a support for the port exhaust components. There is corrosion on the engines and transmissions and there is corrosion on the remote oil canisters (to starboard). An oil change hose located outboard of the starboard engine is wasted. There is transmission oil leaking from both transmissions. The engine controls were tested from all stations and functioned normally. The exhaust systems appear properly arranged and installed. There are crystalline weeps and accumulation on the starboard exhaust muffler. The propulsion components including the propellers, propeller shafts, struts and shaft seals were visually inspected. The propellers were percussion tested and spun with a fixed object adjacent to the blades. Overall, the propulsion components appear satisfactory. There is minimal damage on the port propeller blades. There are rusted steering hose fittings to starboard in the lazarette. The steering system was visually inspected and test operated from both stations. The steering system is satisfactory. The steering reservoir is low on pressure and fluid. It is extremely difficult to turn the steering wheels. The rudders exhibit excessive play and the starboard rudder port has an excessive water leak. The engine room blowers were energized. The generators were visually inspected, test operated and loaded. There is corrosion about the bottom of the 15 KW generator. The 8 KW generator's exhaust hose is cracked and rusted and is at the end of its service life. The generators appeared to start and run and provide power as anticipated. The through hulls and related components were scratched and tapped externally and most valves were manipulated. Overall, the through hulls appear satisfactory. The port engine's through hull valve stem is apparently stripped. The handle moves easily on the stem. I could not move the head discharge valve in the forward bilge. The seawater systems were visually inspected and most components were tested. Overall, the seawater systems appear satisfactory – marginal as many hoses are at the end of their service lives. Cracked hoses include the water fill hose and another hose visible in the port cockpit locker; several bilge pump discharge hoses, various water hoses to port in the lazarette and the air-conditioner cooling water supply hoses. A hose connected to the raw water wash down pump is loose at the pump. There was no water from the unmarked spigot to starboard forward in the cockpit, apparently the raw water wash down. The bilge pumps were visually inspected and energized with their float switches. The forward bilge pump is inoperative in the automatic mode.

**Summary: Satisfactory – Good**

## TANKAGE

Fuel: Fiberglass (apparently) below saloon sole between engine room and laundry room, 1340 gallons \*

Fill & vent: Flexible hoses

Feed & return: Flexible hoses

Water: Fiberglass tank in cockpit bilge, 240 gallons \*

Holding: Fiberglass tank in forward bilge

**Comments:** The fuel system including the tanks, fill, vent, feed and return lines was visually inspected as installed and appears satisfactory – good. 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 vessel is equipped with fiberglass fuel tanks; there are recent reports of damage to **gasoline** tanks constructed of fiberglass, associated with ethanol. Please consider researching any actions that can be taken to prevent damage to the interior of the fuel tanks in the future. There is fuel in the bilge forward of the starboard engine. There is fuel on the bottom of the Racor fuel filter on the starboard forward engine room bulkhead. There is fuel in the forward bilge. The source of the fuel is beyond the scope of this survey. There is fuel in the galley bilge. Fuel hoses are not labeled U.S.C.G. type A1. The water pressure system functioned normally. The water pressure inlet was not tested.

**Summary: Satisfactory**

## ELECTRICAL SYSTEMS

AC system: One 50A/125/250V inlet to starboard forward in cockpit, 110/120V system, shore power cord

DC system: Two battery switches forward in engine room, four 8D-12V wet cell batteries in laundry room, battery switch in saloon and in laundry room

Wiring: Multi-strand wires

Circuit protection: Main distribution panel to port in saloon, main AC circuit breaker, branch AC & DC circuit breakers

**Comments:** The electrical system including the shore power cord, shore power inlet, batteries, wiring, circuitry components and circuit protection equipment was visually inspected and most components were tested. Overall the electrical system appears satisfactory – good. The condition of the batteries is beyond the scope of this survey. The Furuno radar has a ring visible on the display. The AC duplex outlets had an open ground when supplied the power by the 8 KW generator. There was no power at the flybridge AC duplex outlet. There is a switch in a port cockpit locker, it is seized and apparently has no function. The cockpit refrigerator is inoperative. The trim tabs are

currently inoperative, though the motor does "hum". There is no power to the cockpit VHF. The saloon air-conditioner is accumulating water in its condensation drain, the water is leaking to the space below the bench seat and into the laundry room. The circuit breakers for the main air-conditioner and forward air-conditioner tripped while being tested. There is a small bit of insulation missing off of a wire for the range, near its circuit breaker. The galley icemaker is inoperative. The laundry room lights are inoperative. The light for the lower bunk in the port cabin is hanging by its wires. The flybridge icemaker is inoperative. The grill in the cockpit apparently drains its grease below it, without capturing the grease. The lights on the forward bulkhead in the forward cabin are corroded. The flybridge compass is "dry".

**Summary: Satisfactory – Good**

### **SAFETY AND LIFE SAVING**

Portable fire extinguishers: Dry chemical unit on flybridge – 1998, numerous units aboard (expired)

Fixed fire system: FE-241 unit – 1995 (engine room)

Flotation devices: Numerous type II, two type 1, life ring

Horn/distress flares: Air horn, distress signal flares aboard (expired)

Navigational/anchor lights: Separate side lights, steaming, stern, anchor lights

Anchor & ground tackle: 30 KG Bruce with chain and line rode

**Comments:** Safety equipment for fire fighting protection appears satisfactory, however many of the portable extinguishers are apparently original equipment with the vessel and none have been inspected or tagged in the past year, per N.F.P.A. recommendations. There are numerous flotation devices and they appear satisfactory. The air horn is functional. Distress signal flares are aboard; however their expiration dates have passed. The navigational lights appear properly arranged and installed. The stern light is inoperative. The side light lenses are faded. The ground tackle including the anchor and rode was visually inspected as installed and appears satisfactory. The entire length of the anchor rode was not inspected and should be so inspected prior to use. No spare anchor was seen aboard.

**Summary: Satisfactory**

### **ACCESSORIES**

Navigational & operational electronics: Furuno G-1810 GPS plotter, Simrad Robertson AP20 autopilot, Furuno Navnet unit, Raytheon Ray 202 VHF/hailer, Furuno 1622 radar, cockpit – ICOM IC-M59 VHF

General equipment: Forward flybridge engine instruments include two digital tachometers, two volt, two oil psi., two gear oil psi., two temperature (engine), two temperature (transmission) and two hour meters, Glendinning engine synchronizer, trim tabs, Guest remote controlled spotlight, intercom, flybridge sink, Clarion RDB365D

CD/stereo, Sanyo beverage refrigerator, Icer-ette icemaker, zincs on transom and propeller shafts, radar arch flybridge hardtop, flybridge isinglass enclosure, flybridge dinette, two flybridge pedestal helm chairs, aft flybridge helm engine instruments include two digital tachometers, two volt, two engine oil psi., two transmission psi. and two temperature, Frigidaire freezer on flybridge, transmissions' trolling valves, flybridge courtesy lights, transom door, fiberglass swim platform, fiberglass bow plank, Muir Cougar 2-direction electric windlass with foredeck and flybridge switches, anchor roller, bow freshwater wash down, foredeck floodlights, Novurania rigid hulled inflatable with HIN PKD082891495 equipped with a 50-hp Yamaha outboard engine model P5OTLRS and serial number 516981, Nick Jackson electric davit, double spreader outriggers, cockpit shower, bait tank, Norcold cockpit refrigerator, electric cockpit grill, cockpit sink, water pressure inlet, two water spigots in cockpit, TV/Telephone inlet, cockpit courtesy lights, cockpit floodlights, HBO water maker, internal sea strainers, oil change pump, fuel transfer pump, raw water wash down pump, Murphy switches on main engine expansion tanks, transformer, electric lift for engine to cockpit hatch, three Cruis-Air air-conditioners, Panasonic sub woofer, Kenwood KDC-C602 CD changer, saloon sofas, RCA TV, Panasonic SA-HT790V VCR/DVD, Alpine CDA/9820XM CD/stereo, AC & DC voltmeters, AC & DC ammeters, generator instruments include two sets of volts, temperature and oil, Tank Tender tank level unit, Wema tank level gauge, bar chairs, bar, Sharp Carousel convection/microwave oven, Whirlpool gold icemaker, Karibe clothes washer/dryer, water pressure pump with accumulator tank, water heater, Phase Three PT-25 battery charger, Princess 3-burner electric stove, GE model TBX 18 JMS refrigerator/freezer Kenwood KDC-5003 CD/stereo, Toshiba TV/VCR, two electric heads, shower stall, waste Y-valves electric waste discharge pump, custom saloon table, shower sump collector box, second shower stall

### SUMMARY

The vessel is a fiberglass sportfisherman manufactured in Taiwan to a Tom Fexas design. The vessel is equipped with two diesel engines and two diesel generators. The ownership history was not obtained. No disclosure statement was obtained regarding any known problems with the vessel or any significant events in the vessel's history. The broker/dealers reported they had no knowledge of any water intrusion into the hull core. The vessel appears basically structurally and mechanically sound, though it does exhibit deferred maintenance. Upon completion of the recommendations, the vessel should be well suited for its intended purpose as a sportfishing vessel.

**Overall Summary: Satisfactory – Good**

**VALUES**

<b>ACTUAL CASH VALUE</b>	<b>NEW REPLACEMENT VALUE</b>	<b>INVESTMENT</b>
\$710,000 **	\$1,400,000	\$710,000

\*\* The actual cash value is the value that our research approximates the selling price of this vessel should be, upon completion of all recommendations. 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. Attach the starboard exhaust scoop to the hull bottom, assure that the screws are installed so as to eliminate any potential for water intrusion into the core.
2. Determine if the vessel is registered or documented and either display current registration numbers, or the documentation number as required.
3. Secure the flybridge freezer to prevent accidental movement.
4. Modify the tender and all foredeck hatches to allow them to function as escape hatches.
5. Repair the cockpit and engine hatches where they exhibit damage; assure they are structurally sound and suitable for continued use.
6. Refill the steering reservoir to the proper level of pressure and fluid; service the system to eliminate any leaks. Assure that the steering functions normally.
7. Service and prove all engine instruments properly functional, many engine instruments were not properly functional, see comments under machine systems above.
8. Service to eliminate excessive play in the rudders and excessive water leaks through the rudder ports, particularly to starboard.
9. Service to eliminate the oil leaks from both transmissions.
10. Service to eliminate the source of the fuel forward of the starboard engine in the bilge, clean the fuel from this area, the galley bilge and the forward bilge to allow detection of any future leaks and service to eliminate any leaks.
11. Service to eliminate any weeping through the exhaust mufflers.
12. Determine the condition and effectiveness of the thermal blankets on the exhaust system, upgrade as necessary.
13. Service to eliminate any exhaust leaks below the covered portions of the exhaust, soot is visible by a support for the port exhaust.
14. Prove the port engine and forward waste discharge through hull valves properly functional or replace as necessary.
15. Properly secure the hose to the raw water wash down pump.
16. Replace the wasted oil change pump outboard of the starboard engine.
17. Service to eliminate the general corroded condition on the engine components, remote oil filters and generators, service to eliminate any leaks through the engine hatches.
18. Replace the 8 KW generator's exhaust hose.
19. Refill the flybridge compass with fluid and seal the compass.
20. Service to eliminate the open ground condition at AC duplex outlets when supplied with the 8 KW generator and assure the system is installed in compliance with A.B.Y.C. recommendations.
21. Service and prove the refrigeration and icemaker units, which are currently inoperative, properly functional or replace the units. Inoperative units include: cockpit refrigerator, galley icemaker and flybridge icemaker.
22. Service and prove the cockpit VHF properly functional.
23. Service to allow the saloon air-conditioner's condensation to drain.
24. Determine why the main and forward air-conditioner circuit breakers tripped, service to eliminate this condition.
25. Replace the chafed wire for the range; it is chafed near its circuit breaker.
26. Service and prove the stern light properly functional.
27. Replace the faded side light lenses.

28. Service to eliminate any water leaks (onto the engines) through the engine hatches.
29. Replace the cracked starboard forward saloon window.
30. Determine the source of the water damage about the windows in the port cabin, service to eliminate the leaks and repair damage as desired.
31. Secure the cover of the port propeller shaft.
32. Service and prove the forward bilge pump functional in the automatic mode.
33. Certify the fixed and portable fire extinguishers per N.F.P.A. recommendations.
34. Supply U.S.C.G. required, approved and current distress signal flares.
35. Provide a secondary anchor and rode for use in a two anchor situation or an emergency.
36. Replace the numerous hoses located throughout the vessel, which are at the end of their service lives, a list of hoses is found under machine system comments above.
37. Display the documentation number per federal regulations and remove the Oregon registration numbers.

### NOTES

1. Either repair the cracks on the anchor plank or monitor and repair as necessary.
2. Replace the flybridge venturi windscreen.
3. Re-attach the loose wood trim below the flybridge icemaker and re-attach the trim around the AC electrical outlet on the flybridge.
4. Display the hull identification number per federal regulations.
5. Re-coat the hull bottom with anti-fouling paint as needed.
6. Repair the small impact damage on the starboard side of the swim platform.
7. Repair the cracks in the upper reverse chines, just aft of the knuckles, where seen cracked adjacent to the travel lift's slings.
8. Repair the radar arch including repairing cracks near the flange and assuring the arch is properly secured, re-caulking etc...
9. Secure the aft flybridge pedestal seat.
10. Replace the delaminated plywood in the port cockpit locker.
11. Repair or replace the broken pieces of teak in the cockpit sole.
12. Free-up the plexiglas hatch over the cockpit sink and prove the sink properly functional.
13. Determine the source of the water found in the starboard aft engine room bilge, service to eliminate any leaks.
14. Have the port propeller repaired to eliminate the minor damage on the edges of the blades.
15. Service and prove the raw water wash down system properly functional.
16. Clean the rusted end fittings on the steering hoses to starboard in the lazarette, inspect service or replace as necessary.
17. Service to eliminate the ring around the radar display.
18. Provide power to the AC outlet on the flybridge.
19. Determine the purpose of the switch located in the port cockpit locker; remove the switch and wires if it is unused or service and prove properly functional.
20. Service and prove the trim tabs properly functional.
21. Service and prove the laundry room lights properly functional.
22. Properly secure the light for the lower bunk in the port cabin, currently hanging by its wires.
23. Provide a mechanism for catching the grease from the cockpit grill.

24. Service to eliminate corrosion and the cause of corrosion on the lights mounted on the forward cabin's forward bulkhead.
25. Repair the minor wood trim damage to port aft in the companionway near the galley and the port cabin if/as desired. Monitor this condition.
26. Repair the minor water stains visible below the forward window to starboard in the saloon, service to eliminate any leaks.
27. Replace the weathered port light gaskets.

**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