HAYES MARINE SURVEYORS

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VESSEL SURVEY REPORT

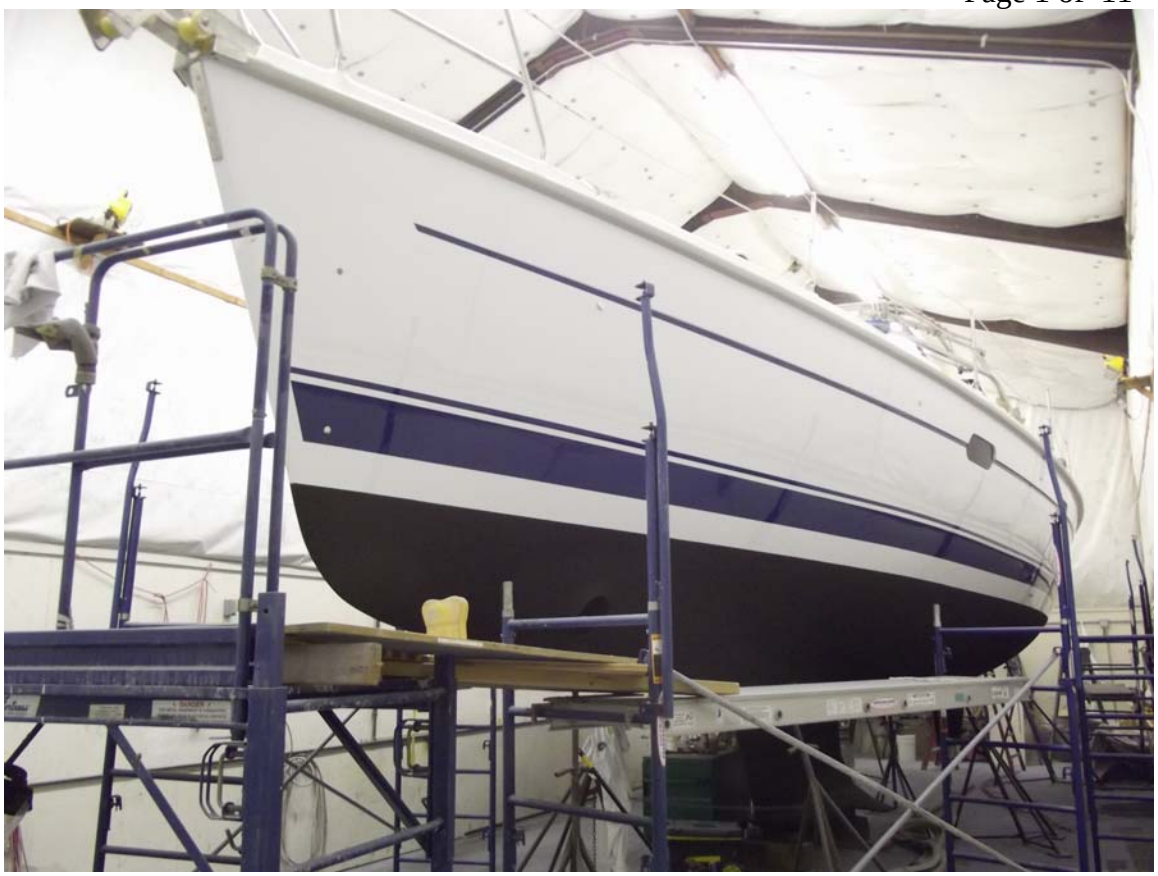
VESSEL:		**DOC/REG #:**	[Documenation #]
BUILDER:	Hunter Marine	**HIN #:**	[HIN #]
MODEL:	460	**YEAR:**	2000
TYPE:	Sailboat	**DESIGNER:**	Hunter Marine
RIG:	Sloop	**HULL MAT:**	Fiberglass
POWER:	Single Diesel	**LOA:**	46’ 0”
SAIL AREA:	.	**LWL:**	38’ 7”
CRUS SPEED:	5 knots	**BEAM:**	14’ 0”
MAX SPEED:	8 knots	**DRAFT:**	5’ 6”
FUEL CAP:	94 gal.	**WGT/DISP:**	26,000 lbs.
WATER CAP:	200 gal.	**BALLAST:**	9,500 lbs.

TYPE OF SURVEY: Condition & Value **DATE OF SURVEY:** August 8, 2013
August 22, 2013

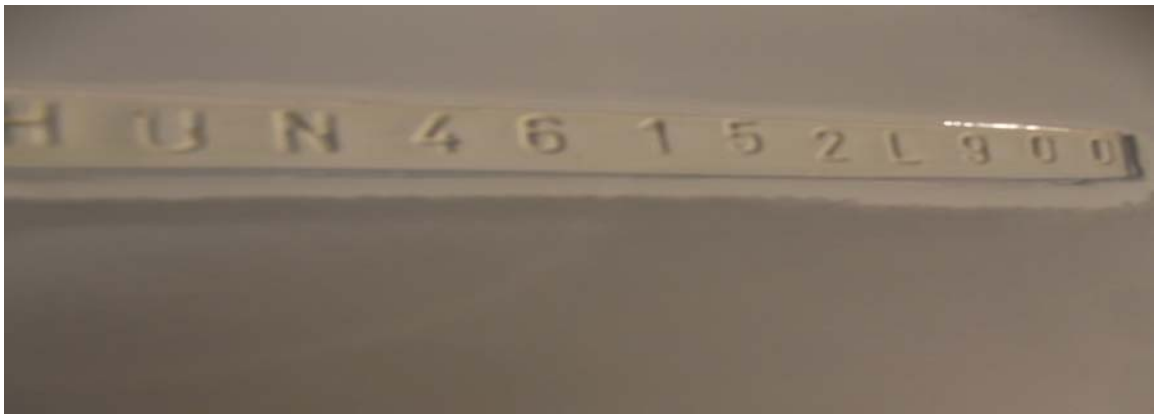
CLIENT: [Client Name]
[Address Line 1]
[Address Line 2]

LOCATION OF VESSEL AND CIRCUMSTANCES OF SURVEY

The vessel was located at Brewers Stratford Marina, 605 Broad St., Stratford, CT. The vessel was on land in a work shed undergoing the final stages of structural and cosmetic upgrades at the time of the initial inspection. The boat was re-inspected on August 22, 2013 while the boat was still in the work shed. The vessel was extensively rebuild after being severely damaged during Hurricane Sandy



HUNTER 460 **HUN46152L900**



True Digital Photo of Vessel HIN

This inspection and survey report is intended to determine, as much as possible within the limitations of a visual examination of the vessel and its equipment utilizing non-destructive and non-invasive methods. It does not take into account latent defects or deficiencies hidden by machinery, tanks, cabinets, hull liners or other items prohibiting access, or in the case of cored structures, drilling of core samples for further analysis. Propulsion and non-prolusion machinery were not surveyed by the undersigned other than mentioned in this report and the surveyor recommends a qualified marine mechanic inspects all engines, generators, transmissions and other critical mechanical systems as a matter of good maintenance. Electronic and electrical equipment, where already connected, can only be tested by powering up when power is present. Only the external visual condition of the wiring, connections and panels has been reported herein. A comprehensive analysis of the vessels electrical systems would require the services of a qualified marine electrician

Recommendations appear at the end of this report and are referenced in the report text by use of (#). For the recommendations which pertain to safety standards set forth by the Code of Federal Regulations (CFR) and the National Fire Prevention Agency (NFPA) and the American Boat and Yacht Council (ABYC) will refer to the specific code or (regulation number) will identify regulation within the text. Standards used are the most current and may not have been in place when this vessel was built. A completely accurate inspection to survey the above referenced standards would require a complete disassembly of the vessel for review by multiple specialists and, accordingly, are not within the scope of this survey report.

HULL AND DECK-Exterior

Hull and decks were inspected where possible percussion sounded with a phenolic hammer, and tested for moisture content with a Tramex Skipper moisture meter.

The hull design is a winged fin keel with external ballast and spade rudder. Construction material is fiberglass with a balsa core in the deck and hull structure. The bottom is newly painted black antifouling paint with a blue boot stripe. The topsides are white with a blue sheer stripe, the decks are white with molded nonskid.

The hull below the waterline was in excellent condition with no evidence of osmotic blisters or delamination. Moisture content registered 0 to 5 on a relative scale of 0 to 100, over most of the bottom surface area. The rudder sounded solid with minor moisture intrusion detected with moisture meter reading of 10 to 20 on a relative scale of 0 to 100. There was no evidence of delamination. The rudder post was snug in its housing with no excessive movement.

Transducers for depth and speed were in tact. Through hull fittings and sea cocks were in tact and securely bonded to the hull. All below waterline through hull fittings, sea cocks hoses and hose connections be inspected and service annually as a matter of routine maintenance. (1)

The topsides were in good condition with no evidence of moisture intrusion. Moisture content registered 0 to 10 on a relative scale of 0 to 100. There are four port lights each side, which were in tact.

The transom was in good condition. The deck to hull joint is a cap flange through bolted every 8 inches covered by a rubber rub rail which was new. The rub rail was intact. The joint was tight with no movement or damage from impact detected.

The decks are cored, nonskid fiberglass. The decks sounded solid when percussion tested with the hammer. Moisture meter reading was 0 to 5 on the same relative scale. There are 9 opening deck hatches and two fixed deck lights. The deck hatches were it tact and operative. Some minor crazing in the polycarbonate deck light was noted. A solar panel was into the deck amidships and was in tact. The anchor locker lid was removed during upgrade and must be reinstalled prior to launching the boat. (2)

The stem plate was secure. The stainless steel bow pulpit and stern pulpit were in tact and securely fasted to the deck. Stanchions, boarding gates are stainless steel and in good condition. Life lines are vinyl covered 1x19 stainless steel wire. Toggles, turnbuckles, swages and pelican hooks were all in tact. . The grab rails and other deck mounted hand holds are stainless steel and were in good condition.

The stainless steel arch was not installed to the aft portion of the transom at the time of inspection and was inspected on the deck. The arch is in tact. The arch must be securely installed once the vessel is moved from the work shed. (3)

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The mast step and partner were intact with no evidence of leakage or movement.

The cockpit sole returned solid sounding and registered 0 to 10 on the relative scale. A hand held shower located on port side was in tact. The emergency tiller socket is located in the aft of the cockpit accessed through an inspection port. The emergency tiller was not observed during inspection and should be placed in a readily accessible location. (4)

HULL AND DECK-Interior

Structural stringers, cross members and bulkheads were in tact where inspection was possible, with no evidence of fracture separation or movement detected. Internal construction is an inner pan, which was in tact. Stainless steel compression post was secure and in tact.

Cabin bulkheads are teak veneer plywood and were found in good condition. Cabinetry and trim are all teak and sound. Drawers and drawers opened and closed smoothly.

The engine compartment is directly below the cockpit, with accessibility through the access hatches located in the quarter berths. The compartment is ventilated by natural flow of air.

The keel bolts appeared in good condition. Shroud chainplates were securely fastened to the hull and appeared to be in good condition.

The lay-out below is a V-berth forward. In the main cabin there are settees port and starboard with a drop down dinning table. The galley sink and ice box is facing aft is also on port side. There are two enclosed heads with the aft one on the starboard side and the forward head located on port side. Navigation station and quarter berth are located on the starboard side, with dining area to port.

The cabin sole is teak and holly. The head liner is fiberglass. Sections of the liner were removed during the upgrades to expose electrical systems. Secure electrical wiring and reinstall the headliners. (5) Cushions are upholstered in fabric and were in good condition. The galley countertop is Formica with teak trim. The vessel needs a thorough cleaning below as a matter of routine maintenance. (6)

RIGGING AND SAILS

The mast was not stepped and was inspected in the work shed. The rig is a tapered, double spreader aluminum deck stepped mast made by Selden Spars. The standing rigging is 1 x 19 stainless steel wire. The 24" Radome and guard were securely fastened to the mast. Toggles, turnbuckles and swages were intact where inspection was possible from deck level. The windex, and VHF antenna mounted on the mast head were in tact. The wind speed and direction instrument was damaged and should be repaired or replaced. (7) The boom and gooseneck were intact.

The deck mounted jib track and cars are made by Schaefer and was in tact.

The main sheet traveler is a Harken and is mounted on the stainless steel arch. The traveler was in tact. The winches are made by Lewmar. Primaries are # 50 two speed, self tailing. The cabin top/bridge deck winches are # 44 self tailing with two on each side. There are 2 four bank line clutches on the bridge deck and 4 Harken line leads near the mast partner, all were in tact. The roller furling system and the in mast main sail furling systems were not tested.

The sails were not on board at the time of survey and not inspected.

PROPULSION MACHINERY

Auxiliary propulsion is provided by a Yanmar four cylinder diesel engine, model 4JH3-TE rated 74 hp at 3,800 rpm. Engine serial number is E12207. The engine was not run at the time of inspection. Installation is secure with engine mounts intact. Engine hours displayed on hour meter was 183.6.

The propeller shaft coupling was intact. The shaft is 1 ¼ " stainless steel and turned freely by hand with no corrosion or cracks observed. The packing gland appears to be intact. The strut was secure with no movement. The cutlass bearing had less than 1/16" movement when pushed by hand. The propeller is made of a bronze alloy and is a three blade 18" diameter x 17 pitch and was in tact. Propeller blades were in line when checked with a caliper. There was no evidence of galvanic deterioration of machinery below the waterline.

The engine mounts were intact. Belts, hoses and hose connections were in good condition where inspection was possible. The exhaust hose was intact where inspection was possible. The exhaust riser and elbow were intact. The muffler is a fiberglass water lift type and was intact. Engine oil appeared normal with no visible evidence of contamination. The water strainer is a Groco bronze and was intact.

Engine controls are located on the steering pedestal and were operating smoothly. Engine instrumentation located on the port side of the cockpit is an analog tachometer, engine temperature gauge, fuel gauge and shut down lever.

The bow thruster is a Vetus and was in tact. The thruster controls are located at the helm. The bow thruster was not tested.

The steering system is an Edson pedestal with sprocket and chain to cable to steering disc. The wheel was not on board at the time of inspection. The system was intact where inspection was possible.

NON-PROPULSION MACHINERY

Through hulls and fitting: The through hulls below the waterline are bronze with ball valve seacocks, all of which were intact.

Pumps: The electric bilge pump is a Rule 2000 with float switch and not tested. The manual pump for overboard discharge of the holding tank is a Whale.

Marine Sanitation Device: There are two SeaLand MSD electric toilets, discharging into a holding tank. There are two Jabsco macerator pumps, model 18590-2092 and were not tested. The tank can be emptied through a deck plate or with a macerator overboard discharge system.. The MSD was not tested. The enclosed heads each has a plastic vanity sink with mixing faucet.

Galley Equipment: The galley sink is a twin bowl deep well stainless steel with mixer faucet, with hot and cold pressurized water.

The stove is a Force 10 LPG stove with four burners and an oven. The stove and oven were not tested.

The refrigeration is a Grunert system with refrigerated holding plate and separate freezer and is powered with 110 volt AC power. The refrigeration system was not tested.

The microwave is a Origo unit and securely mounted.

The water heater is a Seaward Products and is located in main cabin under seating area. Capacity is eleven gallons. Water is heated by110 volt AC power or by engine with a heat exchange coil. Water heater jacket, hoses and connections were it tact. Water heater was not tested.

The air conditioning system is a Marine Air Systems reverse cycle 110 V with two condensing units in aft cabin and main cabin. Condensing unit drip trays were in place. Raw water strainer was in tact. Hoses and hose connections were in tact. The system was not tested.

ELECTRICAL SYSTEMS -DC

12 Volt DC power is provided by one group 24 battery and two 4D lead acid batteries and are located under the cabin sole amidships and securely installed in leak proof battery boxes. Voltage was 10 volts at the time of inspection. Batteries are charged by the engine alternator.

The charger/inverter is a Heart Freedom 25and is located under navigation station seat . The charger/inverter .was not tested.

The battery isolator was in tact.

The distribution panel is circuit breakers and switches with voltage meter. The system is equipped with 2 Guest battery selector switch. Wiring harness and runs were generally intact where inspection was possible. Cabin lights, running lights and navigation lights were not tested.

GFCI 110 V were noted in the galley and head area but were not tested.

AC ELECTRICAL SYSTEMS

110-120 Volt AC power is supplied by 110-120 Volt 30 AMP shore power source. Two 30 AMP Marinco receptacles are located on starboard side of transom and were in tact. The distribution panel is circuit beakers and switches with a master switch and reverse polarity indictor lamp and is located with 10' for the 30 amp receptacle. The panel is labeled. Wiring harnesses and runs were intact where inspection was possible. The AC system was not tested.

The generator is a Northern Light/Lugger 3 cylinder diesel with a kilowatt rating of 5.5 KW and is located under the cockpit sole. Engine fluids appeared free of contaminates. Belts and motor mounts were in tact. The generator was not tested.

NAVIGATION EQUIPMENT AND ELECTRONICS

The magnetic compass is a Ritchie Powerdamp Plus 4"binnacle compass and was intact with no apparent loss of fluid. The dome was in good condition. The bearing coincide when check with a hand bearing compass.

The VHF radio is a Icom IC-M422 and was not tested during the inspection.

The autopilot is a Raytheon ST 6000 mounted at the helm and was not tested.

The Depth sounders is a Raytheon ST 6000 mounted above companionway and was not tested.

The wind instrument is a Raytheon ST 6000 mounted above the companionway and was not tested.

The Radar/Chartplotter is a Raytheon model C120/W and was onboard, but not installed at the helm station. Installation of this instrument should be completed as a matter of safety. (8)

The entertainment electronics is a Bose and Sony stereo system with a Bose DVD player with speakers in the cabin and the cockpit and appeared to be in tact. This unit was not tested.

A Sharp television installed above the stereo system on starboard side appeared to be in tact. The system was not tested.

TANKAGE

The fuel tank is made of plastic and is located below the port cockpit locker. The tank blocked and securely strapped. Capacity is 93 gallons. The tank appeared intact where inspection was possible. The tank is vented overboard and filled with through deck fill, which is clearly marked for diesel. Fuel lines and ground connections were intact where inspection was possible. Fuel fill hose was intact with double clamps in place. A manual shut off is located on the top of the tank.

There are four plastic water tank located under the cabin sole, choked and blocked and vented overboard. Capacity is 200 gallons according to builder's specifications... Water tanks and connections were in tact where inspection was possible.

There are two plastic holding tanks located under the cabin sole, fore and aft. Tanks were choked and blocked in place. The tank is vented overboard and discharged directly overboard by macerator pump or pumped out at through deck access, which is clearly marked.

The LPG tank was not on board at the time of inspection. The tank is stored in the port side transom locker

GROUND TACKLE

The vessel is fitted with a stainless steel double anchor roller which was in tact. A Simpson Lawrence Horizon 1500 electric windlass with control switches under the anchor locker lid. The windlass was not tested. A Delta anchor was observed at the boat but not rigged.

COAST GUARD REQUIREMENTS AND SAFETY GEAR

There were two 3 lbs. Kidde dry chemical BC fire extinguishers. All extinguishers should be weighed, dated and tagged or replaced as necessary. (9)

There were several eight Type II Adult PFD's observed onboard. Several fenders were also stored in the starboard cockpit locker. One throw-able life ring was also on board.

The oil discharge placards and the Marpol Trash placard were in place and located on behind the companionway steps.

All USCG safety and required equipment should be maintained in compliance with regulations. (10)

Safety equipment that is not permanently installed or otherwise not an integral part of the vessel have not been inspected by the surveyor. Such equipment as required by law that is appropriate to this vessel is the sole responsibility of the owner.

RECOMMENDATIONS

Recommendations are categorized as Maintenance and cosmetic (M), Repair or replace (R) and Life/vessel safety (S). For recommendations which pertain to required compliance with safety standards established by the Federal Regulations (CFR), the National Fire Prevention Association (NFPA), and the American Boat and Yacht Council (ABYC), the applicable code will be referenced.

1. M Inspect and service all through hull fittings as a matter of routine maintenance.
2. S Install anchor locker lid
3. S Install aft stainless steel arch.
4. S Make emergency tiller readily available
5. M Secure electric wiring and reinstall cabin headliner.
6. M Provide general housekeeping .
7. R Repair or replace mast head wind instrument.
8. S Reinstall Radar/Chartplotter at the helm station.
9. S Weigh, date and tag fire extinguishers or replace as necessary (ABYC A-4.Ap.5d)
10. S Maintain USCG safety and required equipment at all times in compliance with Regulations

COMMENTS

The vessel was for if overall good condition being in the finishing stages of comprehensive upgrades. With attention to the recommendations contained in this report and summarily listed above, and when operated with prudent seamanship, it is suited for its intended service as a coastal cruiser

VALUATION

Valuation may be determined using numerous methods including the surveyor's personal experience, current listings of similar vessels, and published pricing sources such as N.A.D.A Marine Appraisal Guide, the Power Boat Guide or other like information. Boat values are subject to variations due to present market demand, age, degree of other equipment or amenities and overall condition of the vessel at the time of the inspection. The current market value of this vessel is $163,900.00, with the replacement value of a new similar vessel approximately $310,000.00. This vessel is in **good** condition and is reflected in this valuation estimate.

The statements in this report are the personal opinions of the undersigned surveyor. No warranty or guarantees are expressed or implied herein is given nor liability assumed for errors or omissions. Acceptance and/or use of this report constitutes an agreement to all the above conditions and limitations contained in this report by the party(s) retaining the surveyor's services and no right to bring any action against the undersigned surveyor for negligence or other condition are accrued to anyone other than the party(s) retaining the surveyor's services .

SUBMITTED WITHOUT PREJUDICE,
Hayes Marine Surveyors

Stephen D. Hayes

Stephen D. Hayes, AMS #1042
Accredited Marine Surveyor
SAMS, ABYC
August 23, 2013