



SOCIETY OF ACCREDITED
MARINE SURVEYORS®



Wayne Canning, AMS

Marine Surveyor
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Ref: WCD0000

PURPOSE: Condition and Valuation

Date: 01/01/2007

YACHT NAME: SS Minnow

HOME PORT: Any Port, NC

Survey Certified For:

Mr.
10 Oak Ave.
Wilmington, NC 284029
Phone & Fax: 919-555-5555
Skipper@gilligans.com

YEAR: 1991 **BUILDER:** American Marine

MODEL: Grand Banks 46

HULL IDENTIFICATION NUMBER (HIN): GND000000091

USCG DOCUMENTATION NUMBER: 000000

TONNAGE NET: 28

LOA:	BEAM:	DRAFT:	DEPTH:	DISPLACEMENT:
47'1"	14'9"	4'6"	7.6'	39,000 lbs.

This survey was conducted at Deaton Yacht Sales, Oriental, NC while the vessel was in the water, with sea trial, and hauled out with the owner's agent Jack Coulter, and purchaser present.

This vessel is registered for Recreation.

MARKET VALUE: \$ 350,000.00

REPLACEMENT VALUE: \$ 500,000.00

SCOPE OF SURVEY:

This survey is a visual inspection of the vessel its structure, systems, and rigging. It does not cover possible latent defects which could not be readily discovered by inspection without removal of machinery, tanks, sheathing, joiner work, upholstery, bulkheads, ceiling, fascia, fiberglass or metal covering, fasteners, or other fixed material, disassembly of machinery, plumbing, wiring, or other parts, components or systems. Unless specifically stated, no test borings have been made, and no destructive or invasive testing has been performed.

GENERAL CONDITION, INSURANCE RISK: Very good, when the recommendations are accomplished. This report should be considered as an entire document. No single section is meant to be used except as part of the whole. It is current to the named client, underwriters, or lenders for 30 days of undisturbed lay-up or the vessels first use.

HULL COMPOSITION AND STRUCTURE:

HULL MATERIAL: FRP (Fiber Reinforced Plastic)

FRAMES/STRINGERS: Hat section FRP

FASTENINGS: Stainless steel. Bronze for teak decking.

WEATHER DECKING: Solid teak over cored FRP.

INTERIOR DECKING: Plywood.

SUPERSTRUCTURE: FRP

BULKHEADS: Plywood.

HATCHES: Aluminum frame polycarbonate, FRP.

PROPULSION MACHINERY:

No certified or factory engine surveyor was present the day of survey.

MAKE: Caterpillar

MODEL: 3208, Diesel Turbo charged.

SERIAL STARBOARD: WXYZ00023

SERIAL PORT: Unreadable

REPORTED HOURS OF USE: 2739

Full Throttle RPM:	Port:	2800	Stbd:	2750	Speed:	
Oil PSI:	Port:	65	Stbd:	58		
Coolant Temp:	Port:	142°	Stbd:	140°		
Exhaust Temp:	Port:	89°	Stbd:	88°		
Turbo Temp:	Port:	250°	Stbd:	215°		
Cruise RPM:	Port:	1800	Stbd:	1800		
Oil PSI:	Port:	85	Stbd:	85		
Coolant Temp:	Port:	180°	Stbd:	180°		

EXHAUST SYSTEMS: Wet out transom at waterline.

COOLING SYSTEMS: Heat exchange.

SEA STRAINER: Groco Basket type mounted on thru hull.

GAUGES: Oil pressure, water temperature, volts, fuel level, hours of use tachometer, and has audio alarms.

ENGINE MOUNTS: Adjustable vibration isolators bolted to FRP longitudinals in good condition.

HOSE CLAMPS: Adequate stainless steel.

HOSES: Approved type and are in good condition.

FUEL LINES: Are of approved type and in good condition.

PRIMARY FUEL FILTERS: Racor.

OIL FILTERS: OEM spin on cartage.

THROTTLE AND CLUTCH CONTROLS: Push/Pull cable with Morse control heads at upper and lower station.

TRANSMISSION: Twin disc, MG 507-01.

SHAFT PACKING GLANDS: Flax packing bronze stuffing boxes.

ENGINE SPACE VENTALATION: Adequate for this installation.

GENERATOR: Onan

MODEL: Unknown **FUEL:** Diesel

KW: 8 **VOLTAGE:** 240

SERIAL NUMBER: Unreadable.

REPORTED HOURS OF USE: Unknown.

SOUND SHIELD: Yes OEM

PRIMARY FUEL FILTER: Racor 500 MA

BATTERY: Size 6D, properly secured and covered. Has a main disconnect switch.

EXHAUST SYSTEM: Wet out stern above water..

STEERING: Pull/Pull wire cable on quadrant.

Always test the steering before leaving the dock.

PLUMBING SYSTEMS:

FUEL SYTEMS:

TANKS: 2 Steel tanks 300 gallon each reported.

TANK GAUGE: Unknown.

PUMPS: Engine lift.

HOSE: Approved type, Copper tube.

FRESH WATER:

TANKS: 2 FRP 278 Gallon total reported.

TANK GAUGE: NA

PUMPS: Groco 12 VDC gear drive.

HOSE: Vinyl, copper tube.

HEATER: Raritan with engine heat exchange.

SHORE CONNECTION: None

SINKS: 4

SHOWERS: 2

GRAY WATER:

TANKS: None

TANK GAUGE: NA

PUMPS: 2 Rule 350 12 VDC

HOSE: Vinyl.

REMOVAL: Direct overboard.

BLACK WATER:

TANKS: 1 FRP

TANK GAUGE: Unknown.

PUMPS: Sealand T12 diaphragm, 12 VDC.

HOSE: Vinyl waste.

REMOVAL: Deck plate, overboard.

HEADS: 2

SEA WATER: None.

TANKS:

TANK GAUGE:

PUMPS:

HOSE:

UNDERWATER:

HULL: Semi V, shallow keel, hard chine, flat transom, raked bow. The antifouling coating is in fair condition, needs new antifouling coating soon. The hull was sounded with a plastic hammer and appears to be in good condition. There are no blisters.

PROPELLERS: 4 blade bronze, right hand/left hand, in good condition.

SHAFTS: 2" stainless steel in good condition where visible.

SHAFT BEARINGS: Solid rubber cutlass in fair condition.

STRUTS: "V" shaped bronze in good condition, intermediate struts.

ANODES: 2 transom,, 2 shaft , 2 trim tab.

RUDDERS: Spade semi balanced FRP in good condition.

TRIM TABS: Bennett electric/hydraulic with 50" X 10" planes.

THROUGH HULL FITTINGS: Bronze in good condition.

SEA VALVES: Bronze sea cocks in good condition.

STABILIZERS: Niad hydraulic powered off starboard engine with controls at both helm stations.

ELECTRICAL SYSTEMS:

DC SYSTEM:

VOLTAGE: 12

BATTERIES: (3) 8D, 1 6D

DISTRIBUTION: Panel at helm.

CIRCUIT PROTECTION: Circuit breaker, fuse.

BATTERY DISCONNECT SWITCHES: 4

ENGINE DRIVEN CHARGERS: OEM

MONITORS: Volt meter.

AC SYSTEM:

VOLTAGE: 240

DISTRIBUTION: Panel at helm

CIRCUIT PROTECTION: Circuit breaker, inlet fuses.

SHORE CONNECTIONS: 240 VAC, 50 Amp bow and stern.

SHORE CABLES: 2, 240 VAC 50 AMP

INVERTER: Heart 2.5 KW with remote at lower helm.

BATTERY CHARGER: Inverter.

MONITORS: Volt, AMP meters, Reverse polarity light.

BONDING SYSTEM: Passive, #8 wire.

SHIPBOARD AMENITIES:

GENERAL DESCRIPTION AND CONDITION:

Teak hardwood furniture and walls, Vinyl headliner. Hardwood flooring. General condition is good.

AIR CONDITIONER, HEATER:

MAKE: Cruise Air

TYPE: Self contained reverse cycle.

TOTAL BTU: 40 KW

GALLEY:

REFRIGERATION: Grunet 120 VAC refrigeration/Freezer, in good condition.

STOVE: Princess, 3 burner 120 VAC. In good condition. Open ventilation.

OVEN: Princess 120 VAC.

MICROWAVE OVEN: Sharp Carousel. In good condition.

SINK: Stainless steel. **DISPOSAL:** None.

BLENDER: None.

COFFEE MAKER: Black and Decker in good condition.

ICE MAKER: Uline 120 VAC. In good condition.

TRASH COMPACTOR: None.

CENTRAL VACUUM: None.

LAUNDRY: Whirlpool upper/lower, in good condition.

CANVAS AND COVERS:

Bimini top. Windshield sun covers, Hand rail covers, Dingy cover, Aft door cover, Transom cover.

MISCELLANEOUS:

FEDERAL OIL POLLUTION SIGN: Display one in the engine room.

MARPOL TRASH PLACECARD: Display one in a visible location.

NAVIGATION RULES BOOK: For vessels over 12 meters: None sighted, required

LICENSES AND DOCUMENTATION/REGISTRATION CERTIFICATES: None noted.

ELECTRONICS and NAVIGATION: units are working unless otherwise stated.

#1 VHF RADIO: Icom IC 120 lower helm.

#2 VHF RADIO: Icom IC 120 upper helm.

#3 VHF RADIO: None

GLOBAL POSITIONING SYSTEM: Furuno, Northstar 951X x 2

PLOTTER: Furuno Navnet x 2

RADAR: Furuno.

DEPTH INDICATOR: Simrad x 2.

AUTOPILOT: Simrad with controls at both stations.

ENGINE SYNCHRONIZER: Glenndenning.

WEATHER: B&G wind direction/Speed.

ANTENNA: Radar, GPSx 3, VHF x 2, KVH Trackvision sat TV (not tested), Windspeed/Direction, Loran.

BRIDGE COMPASS: Danforth Constellation. No Deviation Table.

FLYING BRIDGE COMPASS: Danforth Constellation. No Deviation Table.

STEREO: Alpine 12 VDC AM/FM, Cassette. Alpine CD player.

BRIDGE STEREO: None.

AFT STEREO: None.

#1 TELEVISION: Salon, Sharp Aquas 20" LCD.

#2 TELEVISION: Aft cabin. Sharp LCD 15".

#3 TELEVISION: None

DVD PLAYER/RECORDER: None.

SATELLITE RECEIVER: Driect TV, with KVH Trackvision Antenna.

Has cable TV & phone shore connections.

SAFETY EQUIPMENT:

PERSONAL FLOATATION DEVICES (PDF): 0 Type I, 4 Type II, 0 Type III, 1 Type IV

VISUAL DISTRESS SIGNALS:

NUMBER AND TYPE: 2 hand, 2 aerial.

EXPIRATION DATE: Hand Mar 06, Aerial Mar 08

EPIRB: None.

REGISTRATION NUMBER:

BATTERY EXPIRATION DATE:

FOG BELL: 700 mm diameter required.

SOUND DEVICES: Air/Electric horn. (Note sound was weak and poor)

NAVIGATION LIGHTS: Proper for class, port and starboard were not working,

SPOTLIGHT: ACR mounted on pulpit with helm remote, no light or up and down.

FLAMMABLE GAS FUME DETECTOR: None.

CARBON MONOXIDE DETECTION SYSTEM: None, but suggested to add.

FIRST AID KIT: In portable in abandon ship kit.

INFLATABLE LIFE RAFT:

CAPACITY: Not Labeled.

CERTIFICATION DATE: Expired 10-2000

DECK RAILS/LIFE LINES: Stainless steel with teak cap rail.

SWIM PLATFORM: Teak with bronze supports.

FIRE FIGHTING EQUIPMENT:

AUTOMATIC ENGINE SPACE SYSTEM: Fire boy Halon.

PORTABLE FIRE EXTINGUISHERS: 5 ABC dry chemical USGC size I.

The fire fighting system or installation is adequate.

BILGE DRAINAGE:

BILGE PUMPS:

FOREWARD: Rule 1500

VOLTAGE: 12 VDC

AUTOMATIC: Yes

MID: Rule 1500

VOLTAGE: 12 VDC

AUTOMATIC: Yes

AFT: Rule 1500

VOLTAGE: 12 VDC

AUTOMATIC: Yes

MANUAL PUMPS: Whale Gusher diaphragm.

ENGINE DRIVE PUMPS: None.

SHOWER SUMP PUMP: 2 Rule 350 12 VDC with automatic switch.

HIGH WATER BILGE ALARM: None.

COCKPIT DRAINAGE: Overboard scuppers.

BILGES are clean and free of oil and derbies.

GROUND TACKLE:

ANCHOR: CQR type plow on bow roller.

RODE: Chain leader on rope.

SECOND ANCHOR: Danforth type on bow roller.

RODE: Chain leader on rope.

WINDLASS:

POWER SUPPLY: 12 VDC

MAKE: Lofrans

MODEL: Horizontal shaft.

DINGYS AND TENDERS:

1990 Avon Rover R3-10 RIB.

HIN: AVB000000090

OUTBOARD MOTOR:

Yamaha 8 HP, Gas, 8MSHP, (Note not tested)

DAVITS AND CRANES:

Traditional aluminum boom on mast used to hoist dingy. Lofrans 12 VDC horizontal windlass assist.

RECOMMENDATIONS:

These are items that need to be corrected due to Coast Guard requirements, and/or for the safe operation of the vessel.

1. The port and starboard running lights were not operational at time of survey. Repair as needed.
2. The boat end of the 50 AMP shore cord is in poor condition with gaps in the boot. Replace or repair shore cord.
3. The upper helm steering had excessive play in the cable. Adjust as needed.
4. The life raft was due for re-inspection in 2000 and is now past due. Has the raft re-inspected or remove from vessel.
5. The fire extinguishers were last inspected in 2002. Have the fire extinguishers re-inspected by a qualified technician.
6. The vessel has been reported unused for the past year. Have the engines and filters inspected and serviced as needed.
7. The ground wire for the starboard fuel tank fill deck plate is disconnected at its lower end. Re-connect to vessels ground.
8. There is a electrical wire contacting the steering cable at the forward starboard engine compartment bulkhead. Secure this wire so that it cannot contact the steering cables.
9. The air/electric horn operation was poor. Service as needed.

CONCLUSION:

There is no apparent structural de-lamination, dry rot, previous damage or repairs. At the time of survey the vessel appears to be a very good marine risk when the above recommendations are complied with.

OBSERVATIONS and SUGGESTIONS:

These are items that do not directly effect the safe operation of the vessel, but should be completed to help retain the good condition and value of the vessel.

1. Several of the positive electrical connections to equipment mounted on the forward engine compartment bulkhead are not covered to prevent possible shorting. Cover with rubber boots or other means as needed.
2. There are 2 DC breakers above the battery switches on the starboard forward engine compartment bulkhead that are not labeled. Label as to use.

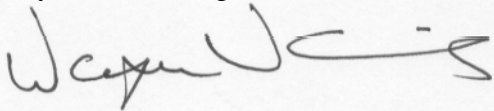
3. Carbon Monoxide Detectors Suggested: This vessel uses fossil fuel for propulsion. During the burning of any of this fuel Carbon Monoxide (CO) gas may be created due to incomplete combustion. Adequate ventilation must be provided at all times while burning this fuel, but CO may also be drawn into the cabin through ventilation systems. CO is a silent menace and kills without warning, therefore this surveyor recommends installation of a UL Marine Listed CO detector in any occupied spaces below decks.
4. The forward starboard windshield leaks at the top. Repair as needed.
5. There is a compression crack in the interior bulkhead in the aft cabin next to the entrance hatch. Repair as needed.
6. There is a crack in the fiberglass hat section stiffener just aft of the starboard stabilizer. Repair and reinforce as needed.
7. Rust was noted at the top of the Niad stabilizer oil reservoir water cooling connection. Repair leak as needed clean rust and treat for corrosion.
8. Both Niad stabilizer fin actuators showed signs of oil leaks. Clean test for leaks and repair as needed.
9. Both diesel deck fill plates showed signs of water leaks. Re-bed fill plates as needed clean any rust from the tops of the fuel tanks and re-coat as needed.
10. The salon ice maker fan was noisy on start up. Repair as needed.
11. The hinges on the foredeck dunnage box were broken. Repair as needed.
12. The screws holding the port side fly bridge venture brackets are loose. Re-fasten as needed.
13. There is an area of peeling paint on the bottom of the window frame outside on the aft salon window port side. Re-paint as needed.
14. The teak planking is loose on the aft starboard lazette hatch. Re-glue planking as needed.
15. Many of the teak screw bungs on the teak decking are loose or missing. Replace as needed.
16. Water was noted weeping from behind the transom teak planking. This area showed high moisture reading. Caulk the top and sides of the planking, remove the varnish, allow the wood to dry before refinishing.
17. The foreword hull side spray rails had open seams where they are attached to hull sides. Re-caulk as needed.

18. The spray cover is missing from the starboard forward thru hull at the waterline. Replace missing part.
19. The bottom paint was loose and peeling in several areas. Scrap loose paint and re-paint as needed.
20. The topsides and superstructure are chalky and faded. Clean and wax as needed.
21. There are gaps in the caulking around the outside of the engine vents. Re-caulk as needed.
22. The teak swim platform appears to have been extended and is not well supported at the aft edge. Add additional support as needed.
23. The upper nuts holding the starboard forward fuel tank wood supports are loose or missing. Replace missing nuts and tighten loose nuts as needed.
24. The pulley guard has been removed from the starboard engine to allow for the installation of the stabilizer hydraulic pump. This presents a safety hazard in the area of the inboard pump pulley. Cover the inboard pulley to prevent contact during operation.
25. The tabbing has come loose from the forward starboard joiner bulkhead under the V berth. Re-secure the tabbing as needed.
26. The satellite TV system did not function properly. Have unit tested by a qualified service technician.
27. Service dingy motor as needed.
28. Consider installing a high water alarm with indicators at both helm stations.
29. Service and verify proper operation of all seacocks.
30. Service and lubricate all steering cables and pullies.

This survey checks for compliance with U.S. Coast Guard, American Boat and Yacht Council, Inc., Underwriters Laboratory, and National Fire Protection Association standards and practices. It does not cover possible latent defects which could not be readily discovered by inspection without removal of machinery, tanks, sheathing, joiner work, upholstery, bulkheads, ceiling, fascia, fiberglass or metal covering, fasteners, or other fixed material, disassembly of machinery, plumbing, wiring, or other parts, components or systems. Unless specifically stated, no test borings have been made, and no destructive or invasive testing has been performed. The undersigned has conducted this survey and issued this report for the sole use of the specified requesting party for an agreed fee based upon the intended use of the report and the legal liability of the undersigned; accordingly, others are not to use this report and not rely upon the contents of this report without payment to the undersign of an additional agreed fee based upon reevaluation of the same factors.

The recommendations, judgments, and conclusion expressed herein represent the opinion of the undersign surveyor who has exercised reasonable care in conducting a routine visual marine survey of the subject vessel. This report contains opinions and observations based on my skill, experience and training as a marine surveyor and consultant. Under no circumstances shall this report be understood to constitute a representation, guarantee, or warranty, expressed or implied, of any kind as to the condition or soundness of the subject vessel, its hull, engines, machinery, equipment, or systems or any part of appurtenances thereof, or the cost of effecting any repairs or modifications. Survey conducted without prejudice.

Wayne V Canning, SA

A handwritten signature in black ink, appearing to read 'Wayne V Canning', is written over a light gray rectangular background.

Attending Surveyor

REFERENCES FOR COMMON RECOMMENDATIONS

ABYC is the American Boat and Yacht Council

ANSI is American National Standards Institute

CFR is the United States Code of Federal Regulations

ISO is International Standards Organization

NFPA is the National Fire Protection Association

UL is Underwriters Laboratories, Marine Division

Fire Extinguishers, Portable-ABYC A-4.6; 46 CFR 25.

Fixed Fire Extinguishers In Enclosed Engine Compartments-ABYC A-4.7, NFPA 12.B

Fog Bell; ABYC A-23.5, 33 CFR 80, Navigation rule 33, Annex III

Horn ABYC A-23.5. 33 CFR 80

Navigation Light: USCG Commandant Instruction M16672, Navigation Rules, Part C.ABYC A16

Flares-46 CFR 28.145. Water tight container for flares: 46 CFR 180.35-10

Non Metallic Fuel Hoses, fire resistant-USCG TYPE A-1, USC 46-CFR 183.590, UL 1114, ISO 7840 SEA 1527, ABYC H-24 & H-33.6, NFPA 302-5-6.2.2.

Double Clamp Fuel Lines –USC 46-CFR 183.564, ABYC H-24(33), NFPA 302-5-6.3.7.

Support Fuel Lines- NFPA 302-5-6.2.5. ABYC H-24.7

Mark Fuel Fill – NFPA 302-6.3.6., ABYC H-24(33).12.

EPIRB, 46 CFR 28.260

Carbon Monoxide Detection System: ABYC A-24.

Flammable Gas Fume Detector: ABYC, A-14

PFD (lifejackets) 46 CFR 180.25

Master Battery Switch – NFPA 302-7-11.2., ABYC E-9.11.3

Secure Batteries – NFPA 302-7-4.3, 33 CRF 183, ABYC E-10.7

Cover Battery Terminals – NFPA 302-7-4.5., ABYC E-10. NFPA, 7-15.9 Battery terminals shall not be used for more than 1 conductor. Exception: 1 additional connection to a + or – bus or stud for that purpose.

Reverse Polarity Indicator For 120 VAC Shore Power – NFPA 302-8-8.1., ABYC E-8.10

Ground Fault Circuit Interrupter (GFCI) for wet spaces – NFPA 302-8-12.1., ABYC E-8.12. UL 943

Support Electrical Wiring Every 18” – NFPA 302-7-14.6. ABYC E-8.15

Do Not Use Wire Nuts – NFPA 302-8-15.11., ABYC E-8.15.18

Lightning Protection – NFPA 302-2-3., ABYC E-4

Ignition Protected Devices – 33 CFR 183.410, UL 1500, or SEA J1171

Propane Bottle Locker – NFPA 302-6-5.12.1., ABYC A-1.8 ISO DIS9094

LPG Systems- ABYC A-1 & Galley Stoves A-3

CNG Systems – ABYC A-22

Sea cocks – ABYC H-27, UL 1121, ISO WD 9093

Hull Identification Number: 33 CFR 181, ABYC T-10

Toilet, USCG Marine Sanitation Device (MSD) 33 CFR 159, ISO WD 8099

Bilge Alarm, High Water Level. 46 CFR 28.250

Anchor, Ground Tackle: 46 CFR 28.235, ABYC H-40

Boarding Ladder: ABYC H-41

Navigation Rules Book: to be carried Vessels over 12 meter: 33CFR 88.05, COMDTINST M16672.2D



