

Bartlett Marine Services & Consulting
MARINE SURVEYOR AND CONSULTANT

2004 Formula 40 PC

Power Sample



SAMS (Society of Accredited Marine Surveyors), ABYC (American Boat & Yacht Council) Standards Certified

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Report of Marine Survey

Of The Vessel

Power Sample

2004 Formula 40 PC

Conducted by
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Member SAMS, ABYC Standards Certified

PREPARED FOR:

You, Your address

July 03, 2011

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I. INTRODUCTION

SCOPE OF SURVEY

Acting at the request of You, Your address, the attending surveyor did attend onboard the *2004 Formula 40 PC, Power Sample* beginning on 7/1/11 where an out of the water survey was conducted at Dockside Landing Marina 9 Commerce Dr. Ticonderoga NY. The Hull Identification Number **US TNRD 7777C404** was verified from the transom. A sea trail was performed. An out-of the water inspection of underwater machinery and the exterior of the hulls wetted surface area was performed. The reason for the survey, was to ascertain the physical condition and value of the vessel. Moisture readings taken and referenced throughout the body of the report, were taken with the Electrophysics GRP 33 moisture meter, which was calibrated with the manufacturer's test block at the site. AC and DC power was used to check operation of the electrical systems specified in this report only. No reference or information should be construed to indicate evaluation of the internal condition of the engines or the propulsion system's operating capacity. Electronic equipment was checked for "power up" only.

This vessel was surveyed without removals of any parts, including fittings, tacked carpet, screwed or nailed boards, anchors and chain, fixed partitions, instruments, clothing, spare parts and miscellaneous materials in the bilges and lockers, or other fixed or semi-fixed items. Locked compartments or otherwise inaccessible areas would also preclude inspection and we will not accept responsibility for the condition of components hidden in or by them. Further, no determination of stability characteristics or inherent structural integrity has been made and no opinion is expressed with respect thereto. This survey report represents the condition of the vessel on the above dates, and is the unbiased opinion of the undersigned, but it is not to be considered an inventory or a warranty either specified or implied.

NOTE: It is recommend and understood that all engines be surveyed by a qualified Engine Surveyor to determine the condition of the engines, gears and pumps, heat exchangers, coolers, etc.

CONDUCT OF SURVEY:

THE MANDATORY STANDARDS PROMULGATED BY THE UNITED STATES COAST GUARD (USCG), UNDER THE AUTHORITY OF TITLE 46 UNITED STATES CODE (USC); TITLE 33 AND TITLE 46, CODE OF FEDERAL REGULATIONS (CFR), AND THE VOLUNTARY STANDARDS AND RECOMMENDED PRACTICES DEVELOPED BY THE AMERICAN BOAT AND YACHT COUNCIL (ABYC) AND THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAVE BEEN USED AS GUIDELINES IN THE CONDUCT OF THIS SURVEY.

The use of the word "appears" is intended to indicate that a close or complete inspection was not possible or it was not deemed appropriate at the time of this survey. The deficiencies reported herein reflect the conditions observed at the time the survey was conducted.

Use of asterisks * in the body of the report will indicate that a finding will be listed in the *Findings and Recommendations* section pertaining to the asterisked item, following the body of the report.

II. GENERAL INFORMATION

GENERAL INFORMATION

SURVEY PREPARED FOR:	Your Name
NAME OF VESSEL:	Power Sample
TYPE OF SURVEY:	Pre-Purchase for Buyer
OVERALL VESSEL RATING:	**** ABOVE AVERAGE
ESTIMATED MARKET VALUE:	\$250,000
ESTIMATED REPLACEMENT COST:	\$593,000
YEAR/MAKE/MODEL OF VESSEL:	2004 Formula 40 PC
BUILDER:	Thunderbird Prod. Corp., Decator, IN.
YEAR BUILT:	2004
MODEL YEAR:	2004
HULL IDENTIFICATION NUMBER (HIN):	US TNRD 7777D404
HAILING PORT:	Malta NY
STATE VALIDATION STICKER NUMBER:	NY 107777
STATE REGISTRATION NUMBER:	T 7777B
OWNER:	Owners name and address
PLACE OF SURVEY:	Dockside Landing Marina 9 Commerce Dr. Ticonderoga NY
SECOND PLACE OF SURVEY:	Chipmans Point Marina, Vermont
DATE/TIME OF SURVEY:	July 01, 2011
HULL MATERIAL:	FRP (Fiber Reinforced Plastic)
HULL TYPE:	Deep V
LENGTH OVER ALL (L.O.A.):	40 '
BEAM:	12' 8"
DRAFT:	35"
DISPLACEMENT:	19304 lbs.
OVERHEAD CLEARANCE:	14' 11" from spec sheet.

II. GENERAL INFORMATION

PROPULSION SYSTEM: **Twin Yanmar 440 HP inboard**

FUEL TYPE: **Diesel.**

FUEL CAPACITY: **250 gallons from Broker's spec sheet.**

DC POWER: **12 volts**

FRESH WATER CAPACITY: **55 gallons from Broker's spec sheet.**

HOLDING TANK: **57 gallons from Broker's spec sheet.**

INTENDED USE/BUYER: **Recreational near coastal cruising.**

INTENDED CRUISING AREA: **Hudson River, Long Island Sound**

II. GENERAL INFORMATION

DEFINITION OF TERMS:

The terms and words used in this report have the following meanings :

ABYC:

American Boat and Yacht Council

APPEARS:

Indicates that a very close inspection of the particular system, component or item was not possible by the surveyor

SERVICEABLE:

Sufficient for a specific requirement, functional.

POWERS UP:

Power was applied only. This does not refer to the operation of any system or component.

EXCELLENT CONDITION:

New or like new appearance, functional.

GOOD CONDITION:

Minor cosmetic discrepancies noted, functional.

POOR CONDITION:

Unusable as is. Requires repairs or replacement to be considered functional.

USE OF *:

Use of * in the body of this report will indicate that a finding will be listed in the "Findings and Recommendations" section pertaining to the * item.

MOISTURE METER READINGS FOR ELECTROPHYSICS GRP33:

FIBERGLASS

WET above 2% (3% indicates near potential for delamination)

MOIST .85% - 2%

DRY below .85%

III. SYSTEMS

HULL DECK AND SUPERSTRUCTURE

HULL CONSTRUCTION

MATERIAL:

FRP (fiber reinforced plastic)

EXTERIOR HULL:

White gelcoat in good condition with no visible scratches, well maintained.

PORTLIGHTS:

Six (6) opening plastic portlights with screens, three each port and starboard.

STRINGERS:

Hull stiffness provided by FRP longitudinal stringers. Complete inspection not possible due to limited access. Appears serviceable where observed.

TRANSOM:

Moulded fiberglass transom trunk with pneumatic lifts operated. Transom door in better than good condition.

BILGE:

Painted surface, dry and clean throughout the boat.

CHAIN LOCKER (DRAINAGE):

Drainage overboard through vent at bottom of well. The chain locker deck hatch support is not attached.

***C.1**

The chain locker deck hatch support is not attached.

MOISTURE CONTENT:

The entire hull, from the water line to the sheer, tested in the dry range with the moisture meter. Sounding with a hammer also showed no abnormalities or delamination.

DECK CONSTRUCTION

TYPE:

One piece moulded FRP.

MATERIAL:

FRP construction with moulded in non-skid pattern. Soundings with hammer and moisture meter readings indicate dry everywhere tested and in good condition.

COCKPIT:

FRP, good condition with no cracks and no signs of water intrusion or delamination. Moisture meter results were in the dry range.

DECK FITTINGS

STANCHIONS:

Welded stainless steel rail system, runs the perimeter of the vessel. Well mounted and in better than good condition, no movement or rust sighted.

III. SYSTEMS

HULL DECK AND SUPERSTRUCTURE

DECK FITTINGS(*continued*)

VENTILATION:

Provided by three Bomar hatches in good condition with no signs of water leaking.

WINDLASS/GIPSY:

Lewmar windlass with controls at the helm and on deck. Operable and in good condition.

DECK SURFACE:

The general condition of the non-skid on the deck surface is dry clean and in better than good condition

GRAB RAIL:

Stainless hand rails along sides of super structure and others at various locations on vessel all are clean and in better than good condition.

CLEATS:

Eight Stainless steel cleats all well mounted and clean in better than good condition.

OTHER:

Hydraulic swim platform includes a fold up stainless steel ladder and an optional tender cradle (that was not assembled). The lift did not operate. Owner and dealer will investigate and repair.

***B.1**

Hydraulic swim platform did not operate.

SUPERSTRUCTURE

MATERIAL:

Fiberglass hardtop

DECK HATCHES:

Two opening.

WINDOWS/PORTS/DOORS:

Tinted tempered curved glass with center walk through, in good condition. Windshield wipers operated.

CANVAS AND SUPPORT STRUCTURE:

Complete canvas enclosure with isen glass and screens in good condition..

SUPERSTRUCTURE HOUSE TO DECK JOINT:

The hard top was stored on the transom of the boat (see photo) for the winter (inside). The yard personnel attached the top at the launch site (see photo).

MOISTURE CONTENT:

Moisture meter readings were "Dry" everywhere tested.

ADDITIONAL EQUIPMENT AND ACCESSORIES

FENDERS:

Four fenders in a rack located in the transom trunk. Three others with cloth covers, all in good condition.

III. SYSTEMS

HULL DECK AND SUPERSTRUCTURE

ADDITIONAL EQUIPMENT AND ACCESSORIES(*continued*)

DOCK LINES:

Assorted lengths and sizes sighted. Serviceable.

CABIN APPOINTMENTS

INTERIOR DESCRIPTION:

CABIN BRIGHT WORK:

Poly coated cheery wood in excellent condition (see photo).

INTERIOR BULKHEADS:

The interior bulkheads were finely fit where sighted.

WATER INTRUSION SIGNS:

None Sighted.

STORAGE AREAS:

The cabinets, lockers, drawers, and shelving were well crafted and finely fit where sighted.

HEADLINERS:

Headliner material in the cabins appeared to be a light colored vinyl, excellent condition.

FABRIC AND CUSHIONS:

Leatherette material all in excellent condition, with no satins or signs of wear.

FLOOR AND WINDOW COVERINGS:

Light tan carpet in better than average condition with a clear vinyl cover.

ACCOMMODATIONS:

Two in the berth and two in the aft settee.

HEADS:

The head is located in the main cabin forward of the galley.

SHOWERS:

There is a stand up shower enclosure in the head which drains into the main greywater sump. Did not operate.

FAUCET FIXTURES:

The faucet fixtures are demand pump 12 volt, in both the head and in the galley. Both operated.

LIGHT FIXTURES:

12 volt cabin lights throughout the vessel were operable.

AIR CONDITIONING UNITS:

One Marine Air 1600 BTU air conditioner located under the cabin settee. The unit was started and did operate.

TELEVISIONS:

Two, one RCA flat screen with DVD mounted in the main cabin. Another Panasonic flat screen with DVD mounted in the V berth. Both TVs did power up.

III. SYSTEMS

CABIN APPOINTMENTS

INTERIOR DESCRIPTION:(*continued*)

STEREO, ETC.:

Kenwood stereo with CD disk changer, 4 speakers below and 2 speakers in the cockpit. The stereo did power up.

CONDITION AND DEFICIENCIES:

The overall house keeping for this vessel was above average. It reflects the care of a conscientious crew, with good sea keeping skills.

OTHER:

Cable TV and telephone jack located on the transom was not tested.

GALLEY

LOCATION:

The galley is in the main cabin forward of the head (see photo).

SINKS:

Round stainless steel sinks in the galley and the head. Both in excellent condition.

REFRIGERATION:

Under the counter Nova Kool refrigerator and freezer in the galley did operate. Another small refrigerator (Isotherm) located in the cockpit also did operate.

STOVE/OVEN:

Two burner built in electric stove operated.

MICROWAVE:

Samsung microwave, operated.

OTHER:

The Corian counter top is in excellent condition.

PROPULSION

MAIN ENGINES

TYPE:

Twin Yanmar turbo diesels (6LY2A-STP). See photo.

SERIAL NUMBERS:

Port: M55176 Starboard: M55177

LABELS AND NOTICES:

The engines are in like new condition and all required labels appeared to be in place and readable.

HORSE POWER:

440 HP

NUMBER OF CYLINDERS:

Six (6) in line configuration.

III. SYSTEMS

PROPULSION

MAIN ENGINES *(continued)*

INDICATED HOURS:

Port: 111.9 hr. Starboard: 114.6 hr.

THROTTLE CONTROLS:

Morse lever/cable type. Both operate smoothly.

ENGINE MOUNTS AND BED:

In good condition, no rust or oil and no movement noted.

LUBRICATION:

Both engines had high, clean oil levels after the sea trial. The spinoff oil filters have been changed.

VENTILATION:

Power blowers port and starboard with flexible pick-up tubing. Natural, flow ventilation provided by hull vents. Appears adequate.

EXHAUST SYSTEM:

Double clamped through out with good hose condition.

PROP SHAFTS:

Stainless steel 2 " diameter. Appears serviceable.

STUFFING BOX:

Stuffing box and packing gland, is bronze hex nut type boot is double clamped and appears serviceable. Monitor Frequently for leakage and proper adjustment.

CONDITION AND DEFICIENCIES:

The engines and engine room are very clean and have had continual professional servicing.

COOLING SYSTEM

TYPE:

Heat exchanger cooling (also called indirect cooling or closed reservoir cooling)

RAW WATER STRAINERS:

Perko bronze alloy with sight glass. Appears serviceable.

COOLANT LEVEL:

Normal level observed after sea trial.

HOSES AND CLAMPS:

Double clamped where sighted. Appears serviceable.

BELTS AND PULLEYS:

Belts condition appears serviceable.

SEACOCKS AND STRAINERS:

Raw water seacocks were bronze ball valve type and were operable.

III. SYSTEMS

PROPULSION

TRANSMISSIONS

TYPE:

ZH Hurth, ZF 80IV

GEAR RATIO:

2.48:1

FLUID LEVEL AND CONDITION:

Normal level indicated on dipsticks. Appears clean after sea trial.

CONTROLS:

Morse type mechanical cable and linkage. Serviceable.

FUEL SYSTEM

MAIN ENGINE(S) FUEL SYSTEM

FUEL TYPE:

Diesel.

MATERIAL:

Aluminum sighted.

NUMBER OF TANKS:

Two (2)

TANKS CAPACITY:

Total: 250 as per spec sheet.

LOCATION:

Port and starboard under the cockpit.

MANUFACTURING LABEL:

The ABYC required labels were sighted on the fuel tanks.

FILL PIPE LOCATIONS:

Port and starboard deck marked for diesel.

FILL PIPE GROUNDED:

Appears to be properly grounded.

HOSE CONNECTIONS, CLAMPS:

Appears serviceable and approved where sighted.

FUEL LINES AND FITTINGS:

Grade USCG type A1. Appears serviceable where sighted.

FUEL FILTERS:

Racor 900 MA primary for each engine with a secondary spin off on each engine. Replaced in the spring by Dealer.

III. SYSTEMS

FUEL SYSTEM

MAIN ENGINE(S) FUEL SYSTEM(*continued*)

FILTER/FUEL CONDITION:
Appears clean.

ELECTRICAL SYSTEMS

ELECTRICAL SYSTEM (D.C. SYSTEM)

VOLTAGE:
Lead acid battery powered 12 volt system.

BATTERIES:
Three 2005Deka Deep cycle.

MAIN BATTERY SWITCHES:
Main engine battery rotary type switch in a cockpit locker, port side aft of the refrigerator. Operated

PANEL:
Factory installed (see photo).

BREAKERS/FUSES:
Breakers. Serviceable.

ROUTING/SUPPORT:
Well supported and secured where sighted.

CHARGING SYSTEM (BATTERY CHARGER):
Charles Marine 5000series (80 amp) battery charger.

CHARGING SYSTEM (ALTERNATOR):
Alternators on main engines , tested underway .

OUTLETS:
12 Volt outlet sighted in the helm station is of cigarette socket type, did not operate.

ELECTRICAL SYSTEM (A.C. SYSTEM)

SHORE POWER INLET:
Set of two (2) Hubbel 30 amp. Location aft transom corner starboard side. Good condition , serviceable.

SHORE POWER:
Two 25 foot long, 120volt/30 amp. Clean and serviceable.

AC SOURCE SELECTOR SWITCH:
At the main electrical panel in the cabin.

MAIN BREAKER:
On the factory installed electrical panel.

BRANCH BREAKERS:
Ten well marked.

III. SYSTEMS

ELECTRICAL SYSTEMS

ELECTRICAL SYSTEM (A.C. SYSTEM)(continued)

CIRCUIT LOAD MONITORS:

Yes voltage and amperage analog gauges in the main electric panel. For both the AC and DC systems.

CONNECTIONS (TYPE):

Captive lug type. Appears serviceable where sighted.

WIRE TYPE (SIZE AND RATING):

Size and rating, where sighted, appears well routed and supported, serviceable for intended use.

ROUTING:

Well routed and supported where sighted.

OUTLETS:

One in the galley, one in the head. Both are GFCI protected, each were tested.

POLARITY:

Test button on the AC panel. Not tested

GENERATORS AND INVERTERS

TYPE:

7.5 KW Westerbeke generator.

FUEL TYPE:

Diesel.

LOCATION:

Engine room, centerline forward. Well insulated and sound protected.

FLUID LEVELS:

Coolant normal. Oil normal. Serviceable

COOLING SYSTEM:

Freshwater and raw water wet exhaust type.

FUEL FILTER:

Racor located next to the generator.

EXHAUST SYSTEM:

Wet exhaust, all hoses double clamped and in good condition.

WARNING LABELS:

Yes, this is like new equipment and the required labels appeared to be in place and readable.

NOTE:

The generator was tested during the sea trial. It started with no excessive smoke, ran smoothly and generated AC power.

III. SYSTEMS

FRESH WATER SYSTEM

FRESH WATER SYSTEM: (POTABLE WATER)

STORAGE TANKS:

One located under the V berth.

CAPACITY:

55 gallons as per Spec sheet.

FILL PIPE LOCATION:

Forward starboard side deck marked for water.

VENT PIPE LOCATION:

Starboard topsides.

PUMPS:

A 12 volt demand diaphragm type water pump, did not test.

FILTERS:

Large water filter located under the sink.

HOSES AND CLAMPS:

Plastic tubing throughout the vessel.

DOCK SIDE PRESSURE REGULATOR:

Pressure regulator at dock side hose connection on the transom. Not tested.

OTHER:

The transom hot and cold shower was not tested.

NOTE:

WARNING: Dockside water pressure inlet devices have been known to cause catastrophic water damage, and the sinking of unattended vessels due to malfunction and failure of the device. It is the surveyor's opinion and strong recommendation that such equipped vessels, never be left unattended with dockside water pressure applied to the vessel, and preferably disconnected unless attended.

FRESH WATER SYSTEM (HOT WATER SYSTEM)

TYPE:

110 electric. Household type. Did not test.

MANUFACTURER:

Seaward 12 gallons. Did not test.

PRESSURE RELIEF VALVE:

Yes, copper pressure relief valve built into tank.

HEAT EXCHANGER AND PLUMBING:

Engine mounted heat exchanger. Appears service able.

III. SYSTEMS

SANITATION

SANITATION (BLACK WATER)

MANUFACTURER:

Sea Land

MANUAL OR ELECTRIC TYPE:

Electric Vacuum flush. Did not operate.

M.S.D TYPE USCG SYSTEM:

Certification Type: MSD U.S.C.G. Type III. (Holding tank)

RAW WATER SUPPLY AND CLAMPS:

Appears serviceable where sighted.

DISCHARGE HOSES AND CLAMPS:

There is no overboard discharge on this vessel.

HOLDING TANK:

Poly/plastic under the generator in the engine room. Pump out on deck marked for waste. No smell noted.

CAPACITIES:

57 gallons as per spec sheet..

SANITATION (GREY WATER)

SUMP TANK LOCATION:

Midships bilge area, centerline.

MATERIAL:

Plastic, specific type not determined.

DISCHARGE:

Discharges into the main holding tank.

STEERING SYSTEM

STEERING SYSTEM

TYPE:

Power hydraulic steering system.

NUMBER OF STATIONS:

One

RUDDER POSITION INDICATOR:

Raymarine auto pilot indicator. Tested.

UPPER RUDDER BEARING SUPPORT:

Well mounted and the bronze upper rudder bearing. Appears serviceable.

PACKING GLAND:

Bronze hex nut type packing gland. Appeared serviceable.

III. SYSTEMS

GROUND TACKLE

GROUND TACKLE

ANCHORS:

One polished stainless steel Bruce type.

RODE MATERIAL:

200 ft 5/16" galvanized chain. No rust, good condition.

WINDLASS:

Lewmar, operated from the helm.

OTHER:

Anchor wash down station in the anchor locker was not tested.

ELECTRONICS AND NAVIGATION EQUIPMENT

ELECTRONICS AND NAVIGATION EQUIPMENT

VHF:

Raymarine, powered up.

RADAR:

Raymarine Pathfinder RL70C, powers up.

CHART PLOTTER:

Raymarine GPS with 530 color chart plotter. Operated during the sea trial.

AUTOHELM:

Raymarine ST6001. Powered up.

SPEED LOG:

Raymarine Tridata, operated.

DEPTH SOUNDER:

Raymarine Tridata, operated.

COMPASSES:

4" Richie at the helm station. Appears serviceable.

ANTENNAS:

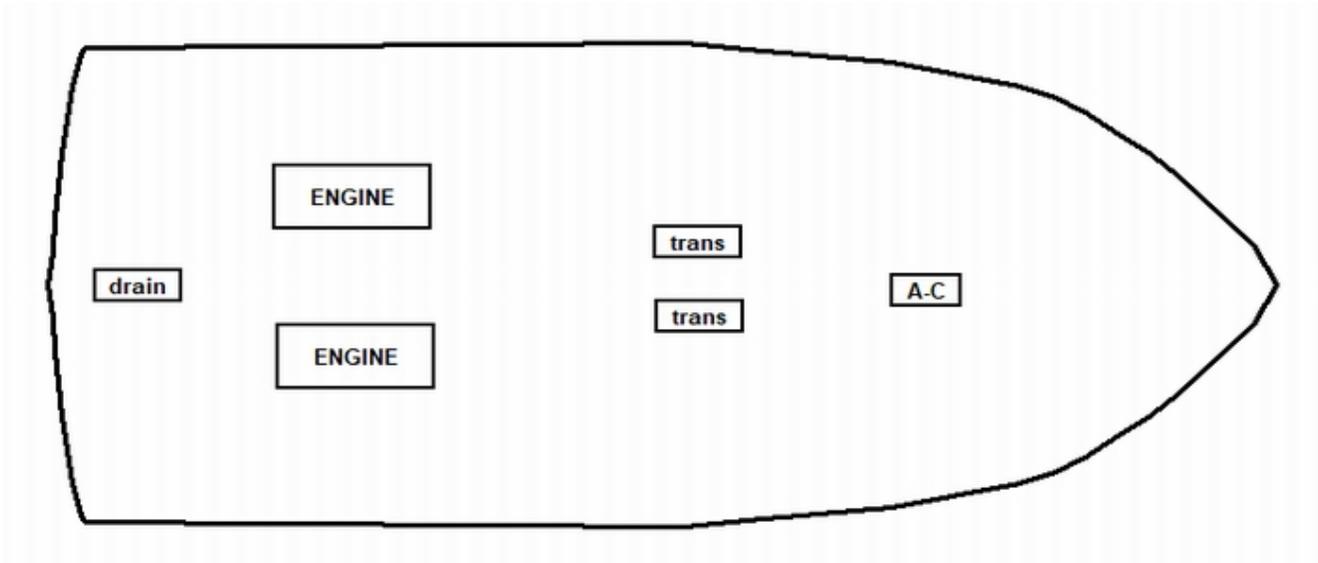
Shakespeare VHF, Raymarine 120 radar and GPS, Galaxy Sirius radio, TV antennas mounted on the hard top. All in good condition.

III. SYSTEMS

THRU-HULLS

THRU-HULLS:

THRU-HULLS BELOW WATER LINE (DIAGRAM):



Abbreviation	Description
A-C	air conditioner
drain	hull drain
ENGINE	Engine
trans	depth and speed transducer

**** Red Icon(s) with white text indicates inoperable item.**

NOTE:

The below the water line thru-hull valves on this vessel were ball bronze valve type and were all operable and in good condition.

BONDED:

They were bonded where sighted. Appears serviceable.

CONDITION:

All were in good condition with no corrosion.

OPERABLE:

All sea cocks operated.

DRAIN PLUGS:

One located under the exhaust tunnel.

III. SYSTEMS

BONDING SYSTEM

BONDING SYSTEM

MAIN BONDING CONDUCTOR:

The bonding system is well established where sighted. The bonding system is using individual green insulated wire and appeared to be serviceable.

THRU-HULL FITTINGS:

The thru-hull fittings are bonded and show no excessive corrosion.

SEA STRAINERS:

All sea strainers appeared to be bonded.

PUMPS AND MOTOR HOUSINGS:

All pumps and housings appeared to be bonded, where sighted.

GROUNDING PLATES:

There are two grounding plates located aft of each engine, in good condition.

ENGINES AND GENERATORS:

Engine appears to be bonded and grounded.

ZINC (HULL ZINC):

There are two new zincs attached to each grounding plate.

SAFETY EQUIPMENT

SAFETY EQUIPMENT (UNITED STATES COAST GUARD)

NUMBER AND TYPE OF PFD'S:

(4) Type II USCG approved, two with strobes attached. Serviceable.

NUMBER OF THROWABLE PFD'S:

One (1) Type IV-U.S.C.G. approved throwable device.

FIRE EXTINGUISHERS:

A total of three portable and one fixed automatic fire extinguisher in the engine room.. The three mounted portable extinguishers all have a manufacturers date of 2006. The Sea Fire 1301 located in the engine room reads green but has no inspection tag.

***B.2**

The Sea Fire 1301 fixed engine room fire extinguisher appear to have not been inspected.

VISUAL DISTRESS SIGNALS:

No day/night visual distress signals were found on the vessel.

***A.1**

No visual distress signals were sighted aboard the vessel.

SOUND DEVICES:

Air horn. Operable.

III. SYSTEMS

SAFETY EQUIPMENT

SAFETY EQUIPMENT (UNITED STATES COAST GUARD)(*continued*)

NAVIGATION LIGHTS:

- Sidelights are operable.
- Mast head light is operable.
- Stern light is operable.
- Anchor light is operable.

INLAND NAVIGATION RULE BOOK (12M-39'4" OR LONGER):

Not found on the vessel.

***B.3**

No USDOT USCG International-Inland Navigation Rule book found aboard.

"NO OIL DISCHARGE" PLAQUE:

Yes, found properly displayed in engine space.

TRASH DISPOSAL PLACARD:

Yes, found properly displayed in galley area.

WASTE MANAGEMENT PLAN (OVER 40'):

Yes. Note: Vessels over 40' are required by the USCG to have a written waste management plan onboard (33CFR-151.57).

AUXILIARY SAFETY EQUIPMENT

SMOKE DETECTOR:

None Sighted. Highly recommended by NFPA (302-44 12.3) that all vessels over 26 feet with sleeping space be equipped with a smoke detector.

***A.2**

No smoke detector found aboard.

BILGE WATER ALARM AND SAFETY SWITCHES:

Yes, bilge high water alarm under main cabin floor. Did not test.

SEARCH LIGHT:

Fixed on the bow, operated from the helm. Operational.

FIRST AID KIT:

Yes, aft cockpit locker.

FUME SNIFFER ALARM SYSTEMS:

Carbon monoxide detector found aboard, not tested. Two sensors, one in each sleeping quarter.

BILGE PUMPS

LIST:

Two automatic bilge pumps not tested. One in the engine room and one in the main cabin bilge.

III. SYSTEMS

OUT OF WATER INSPECTION

BELOW WATERLINE MACHINERY

PROPELLER(S):

Two Bronze 23x32 4-bladed in good condition, no dents or visible damage..

PROPELLER SHAFT(S):

2" stainless steel in good condition.

SHAFT BEARING (CUTTLESS BEARING):

Cuttless bearings showed no signs of sloppiness or end play.

STRUTS:

Cast bronze . Firmly attached to the hull, good condition .

RUDDER(S) MATERIAL:

Bronze in good condition.

TRIM TABS:

Bennett trim hydraulic tabs operated normally during the sea trial. Clean with no corrosion.

THRUSTERS:

Lewmar bow thruster prop in good condition. During the seatrial the thruster did not operate properly. Owner will have the Dealer repair.

THRU-HULLS:

Three bronze thru-hulls fittings all serviceable.

TRANSDUCERS:

Speed and depth, both appear serviceable.

ZINCS:

Two new zincs attached to the grounding plates and two new zincs attached to the swim platform support.

CONDITION OF HULL (WETTED SURFACE)

BLISTERS:

None Sighted.

CONDITION OF BOTTOM PAINT:

Bottom well painted. Condition good.

NOTE:

The hull was percussion sounded using a hammer below the water line. No abnormalities were noted. The hull appears sound.

III. SYSTEMS

SEATRIAL REPORT

INTRODUCTION

INTRODUCTION:

The Power Sample was operated from the Ticonderoga launch ramp to Chipmans Pt. Marina between the hours of 1300 to 1400 on 7/1/09. The vessel was operated by Owners Captain, on board also were: Owner, Dealer, Prospective buyer and myself.

OBSERVATIONS

OBSERVATIONS:

1. The engines started without excessive cranking.
2. The engine exhaust appeared normal.
3. The cooling water exhaust appeared adequate and normal.
4. The engine instruments operate within normal operating limits at idle, cruising speed, and maximum throttle.
5. Manufacturer's recommended max RPM is 3300
Engines reached 3370 RPM at full throttle.
6. The steering system operated normally.
7. The throttles operated normally.
8. The transmissions operated normally/smoothly.
9. The backdown test was satisfactory.
10. There were no excessive vibrations noted.
11. The autopilot was not tested, the trim tabs operated normally.
12. There were no oil or coolant leaks observed. (On main engines or in exhaust water)

The water temperature is in Fahrenheit. The oil pressure is in pounds per square inch. Rpm refers to revolutions per minute. Batts are in volts of charge from the alternator. These figures are comprised of data read from the vessels gauges while underway on the above stated date and time of the sea trial.

TRIAL RUN DATA

PORT ENGINE:

700 rpm - 13.5 volts - 150 degrees - 35 lbs. oil - 4.0 kts.
1000 rpm - 13.5 volts - 170 degrees - 50 lbs. oil - 6.8 kts.
2000 rpm - 13.9 volts - 175 degrees - 80 lbs. oil - 13.9 kts.
2500 rpm - 13.9 volts - 179 degrees - 80 lbs. oil - 21.5 kts.
3375 rpm - 13.9 volts - 185 degrees - 80 lbs. oil - 31.0 kts.

STARBOARD ENGINE:

700 rpm - 13.5 volts - 150 degrees - 35 lbs. oil - 4.0 kts.
1000rpm - 13.5 volts - 170 degrees - 40 lbs. oil - 6.8 kts.
2000 rpm - 13.9 volts - 175 degrees - 80 lbs. oil - 13.9 kts.
2500rpm - 13.9 volts - 179 degrees - 80 lbs. oil - 21.5 kts.
3375 rpm - 13.9 volts - 185 degrees - 80 lbs. oil - 31.0 kts.

III. SYSTEMS

SEATRIAL REPORT

TRIAL RUN DATA(*continued*)

NOTE:

The bow thruster did not operate normally.

***B.4**

The bow truster did not operate normally.

IV. FINDINGS AND RECOMMENDATIONS

Deficiencies noted under "SAFETY" should be addressed before vessel is next underway. These findings represent an endangerment to personnel and/or the vessel's safe and proper operating condition. **Findings may also be in violation of U.S.C.G. regulations.**

Deficiencies noted under "OTHER DEFICIENCIES" should be corrected in the near future so as to maintain standards and to help the vessel to retain it's value.

Deficiencies will be listed under the appropriate heading:

- A. SAFETY DEFICIENCIES
- B. OTHER DEFICIENCIES NEEDING ATTENTION
- C. SURVEYORS NOTES AND OBSERVATIONS

A. SAFETY DEFICIENCIES:

A.1 (PAGE 17) VISUAL DISTRESS SIGNALS:

FINDINGS	RECOMMENDATIONS
No visual distress signals were sighted aboard the vessel.	<i>Comply with USCG minimum requirement of three visual day/night distress signals.</i>

A.2 (PAGE 18) SMOKE DETECTOR:

FINDINGS	RECOMMENDATIONS
No smoke detector found aboard.	<i>Install a smoke detector, it is recommended by NFPA (302-44 12.3) that all vessels over 26 feet with sleeping space be equipped with an operational smoke detector.</i>

B. OTHER DEFICIENCIES NEEDING ATTENTION:

B.1 (PAGE 6) OTHER:

FINDINGS	RECOMMENDATIONS
Hydraulic swim platform did not operate.	<i>Owner will have the Formula Dealer investigate and repair.</i>

B.2 (PAGE 17) FIRE EXTINGUISHERS:

FINDINGS	RECOMMENDATIONS
The Sea Fire 1301 fixed engine room fire extinguisher appear to have not been inspected.	<i>Have the engine room fixed fire extinguisher inspected by a certified fire extinguisher service facility. ABYC recommends all fire extinguishers to be inspected once a year by a qualified fire extinguishing service facility.</i>

IV. FINDINGS AND RECOMMENDATIONS

B. OTHER DEFICIENCIES NEEDING ATTENTION:

B.3 (PAGE 18) INLAND NAVIGATION RULE BOOK (12M-39'4" OR LONGER):

FINDINGS	RECOMMENDATIONS
No USDOT USCG International-Inland Navigation Rule book found aboard.	The USCG requires a current copy of the USDOT USCG International-Inland Navigation Rules aboard all vessels over 12m (39.4 feet)

B.4 (PAGE 21) NOTE:

FINDINGS	RECOMMENDATIONS
The bow truster did not operate normally.	The Owner will have the Dealer investigate and repair.

C. SURVEYOR'S NOTES AND OBSERVATIONS:

C.1 (PAGE 5) CHAIN LOCKER (DRAINAGE):

FINDINGS	RECOMMENDATIONS
The chain locker deck hatch support is not attached.	Reattach the support.

V. SUMMARY AND VALUATION

STATEMENT OF VALUATION:

1. The "**FAIR MARKET VALUE**" is the most probable price in terms of money which a vessel should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller, each acting prudently, knowledgeably and assuming the price is not affected by undue stimulus.

Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- a. Buyer and seller are typically motivated.
- b. Both parties are well informed or well advised, and each acting in what they consider their own best interest.
- c. A reasonable time is allowed for exposure in the open market.
- d. Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and
- e. The price represents a normal consideration for the vessel sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

Therefore using the data from BUC, NADA, and various on-line services, and after consideration of the reliability of the data, the extent of the necessary adjustments and condition of the vessel, it is your surveyor's opinion that the "**FAIR MARKET VALUE**" of the subject vessel is:

\$250,000

Two Hundred Fifty Thousand Dollars

2. The "**ESTIMATED REPLACEMENT COST**" indicates the retail cost of a similar new vessel of the same manufacturer.

\$593,000

Five Hundred Ninety Three Thousand Dollars

V. SUMMARY AND VALUATION

SUMMARY:

In accordance with the request for a marine survey of the Power Sample, for the purpose of evaluating its present condition and estimating its Fair Market Value and Replacement Cost, I herewith submit my conclusion based on the preceding report. The subject vessel was personally inspected by the undersigned on **7/1/11**. Subject to correction of deficiencies listed in section IV A. (Safety), the vessel is considered to be suitable for its intended use. Other deficiencies listed should be attended to in a timely fashion.

V. SUMMARY AND VALUATION

SURVEYOR'S CERTIFICATION:

I certify that, to the best of my knowledge and belief:

The statements of fact contained in this report are true and correct.

The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, unbiased professional analyses, opinions, and conclusions.

I have no present or prospective interest in the vessel that is the subject of this report, and I have no personal interest or bias with respect to the parties involved.

My compensation is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulate result, or the occurrence of a subsequent event.

I have made a personal inspection of the vessel that is the subject of this report.

This report represents the condition of the vessel on the date of inspection. It provides no guarantee and no prediction of the vessel's condition on any later date.

This report is submitted without prejudice and for the sole benefit of Your Name.

ATTENDING SURVEYOR:

Alan P. Bartlett, AMS

VI. PHOTOGRAPHS



HIN: US TNRD 7777C404



Hard top in stored position.



Hard top installation.

VI. PHOTOGRAPHS



Head



Galley



Main salon

VI. PHOTOGRAPHS



Helm station



electrical panel



engine room