# Frank Abbey Marine Surveyor & Consultant Inc.

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Marine Survey Prepared for: xxxxxxx xxxxxxx

Vessel: 2006 Sea Ray 58 Sedan Bridge

Date: *xxxxx x, 201x* 

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# **Frank Abbey Marine Surveyor & Consultant Inc.** 516-236-1911 : PO Box 729; Massapequa Park, N. Y. 11762 : fta102@yahoo.com

# **PREFACE TO SURVEY**

**A)** Survey is conducted in accordance with the Standards & Recommendations established, by the American Boat & Yacht Council Inc., (ABYC) and the Code of Federal Regulations for Recreational Boats, (CFR).

**B)** The Survey is a visual inspection, utilizing non-destructive inspection methodologies, i.e., mallet sounding, moisture meter and pyrometer. No determination /opinion of the vessel's characteristics or inherent structural integrity will be made or expressed. All observations are strictly in the nature of opinion. The facts as discovered and presented in this report are in no way deemed a guarantee & / or warranty, for the vessel, either expressed on implied.

**C)** The Scope of this Survey provides only for inspection to those areas, of the hull, topsides and decks that are normally viewable /accessible, without removing structural components i.e., bulkheads, partitions, liners, joinery, frp. pan etc. The Surveyor does not utilize devices (other than a moisture meter & infrared heat gauge) that substitute for the direct viewing of any area. The report will not speculate regarding the condition of areas not normally viewable or accessible. The Surveyor will not be responsible for: The lack of discovery of illegal / unsafe conditions, alterations or other conditions that by design / purpose are, in a manner so as to conceal their existence for normal viewing, (i.e. heavy buildup of bottom paint),including, but not limited to cosmetic attempts to conceal blemishes / decay / dry rot /damage / imperfections etc..

**D)** The scope of the machinery / engine sections of this survey are limited to comments regarding the operating characteristics exhibited, at time of the survey, for the machinery (if any) that is commissioned & operated, at time of survey. Readings from the vessel's gauges if any) will be recorded in the survey: Those readings are not verification of the accuracy of the gauges or sending units. Deviations, if apparent from normal performance standards, will be noted. No reference of information should be construed to indicate evaluation of the internal condition of any machinery / engines.

**E)** The Surveyor will not disassemble any parts / items of any engine or other machinery. The Survey will not speculate regarding the condition of internal parts / components of engines or other machinery.

**F)** The scope of the Survey section for Navigation & Electronic Equipment is limited to those items installed, at the time of survey; in that they powered on and the screen displays were optional. No affirmation regarding the equipment's accuracy / performance is expressed or implied.

**G)** The individual / entity requesting this survey is responsible for all fees and arrangements necessary: for the vessel to be prepared, hauled out (on land), commissioned and operated at the test-run.

**H)** The vessel's estimated "current fair market value" (i.e. the monetary or its equivalent, that a willing seller will accept, with neither party being under any undue pressure to act in the matter, for the vessel, from a willing buyer), is based on one or more of the following: "BUC Research", various other publications or electronic sites listing boats for sale.

I) Third parties who wish to obtain a copy of the survey report should contact the person for whom the survey was performed. F Abbey Marine Surveyor Inc. will issue copies only on instruction from & with the permission of the original client. Fees for additional copies and transmittal expenses will be charged to the original client.

END OF TEXT

# Frank Abbey Marine Surveyor & Consultant Inc.Frank T. Abbey Certified Marine Surveyor ACMS# 0181Member: ACMS: Association of Certified Marine Surveyors & A.B.Y.C. American Boat & Yacht Council516-236-1911PO Box 729; Massapequa Park, N. Y. 11762-0729fta102@yahoo.com

#### VESSEL: 2006 Sea Ray 58 Sedan Bridge

**Date:** xxxxx x 2015

#### Requested By: xxxxxxx xxxxxx

xxx xxxx xxxxxxxx xxxxx xxxxx NY xxxxx

<u>Survey; Date & Situation / Location:</u> 7-10-201x; vessel afloat at the dock (systems commissioned); client not attending :: 7-16-2015; vessel on shore (in a travel lift); client not attending and afloat & at a test-run (conducted by Advanced Marine Diesel, VA., engine surveyor); client attending / xxxxx xxxx, xxxxxx NY (selling dealer).

Reason for Survey (as requested by client): Condition & value; for pre-purchase.

Description:Hull ID#:SERYxxxxx06 [58DB-5xx] (photograph redacted)Year & Builder:2008 Sea Ray BoatsModel:58 Sedan BridgeDocumentation #:xxxxxxx[current name: xxxxxx xxxxx]Hull Color:white.Type of Vessel:flybridge cruiser.

Value: \$xxx,000 vessel's reported purchase price; see page 10.

Replacement Cost (as reported by BUC Research): \$3,175,000

Dimensions (from published specifications): Weight: 51,500 lbs.

L.O.A.: 58'- 7" (not including added on transom lift-platform) Beam: 16'- 00" Draft: 4'- 3"

<u>Structural:</u> Type of construction (as reported by Sea Ray): Molded fiber reinforced plastic (frp.) & frp. encased wood for stringers / structural reinforcements; gel coat finish. Glasswork, as sighted, appeared neat and well finished.

<u>Decking:</u> frp. over wood core material; gel coat w/ non-skid finish, side - fore & bridge decks and trunk cabin top; synthetic teak cockpit - hull & lift platform decks and bridge step treads.

Hull to Deck Assembly: as sighted, overlapping.

Bulkheads: frp. over plywood/other material.

Joinery: teak & corrian.

Survey tools which may utilized: "Tramex/Skipper" and "GRP" moisture meters; infra-red pyrometer. (Legend: \* = Item needs attention, see page 11 // Na. = Not Applicable // Ns. = Not Sighted) F Abbey Marine Surveyor Inc.

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**Hull & Bottom:** Deep-V hull; solid frp. construction; bottom has a smooth coating of black anti-fouling paint (appeared in good condition but needs to be renewed). Gel coat finish, above the water line, appeared sound and in near-new condition. Hull and bottom were sighted & sounded (via percussion taps, at random, on hull sides and bottom) and appeared fair, true and sound; no readily detectable defects (evidence of laminate separation / voids / blisters) or damage evident; bolted on (at the transom) \*hydraulic lift frp. platform (w/ synthetic teak decking) appeared tight at the hull structure (\*Note# ). Stringers, tabbing and frames (as sighted / accessed) appeared sound. Moisture meter readings, on hullsides (above the waterline) @ 0 - <05, in the "dry" range. Hull and frames (as accessed), during the test-run, no flexing / - movement evident.

**Bow Thruster:** *Vetus* 24v powered; 2- composite 3 blade impellers (appeared sound; no damage evident); thruster tube (frp.) appeared (as sighted / accessed) appeared, neatly faired (except as \*Note# 19) and tabbed at the hull. Powered on (during docking at the 7-16-15 test-run) and appeared operational.

<u>Stern Thruster:</u> *Vetus* 24v powered; 1- composite 3-blade impeller (appeared sound; no damage evident); thruster metal housing appeared (as sighted / accessed) sound (except as \*Note# 16) and tight (via throughbolts) to the transom. Powered on (during docking at the7-16-15 test-run) and appeared operational.

Thrusters appeared served by; dedicated charger (*ProMariner ProTec*), 2-8D batteries (boxed & covered) and in-line high amp fuses, aft of the port engine; all appeared neatly rigged.

**<u>Hydraulic lift Swim Platform:</u>** struts / arms / gear appeared tight / secured @ transom, no deformation / stress cracks / flexing (as sighted / accessed, at transom) evident: \*Note# 3.

**Decks:** Gel coat finish (side- bridge decks & cabin top) appeared clean / bright, in as-new condition; no - stress cracks / damage evident. Decks appeared (as sighted / accessed & percussion sounded) sound & tight, no defects evident; moisture meter readings @ 0 - 05 in the "dry range".

Teak (synthetic; platforms & cockpit decks and bridge steps) appeared neatly fitted & well secured to and in as new condition.

[Moisture readings via Tramex Skipper Meter; set on Range# 1, scale reads 0 - 100, 0 - 25 is the "dry-range". Metered surfaces appeared free of surface condensation & salt residue.]

**Deck Hardware:** stainless steel (ss.), 8- cleats, bow - side (w/ intermediate ss. wire life-lines) & grab rails, windlass, anchor roller, hatch fittings, struts @ the bridge (support the frp. top); transom door; frp. hardtop w/ instrument boxes; frp cabinets / seat platforms, and 2- pedestal helm chairs at the bridge; ss. framed sliding entry (cockpit to salon) door. Hardware (ss. items showed clean & bright; no damage / wear evident) as accessed appeared sound and tight.

Accommodations & Ventilation and Cockpit: Salon; cabinet w/ DC & AC electric system control panels aft to port; Settees port & stbd.; fwd. & 2-steps up, Dinette to port and 1-step up, Galley stbd.; fwd. (@ the galley) and 5-steps down; passageway, Master Stateroom (full beam) w/ en'suite Head aft; Guest cabin w/ 2-Pilot Berths fwd. stbd. (in passageway); Guest /Day Head to port; shower stall to port; Guest Stateroom fwd. Joinery (teak), corrian counters, upholstery (fabric / leather / micro-fiber cushions and some bulkheads / head & side liners) furnishings & equipment appeared clean and in near - as new condition; bins, cabinets and lockers (as accessed) appeared clean & dry. AC & DC lighting (as found / accessed) powered-on.

[Note: The 120v halogen light fixtures (recessed in headliners) when on show temp @ 179°-211°.]

Hatch; 9- opening portlights, DC powered vent blowers and air-conditioning; all interior spaces (at time of survey) appeared dry & fresh.

Vinyl upholstery w/ cloth covers at flybridge & cockpit; appeared in near (no wear / tear evident) new condition.

 Underwater Gear:
 Shafts:
 ss. 2 ½" dia.
 Struts:
 bronze; 1-"I" type per shaft.
 Bearings:
 cutlass

 Propellers:
 Hi-Torque bronze / nibral;
 4- blade.

 Thruhulls:
 bronze, ss. & marilon.
 Seacocks:
 7- bronze ballvalves.

 Rudders:
 2- bronze.
 Trim Tabs:
 aluminum w/ dual rams.

 Evidence of Corrosion:
 external zincs are wasted.
 Fitted with a bonding system. \*Note# 10.

<u>Remarks:</u> (Note: materials, ss., bronze etc. are described as they appeared, no testing as to their content/quality.) Propeller shafts handturned free & easy. Bearings satisfactory no play / wear evident. Propellers appeared true & sound. Rawwater intakes fitted w/ bronze external (\*slotted) & in-line strainers. Seacocks appeared operational. Below waterline hose connections (as sighted) showed double clamped. Trim tabs appeared sound & (at the test-run) operational. Gear & transducers, bonding wires appeared (as sighted / accessed) intact, sound and tight to the hull; no damage / deterioration evident. \*Note# 20.

Engines: inboard diesel Mfg.: MAN Model: D2848 LE423 (V-8) HP (each): 900 @ 2,300 rpm

## <u>Serial #s:</u> p) **565-xxxx-01 ::** s) **565-xxxx-02**

Indicated Hours: 595 (LCD meter) (see engine survey report for ECM scan data)

Engine Bearers: aluminum caps on frp. stringers. Engine Mounts: cushion type; bolted to bearers.

Stuffing Box: ss. dripless type w/ raw water injection line; appeared satisfactory, no drip evident.

<u>Transmission:</u> *TwinDisc MG 5114A*; 1.75 : 1.00 (ratio); lube oil (on each dip stick) no unusual colorations evident; each shifted smooth & quiet.

Engine Control: MAN electronic (multi function) 2- dual function levers; appeared operational.

<u>Type of Cooling:</u> fresh water; raw water intake via bronze, strainers & seacocks and type \*J2006 hose; engine space aft on center. (\*Note# 12 & 13.)

<u>Remarks:</u> 2- *MAN* multi-function LCD displays (appeared operational) overhead at bridge console. Engine space (as sighted / accessed) had clean external surfaces(no unusual rust on engines) no salt / soot evident; lube oils & f.w. anti-freeze cooling system fluids (visually) had no unusual colorations evident. [Engine survey (engines, transmissions & gen-set) and test-run conducted survey & test-run conducted by Advanced - Marine Diesel, VA. See that report for their details, findings & recommendations.] Test Run notes p 9a. [Engine serviced / updated by Advanced Marine Diesel, prior to survey dates & engine survey.] Engines & engine space surfaces would benefit form cleaning / detailing.

**Exhaust** System: Wet exhaust via; cast iron manifolds, riser & pipe, type J2006 hose and frp. in-line (one per engine) mufflers..

<u>Remarks:</u> Appeared (as sighted / accessed) in satisfactory condition; viewed connections were double clamped. No external rust / salt / soot stains evident. (See engine survey for details & findings.)

**Engine Space Ventilation:** natural & \*DC powered blowers & flex vent hose. Port blower powered on. \*Note# 18.

<u>Air Conditioning:</u> 240v <u>Mfg.:</u> Cruse Air <u># of Units:</u> - 5 - <u>Reverse Cycle:</u> yes

Location: under fwd. berth (sighted); other units in salon & master stateroom, bridge (behind in place panels).

<u>Raw Water Intake:</u> 2- separate systems; each with a bronze ballvalve & strainer, J2006 hose and 240v - raw water pump; one aft of port engine and one fwd. of stbd. engine. .

<u>Remarks:</u> Systems (as sighted / accessed) appeared satisfactory; breakers for each unit and raw water pump at the salon 240 ACv panel: Each unit (salon aft & fwd., master stateroom, fwd. cabin & bridge) appeared operational; produced air chilled @ 59°f-57°f at the vents; ambient temp >80°f [Operated for apx. >3.5 hours on 7-10 & 7-16-2015 survey days.] \*Note# 11.

Gen-Set: Location / Access: engine space aft stbd.; in a insulated enclosure / tight.

Make:OnanModel:21.5-MDKBE-300BSerial #:L0xxxxxxxFuel:dieselKw.:21.5 @ 60hzIndicated Hours:0621.1 (meter)

Raw Water Intake: bronze ballvalve & strainer and \*hd. hose; fwd. of & below the gen-set. \*Note# 4.

Exhaust system: frp. material, aqualift muffler (stbd. of gen-set) & frp. and type J-2006 hose w/ double - clamps; outlet located stbd. hullside aft.

<u>Remarks:</u> 4- cyl. fresh water cooled 1800 rpm engine (12v starter system served by a G27 battery, fwd. stbd. of the gen-set); appeared neatly rigged; fitted w/ insulated enclosure. Engine: showed clean external surfaces; lube oil & f.w. / anti-freeze fluids had no unusual colorations evident. Engine started quick & easy and ran well under all loads; operated apx. 2.5 hours (7-16-2015 survey day); powering the vessel's circuits and equipment; volts @ 110 / 120 & polarity correct at the outlets. Engine controls and source select @ salon AC / DC panel. [See engine survey report for their findings & recommendations.] [Engine serviced by Advanced Marine Diesel, prior to survey dates & engine survey.]

**Fuel System:** <u>Number & Location of Tanks:</u> 2- one outboard / fwd. of each engine..

<u>Fuel:</u> diesel <u>Fill Label:</u> Diesel <u>Tank Material:</u> .250" - 5052 aluminum

Capacity: 700 gal. Status: <sup>1</sup>/<sub>4</sub> full (as per helm panel gauges). Bonded: wires sighted.

Secured: brackets / blocked (as sighted).

Fill Lines: A2 hose Feed Lines: A1 hose Vent Lines: A1 hose

<u>Filters:</u> two sets of dual *Racor 751000 Max* w/ selector valves & vacuum gauge, engine space adjacent to each engine; 1- *Racor 500MA* for gen-set, aft of stbd. engine and on engine metal cans. <u>Valves:</u> bronze ballvalves @ the tanks and filter manifolds.

<u>Remarks:</u> (No aerostatic tests performed.) System, as sighted & accessed, appeared in satisfactory condition; no leaks or vapors detected at this time. Entire tank structures & run of lines not directly sighted, due to installation in the hull.

Electrical System D.C.: 12v & 24v Panel Locations: salon, bridge & aft of port engine.

<u># of Batteries:</u> 7-12v: 4-8D aft of stbd. engine (appeared as engine & house service); 2-8D aft of port engine (appeared as bow & stern thruster service); 1-G27 fwd. stbd. of gen-set (for gen-set 12v service).

Secured: trays w/ hd. d rubber strap/latches (8-Ds); tray & bracket (G27) Covered: yes

OverCurrent Protection: breakers (@ each panel) and 3 high amp fuses w/ covers (aft of port engine).

<u>Battery Switches:</u> two sets of 5- solenoid switches (2- labeled "24v; port & stbd." and 3- labeled "12v; port, gen, stbd. & salon") at salon aft and of port engine panels.

<u>Remarks:</u> System (as sighted / accessed) appeared neatly rigged, operational and in satisfactory condition. Volt & amp meters (w/ battery bank select switch) 9- 24v & 6-12v breakers at salon panel; 2- in-line high amp breakers aft of stbd. engine; 20 (12v) breakers at panel aft of port engine; 3- in line high amp fuses (bow & stern thruster) aft of port engine. System (as sighted / accessed) appeared neatly rigged, operational and (except as \*Note# 18)in satisfactory condition.

## Electrical System A.C.: 120v & 240v Panel Location: salon

Shore Power Input: 1- 50 amp 240v cable, on a DC powered cable winder (aft of stbd. engine); in-line

240v main breakers @ engine space aft stbd. corner.

OverCurrent Protection: breakers & GFCI outlets (appeared operational).

Battery Charger: MasterVolt 24/50 (engines & house batteries), aft of stbd. engine and ProMariner ProTec - 2425 (bow & stern thruster batteries), aft of port engine; ProMariner 12-30 (gen-set battery) aft of port engine...

Other Equipment: Charles C-power12KVA IsoBoost Transformer, aft of port engine

<u>Remarks</u>: Volt & amp (240v service) meters, 2- dual pole main breakers (shore & gen-set) rigged with source select "slide-lock", reverse polarity indicator and 9- 240v & 13- 120v branch breakers at the panel. System (as sighted / accessed) appeared neatly rigged, operational (energized via shore & gen- set power and provided 240v & 120v power to the circuits and equipment) and in satisfactory condition. Shore power cable winder, powered on and appeared operational. Battery chargers appeared operational, t heir on unit LEDs & / or meter indicated as powered on with DC charging output active.

Fire Extinguishers:Class:: Size:: Location1-BCIbridge

*Fixed Fire Extinguisher: SeaFire 1000,* gauge reads charged; fwd. on center; manual discharge control installed in cockpit fwd. stbd. locker.

<u>Remarks:</u> \*An additional B-I portable unit is required to meet the USCG minimum requirement for this size vessel. (Suggest for enhanced service add portable unit in each cabin / stateroom and label cabinets / lockers that contain a portable extinguishers or secure portable extinguishers in brackets in visible & accessible locations, adjacent to exit paths.)

Bilge Pumps: Mfg.	:: Size	:: Secured	:: Location
Rule	2000	yes	aft under the master stateroom.
Rule	2000	yes	engine space fwd. on center
2- Rule	2000	yes	engine space mid (below the gen-set) on center.

Shower Sump: box w/ 1500 Rule pump & float switch, engine space fwd. on center.

<u>Remarks:</u> Pumps and switches powered on. Bilge as sighted / accessed appeared clean. High water alarm (@ aft pump) on. No intrusion / unusual accumulation of bilge water evident; pumps did not cycle on during time of survey. (suggest, for enhanced service and based on vessels size, install an additional high capacity pump aft at the transoms.) \*Note# 15.

# Domestic Water System: # of Tanks: - 1 - Tank Material: plastic

Location: under passageway sole (aft of bow thruster). Secured: blocked (as sighted). \*Note# 6.

Capacity: 150 gal. Status: near full (as per gauge @ salon DC panel).

Pump: 2-ShurFlo 591, 24v; 1- fwd. & 1-stbd. under passageway sole fwd. hatch. \*Note# 7.

\*<u>Water Heater:</u> 240v powered; outboard of port engine. \*Note# 9. <u>Sinks:</u> - 4 -

<u>Remarks</u>: Distribution manifold w/ valves & color (red & blue) coded pipe under a hatch in fwd stateroom. Pump (intermittently) powered on; provided temperate water at the fixtures and to the two Vacu-flush MSDs.

[\*Note: A 3-way toggle switch is connected to the ShurFlo pump stbd. (under the passageway sole hatch); switch positions are not labeled; pump function & operational status could not be determined at time of survey.]

#### Marine Sanitation Device (MSD.): 24v

Type: 2- fresh water; Vacu Flush.

Pumps: 2- 24v flush (fwd. of port engine); 1- 24v macerator (port & fwd. of gen-set).

Holding Tank: plastic; 68 gal.; <sup>1</sup>/<sub>2</sub> full as per panel gauge. <u>Secured:</u> blocked.

Location: engine space on center (under the gen-set).

Thruhull Valve: bronze ballvalve w/ \*hd hose (macerator discharge outlet) fwd. of macerator pump.

<u>Remarks:</u> Type III MSD; with a holding tank and deck pump out. System (as sighted / accessed) appeared neatly rigged, operational and in satisfactory (except as \*Note# 12 & 13) condition; Vacu-Flush pumps / system powered on introduced & evacuated water from each MSD; no off - on - off cycling evident at time of survey. \*Note# 5.

#### **Galley Equipment:**

Stove: Kenyon; 2- burners w/ ss. fiddles Fuel: 240v

Secured: yes <u>Ventilation</u>: DC powered

<u>Refrigeration:</u> Sub-Zero 120v; separate refrigerator & freezer drawers.

Other Equipment: microwave 120v.

<u>Remarks</u>: All appeared clean and in as new condition. Appliances powered on; freezer @  $01.8^{\circ}f - 10.7^{\circ}f$ ; refrigerator @  $35^{\circ}f - 38^{\circ}f$ ;

Steering System: Type: Sea Star, hydraulic w/ power assist . <u>No. of Stations:</u> -1 -

<u>Remarks:</u> Fluid tank / reservoir, w/ gauge @ 07 psi. aft of stbd. engine. System appeared operational [at test-run; manually (turned smoothly stop-to-stop) with auto-pilot engaged] and (as sighted / accessed) in satisfactory condition

**Safety Equipment:** Personal & Type IV Flotation Devices: \*none onboard.

\*Navigation Lights:DC powered\*Note# 2.Sound Producing Device:\*DC horn.\*Note# 1.Flares:\*none onboard.First Aid Kit:---CO Detector:salon and cabins.

<u>Remarks:</u> \*Install flotation devices and visual distress signal kit as per Federal requirements. :: \*Self propelled vessels over 39'- 4" (12 meters) are required to carry a copy of International - Inland Navigation Rules; as per Federal Regulation, 33 CFR 88.05.. :: \*Vessels over 26' must have Oil Discharge placard and MARPOL Trash placards. :: Vessels over 39.4' with a galley must have a Waste Management Plan placard. *NOTE: It is the vessel owner's responsibility to maintain & keep up-to-date all USCG / Federal required safety equipment and to have that equipment on board when the vessel is in use.* 

Anchor:Type::Rodeplowall chain (¼")

*Windlass:* DC powered; ss. w/ rope-chain capstan.

<u>Remarks:</u> Windlass powered on (no load applied).

Navigation Electronic Equipment:VHF Radio:Ray 240FCompass:RitchieGPS - Chart Plotter:Ray E120;\*SeaRay MapTech (\*Note# 14)Radar:Ray E120Depthsounder:\*no data displayed on Ray E120 or SeaRay MapTech.\*Note# 17.Auto - Pilot:Ray ST6001, compass sending unit installed aft under passageway sole aft hatch.Other Equipment:

<u>Remarks:</u> Equipment powered on, screen displays (except as noted) illuminated w/ functions & data displayed & up-dating; auto-pilot powered-on, engaged and appeared to hold and steer a course.

Other Systems / Equipment: 2- spare propellers (stowed / secured in the engine space); cloth covers for cockpit seats; on the bridge- *Norcold DE0059* (AC / DC powered refrigerator) @ 28°f and *U Line* \*ice maker (120v) @ 11.4°f; cockpit (cloth w/ ss. frame) awning, as-new; *Bose* 120v audio system; 3- 120v LCD Tvs; DC audio system; DC spotlight; KVH satellite TV / data receiver (not tested); DC powered engine oil changer (not-tested); raw water wash-down system [bronze ballvalve (closed), *ShurFlo* DC pump & hd. hose engine space on center, fwd. of gen set] not tested. DC & AC equipment / systems (except as noted) powered on. \*Note# 8.

<u>Test-Run Remarks</u>: Duration, apx.1- hour; 6- persons (client, broker, xxxxxxx tech staff person, engine surveyors (2) and this surveyor on board ; xxxxxxx tech staff person at the helm (engine surveyor directing the test-run); in the the waters of Great South Bay (Long Island NY); conditions-moderate winds and slight chop. The engines started quick & easy, when cold or hot (no blue / unusual smoke evident) and appeared to run well; no vibrations, hesitation, distress evident; smoothly attained and held all (idle-to 2350 / 2383 W.O.T.) rpm speeds; hull and frames (as sighted / accessed) had no flexing / movement evident.

#### Hull Speed, from vessel's GPS:

27.4kts @ 2,000 rpm. :: 30.5kts @ 2,200 rpm. :: 32.8kts @ 2,300 rpm.

Gauges (analog & MAN LCD display at bridge & salon consoles) appeared operational.

Gauges (2- MAN LCD displays) appeared operational; readings appeared in normal ranges.

Steering and Trim Tabs; appeared operational.

Transmissions; shifted smooth & quiet.

Electronic controls & synchronizer; appeared operational.

Engines (as sighted / accessed) appeared tight to their mounts.

Auto-pilot powered on and as engaged appeared to respond and hold & steer a course.

Ray electronic navigation instruments powered on - displays illuminated & showed functions and data (position - speed - radar images changing / updating).

Gen-set was running and powering 240 / 120v systems with vessel under way during test-run.

Note: Engine survey and the test-run activities were conducted by Advanced marine Diesel VA. .; see that report for their findings, details and recommendations.

#### Test run notes should not be considered as equivalent to an engine survey.

Survey Conducted in Accordance with A.B.Y.C. Standards and the Code of Federal Regulations for Recreational Boats.

#### **SUMMARY REMARKS:**

This survey was conducted on July 10 & 16, 201x at xxxxxxx xxxxxx NY, with the vessel afloat, on-shore and at a test-run. [The engines & gen-set were surveyed and test-run by Advanced Marine Diesel; see that report for their finding - remarks - recommendations.] The vessel a 2006 SEA RAY 58 Sedan Bridge is powered by twin MAN 900hp. diesel engines (with electronic controls) and is equipped with; 24v bow & stern thrusters, hydraulic lift swim platform, multiple air conditioners (including the bridge), 21kw gen-set, powered shore power cable winder, anchor windlass, GPS-plotter, auto-pilot, satellite receiver, 12v audio systems, 120v audio & video systems and ice-maker & 2ed refrigerator at the bridge. The vessel generally in near - as new cosmetic condition. Additionally the selling dealer had each engine and gen-set were serviced (as per manufactures service schedules & requirements) and repaired as needed by the engine surveyor.

The hull & bottom (solid frp. construction) were sighted & sounded and appeared fair, true and sound; no defects / voids / damage evident. The gel coat finishes (hull-topsides & decks) appeared sound and in near condition: The synthetic teak (cockpit-platforms & bridge steps) appeared in as new condition. The decks appeared sound and tight. Moisture meter readings, on the hullsides (above the line of anti-fouling paint) and decks were in the "dry" range. The cabin and cockpit joinery, upholstery, trim and equipment appeared, in as new condition. At the test run: The engines started quick & easy and ran well at all speeds up to their 2350 rpm maximum rated speed: Transmissions shifted smooth & quiet, steering, trim tabs, electronic controls and auto-pilot appeared operational. The bow & stern thrusters powered on and were operational. The gen-set, started quick & easy and ran well, under all loads, powering the vessel's 120v - 240v systems circuits and equipment. The vessel's hardware systems, appliances & equipment appeared (except as noted) sound, operational and in proper condition i.e.: Air conditioners produced chilled air: Galley appliances and bridge refrigerator & ice maker powered on. The items noted to require attention appeared as service / repair issues that should prove not too complex to correct. [The survey client advised (post the 7-16-15 survey day) that the selling dealer stated that the noted items are to be corrected.]

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#### continued from page 10

The vessel, at time of survey, as powered, rigged & equipped appeared sound and (except as noted) in near BUC Bristol Condition: With the noted items corrected (which as reported are to be completed by the selling dealer) the vessel should then appear in that BUC Bristol Condition. The \$xxx,000 survey noted value is the vessels reported purchase price: That price is within the \$602,000-\$661,500 current value range for that BUC Research ValuPro condition category. Additional factors for the vessel's valuation are that: The gen-set and the MAN engines have had all of their manufacturers required scheduled service requirements and updates (as applicable) completed and; that other repair issues discovered during the survey process have also been corrected by Advanced Marine Diesel-(authorized MAN service).

The above captioned vessel appeared to meet the ABYC standards & USCG / Federal requirements in effect when it was constructed.

\* The following is the list of Deficiencies, (not listed in priority order) that require correction.

1-- DC powered horn did not power on.

2-- navigation lights; white mast-head / steaming and anchor lights (2 separate fixtures) did not power on.

3-- swim platform lift mechanism did not power on.

4-- gen-set raw water intake hose (seacock-strainer-gen-set) significantly cracked / worn (seacock was, placed in closed position at the end of today's survey).

5-- waste discharge hose (holding tank to-macerator pump- to seacock; fwd. of gen-set) shows cracked surface.

6-- plywood block (athwart & on top on the aft end of the water tank; serves to secure the water tank in place) is cracked through & through (appeared due to screws driven into its aft edge); wood block & the tank are sighted / accessed via the hatch aft in the passageway sole.

7-- domestic water system pump (ShurFlo 24v aft of the bow thruster; under hatch fwd. in passageway sole); operated erratically: A) @ two instances pump kept running after a fixture was closed & there was no water flow at other fixtures (pump motor was hot @ 137°f to the touch) \**Same at 7-16-15 survey*.
B) at one instance pump did not power on when fixture / fixtures were opened (tapping the pump caused it to turn on).

8-- U Line ice maker (@ bridge) powered on & became cold (11°f) but did not produce ice. = = = =

9-- water heater (240v) not operational / did not produce heated water (240v & amp meters showed no current with the heater's branch breaker in the "on" position.

10-- below waterline zincs: A) on platform lift structure are 100% wasted. B) no zincs on prop shafts. C) all other zincs apx. 50% wasted. (no deterioration, except Note# 16, evident)

11-- air conditioner 240 raw water pump (aft of stbd. engine) initially did not power on (post the vessel being launched today) when the air conditioner systems were powered on; pump did power on (apx. 15 minutes later) and ran for the rest of the survey time.

12-- engine (port & stbd.) raw water intake hoses show cracked at strainer connections.

13-- ss. T clamps (@ engine raw water intake hose connections) show surface rust; remove / inspect / replace as needed.

14-- Sea Ray "MapTech" navigation device operational status undetermined; unit powered, display illuminated but navigation functions could not load; screen message read "correct time needs to be set".

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15-- high water bilge pump w/ step float switch (on step up plate; engine space below gen-set platform) tripped its circuit breaker (on main DC panel aft of port engine) when the float switch was lifted. Test all components / wirers of this circuit repair / replace as needed.



16-- stern thruster's tube (ss. or aluminum; has multiple layers of anti fouling paint) port & stbd. edges show chipped / worn (appeared due to corrosion activity; stray current / galvanic??). Recommend check bonding system connections; status of on unit zincs; remove all of the anti fouling paint, inspect housing for corrosion / pitting; apply a barrier coat to insulate the metallic tube from any metals / carbon / electrically active compounds in anti-fouling paint. [Note Vessel's shore power input is equipped with an isolation transformer a device that typically prevents "stray current" corrosion.}



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17-- Ray E120 navigation unit, during the test run, stopped showing depth sounder data.

18-- stbd. engine space blower's circuit breaker (on main DC panel aft of port engine) was "tripped" off. Test all components / wirers of this circuit repair / replace as needed.

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19-- stbd. side of bow thruster tube showed missing & loose surface frp. laminate apx. 10" on the circumference x 2" out on the hull surface x 3.5" on the tubes inner surface. (no damage / moisture intrusion / structural delamination evident; loose & missing surface laminate does not appear due to a damage event).



20-- the gen-sets in line raw water strainer (post the test-run) was found to clogged w/ sea grass & sludge (gen-set was running during the test-run and the vessel did not encounter any low water during the run) which stopped raw water flow to the engine. The external strainer is slotted type same as on the engine intakes: Recommend (based on this event and that the boats home port is to be on Long Island's south shore) install South Bay external strainers.

-End of Notes-

#### Submitted in good faith and without prejudice,

Frank T. Grann (x-xx-201x; via e-mail)

#### FRANK T. ABBEY // Member A.C.M.S // Certified Marine Surveyor; ACMS Certificate# 0181 Conditions of Report Acceptance

This survey was prepared; for the benefit of the named client; to determine the vessel's condition and approximate market value. The survey was conducted utilizing methods of non-destructive testing; and is based upon a visual inspection of the vessel; i.e. without removing panels, joinery etc., or disassembling / removing any machinery, to expose parts normally concealed. The survey is not rendered as a warranty, but and opinion of the above signed surveyor as to the condition of the vessel and equipment ONLY on the survey date. The Surveyor does not warrant or guarantee the performance, stability or characteristics of the vessel or its machinery and accordingly shall suffer no liability for errors or omissions or for not being able to properly evaluate parts. Our liability for any loss or damage arising out of this inspection and report, shall be limited to the fee paid for the services rendered herein. No reference in the report should be construed to indicate compliance of any equipment with manufacture's specifications. Recommendations (which are not meant to imply that All Deficiencies have been identified) are based upon standards set forth by the American Boat and Yacht Council and United States Coast Guard; in addition some comments may be based on the general experience of the Surveyor. The request and / or use of the survey shall constitute agreement of the Preface and above Conditions.

\*\*NOTE: Ultimate responsibility for, the vessel's Safe operation & maintenance and Safety of the crew & passengers, lies with the Owner and Master.\*\*

F. Abbey Marine Surveyor Inc.

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# Hull ID photo redacted

























# VESSEL: 2006 Sea Ray 58 DB :: Rivara















VESSEL: 2006 Sea Ray 58 DB :: Rivara





















End of Survey Photographs and Report