

**Frank Abbey Marine Surveyor & Consultant Inc.**

**516-236-1911 PO Box 729; Massapequa Park, N. Y. 11762-0729 fta102@yahoo.com**

Marine Survey Prepared for: **xxxxxx xxxxxxxxx**

Vessel: **2008 Chaparral Signature 350**

Date: **xxxx xx, 201x**

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**FRANK T. ABBEY // Certified Marine Surveyor # 0181**  
**Member Association of Certified Marine Surveyors and ABYC**

***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 or 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# 0181*

**Member: ACMS: Association of Certified Marine Surveyors & A.B.Y.C. American Boat & Yacht Council**  
**516-236-1911 PO Box 729; Massapequa Park, N. Y. 11762-0729 fta102@yahoo.com**

**VESSEL:** 2008 Chaparral Signature 350

**Date:** xxxx xx, 201x

**Requested By:** XXXXXXXX XXXXXXXX

**Address:** XXXXXXXX XXXXXXXX  
XXXXXX SSSSS SS  
XXXXXXXXXX CT XXXXX

**Survey; Date / Location / Situation:** x-xx-201x / XXXXXXXXXXXX & (XXXXX XXX Marina) XXXXXXXXXXXX, N.Y. / vessel afloat, at a test-run and hauled (in a travel-lift) on shore; client attending and x-xx-201x / (XXXXX XXX Marina) XXXXXXXXXXXX, N.Y. / hauled on shore; hull bottom media blasted (anti-fouling paint removed), being prepped for new applications of barrier coat and ablative anti-fouling paint (see Note A; page 2.)

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

**Description:** Hull ID#: FGBXXXXXXXX08 (photograph redacted)

**Year & Builder:** 2008 :: Chaparral Boats **Model:** Signature 350

**Documentation / State Reg.#:** \*Note# 1 (numbers not sighted affixed to the hull).

**Type of Vessel:** express cruiser w/ twin I/O gasoline V8 engines. **Hull Color:** white.

**Value:** \$xxx,000 reported purchase price; see page 10.

**Dimensions (from published specifications):** **Weight:** 15,000 lbs.

**L.O.A.:** 37'- 00" **L.O.D:** 34'- 8" **Beam:** 11'- 10" **Draft:** 2'- 9" (I/O drives down)

**Structural:** **Type of construction:** Molded fiber reinforced plastic (frp.) and frp. encased wood/other material for stringers & other structural reinforcements; gel coat finish. Glasswork, as sighted, appeared neat and well finished.

**Decking:** frp. over wood/other core material, with gel coat and non-skid finish.

**Hull to Deck Assembly:** as sighted, overlapping.

**Bulkheads:** frp. over plywood/other material.

**Joinery:** teak & formica; cabin sole is teak & holly planks.

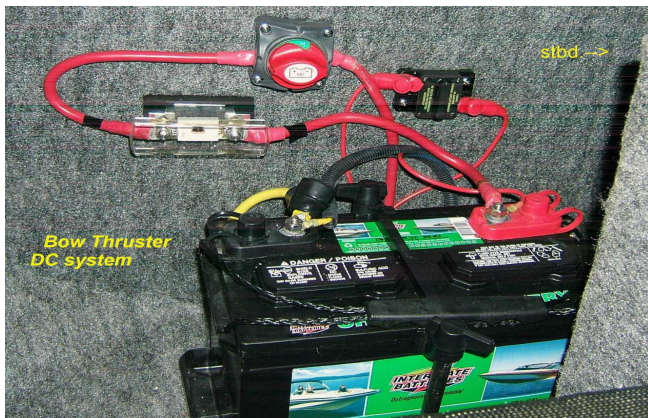
*Survey tools which may utilized: "Tramex/Skipper" and "GRP" moisture meters; infra-red pyrometer.*

*( Legend: \* = Item needs attention, see page 9 // Na. = Not Applicable // Ns. = Not Sighted )*

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**Hull & Bottom:** Modified-V hull; solid frp. construction (as reported by the builder); bottom (at the 5-18-15 survey day) had coatings of black anti-fouling paint [showed poor adhesion; paint was loose & had fallen / flaked off (over apx. 1/3 of the bottom's surface) exposing the gel coat / grey primer]. The hull & bottom were sighted & sounded (via percussion taps, at random, on hull sides & bottom) and appeared fair, true and sound; no (other than the loose coating of anti fouling paint) readily detectable defects (evidence of laminate - separation / voids / blisters / damage / repairs) evident. Gel coat finish (above waterline) appeared sound and in near-new condition Stringers, tabbing, frames & frp. grid pan (in engine space), as sighted & accessed, appeared sound; bolted on frp. platform w/ molded in ribs & 4- ss. struts, appeared tight to the transom. Hull and frames (as sighted / accessed, during the test-run) had no unusual flexing / movement evident. (Built-in cabin structure / cockpit frp. pan / joinery restrict access, to the hull's internal structures & surface.)  
*[Note A] 5-27-15; the hull bottom had been media blasted & sanded (removing the anti-fouling paint & grey primer) in preparation for application of two separate epoxy barrier coatings and then coatings of an ablative anti-fouling paint: as performed & reported by xxxxx-xxx Marine xxxxxxxxxx N.Y.)*  
*[Note B: Moisture meter readings on this vessel are not practicable as Chaparral hull laminate's use resin / other material that cause any moisture meters to record elevated / "wet" readings; see Chaparral Boats memo pg 11a.]*

**Bow Thruster:** 12v powered; w/ dedicated battery, in-line high amp fuse & breaker, battery switch and ProTech battery charger (installed aft stb.d under the fwd. berth). Thruster and system components powered on and appeared operational; thruster tube (frp.) appeared (as sighted / accessed) sound and neatly faired to the hull.



**Decks:** Gel coat finish appeared in as- new condition; no stress cracks or damage evident. Decks, as accessed and percussion sounded, appeared sound and tight, no softness / delamination evident.

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**Deck Hardware:** stainless steel (ss.) 8- cleats; bow - side & grab rails, windlass & anchor roller (under an frp. hatch covered well at the foredeck), windshield frame (w/ hinged center section) and welded tube struts, on which the frp. hard-top (installed over the cockpit helm-bridge deck) is supported & mounted; hatches & transom door w/ ss. fittings; 12v powered lift ram (cockpit deck / engine space hatch. Hardware (as - accessed) appeared sound and tight; hatch lift ram powered on & was operational.

**Accommodations & Ventilation and Cockpit:** Salon; Head aft to port; Dinette / Settee stbd; Galley to port; double-Berth on-center & fwd.; Settee / double Berth compartment aft in the salon. Joinery (teak), upholstery (leatherette / cloth & vinyl), teak & holly soles, furnishings & equipment appeared in as new (no wear-tear / water intrusion stains / leaks evident) condition. Bins, cabinets and lockers (as accessed) appeared clean and dry.

3- hatches (with screens & sun shades) & 6- ports. Cabin dry (no active leaks / stains evident) at time of survey.

Cockpit upholstery (vinyl), trim & equipment appeared in as new condition.; frp. structures for seat platforms and cabinet with sink. & refrigerator.

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**Underwater Gear:** I/O Drives: 2- VolvoPenta Duo-prop

Propellers: ss.; 2- 3- (at each drive); appeared (except for small dings @ blade edges) sound.

Thruhulls: ss. (above waterline) & bronze (below waterline) Seacocks: bronze ballvalves.

Trim Tabs: Lenco aluminum

Evidence of Corrosion: None evident at this time; zincs showed as recently installed; Volvo corrosion control (impressed current?) rigged (aft of engines) devices for each I/O drive.

Remarks: (Note: materials, ss., bronze etc. are described as they appeared, no testing as to their content/quality.) I/Os: no external damage / deterioration evident; boots / bellows as sighted appeared satisfactory; lube oil (via on drive dip-stick) were - clear-clean; no play evident; at test-run, each shifted smooth & quiet, no gimble noise; tilt-trim and trim gauges were operational. Seacocks appeared operational. Trim tabs appeared operational. Gear (as accessed) appeared sound and tight to the hull. [Note: I/O's and boots & bellows actual condition can be determined only when removed, disassembled and inspected by a qualified mechanic.]

**Engines:** twin V8 Mfg.: VolvoPenta HP: 375 each No. of Cyl.: 8 :: 496 cid.

Model: 8.1GL Serial #s: p) 4012244537 :: s) 4012244538

Max RPM: 4200 - 4600 Indicated Hours: 343 (2- LCD meters @ engine gauges)

Engine Bearers: steel pads on frp. frames.

Engine Mounts: cushion type steel pads; bolted to bearers.

Engine Controls: Morse, cable; 4- single function levers; appeared operational.

Type of Cooling: raw water; intake via I/O drive lower unit.

Remarks: All appeared neatly rigged, clean (no external rust - salt - soot stains / residue evident) and in near new condition. Lube oils showed clear / clean, no unusual colorations evident; Analog & 2 multi - function LCD monitoring gauges, appeared operational. Fresh-water flush kit, rigged on each engine. Test run notes pg. 9a.

**Exhaust System:** Wet exhaust via; cast iron manifolds & risers and hd. hose.

Remarks: Appeared in satisfactory condition; sighted hose connections are doubled clamped; no external salt - soot - rust stains / residue evident. Risers, at test-run; ran within cool / normal temperature range. (Selling owner reported that new risers were installed in 2013.)

**Engine Space Ventilation:** natural and 12v powered blowers & flex vent hose; blowers powered on.

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**Air Conditioning:** 120v Mfg: Marine Air No. of Units: 1; 16,000 btu. Reverse Cycle: yes

Location: under salon's stbd. / dinette aft settee.

Raw Water Intake: bronze ballvalve & in-line strainer and 120v raw water pump; under salon sole hatch.

Remarks: Appeared (as sighted / accessed) satisfactory. System powered on and appeared operational; produced air heated @ 89f-94f at the vents; 59f-64f ambient temp precluded the unit from engaging the chill (control panel's lowest temperature set point is 65°f . [Operated for apx. 1-hour.]

**Gen-Set:** Location / Access: engine space fwd. on-center, in insulated metal enclosure / good.

Make: Kohler Model: 7.3ECD Serial #: 2180127

Fuel: gasoline Kw.: 7.3 @ 60hz Indicated Hours: 0111.7 (units LCD meter)

Raw Water Intake: bronze ball valve & strainer; fwd. of port engine.

Exhaust system: frp. aqualift muffler & type J-2006 hose w/ double clamps; outlet located stbd. hullside.

Remarks: 3,600 rpm. fresh water cooled engine. Appeared (as sighted / accessed) neatly rigged; showed clean external surfaces. Engine lube oil & f.w. / anti-freeze fluid appeared clear / clean, no unusual colorations evident. Engine control & bilge blower switch @ salon DC-AC panel. Engine started quick & easy and appeared to run well (no stalling / roughness); operated apx. 40 minutes, under load powering the vessel's 120v circuits & equipment; volts @ 115 / 120 and polarity correct at the outlets.

**Fuel System:** No. of Tanks & Location: 2; 1- outboard of each engine; on tank tag sighted.

Fuel: gasoline Fill Label: Gas Tank Material: .125 5052 aluminum

Capacity: 250 gal 2 x 125 gal. Bonded: wires sighted. How Secured: brackets

Status: . ¾ full; as per vessel's gauges.

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

Filters: on engine metal cans.

Valves: bronze ballvalves; 3- (three way) @ distribution manifold on engine space fwd. bulkhead.

Remarks: (No aerostatic tests performed.) System, as sighted / accessed, appeared in satisfactory condition with alcohol resistant lines; no leaks or vapors detectable at this time. (Entire tank structures and run of lines not directly sighted; due to their installation in the hull.



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**Electrical System D.C.:** 12v

Panel Locations: cabin, helm console & cockpit aft port locker.

# of Batteries: 3- G27 (12v); in compartment under the gen-set platform (fwd. of engines); bow thruster's dedicated battery under fwd. berth.

Secured: plastic tray w/ brackets      Covered: yes (engine space units); \*no (bow thruster unit).

OverCurrent Protection: breakers @ each panel.

Battery Switches: 5- *BEP* (on-off functions); 4- (House; Port engine; Parallel & Stbd. engine, at cockpit aft port locker panel.

Remarks: "yellow" colored insulation wires designate DC (-) / return service. Volt meter & 14- branch breakers at the cabin panel; DC main & windlass high capacity breakers, 14 branch breakers and 2- *BEP* VSR's (voltage sensing relays), at the cockpit battery switch panel. System (as sighted / accessed) appeared; operational, neatly rigged and except as [\*Note# 4] in satisfactory condition.

**Electrical System A.C.:** 2 x 120v 30 amp.

Shore Power Input: 2- 120v 30 amp with breakers; in the transom locker.

Panel Location: salon aft stbd. cabinet.

OverCurrent Protection: breakers & GFCI outlets.

Battery Charger: *ProTech 1240i* (serves the - 3 - engine & house service batteries), fwd. of port engine; *ProTech 1220i* (serves the bow thruster battery), under the fwd. berth: Each appeared operational; on unit LED's indicated charging output.

Remarks: 2-Volt meters & reverse polarity indicators, 4- main breakers, each with slide-locks for source - (shore or gen-set) select and 15- branch breakers, at the panel. Salon panel indicates that shore inputs are rigged with a galvanic isolator. System (as sighted / accessed) appeared neatly rigged and in satisfactory condition: Appeared (as energized via gen-set & 120v-30 amp shore power sources) operational; provided power to the circuits and equipment.



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**Fire Extinguishers:**    Class :: Size :: Location  
                                    BC            I            cockpit port locker.

**Fixed Fire Extinguisher:** *Fireboy* (engine space fwd stbd.); on unit gauge read charged.

**Remarks:** Inventory meets USCG minimum requirements, for this size vessel. [Suggest, for enhanced service add portable units @ each berth area and the galley]

**Bilge Pumps:**    Mfg. / Type    ::    Size    ::    Secured    ::    Location  
                                    Rule / sub.            1,100            yes            engine space aft on center  
                                    Rule / sub.            500            yes            under aft settee / berth

**Shower Sump:** boxed *Shurflo*; stbd. under cabin sole..

**Remarks:** Pumps powered on, via float & panel switches. High water alarm, powered on, via float switch (engine space-fwd.). Bilge (as sighted / accessed) appeared clean & dry. No unusual accumulations / - intrusion of bilge water evident; pumps did not cycle on during time of in-water survey. [Suggest, based on vessel's size, install an additional large capacity pump.]

**Domestic Water System:**

# of Tanks: - 1 -

Tank Material: plastic

Location: under aft settee / berth.

Secured: blocked.

Capacity: 40 gal.

Status: ½ full (as sighted).

Pump: 12v; *Shurflo* w/ in-line filter; port of the engine space batteries.

Sinks: 3

Water Heater: *Seaward* 11 gal., 120v powered; outboard of stbd. engine.

**Remarks:** Appeared (as sighted / accessed) satisfactory. Pump powered on; produced temperate & heated water @ the fixtures and water @ the MSD. Heater powered on (120v AC panel meter indicated 10 amp current draw, heater's breaker in on position).

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**Marine Sanitation Device (MSD.):** fresh water flush.

Type: *Vacu-Flush*

Pumps: 12v flush w/ plastic (vacuum holding tank) & 12v macerator @ / adjacent to holding tank.

Holding Tank: plastic Secured: bracket.

Location: to port in the engine space.

Thruhull Valves: Na.; macerator outlet via ss. above waterline through-hull (port side).

Remarks: Type III MSD; with a holding tank and deck pump out. System & pumps (flush & macerator) powered on. Flush function powered on, appeared operational (evacuated fluid); no off - on - off cycling evident during time of survey.

**Galley Equipment:**

Stove: 2- burners (with fiddles). Fuel: 120v

Secured: yes Ventilation: DC blower.

Refrigeration: *Isotherm*, DC & AC powered.

Other Equipment: *Tappan* microwave (120v); freezer @ -05.6f / refrigerator @ 38.3f.

Remarks: All appeared clean and in as new condition; AC & DC appliances powered on.

**Steering System:** Type: cable w/ power assist.

No. of Stations: - 1 -

Remarks: Appeared operational (turned smoothly from stop-to-stop), at test-run; no I/O noise evident; fluid in on engine pumps, no unusual colorations evident.

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**Safety Equipment:** Personal Flotation Devices: Type II Type IV Flotation Device: cushion.

Navigation Lights: 12v Sound Producing Device: 12v horns.

Flares: current dates First Aid Kit: yes CO Detector: @ fwd. & aft berths.

Other Equipment: ---

Remarks: Horn and navigation lights powered on. *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. Note: Vessels over 26' must have Oil Discharge placard and MARPOL Trash placards. [Suggest type I PFD w/signal light & whistle attached for use in other than calm inland / inshore waters.]*

| <u>Anchor:</u> | <u>Type</u>             | <u>::</u> | <u>Rode</u>      | <u>::</u> | <u>Chain</u> |
|----------------|-------------------------|-----------|------------------|-----------|--------------|
|                | Delta plow (chrome/ss.) |           | 3/4" braded line |           | 5/16"        |

**Windlass:** Lewmar 12v powered, w/ vertical rope-chain capstan.

Remarks: Windlass powered on; no load applied; rope - chain splice appeared satisfactory; windlass DC breaker at cockpit battery switch panel. [\*Note# 3]

**Navigation Electronic Equipment:** VHF Radio: RayMarine Compass: Ritchie

GPS - Chart Plotter - Radar: RayMarine E-80 GPS - Chart Plotter: Garmin GPSmap 740

Depthsounder: built into Volvo multi LCD digital display @ tachometers.

Remarks: Units powered on, displays (color LCD gps-plotters & radar) illuminated and showed data.

**Other Systems / Equipment:** DC audio system w/ CD changer; LCD TVs; TracVision satellite TV system (appeared operational); DVD player; cockpit side & camper enclosure (cloth and stratoglass & isinglass), appeared in as new condition; 2- LED underwater lights (not tested); Jabsco 12v remote control spotlight. Dc ? AC equipment appeared to power on.

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**Test Run Data:** (Readings taken from the vessel's gauges)

|                      | <b><u>Port Engine</u></b> |                        |                      |                  | <b><u>Starboard Engine</u></b> |                        |                      |
|----------------------|---------------------------|------------------------|----------------------|------------------|--------------------------------|------------------------|----------------------|
|                      | <b><i>RPM</i></b>         | <b><i>Oil psi.</i></b> | <b><i>Temp.f</i></b> | <b><i>::</i></b> | <b><i>RPM</i></b>              | <b><i>Oil psi.</i></b> | <b><i>Temp.f</i></b> |
| <b><u>Idle</u></b>   | 600                       | 40                     | 170                  |                  | 600                            | 40                     | 170                  |
| <b><u>Mid</u></b>    | 3200                      | 60                     | 175                  |                  | 3200                           | 60                     | 175                  |
| <b><u>W.O.T.</u></b> | 44 -4500                  | 60                     | 175                  |                  | 44-4500                        | 60                     | 175                  |

**Hull speed via vessel's GPS:** 27.2 mph @ 3200 rom :: 42.9 - 43.1 mph @ W.O.T. rpm.

**Drag Test from 2000 rpm:** port engine attained 3800 rpm :: stbd. engine attained 36-3700 rpm.

**Test-Run Remarks:** Duration, apx. 70 minutes; 3-(client, vessel owner & this surveyor) on board, vessel owner at the helm; conditions, light winds, near calm seas (waters of Great South Bay). The engines; started quick & easy when cold or hot and appeared to run well; no vibrations, hesitation, distress, "blow - by" smoke or fluid leaks evident; smoothly attained and held all speeds up to 4400 rpm maximum speed.

Volts: >13 @ idle and 14 above 1200 rpm (each engine).

Gauge readings appeared within normal ranges.

Steering & Trim Tabs (and trim tab indicators) appeared operational.

I/O Tilt-trim & trim gauges appeared operational.

I/Os shifted smooth & quiet; no noise or gimble noise evident.

Controls and neutral safety switches appeared operational.

Engines appeared tight to their mounts.

Bow Thruster; powered on and operational during docking maneuvers.

**Temperature readings via Snap on Tools-RayTec infra-red thermometer; degrees f.**

| <b><u>Item @ 3200 RPM ::</u></b> | <b><u>Port Engine ::</u></b> | <b><u>Stbd. Engine</u></b> |
|----------------------------------|------------------------------|----------------------------|
| <i>inboard riser</i>             | 88                           | 102                        |
| <i>outboard riser</i>            | 95                           | 89                         |
| <i>thermostat housing</i>        | 136-145                      | 129 - 138                  |

**Remarks:** readings appeared within normal ranges.

***NOTE:*** We strongly urge that engines be surveyed by a qualified Engine Surveyor; to determine the condition of the engine, gears, pumps, heat exchangers, risers, manifolds, etc..

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

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**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 May xx & xx, 201x in Massapequa & Amityville N.Y., with the vessel; afloat at the dock, at a test-run (in Great South Bay) and hauled (in a travel-lift) on-shore; selling broker is xxxxxx xxxx Boat Sales xxxxxx N.Y. The vessel a 2008 Chaparral Signature 350 is powered by twin Volvo Penta 8.1 GL V-8 engines & Volvo Dup-Prop I/O drives with Morse controls and is equipped with; bow-thruster, cockpit hard-top, teak cabin sole, air conditioning, 7.3kw gen-set (with low / 112 hours of use), VacuFlush MSD, anchor windlass, color gps - plotter & radar, cockpit enclosure, DC & AC powered audio & video gear and satellite TV system. The vessel generally appeared in near new cosmetic condition.*

*The hull, bottom & decks were sighted & sounded and appeared fair, true and sound; bow thruster hull tube appeared sound; hull - topsides & deck gel coat finishes appeared in near-new cosmetic condition and; the teak cabin soles showed in as-new condition. The cabin and cockpit joinery, upholstery, trim and equipment appeared near / as-new condition. At the test-run; the engines started quick & easy and appeared to run well (no distress evident), smoothly attaining and holding all speeds up to a 4,400 rpm. maximum indicated speed; controls, I/O tilt trim, trim tabs and bow thruster appeared operational. The gen-set started quick & easy and ran well under all loads properly powering the 120v system & equipment. The vessel's hardware, systems, equipment and appliances appeared (except as noted) operational and sound. The items noted to require attention appeared as service / repair issues that should prove not complex to correct: The loose anti-fouling paint issue; as of 5-27-15, was observed as being corrected (bottom was media blasted & prepped for applications of epoxy barrier coat & anti-fouling paint); see Note-A page 2.*

*The vessel as powered, rigged and equipped appeared (except for the noted items) sound and above better than "Above BUC Condition". The survey noted \$xxx,000 value is the vessel's reported purchase price: That price is within the \$135,500-\$149,000 current BUC Research ValuPro value range for this year - model - as powered vessel in that "Above BUC Condition" valuation category.*

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

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

- 1-- navigation lights; stbd. (green) & stern (white; fixture on the transom) did not power on.
- 2-- anchor rode: A) shackle (connects anchor to the chain rode) shows rusted pin; install new shackle.  
B) add a swivel shackle or install 2- shackles (anchor to the chain rode) to allow the anchor shaft to rotate / orient itself to fit into the roller when being raised by the windlass.
- 3-- anchor windlass; review its manual to determine how to set / adjust its clutch; so that it readily engages / does not slip when lowering / raising the anchor.
- 4-- install a cover on the bow thruster battery's (under the fwd. berth "+" post. *ABYC std. E-10.7.7.*
- 5-- anti-fouling paint (5-18-2015 survey day) shows poor adhesion to the hull bottom; paint has fallen / flaked off (exposing the gel-coat / grey primer under the paint) over apx. 1/3 of the bottom's surface.

-End of Notes-

*The vessel appeared, at time of survey, suitable for service, with limitations defined by design & construction, provided that routine & preventative maintenance is performed and the vessel is managed by competent master/crew with due regard to customary safety practices, good seamanship, weather conditions etc..*

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

*Frank T. Abbey* (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. \*\***

## **Chaparral Boats**

I am sending this letter to address the issue of higher than normal moisture readings on Boat hulls containing H010-BCA-11 barrier coat.

AOC is aware that when using the H010-BCA Barrier Coat it is possible to obtain erroneous high moisture level readings. The test results are exaggerated when taken from the exterior gel coated surface of the hull.

AOC's Technical Data Sheet for the H010-BCA-11 Barrier Coat states on page two under Footnotes (2), "the composition of the Hydrolux H010-BCA-11 barrier coat is such that the coating may be electrostatically conductive".

AOC test results using an ITW Ransburg conductivity meter show the barrier coat to give typical readings in the kilo-ohms range. If an ITW Ransburg conductivity meter is not available, there are two known methods for testing the presence of moisture in laminate construction where known conductive layers are present;

- 1) Test for the presence of moisture from the interior of the hull, where there are dry surfaces. Normally, the laminate density is sufficient enough to reduce the interaction of the barrier coat and the moisture meter.
- 2) An alternative method is to remove random small areas of both the gel coat and barrier coat layers and test for moisture in the laminate construction. Once the testing is completed, the exposed area should be repaired according to the manufacturer's recommendation.

We recommend that Chaparral be contacted first to get their recommended procedure to properly test the laminate for moisture.



**VESSEL:** *2008 Chaparral Signature 350*

F Abbey Marine Surveyor Inc.

*Hull ID# photo redacted*



**VESSEL:** 2008 Chaparral Signature 350

F Abbey Marine Surveyor Inc.





**VESSEL:** 2008 Chaparral Signature 350

F Abbey Marine Surveyor Inc.



**VESSEL:** 2008 Chaparral Signature 350

F Abbey Marine Surveyor Inc.





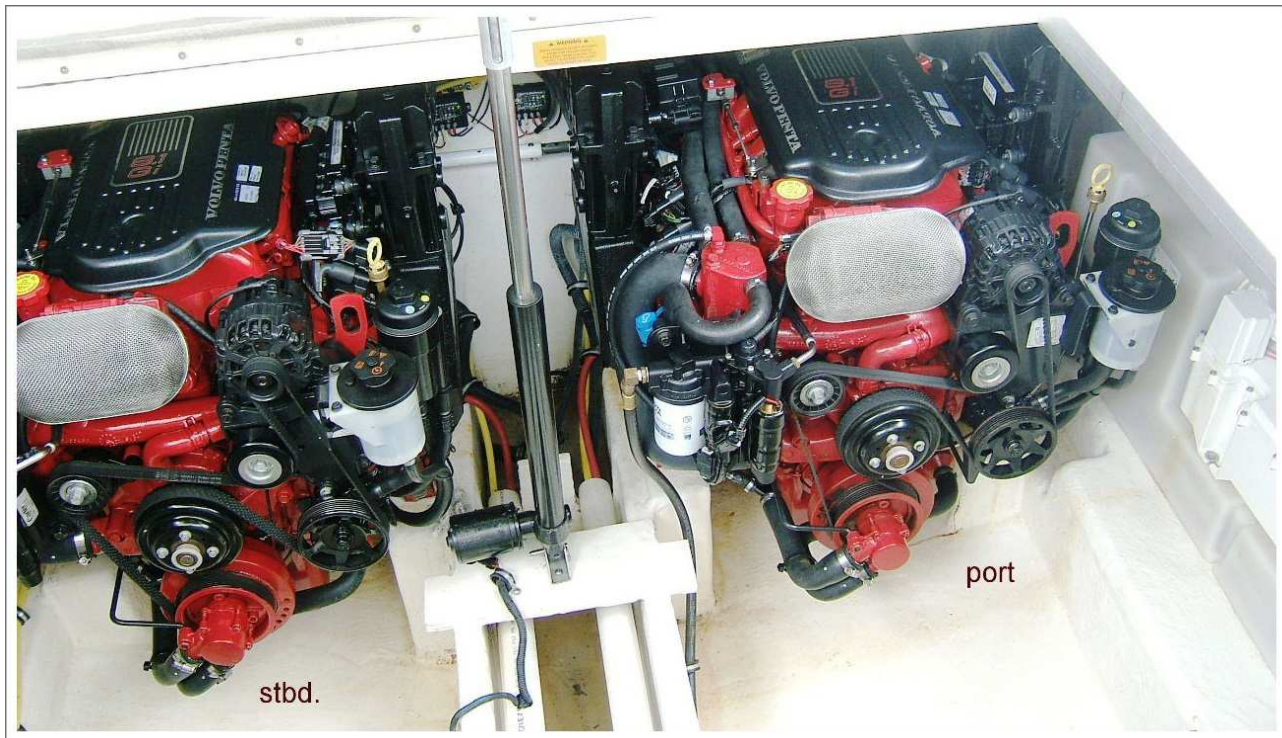


**VESSEL:** 2008 Chaparral Signature 350

F Abbey Marine Surveyor Inc.









**VESSEL:** 2008 Chaparral Signature 350

F Abbey Marine Surveyor Inc.



**VESSEL: 2008 Chaparral Signature 350**

F Abbey Marine Surveyor Inc.



***End of Survey Photographs and Report***