

# **Report of Marine Survey**

# Vessel: 2009 Chaparral 350 Signature

# **Purpose: Pre-purchase and Evaluation**



# Customer: Doe, John Date of Survey: January, 19<sup>th</sup> 2018 Location: Collin Park, Lake Lavon TX Prepared and Conducted by: Capt. John Seckman ACMS Surveyor# 0364

#### **Survey Information**

Name of party requesting survey: Doe, John			
How was vessel observed:		Both in the water and out of the water after being launched from trailer.	
Sea-Trial:	Yes, a sea-trial was performed. See the sea-trial section for details.		
Parties present at time of the survey: Surveyor, Customer, Owner's Representative			
Weather at time of survey: Overcast. Wind NW @ 15kts. Temp: 45 degrees			
Vessels intended use: Inland cruising on recreational freshwater lakes.			

#### **Survey Standards**

<u>Standards Followed</u> – Survey was completed using federal regulations and amendments issued and enforced by the United States Coast Guard under the authority of the United States code of federal regulations (CFR title 33 & 46). The American Boat and Yacht Council (ABYC) recommendations and voluntary standards, as well as the standards set forth by the National Fire Protection Association (NFPA-302) were used as reference to complete your survey. These standards are generally used and followed by all boating manufacturers.

#### **Explanation of Inspection Comments**

Unless noted, all components and systems checked on the vessel are serviceable. See the findings page for details on anything found to be un-serviceable or damaged. If a component on the vessel is not listed in this survey then it was not inspected. This survey represents the condition of the vessel as-is, on the day the survey was performed.

RED	Red recommendations are <u>priority A</u> . These need to be addressed immediately as they pertain to the safety and regulatory requirements and safe navigation of the vessel.
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ORANGE	Orange recommendations are <u>priority B</u> . These relate to maintenance and standard findings that need to be addressed.
GREEN	Green recommendations are <u>priority C</u> . These do not pertain to the safe operation of the vessel and are minor in nature. Thus, they can be addressed at the owner or clients' discretion.

NOTE: Vessel is considered fit for its intended use ONLY after all Priority A recommendations have been corrected. In addition <u>ALL</u> Priority B recommendations should be addressed in order to bring the vessel to current safety standards and ensure safe navigation and operation.

#### **Vessel Particulars**

Vessel YR/Make/Model:		
	2009 Chaparral 3	350 Signature
Vessel Name:	N/A	
Hailing Port:	N/A	
Hull ID numbe	r verification:	*Omitted for customer protection*

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State Registration #:	*Omitted for customer protection*		
State Validation stick	ker: June 2018		
Registration valid and	ad sighted on vessel hull as per regulations: Yes.		
Vessel Type:	Fiberglass Cruiser		
Manufacturer:	Chaparral		
Year of Vessel:	2009		
Length of Vessel:	37'		
Draft:	2'9"		
Beam:	11'10"		
Displacement:	16,500 pounds		

# **Top Exterior Deck & Hull**

Hull Construction M	aterial:	Fiberglass with maroon/white gelcoat surface. No damages sighted.	
Swim Platform:		Yes. Fiberglass, attached onto hull. Stainless retractable boarding ladder. Operational with no damages sighted.	
Rub Rail:	Stainless steel on white rubber backing.		
Transom:	Conventional transom with attached swim platform and storage hatch. No damage sighted. Shore power inlets and battery nodes for jump-starting located in transom hatch.		



#### Main Deck – Hardware & Fittings

Main Deck Construction Material:		Molded Fiberglass over unknown core. Hull is buffed and clean. No damages, gouges or scrapes sighted.	
		No damages, gouges of scrapes signicu.	
Deck Surface:	White with sighted.	n molded in non-skid surface. Clean and buffed. No damages	
Stanchions/Grab Rai	13.	inless steel surrounding front deck area from cockpit to bow. ately 30" high. No damages or deformations sighted. Well secured	
Cleats:	Horn style	pop-up cleats. Well secured to deck and operational.	
Scuppers/Deck Drain	13.	re well secured with no damage sighted. Hoses are secure and outed overboard.	
Deck Fill/Pump-out I	Fittings: Loca	leck fittings are properly marked as per ABYC recommendations. ted in the following areas: (1) Fuel Fill – Port & Starboard Stern Vater Fill – Port Aft (3) Waste Pump-out – Port Aft	
Anchor/Chain Locker: Located of sighted.		top deck bow with hatch lock. Dry and clean. No damages	
windlace	Lewmar. Helm controlled switch is functional and anchor properly raises and lowers. Foot controls on bow are operational.		
Deck Hatches:	Three hatches with weather screens and sun shades. All in good condition and operational, no leaks sighted.		
Transom Shower:	Yes. Located on port side of transom. Operational.		

Arch:	Yes. Vessel is equipped with a reverse, FRP radar arch. Well secured with no damage sighted.
Sun Pads:	One Sunpad, white vinyl. Located on bow. Clean with no rips tears or stains sighted.
Cabin Windows:	All cabin windows are in good condition with no signs of water intrusion.

# Cockpit & Helm

Helm/Steering Station:	Helm equipped with bench style seating with bolsters. Vinyl is in good condition and white in color with tan highlights. No damages, rips, tears or stains sighted.	
Seating:	"C" shaped vinyl covered seating next to helm station. "L" shaped seating behind helm station. White in color with tan highlights. Vinyl is in good condition with no rips, tears or stains sighted.	
Sole/Deck:	FRP with non-skid. Grey snap-in carpet throughout. Good condition.	
Top/Superstructure:	FRP radar arch. Well secured. No damages sighted. Raymarine radar mounted on arch. Operational.	
Enclosure/Isinglass:	Yes. Maroon canvas with isinglass. Located inside cabin space. Properly stored lying flat with sheets to prevent scratching. Attaches with zippers located on radar arch and snaps along hull sides.	
Cockpit Accessories:	Sink/Wet bar located on port side of cockpit. Operational. Isotherm ice maker on port side. Operational.	

Cabin Door:	Bi-fold lexan door. NOTE: Latch on cabin door is broken. Repair.		
Engine Hatch:	Electric powered lift engine compartment cover. Operational via helm controlled switch.		
Windshield & Wipe	windshield is a five piece stainless steel design with opening center. Good condition, no damages sighted. One wiper sighted on the starboard windshield. Operational.		

# Navigation & Helm Electronics

<b>Electronic Chart/EC</b>	CDIS/GPS/Radar/Depthsounder:
	Raymarine E80 multi-function unit with electronic chart/GPS, fishfinder and radar. Operational.
Compass:	Yes. 4" Ritchie on cockpit dash. Operational.
Navigation Lights:	Red/Green/Anchor and stern light, all operational except where noted. NOTE: Stern light on transom is not operational. Repair.
Spotlight:	Yes. Jabsco spotlight controlled via helm switch. Operational.
VHF Radio:	Yes. Raymarine VHF radio. Operational.
Docking Lights:	None sighted.
Miscellaneous:	Blue LED underwater lights controlled via cockpit dash switch. Operational. Lewmar bow thruster controls via helm joystick. Operational. Lenco trim tabs with LED indicator gauge on cockpit dash. Operational.

#### **Engine Instruments & Controls**

Blower Controls:	Blower control at cockpit dash operated as intended, turning on the blowers located in the engine compartment.		
Engine Status/Multifur	ction: All Engine instrument controls are operational and OEM.		
Engine Tachometers:	Engine tachometers are OEM and operational.		
Throttle/Shift Controls	Single DTS Mercury "Smartcraft" control box(s) for throttle and shift controls. Controls work and are operational.		

# **Entertainment Electronics**

Stereo(s):	Clarion (12v) head-unit sighted inside main distribution panel inside cabin. Operational. Two Clarion remote(s) sighted: One on cockpit dash, one on transom. All are operational.
Speaker(s):	Eight total speakers and two subwoofer(s) sighted on boat. (2) Unknown brand inside cabin. (4) Alpine 6" sighted in cockpit/aft seating area. (2) Polk tower style speakers located on either side of aft seating area, outboard of vessel. (2) 10" Polk subwoofer(s) located under seat on starboard aft deck. All are operational except where noted. NOTE: Port side tower speaker (polk) not operational. Repair.
Television(s):	Four televisions sighted on vessel. (1) LG 28" sighted inside salon. (1) Samsung 19" sighted inside salon. (3) MB quart 18" sighted in forward berth. (4) MBquart 18" sighted in aft berth. All are operational.

DVD Player:	Yes. Three dvd players sighted inside cabin space. (1) Nesa brand flush mounted inside main distribution panel. (2) Nesa brand flush mounted in aft berth. (3) VST flush mounted in forward berth.
Amplifier(s):	Yes. Two Kicker ZX3504 amplifiers located under salon seating on starboard side. Operational.

#### Cabin & Interior

Summary of Interior	Cabin Appointments:		
	FRP sole with wood overlay. Wood finish throughout with black marble counter- tops. Electric raising/lowering wood finished dinette table on starboard side that converts into half bed, with "C" shaped white leather couch. Dinette table is Operational via switch. Forward V-berth with cream colored leather throughout. Aft half berth with "C" shaped white leather couch that converts into bed.		
Headliner:	Cream colored vinyl. Good condition. Well fastened to overhead, no stains sighted.		
Fabric and Cushions	white colored leather thoughout. Good overall condition.		
Lights & Fixtures:	(12v) Lighting throughout cabin. Operational.		
Miscellaneous:	Vacuum located in aft berth. Operational.		

#### **Galley**

Counter-tops:	Black marble counter-tops. Good condition.
Stove:	Kenyon two burner electric stove. Operational. NOTE: Inboard stove switch is difficult to operate. Repair.
<b>Refrigeration:</b>	Isotherm 12/120-volt, stainless in color. Operational. Serial# 820160
Water System:	Pressurized and found to be operational.
Sink(s):	Single stainless steel deep well with marble cover. Operational. No leaks sighted.
Microwave:	Tappan. Stainless steel. Operational.

#### **Berths/Staterooms**



#### Head(s)

Toilet(s):	VacuFlush system. Operational.
Sink:	Stainless Steel. Operational. No damages or leaks sighted.
Shower(s):	Handheld fixture, stand up shower stall. Operational.
Tank Level Monitor:	Yes, located in head. Operational.
Shower & Sump Box	A/Pump: One shower sump box located under salon sole. Operational with float switch. No leaks or damages sighted.

# **Air Conditioning**

Number, Type & Location:		One. Marine Air Systems 16000 BTU. Cold with reverse heat cycle. Located under starboard salon seating.
Pump:	Taylor. Operational.	
Temperature Controls:		Digital temperature controls. Operational.
Drip Trays:	Yes. Clean with minimal rust.	
Condensate Drain:	Properly drains via hose to sump box.	
Thru-Hull & Strainer:		Strainer located at A/C raw water pump inlet seacock. Hoses in good condition and properly double clamped and secure.

#### **D.C Electrical System**

Voltage System:	12v	
Batteries:	Five total batteries onboard vessel. (2) Interstate 27 size batteries sighted in engine compartment on port side. (1) Interstate 27 size battery sighted in bow thruster compartment. (3) Interstate 27 size batteries sighted in engine compartment under accommodation step. All are secured in trays as per ABYC recommendations. NOTE: Bow thruster battery is located in a non-ventilated space (under forward berth bed) and therefore must be a sealed gel battery to prevent venting and comply with ABYC recommendations. Replace with gel type sealed battery or ventilate battery compartment. Also, Starboard engine cranking battery is no longer operational. Replace. Also, Starboard two batteries under accommodation step are low on fluid. Fill with distilled water to manufacturer's recommendations.	
<b>Battery Selector Switch:</b> Four rotary switch(s) located on port side, aft deck in hatch locker on bulkhead. Functional.		
Charging System:	Alternators on engines. Secured and operational with no rust sighted. Additionally, there is a Trucharge2 Xantrex 40-amp battery charger located in the engine compartment and is operational. Charger is ignition protected and grounded per ABYC recommendations.	
Distribution Panel:	Located in cabin combined with A.C. panel.	
Connectors:	Ring spade or crimp on connectors sighted for wiring connections. All have boots as per ABYC recommendations except where noted. NOTE: Bow thruster battery has no boots on connections. Install boots as per ABYC recommendations.	



#### A.C. Electrical System

A.C. System:	Two 30 Amp connections sighted on starboard-side of transom in locker. Main breaker is located at connection inlet and is operational. No burn marks, corrosion or damages sighted.	
Voltage System:	30 Amp – 120 volt	
A.C. Usage Meter:	Analog type, Amps. Operational.	
Wire terminations:	A.C. wiring is properly terminated. No wire nuts or loose connections sighted.	
Shore Power Cord(s	30 amp yellow shore power cord(s). No damages sighted. Locking rings are operational as per ABYC recommendations.	
Shore Power Breake	Yes the main breaker is located at the transom, port side, near the shore power inlet, in compliance with ABYC recommendations. Good condition, no damages sighted.	
A.C. Power Selector Switch: AC/Generator slide switch located next to main AC panel.		
Distribution Panel:	Yes combined with DC power panel in main cabin.	

#### **Generator**

Manufacturer/Model	Kohler. Model: 7.3		
Serial number:	2213405		
Kilowatt Rating:	7.3		
Hour Meter:	Hour meter sighted on unit. 312 hours.		
Hoses and clamps:	Properly double clamped. Good condition. No cracks sighted.		
Belts and Pulleys:	Belt condition is serviceable. No cracks or splits sighted. Pulley/belts appear to be in line.		
Cooling System(s):	Closed and raw-water cooled with raw water strainer installed. Coolant level was full. Strainer is clean.		

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Oil level and condition:		Clean and full on dipstick.
Fuel Supply Lines:	USCG	A1 flex, no cracks or soft spots sighted.
Engine Mounts and	Beds:	Engine mounts appear to be well secured to the support mounting. Generator is mounted inside enclosed box.
Exhaust Piping:	Side hull exhaust. Flex rubber hose double clamped as per ABYC recommendations. FRP exhaust canister is in good condition with no cracks sighted. NOTE: Slight cracks sighted on exhaust hose from muffler to hull side. Repair.	
Generator Tested:	Yes. Generator ran for five minutes. NOTE: Generator shut off multiple times while running on load due to fault sensor. Repair.	

# **Propulsion System**

Propulsion Type:	Inboard Outboard.		
NO#/Type/Cylinders	Two gasoline V8 engines.		
Make/Model/Serial:	Mercruiser 496 Mag Port Serial: 1A338523 Starboard Serial: 1A349013		
Engine Hours:	Port – 375 Starboard – 377 as per digital hour meter(s) on helm dash.		
Hoses and Clamps:	Good condition, no cracks sighted. Hoses are double clamp where required.		
Belts and Pulleys:	Belts are serviceable. No cracks or splits sighted. Pulleys/belts appear to be in line. NOTE: Port engine has slight squeaking sound coming from pulley. Repair.		
Cooling System(s):	Closed and raw water cooled. Coolant level full and clean. Raw water intake through lower out drive unit(s), circulated through engine and combined with engine exhaust and routed through out drive props. Raw water intakes are clear of debris.		

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Oil Level and Condit	<b>on:</b> Clean and full on dipstick on both engine(s). No evidence of water or cuttings in lube oil.
Flame Arrestor(s):	USCG approved. Clean on both engines.
Engine Ventilation:	Blowers and natural ventilation. See safety section of survey for details.
Fuel Filter(s):	Engine mounted. Secure with no leaks sighted.
Engine mounts and b	eds: Engine mounts appear to be well secured to the support stringers. Percussion tested where accessible, no delamination sighted.
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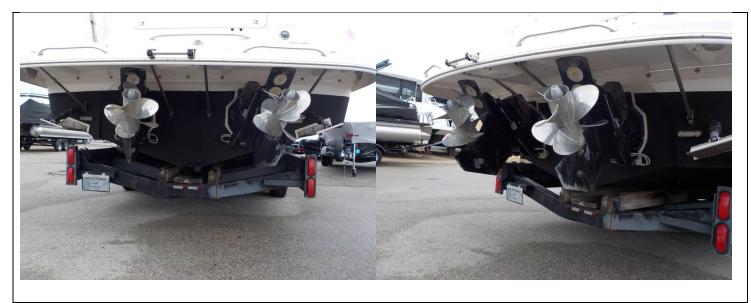
#### **Exhaust System**

Discharge Location(	s): Through out-drive prop hubs.		
Piping/Clamps:	Metal and flex hose. Securely double clamped as required. No cracks sighted. Hoses in average condition.		
Exhaust Manifold/R	isers: Average condition. No cracks or leakage sighted.		

#### **Out-Drives**

Number/Make/Mode	: Two. Mercruiser Bravo 3
Outdrive Serial#:	NOTE: Unable to determine.

Transom/Gimbal Housing(s):		Sound, operational. Minimal galvanic corrosion spotted.			
Upper Housing(s):	Sound, operational. Minimal galvanic corrosion spotted.				
Lower Housing(s):	Sound, ope	rational. Minimal galvanic corrosion spotted.			
Tilt/Trim/Trailer Fu	nction•	ontrols at helm throttle box properly raise and lower the outdrives as itended. Operational			
Upper Bellows:	No cracks of	or wear areas sighted on upper bellows. Average condition.			
Lower Bellows:	No cracks of	or wear areas sighted on lower bellows. Good condition.			
Shift Control Bellow	No crack	ks or wear areas sighted on small shift control bellows. Good condition.			
Hydraulic Lines:	Hydraulic l	ines are secured and show no signs of leakage.			
Gimbal Bearing:	Operational	l. Minimal play when outdrives are wiggles back and forth.			
Gear Noise:	Prop spins	free with no gear noises heard.			
Lube oil Condition:	NOTE: Plug was not pulled to check gear oil. Have outdrive oil condition checked for excess gear wear and replace gear oil. Monitor condition frequently.				
Skeg(s):	No damage	e sighted. Operational.			
Prop(s):	See Out of	Water/Underwater Hull section for details.			
Miscellaneous:					



# **Fuel Tankage**

NO# Fuel Tanks/Location:		Two tanks. Located Aft – Midships, on either side of vessel.		
Tank Type and Capacity:		Aluminum. 126 gallons each.		
Fuel Supply Line(s):	USCG A1 flex hose from tank to fuel pump. No crack, soft spots or splitting sighted except where noted.			
Shut off Valve(s):	Yes, le	ocated in engine space on bulkhead.		
Vent Line/Location:	Type A1 hose. Vents to hull side.			
Fill line(s) Located:	Port & Starboard side. Aft. Clearly marked for gasoline as per ABYC			
Fuel Fill Grounded:	Fuel fill is properly grounded to fuel tank.			
Fill pipe & Condition:	USCG Type B1 flex hose. No cracks, kinks or soft spots sighted.			
Miscellaneous:	NOT	E: Due to limited access complete inspection not possible.		
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#### Fresh Water Tankage

Number and Locatio	on of tank	<b>x(s):</b> One tank. Located under Midships cabin sole.			
Tank Type and Capa	acity:	Plastic. 35 gallons.			
Tank(s) Secured:		No. NOTE: Tank is not secured as per ABYC recommendations. Secure tank to sole with straps as per ABYC recommendations.			
Tank(s) Condition:	Visually	Visually good (where accessible).			
Water Pump(s):	12 volt, ShurFlo. Operational.				
Supply Lines:	Flexible plastic piping for all water connections. No leaks sighted.				
Filling Line(s) Located: Port-Stern. Clearly marked as per ABYC recommendations.					
Vent(s) Location(s): Side hull.		le hull.			

# **Black Water/Holding Tank(s)**

Number and Locatio	on of tank(s): One tank. Located on port side in engine compartment.			
Tank Type and Capa	acity: Plastic. 65 gallons.			
Tank(s) Secured:	Yes, tank is secured with bolts to engine space sole as per ABYC recommendations.			
Tank(s) Condition:	Visually good (where accessible).			
Monitor System:	Located in head. Operational.			
Lines:	Ribbed sanitation hose. Good condition with no cracks, leaks or soft spots sighted.			

Discharge line(s) Locate	ed:	Deck pump out located port, Aft. Clearly marked as per ABYC recommendations.
Overboard Capable:	No.	

#### Water Heater(s)

Number and Tank Location(s):		One tank. Located on starboard side of vessel in engine compartment.		
Tank Type, Manufao	cture and Ca	pacity:	Marine hot water heater. Eleven gallons.	
Tested:	No, tank was powered on but due to no water being available not tested for function.			
Supply Lines:	Re-enforced plastic. Good serviceable condition. No cracks spotted.			
Tank(s) Secured:	Yes the tank is secured with bolts to the sole.			

#### **Steering System**

Manufacturer:	Teleflex
Туре:	Inboard/Outboard hydraulic cockpit wheel steering with cable and hydraulic assist ram.
Lines and Fittings:	NOTE: Due to limited access complete inspection not possible.
Mounting(s):	NOTE: Due to limited access complete inspection not possible.
Steering Tie Bar:	NOTE: Due to limited access complete inspection not possible.

#### **Interior Hull & Structural Components**

Hull to Deck joint:	Overlap (shoe box type). Elastomeric compound sighted in hull to deck joint. No
	leaks sighted through any part of hull to deck joint area.

<b>G</b> ( • ( )	Hull stiffness provided by FRP covered wood longitudinal stringers that run the
Stringer(s):	length of the vessel. Complete inspection not possible due to limited access.
	Stringers were sighted in the engine compartment and mid-ships cabin bilge, are
	well glassed into hull where sighted. Stringers sounded with hammer were
	accessible and appeared very sound. No soft spots, separation, cracks, rotting, or
	splitting sighted. Limber holes appear to be adequately sealed where sighted.
	Athwartships reinforcement enhanced by structural bulkheads bonded to the hull
Bulkheads:	with Fiber Reinforced Plastic (FRP). All tabbing appears serviceable and sound
Duikiicaus.	with no cracks or separation of tabbing sighted in any compartments. No visual
	evidence of movement sighted in any bulkhead.
Inside of Transom:	Reinforced. Secure with no cracks or separation sighted.
	NOTE: A minor amount of water sighted in hiles helow engines. Clean and dry
Bilge(s):	NOTE: A minor amount of water sighted in bilge below engines. Clean and dry.

#### **Below Waterline Thru-Hull Fittings**

Number/Type/Lo	cation:					
Number	Type	Location	Used For	Condition		
1	Bronze Seacock	Under Salon Sole	Air Conditioner	Serviceable		
2	Bronze Seacock	Engine Room	Generator	Serviceable		
Condition:		Seacock valves for A/C and generator are operational and securely bedded/mounted through the vessel hull.				
Hoses:	Marine rubber cover recommendations.	ered reinforced hose. De	ouble clamped and secu	are as per ABYC		

#### **Above Waterline Thru-Hull Fittings**

# Hull Sides:Stainless steel thru-hulls. Used for: Generator exhaust, A/C Discharge drain(s),<br/>Cockpit/deck drains and Bilge/Sump drains. All observed were secured,<br/>operational and as far as could be observed free of damage except where noted.

#### **Critical Safety Components**

Bilge Blower(s):	Yes, two "squirrel cage" blowers were sighted, secure and operational. Vent hose secured on both blower(s) and properly routed to the lower one third of the engine compartment per ABYC recommendations.
Bilge Heater(s):	One, Located in engine compartment bilge on port side. Boatsafe brand. NOTE: Not tested for operation.
Bilge Pump(s):	

Number	Brand/Model	Location	Secure?	Float Switch	Operable?
1	Rule 2000	Aft Bilge	Yes	Yes	Yes
2	<b>Rule 1000</b>	Fwd Bilge	Yes	Yes	Yes

<b>Bilge Pump Comments:</b>	Bilge pump hoses found to be secured with clamp and serviceable.
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Fire Extinguishers:	Extinguishers were sighted in the following areas: (1) Kidde dry chemical sighted in salon. NOTE: Install additional fire extinguisher on vessel in readily accessible location.	
Fixed Halon/Clean A	gent:	Fireboy halon bottle sighted in engine space. Full on gauge and securely mounted with LED helm light. Operational.

#### **Carbon Monoxide Detectors:**

Number	Type/Model	Location	Operational	Tested
1	Fireboy Xintex	Aft Cabin	Yes	Yes
2	Fireboy Xintex	V Berth	Yes	Yes

#### **Fire Detectors:**

Number	Type/Model	Location	Operational	Tested

#### Notes:

NOTE: Both C02 Detectors were found to be un-plugged.

#### **Safety Related Equipment & Accessories**

Туре	Number	Location	Condition	Legal
SCG Type I PFD	4	Aft Deck	Serviceable	Yes
USCG Type II	0			
PFD				
USCG Type V	1	Helm	Serviceable	Yes
PFD (throw)				
rn/sound signaling	apparatus:	Yes. Operational via	helm switch.	
tes:				

#### **Ground Tackle**

Anchor(s):	(1) Claw style anchor. 30lb.
Chain/Line/Length:	Approximately 100' feet of line and 10' of chain sighted in forward anchor locker.

#### **Out of Water Inspection & Hull Bottom**

Hull Bottom:	Fiberglass with white gelcoat. No damage sighted.
Bottom Paint:	Yes. Black. Good condition with minimal flaking.
Blistering:	No blistering sighted.
Thru-Hulls:	Two thru hulls sighted. All are bedded properly as sighted from exterior. Percussion tested. Serviceable.
Transducers:	Transducer for depth is adequately sealed and bonded to the hull as sighted from exterior.

Strainers/Scoops/Screens:	(1) Scoop (1) Screen. Both are bedded properly as sighted from exterior. Percussion tested. Serviceable.
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#### **Propeller(s)/Screws**

Number/Type of bla	des/Size:	Four props total. Forward props have four blades, aft props have three blades, all are stainless steel, and are Mercury bravo 3 brand. Props are counter rotating type on out drive(s).
Prop Condition:	The prop(s) are in good condition with no cracks, corrosion or bent, nicked or chipped blades.	

#### Trim Tabs & Thrusters

Trim tabs:	Single ram electric trim tabs. Operational. Lenco brand.
Thrusters:	Yes. Lewmar tunnel thruster controlled via helm joystick. Minimal corrosion sighted. Blades are in good condition. Clean of debris.

Anodes

Number/Location/Condition:	
	housing out-drive). (4) anodes on outdrive trim tabs (two on each) (4) trim tab anodes, (two on each). (2) prophub anodes (one on each). All
	are in good condition and serviceable.

#### <u>Sea Trial</u>

Date & Time:	January 19th, 2018				
Summary of Events:	Drove vessel from dock to outside marina and back.				
Vessel Operated By:	Surveyor, Customer and Broker				
Engine Starting:	Engine started without excessive cranking.				
Exhaust Smoke:	Engine exhaust smoke was minimal and appeared normal throughout the sea trial.				
Helm Instruments &	Gauges:	The engine instrumidle, slow and cru	ments all operated within not ising bells.	rmal operating ranges at	
Steering:	Steering system operated normally and smoothly from start to stop.				
Throttles:	DTS (Digital throttle shifter) Mercury smartcraft controls. The throttles operated efficiently and the trim buttons correctly raise and lower outdrives.				
Notes:					
Instrument Readings:					
Gauge		(600rpms)	(1360rpms)	(3000rpms)	
VOLTS		ort-13 Stbd-13	Port-14 Stbd-14	Port-14 Stbd-14	
Water Temp	Po	rt-132 Stbd-150	Port-170 Stbd-175	Port-170 Stbd-175	

Port-49 Stbd-44

Port-58 Stbd-56

Port-53 Stbd-51

Oil Pressure

#### **Summary of Findings**

#### **Priority A Findings (findings in need of immediate attention)**

- 1. NOTE: Bow thruster battery is located in a non-ventilated space (under forward berth bed) and therefore must be a sealed gel battery to prevent venting and comply with ABYC recommendations. Replace with gel type sealed battery or ventilate battery compartment.
- 2. NOTE: Install additional fire extinguisher on vessel in readily accessible location.

#### **Priority B Findings (findings in need of attention but not immediate)**

- **1.** NOTE: Starboard engine cranking battery is no longer operational. Replace. Also, Starboard two batteries under accommodation step are low on fluid. Fill with distilled water to manufacturers recommendations
- **2.** NOTE: Bow thruster battery has no boots on connections. Install boots as per ABYC recommendations.
- 3. NOTE: Generator shut off multiple times while running on load due to fault sensor. Repair.
- **4.** NOTE: Water tank is not secured as per ABYC recommendations. Secure tank to sole with straps as per ABYC recommendations.

#### **Priority C Findings (findings in need of attention but less significant)**

- **1.** NOTE: Latch on cabin door is broken. Repair.
- 2. NOTE: Port side tower speaker (Polk) not operational. Repair.
- **3.** NOTE: Inboard stove switch is difficult to operate. Repair.
- 4. NOTE: Slight cracks sighted on generator exhaust hose from muffler to hull side. Repair.
- **5.** NOTE: Port engine has slight squeaking sound coming from pulley. Repair.
- **6.** NOTE: A minor amount of water sighted in bilge below engines. Clean and dry.

#### Vessel Condition & Value

Rating of vessel condition was determined upon completion of the survey, and review of all survey information. Vessel was compared to other vessels of the same age and model. Condition Ratings are as follows:

Excellent	New or in Like-New Condition	
Above Average	Has been well cared for with no obvious defects or limitations	
Average	Ready for sale but needs maintenance, repairs, cleaning or updates.	
Below Average	Needs significant maintenance, repairs or service.	
Bad Condition	Un-Seaworthy, Dangerous.	

Values are dependent on the limiting conditions and assumptions noted in this report. These values are statements of opinion. No guarantee can be given that these opinions of value will be sustained or that they will be realized in an actual transaction.

Fair Market Valuation was determined by comparing cost and market data analyzed from BUC, ABOS, NADA and various boat sale's websites. Data was reviewed and actual reported sales figures were taken into consideration upon deciding upon value. Price Guide "book" values were also taken into consideration.

Estimated Replacement cost was determined using information obtained from ABOS and local dealer prices using same or similar make and model with similar equipment options.

Vessel Condition	Excellent
Estimated Fair Market Value	\$176,125.00
Estimated Replacement Cost	\$304,000.00

NOTE: Vessel is considered fit for its intended use ONLY after all Priority A recommendations have been corrected.

01/19/2018

### **Surveyors 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 stipulate result, or the occurrence of subsequent event. I have made a personal inspection of the vessel that is the subject of this report.

This report should be considered as an entire document. No single section is meant to be used except as part of the whole.

This report is submitted without prejudice and for the benefit of whom it may concern. This report does not constitute a warranty, either expressed, or implied nor does it warrant the future condition of the vessel. <u>IT IS A STATEMENT OF THE CONDITION OF THE VESSEL AT THE TIME OF THE SURVEY ONLY.</u>

John Sach

ATTENDING SURVEYOR: \_

(John Seckman)

DATE: 1-19-2018

US Coast Guard Licensed 1600 Ton Master/2<sup>nd</sup> Mate Unlimited - License# 2677286

ACMS Surveyor# 0364

