

Report of Marine Survey

Vessel: 2009 Mako 212

Purpose: Pre-purchase and Evaluation



Customer:

Date of Survey:

Location:

Prepared and Conducted by: Captain John Seckman

Survey Information

Date of Survey:

Date of Survey Report:

Purpose of the Survey:

Name of party survey was conducted for:

Name of party requesting survey:

Location where survey was conducted:

How was vessel observed:

Sea-Trial:

Parties present at time of the survey:

Weather at time of survey:

Vessels intended use:

Electrical Systems:

Survey Standards

Standards Followed – 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.
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 ALL **Priority B** recommendations should be addressed in order to bring the vessel to current safety standards and ensure safe navigation and operation.**

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. Values include the trailer and outboard motor.

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	Average Condition
Estimated Fair Market Value	\$24,350.00
Estimated Replacement Cost	\$34,132.00

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

Vessel Particulars

Vessel YR/Make/Model:

2009 Mako 212



Vessel Name:

N/A

Hailing Port:

N/A

Hull ID number verification:



State Registration #:

State Validation sticker:

Registration valid and sighted on vessel hull as per regulations:

Vessel Type:

Manufacturer:

Year of Vessel:

Length of Vessel:

Draft:

Beam:

Displacement:

Top Exterior Deck & Hull

Hull Construction Material:

Fiberglass with black gelcoat surface. Gold boot-stripe at waterline. **NOTE:** Striping was nicked in several areas on the both sides of the vessel. Repair as needed for cosmetic purposes.

Hull Cosmetics:

Average condition for vessels age. **NOTE:** Damage sighted in the following areas: 1) Hull needs a thorough cleaning and polishing. Several nicks, scratches and scuffs sighted on both sides of vessel. Clean and polish as needed for cosmetic purposes. 2) 1.5" x 1.5" gelcoat gouge below rub rail at the aft, starboard stern.

Swim Platform:

No swim platform sighted on vessel.

Rub Rail:

Black plastic

Boarding Ladder:

No boarding ladder sighted on vessel.

Transom:

Conventional transom. No damage sighted.



Main Deck – Hardware & Fittings**Main Deck Construction Material:**

Molded Fiberglass over unknown core.

Deck Surface:

White with molded in non-skid surface. Good condition. **NOTE: Vessel needs thorough cleaning.**

Stanchions/Grab Rails:

Stainless steel. Well secured with no bends, damage or deformation sighted.

Cleats:

Horn style cleats. Well secured to deck and operational.

Scuppers/Deck Drains:

Scuppers are well secured with no damage sighted. Hoses are secure and properly routed overboard. **NOTE: Scupper drain through-hulls on transom are missing flappers. Replace.**

Deck Fill/Pump-out Fittings:

All deck fittings are properly marked as per ABYC recommendations. Located in the following areas: 1) Fuel Fill – Port Bow

Anchor/Chain Locker:

Located on bow fore-peak. Accessible, no damage sighted. Slightly dirty.

Windlass:

No windlass sighted on vessel.

Deck Hatches:

N/A

Transom Shower:

No transom shower or raw-water wash-down sighted on vessel.

Cockpit & Helm**Helm/Steering Station:**

Helm equipped with leaning post seating. Vinyl is in average condition.

Seating:

NOTE: Damage sighted in the following areas: 1) Forward helm seating in front of console appears in below average condition. Cushion buttons have rusted and are no longer operable. Repair buttons. 2) Forward, starboard storage locker/seat is missing screw on the aft hinge.

Sole/Deck:

FRP. Average condition. No soft spots, defects or delamination sighted.

Top/Superstructure:

Aluminum t-top with canvas.

Canvas:

Canvas on t-top appears in average condition. Recommend cleaning as needed for cosmetic purposes.

Lighting:

Cockpit lights are all functional.

Windshield & Wipers:

Windshield is a one piece design. Appears free of defects and damage.

Navigation & Helm Electronics

Depthsounder/Fishfinder:

Lowrance HDS-8. Operational.

Electronic Chart/ECDIS/GPS:

Lowrance Model: HDS8, GPS/Fish finder combo. Operational. **NOTE: Chart-plotter missing navionics chip. Recommend installing chip for accurate navigation capabilities.**

http://www.cabelas.com/product/Navionics-HotMaps-Platinum/733951.uts?searchPath=%2Fbrowse.cmd%3FcategoryId%3D734095080%26CQ_search%3Dnavionics%2Bchip%26CQ_st%3Db

Compass:

Yes. 4" Ritchie on cockpit dash. Operational.

VHF:

Uniden UM415. **NOTE: Speaker is not working on vhf radio. Repair.**

Miscellaneous:

Surveyor recommends a side-scan transducer so you can take full advantage of your fish-finder. The following is a link to the transducer and computer-box you would need to purchase and install.

http://www.cabelas.com/product/Lowrance-StructureScan-D-Transducer-and-Module/2186374.uts?searchPath=%2Fbrowse.cmd%3FcategoryId%3D734095080%26CQ_search%3Dlowrance%2Bsidescan%26CQ_st%3Db



Engine Instruments & Controls

Throttle/Shift Controls:

Mercury brand. Electronic single control box for throttle/shift controls. Controls work smoothly and are operational.

Engine Status/Multifunction:

All Engine instrument controls are operational and OEM.

Engine Tachometer(s):

Engine tachometer is OEM and operational.

Miscellaneous:

Entertainment Electronics

Stereo(s):

Fusion MS-IP600. Operational.

Speaker(s):

Two 5x8 Fusion speakers located on either side of helm console. Operational.

Head(s)

Number/Location:

One head. Located in mid-ship storage compartment under helm.

Toilet(s):

Porta-Potty system. Not tested for functionality but unit appears clean and operational.



D.C Electrical System**Voltage System:**

12v

Batteries:

One Optima (blue top). Well secured in tray with straps as per ABYC recommendations.

Battery Selector Switch:

Yes there is one rotary switch under the helm. Operational.

Charging System:

Alternator on engine.

Distribution Panel:

None sighted.

Connectors:

Ring spade or crimp on connectors sighted for wiring connections. **NOTE: Missing boots on some battery connections. Replace boots.**

D.C. Usage Meter:

None sighted.

D.C. Wiring Secured:

All wiring runs are properly secured every 18" as per ABYC E-11 recommendations.

D.C. Electrical Ground:

DC electrical system is properly tied into vessels electrical ground system using the engine as a common ground.

Propulsion System**Propulsion Type:**

Outboard Engine

NO#/Type/Cylinders:

One Gasoline v6 Outboard 225HP

Make/Model/Serial:

Mercury Verado 225xl

Serial:

Engine Hours:

Engine hours are 106 as per hour meter on console.

Hoses and Clamps:

Good condition, no cracks sighted. Hoses are double clamp where required.

Cooling System(s):

Raw water intake through lower unit(s), circulated through engine and combined with engine exhaust and routed through out drive props. **NOTE: Raw water discharge is very weak. Due to this Surveyor suspects impeller is in need of replacing. Have engine serviced by professional mechanic.**

Oil Level and Condition:

Clean and full on dipstick. No evidence of water or cuttings in lube oil.

Ignition Protection:

Yes, per ABYC recommendations.

Engine Ventilation:

Natural ventilation through engine cowling.

Fuel Pump(s):

Engine mounted, secured. No leaks sighted.

Fuel Filter(s):

Engine and remote mounted in aft bilge. **NOTE: Fuel filter is dirty/rusty. Have serviced by professional mechanic.**

Engine mounts and beds:

Engine mounts appear to be well secured to the transom. Percussion tested where accessible, no delamination sighted.

Engine ground cable:

Engine(s) are properly grounded with the proper size conductor cable.

Engine(s) Operated:

Yes on sea trial. See sea trial section for details.

Skeg:

Skeg appears un-damaged and in good condition.

Fuel Tankage

NO# Fuel Tanks/Location:

One tank. Located Midships, centerline. Under helm.

Tank Type and Capacity:

Plastic 92 gallon.

Fuel Supply Line(s):

USCG A1 flex hose from tank to fuel pump. No crack, soft spots or splitting sighted. Serviceable.

Shut off Valve(s):

Sighted on fuel tank top. Operational.

Vent Line/Location:

Type A1 hose. Vents to hull, port side.

Fill line(s) Located:

Port side. Midships.

Fill pipe & Condition:

USCG Type A2 flex hose. No cracks, kinks or soft spots sighted.

Fuel Fill Grounded:

Fuel fill is properly grounded to fuel tank.

Miscellaneous :

Manufacturers label sighted on tank-top as per ABYC recommendations.

Steering System

Manufacturer:

Mercury.

Type:

Outboard hydraulic cockpit wheel steering with power assist/power steering pump.

Lines and Fittings:

Flex hydraulic lines. No leaks sighted.

Mounting(s):

Cylinder and ram actuator are well secured. Hull/transom mounted bracing appears adequate.

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.

Bilge(s):

NOTE: Water-line sighted about 12" above sole in mid-ship storage area. Additionally, water-line can be sighted in the aft bilge. Surveyor suspects and confirmed with previous owner that rain-water collected in vessel while it was left on lift. No damages to wiring or electronic components but bilge needs a thorough cleaning and should be dried by leaving hatches open for a few days.

Stringer(s):

Hull stiffness provided by FRP covered wooden longitudinal stringers that run the 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.

Stem:

Solid stem. No cracks or separation sighted inside.

Inside of Transom:

Reinforced. Secure with no cracks or separation sighted.

Below Waterline Thru-Hull Fittings

Number/Type/Location:

<i>Number</i>	<i>Type</i>	<i>Location</i>	<i>Used For</i>	<i>Condition</i>
1	Bronze Seacock	Aft Bilge	Bait-well	Serviceable

Condition:

Seacock valve is operational and securely bedded/mounted through the vessel hull.
NOTE: Slight corrosion sighted on sea-cock valve. Monitor, treat for corrosion and repair as needed in the future.

Hoses:

Marine rubber covered reinforced hose. Double clamped and secure as per ABYC recommendations. No cracks sighted on hoses.

Notes:

It is in the opinion of the surveyor that properly installed, bedded and maintained below waterline thru hull fittings are critical to vessel safe operation and longevity. It is important that you learn the location of all thru-hull valves in order that you can close them in a vessel emergency.

Above Waterline Thru-Hull Fittings

Hull Sides:

Stainless steel thru-hulls. Used for: Bait-well discharge, deck drains, bilge-pump discharge, fuel vent. All appear well secured and free of defects with the exception of the missing flappers as previously mentioned in survey.

Notes:

NOTE: Damage sighted in the following areas: 1) Rust stains sighted on several through hulls due to vessel being in salt-water. This is cosmetic and does not degrade the operation of the through-hulls. Recommend cleaning as needed for cosmetic purposes and monitoring the bedding for future maintenance. 2) Forward bow trailer eye-ring bedding has deteriorated. Remove and re-bed with 5200 to avoid water intrusion.

Critical Safety Components

Bilge Blower(s):

No blowers were sighted on vessel.

Bilge Heater(s):

None sighted on vessel.

Bilge Pump(s):

<i>Number</i>	<i>Brand/Model</i>	<i>Location</i>	<i>Secure?</i>	<i>Float Switch</i>	<i>Operable?</i>
1	Rule 750	Aft Bilge	Yes	Yes	Yes

Bilge Pump Comments:

Bilge pump hose found to be secured with clamp and serviceable. **NOTE: Float switch is sticking, causing the bilge pump to run continuously. Clean or replace float switch.**

Safety Related Equipment & Accessories

Life Jacket's (PFD):

<i>Type</i>	<i>Number</i>	<i>Location</i>	<i>Condition</i>	<i>Legal</i>
USCG Type I PFD	0			
USCG Type II PFD	0			
USCG Type V PFD (throw)	0			

First Aid Kit:

NOTE: No first aid kit sighted on vessel. Recommend. No life- preservers. Purchase life preservers as per USCG regulations.

Fire Extinguishers:

NOTE: No fire extinguisher sighted on vessel. Recommend purchasing a fire extinguisher and mounting in an easily accessible location.

Ground Tackle

Anchor(s):

NOTE: No anchor sighted on vessel. Recommend purchasing suitable size anchor for vessel.

Chain/Line/Length:

Approximately 15' of line sighted in forward storage compartment.

Fenders:

None sighted.

Out of Water Inspection & Hull Bottom

Construction Material:

Fiberglass. NOTE: Damage sighted in the following areas: 1) Barnacle's sighted on the aft portion of the hull, leading surveyor to believe the vessel sat in a sling and was left partially in the water for a significant amount of time. Clean hull bottom and remove barnacle's. 2) Several longitudinal scuffs were observed on hull bottom running length of keel. Buff and polish as needed for cosmetic purposes. 3) Three 1"x1" gouges/voids were observed on the aft portion of the hull bottom. Repair to avoid water intrusion.

Bottom Paint:

No bottom paint on vessel.

Blistering:

No evidence of blisters was sighted on vessel bottom during inspection.

Thru-Hulls:

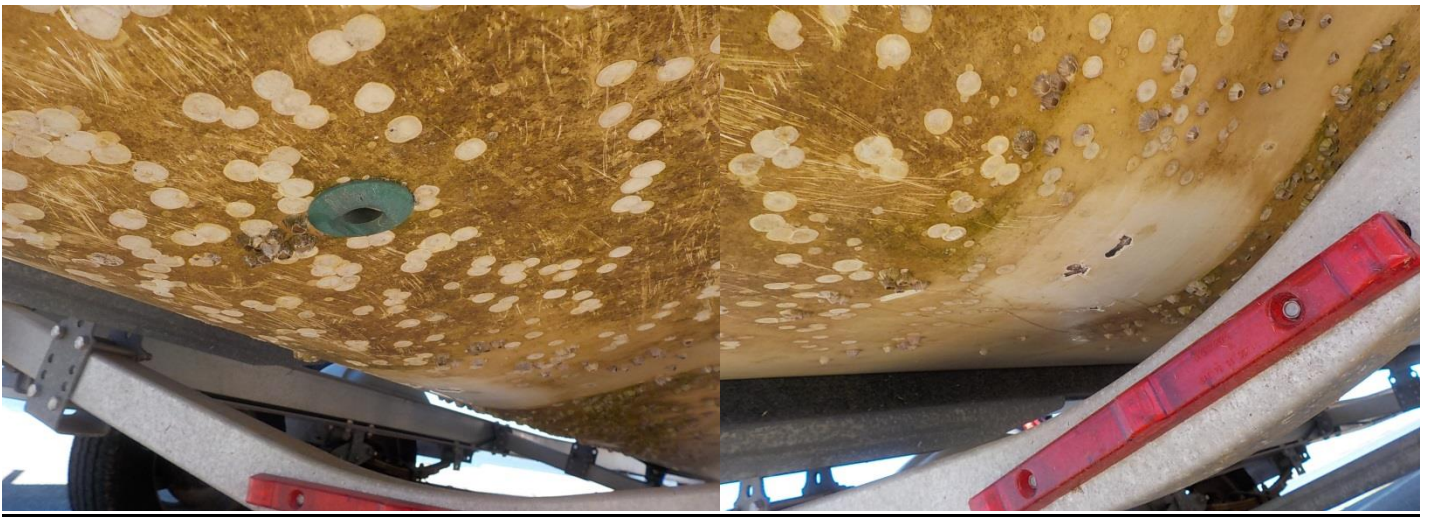
One thru hull sighted for bait well water intake. Bedded properly as sighted from exterior. Percussion tested. Serviceable.

Transducers:

Transducers for speed, depth and water temperature are adequately sealed and bonded to the hull as sighted from exterior. Located on the starboard side of the transom.

Strainers/Scoops/Screens:

None sighted.



Propeller(s)/Screws

Number and type of blades:

One three-bladed stainless steel prop.

Prop size/Identification:

Mirage. 19P

Prop Condition:

The prop is in good condition with no cracks, corrosion or bent, nicked or chipped blades.

Trim Tabs & Thrusters

Trim tabs:

Bennett single ram hydraulic trim tabs. Not operational. **NOTE: Trim tabs are not operational. Have mechanic repair.**

Thrusters:

N/A

Anodes

Number/Location/Condition:

Anode sighted on engine lower unit. Serviceable.

Notes:



Sea Trial

Date & Time:

February 23, 2017

Summary of Events:

Drove vessel from dock to Lake Lewisville dam and back to boat ramp.

Vessel Operated By:

Buyer and surveyor.

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 instruments all operated within normal operating ranges at idle, slow and cruising bells.

Trim Tabs:

The trim tabs did not operate.

Steering:

Steering system operated normally and smoothly from start to stop.

Throttles:

The throttles operated smoothly and efficiently.

Notes:

Vessel operated smoothly at all speeds. No hesitations, stumbles, vibrations or abnormal noises observed throughout entire rpm range.

Summary of Findings

Priority A Findings (findings in need of immediate attention)

1. **None Found.**

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

1. Scupper drain through-hulls on transom are missing flappers. Replace.
2. Raw water discharge is very weak. Due to this Surveyor suspects water impeller is in need of replacing. Have engine serviced by professional mechanic.
3. Three 1"x1" gouges/voids were observed on the aft portion of the hull bottom. Repair to avoid water intrusion.
4. Trim tabs are not operational. Have mechanic repair.
5. Float switch is sticking, causing the bilge pump to run continuously. Clean or replace float switch.

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

1. Striping was nicked in several areas on the both sides of the vessel. Repair as needed for cosmetic purposes.
2. Damage sighted in the following areas: 1) Hull needs a thorough cleaning and polishing. Several nicks, scratches and scuffs sighted on both sides of vessel. Clean and polish as needed for cosmetic purposes. 2) 1.5" x 1.5" gelcoat gouge below rub rail at the aft, starboard stern.
3. Vessel needs thorough cleaning.
4. Damage sighted in the following areas: 1) Forward helm seating in front of console appears in below average condition. Cushion buttons have rusted and are no longer operable. Repair buttons. 2) Forward, starboard storage locker/seat is missing screw on the aft hinge.
5. Chart-plotter missing navionics chip. Recommend installing chip for accurate navigation capabilities.
6. Missing boots on some battery connections. Replace boots.
7. Fuel filter is dirty/rusty. Have serviced by professional mechanic.
8. Water-line sighted about 12" above sole in mid-ship storage area. Additionally, water-line can be sighted in the aft bilge. Surveyor suspects and confirmed with previous owner that rain-water collected in vessel while it was left on lift. No damages to wiring or electronic components but bilge needs a thorough cleaning and should be dried by leaving hatches open for a few days.
9. Slight corrosion sighted on sea-cock valve. Monitor, treat for corrosion and repair as needed in the future.
10. Damage sighted in the following areas: 1) Rust stains sighted on several through hulls due to vessel being in salt-water. This is cosmetic and does not degrade the operation of the through-hulls. Recommend cleaning as needed for cosmetic purposes and monitoring the bedding for future maintenance. 2) Forward bow trailer eye-ring bedding has deuterated. Remove and re-bed with 5200 to avoid water intrusion.
11. No first aid kit sighted on vessel. Recommend.
12. No fire extinguisher sighted on vessel. Recommend purchasing a fire extinguisher and mounting in an easily accessible location.

- 13.** No anchor sighted on vessel. Recommend purchasing suitable size anchor for vessel.
- 14.** Damage sighted in the following areas: 1) Barnacle's sighted on the aft portion of the hull, leading surveyor to believe the vessel sat in a sling and was left partially in the water for a significant amount of time. Clean hull bottom and remove barnacle's. 2) Several longitudinal scuffs were observed on hull bottom running length of keel. Buff and polish as needed for cosmetic purposes.
- 15.** No life-jackets spotted on vessel. As per USCG regulations you must have one USCG approved life-preserver per person onboard vessel. Purchase life preservers.
- 16.** NOTE: Speaker is not working on vhf radio. Repair.

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 nore does it warrant the future condition of the vessel. IT IS A STATEMENT OF THE CONDITION OF THE VESSEL AT THE TIME OF THE SURVEY ONLY.



ATTENDING SURVEYOR: _____

DATE: 2-23-2017

US Coast Guard Licensed Captain 1600 Master 2nd Mate Unlimited

License# 2677286