

Do not enter the cage area for any reason unless the key switch and battery switch are both in the off position. Audibly alert and visually check for people in the cage area, path of the propellers or path of the propeller wind blast before turning on the battery switch or key switch.

Daily Check List

The following is a walk-around that should be done on each day of use before starting the airboat.

Airboat:

- Check water level in day tank, engine oil level and fuel level.
- Check propeller blades for wear, cracks, nicks, loose bolts.
- Check steering assembly for free movement and no loose linkages.
- Check accelerator assembly for free movement and no loose linkages.
- Pass visual inspection on all nuts and bolts, including but not limited to:
 - Exhaust, steering assembly, accelerator assembly, flywheel, starter, bilge pump, stand bolts, radiator, oil cooler and all other nuts and bolts.
- Check all hoses, including fuel, oil and radiator, for cracks, leaks, loose clamps.
- Check polymer bottom for rips/tears, cracking or broken rivets.
- Check for loose items in the bottom of the hull and/or in the cage area.
- Check for items that are in the path of the steering, accelerator or propeller.

Trailer:

- Check winch lock, strap, safety cable, straps on back, bearings (shake tires).
- Grease bearings as needed.
- Check trailer wheel lug nuts, tighten if necessary.
- Check that all lights are in working order.
- Check tires for wear due to use or rubbing.
- Check spare tire and bracket, bow stop and tongue jack for bolt tightness.

If any of the items in the above list require attention, perform the necessary repairs or bring the boat in immediately.

Notes:

- Always keep the battery cover closed and strapped tightly.
- The battery switch should be off when the engine is not running.
- Water Temperature – Engine water temperature should be as follows:
 - **Average Operating Temperature** Should Be **140 – 185 degrees** Fahrenheit.
 - Upon slowing down to idle, engine temperature will rise slightly.
 - If at any point should the engine temperature **exceed 200 degrees** Fahrenheit, a problem is present and engine damage could result from continuing to operate the engine.
- Oil pressure should be as follows: :
 - Idle: 10-30 psi
 - Cruising: 50 – 70 psi
- Oil Type: **Shell Rotella** or comparable **15 W 40**
- Fuel Type: On Carbureted GM Engines, Premium Fuel - 91 octane or better. Using low-grade fuel can lead to engine damage and premature wear. "Dieseling," the act of an engine continuing to fire after the ignition is switched off, often ending in a violent reversal of the engine rotation direction, is a common reaction to low-grade fuel and can cause internal engine damage as well as wear on the drive unit and propeller.

Please note that the above items are specific to standard GM carbureted crate engines. For information specific to other engines, please see the owner's manual for that specific engine or contact the engine or boat manufacturer.

Trailing Notes

The following is a series of notes on trailing (hauling) and launching an airboat. Use these notes as a guide, but also remember that many conditions not listed here may affect the trailing and launching of an airboat, and that these factors must be taken into consideration.

Trailing An Airboat:

- Consider head clearance.
- Ensure that the boat is properly secured to the trailer, including the rear straps.
- Consider the width of the trailer.
- Check all trailer lights for proper operation.
- Check the wheel bearings by shaking the tires. Excessive movement should be taken as a sign to tighten or replace the bearings.
- Grease wheel bearings regularly.
- Check air pressure and adjust pressure according to the specifications on the tire.

Launching An Airboat:

- Remove rear straps and install drain plugs before backing the boat into the water.
- Do not remove the front strap until the boat is backed into the water.
- Once the boat has been backed into the water:
 - Disconnect the front safety cable.
 - Holding firmly on the winch handle, tighten the winch strap slightly and unlock the winch lock.
 - Holding firmly on the winch handle, slowly lower the boat into the water.
 - Note: Be sure that your footing is secure, as boat landings are particularly slippery, especially at the water line. Watch for vegetation and other items.

Reloading An Airboat:

- Hook the winch strap to the bow eye, ensuring that the winch dog is in the correct position so that if the winch handle were let go, the winch would not release and let the boat down the ramp or sling the handle into you.
- Again, ensure that your footing is secure.
- Once the boat is winched all the way up, securely attach the safety cable.
- Once the boat is removed from the water, secure the rear straps.

Maintenance Tips

Here are a few tips in maintaining your airboat. This does not cover everything about your airboat that you could possibly encounter. It is designed to aid you in your general daily maintenance and to help you keep your airboat safe.

Some airboats are equipped with aircraft engines and some are equipped with automotive engines. Therefore, some of these maintenance tips may not apply to your boat.

One thing you must remember is to always turn the engine off and to turn the battery switch to off or disconnect the battery before doing any maintenance work on your airboat. It is also a good and safe idea to turn the battery switch to off or disconnect the battery when the airboat is not in use. It is up to the owner and/or driver to perform a daily maintenance check.

ADJUSTING THE DRIVE BELT:

a) Belt Tension Adjustment:

The most common way to check the adjustment of the drive belt is to move the tip of the prop back and forth with the rotation and counter rotation of the prop. There should be very little "play," less than 1/8th of an inch, at the tip of the prop. To make adjustments to the belt you must remove the 3/8" bolts which hold the propeller hub and pulley in place. Always use two people to hold the pulley in place when removing the 3/8" bolts and prop, and always have one of these people pushing forward on the propeller hub to avoid allowing the upper assembly to slip out and down. The pulley, hub, and prop assembly is heavy. After removing the 3/8" bolts, rotate the hub to the right or the left until the desired tension is reached. Re-install the 3/8" bolts and check the "play" at the tip of the prop.

b) Greasing Procedure:

There are four grease fittings on the drive unit. Grease these fittings with approximately 1 to 2 squirts of grease every 10 to 15 hours of running.

CHECKING NUTS AND BOLTS:

It is necessary to regularly check all nuts and bolts used to assemble and accessorize the airboat. Check them visually every time you use your airboat and check them with a wrench every 10 to 15 hours of running.

CLEANING:

Keep your engine, prop, radiator, oil cooler, hull, and complete airboat clean at all times possible. Also keep all walking surfaces clean, dry, and free of mud at all times.

POLYMER SHEETING ON BOTTOM AND SIDES OF HULL:

Always watch for leaking screws or rivets that are loosening. Reseal and correct this problem if it occurs. Also check the polymer sheeting for tears, cracking, or bubbling. If this condition occurs the polymer may need to be patched or replaced.

STEERING SYSTEM:

a) Rudders:

1. Keep rudders greased top and bottom as needed
2. Adjust the slack out of the rudders as needed by holding a back-up wrench at the top of the rudder and tightening the nut at the bottom of the rudder. Do not over-tighten. Over-tightening will make the rudders hard to turn.

b) Steering cable:

1. Grease cable movement (travel) rods on both ends with a light grease.
2. If the steering cable starts to get tight or becomes hard to move back and forth, the cable should be oiled. If this does not help and the cable is the cause of the problem, replace the cable immediately.
3. Check rod ends for wear.
4. Always be sure the cable remains securely away from the exhaust and out of the path of the propeller.

c) Steering stick:

1. Check bushings for wear.
2. Always make sure that no objects are blocking the travel of the steering stick or the rudders.

ACCELERATOR:

Check all moving parts from the accelerator to the carburetor for wear. Check the accelerator cable for tightness. If the cable becomes hard to move back and forth oil the cable travel on each end. If the cable remains tight, replace the cable with a new one. Check the carburetor return springs and replace as needed.

DENTS IN THE HULL:

Dents in the hull from striking objects could make the airboat hard to handle and very dangerous. Dents should be straightened out before returning to service.

MOTOR MOUNTS:

Before starting the airboat, front and rear motor mounts should be checked visually for wear or breakage every time you use your airboat. Motor mount bolts should be inspected for wear and tightness frequently.

BATTERY SELECTOR SWITCH:

Some airboats are equipped with a main battery disconnect switch. The battery should be turned off when the boat is not in use and when you are working on any part of your airboat. Airboats that do not have a disconnect switch should have the battery disconnected before working on the airboat and when it is not in use.

PROPELLER:

Always keep your propeller clean. Before starting your airboat, check the condition of your propeller every time you use your airboat. If any splitting, cracking, metal tip loosening, or any damage whatsoever appears, the propeller must be replaced before the airboat returns to service. It is important to always check the propeller bolts for tightness each time you use your airboat.

FUEL:

Always check your fuel level before using your airboat. When doing your daily maintenance check, inspect all fuel lines and clamps for aging, damage, or leakage. Always clean or change fuel filters as needed, approximately every 50 hours of running.

OIL:

Always check the oil level in your boat before starting the engine. When doing your daily maintenance check, inspect all oil lines and clamps for aging, damage, or leakage. Always change oil and filter as needed according to your engine owner's manual.

NON-SKID ON WALKING SURFACES:

It is important to always maintain the proper non-skid on all walking surfaces at all times. It is also important to keep all walking surfaces clean and free of mud and water at all times.

EXHAUST:

The exhaust header bolts should be checked for tightness frequently. The exhaust clamps should also be checked in the same manner. Before starting your airboat, the exhaust flex pipe should be checked for cracking, breaking, or wear every time you use your airboat. If any cracking, breaking, or wear appears, the flex pipe should be changed immediately.

CARBURETOR/AIR BREATHER:

The carburetor weather cover and breather should be removed and cleaned as needed. The weather cover bolt should be checked for tightness frequently. Do not over-tighten.

ALTERNATOR BELT:

The alternator belt and the water pump belt should be checked for wear and tightness frequently. Any belts showing wear should be replaced.

RADIATOR:

Always be sure that the water in the radiator and the day tank and these objects are cool before opening them to check the water level. Always make sure that the water level is adequate before starting the engine. It is important to inspect the water lines, clamps, radiator and all related parts for aging, leakage, or wear. These parts should be changed immediately if these conditions exist.

It is important for your cooling system to have approximately 50% coolant and 50% water in it.

PROP GUARD:

Inspection of the prop guard should be done frequently. This inspection consists of, but is not limited to, broken wires, bent or broken bars, broken main supports, broken rudder support bars, rust and corrosion, mounting bolts and nuts, and the oil cooler mounting bracket. All necessary repairs should be completed immediately.

MOTOR STAND AND SEAT STAND:

Inspection of the motor stand and seat stands should be done frequently. The inspection consists of, but is not limited to, cracks in any tubing, bracing, or motor mount supports. Check all nuts and bolts for tightness and fatigue. Also check for rust and corrosion. All necessary repairs should be done immediately.

LOOSE OBJECTS:

It is important that you never leave any loose objects in the bottom of the boat while the engine is running.

DRAIN PLUGS:

Before starting the engine, always be sure that the drain plugs are installed securely. Do not leave the drain plugs loose in the bottom of the boat while the engine is running.

TRIM TABS:

The trim tab should be checked frequently to be sure it is going up and down properly without binding.

BATTERY:

The water level in the battery should be checked frequently and water added as needed. The battery terminals should be kept clean and tight. It is important to keep the battery box cover over the battery and secured with the battery strap at all times. The battery strap should be inspected and changed as needed.

RUNNING LIGHTS:

The 3 running lights should be in working order at all times. The green starboard light, the red port light, and the white top clearance light are the running lights. The bulbs or lights should be changed immediately as needed.

BILGE PUMP:

The bilge pump should always be in working order. Keep all grass and trash cleaned from around the base of the bilge pump. Do not allow bilge pump to run when there is not enough water in the hull for it to pump.

Safety Tips

WARNING: DO NOT DRIVE OR RIDE IN ANY AIRBOAT BEFORE READING THE OWNERS MANUAL. READ ALL WARNING LABELS BEFORE ENTERING OR STARTING ANY AIRBOAT.

- It is the obligation of the owner to make sure all drivers and passengers understand all warnings.
- **DO NOT** operate an airboat without proper training.
- **DO NOT** operate or ride in an airboat while under the influence of alcohol or drugs.
- **DO NOT** operate an airboat without life preservers on all passengers and the driver.
- **DO NOT** operate an airboat if you are under the age of **21**.
- **DO NOT** operate or ride in an airboat without the proper ear and eye protection.
- **BEWARE:** Airboats do not have brakes or reverse. You must learn through training and experience to calculate your stops and maneuvers.
- **DO NOT** stand up while the boat is moving. Always remain seated securely while the boat is moving.
- **BEWARE:** Airboats and passengers and/or drivers can unexpectedly be thrown one way or the other by wind shifts, water currents, striking stumps or other objects, or for many other reasons. Always sit secure and be prepared for this possibility.
- **Keep all body parts away from the propeller.**
- **Always** keep hands, feet, head, and all body parts inside of the boat at all times. Example: Do not hold on to the top rail of the boat grasping the outer edge of the hull.
- **It is not safe** to run an airboat in areas where you cannot see what is ahead of or around you, such as tall grass, trees, fog, etc.
- Airboat propellers suck air. **DO NOT** leave any loose objects in the bottom of the boat. They could be sucked into the propeller which could cause damage and/or bodily injury or death.
- **ALWAYS** approach the following situations with extreme caution: tall grass, areas with trees, rough water, dry land or bumpy conditions. In these conditions it is up to the driver to use his or her own judgment as to the capability of the airboat and what is safe.

- **ALWAYS** make sure that there are no objects blocking the travel of the steering stick or rudders.
- **ALWAYS** make sure that there are no objects blocking the accelerator pedal or accelerator linkage.
- **BEWARE:** Some airboats are equipped with a trim tab. Trim tabs are designed to stop the boat from porpoising. This is accomplished by pressing the trim tab button in the downward position* until the boat stops porpoising. If the trim tab is **lowered too far down** it will make the boat run on its nose. This will make it **very dangerous** and **hard to control** the airboat. The trim tab should be adjusted to the point right before the boat begins to porpoise.
- **Airboats have propellers.** Any objects that go through the propeller while the propeller is turning could cause serious damage to the propeller. This could also result in flying particles that could injure or kill someone. A propeller with any damage at all should be changed immediately.
- **BEWARE:** Wet or muddy shoes or surfaces can result in slippery situations. Operators, passengers, and anyone else entering, exiting, or moving around in or on the boat must exercise caution while doing so under such conditions as well as under any other conditions. It is up to the owner to keep all walking surfaces clean; free of any slippery substances. All areas not covered by a non-slip surface[†] should be considered no-step areas and should not be used as walking or standing area.
- **Battery** should be disconnected before extending arms or any body parts into propeller area. Battery should be disconnected before working on any part of the airboat; the engine, etc.

* applies to most boats with trim tabs installed by Mark's Airboats, Inc.

[†] Non-slip surfaces include non-skid tape placed on the floor and deck of the boat, as well as foot plates covered with non-slip paint (paint with sand added to it).

Driving Tips

Below is a series of driving tips. This is not a driving manual. It would be very hard to teach someone in words how to drive an airboat. Even with the driving tips below, it is still up to you, the driver, to use extreme caution, slow driving, common sense, and good judgment to be a good, safe airboat driver.

Keep in mind that it is your, the driver's responsibility to maintain the safety of your passengers as well as the people around you at all times.

- An airboat is not a toy. It is a piece of equipment that is only as safe as the person driving it.
- Airboats are not for children to drive. You must be 21 years of age or older and have a reasonable amount of water vessel experience before learning to drive an airboat.
- Before starting the engine of an airboat, be sure that there are no objects or people in the path of the propeller. It is also important to make sure that no one is on the sides of the propeller or behind the boat. Keep in mind that strong winds will blow out of the back of the airboat, strong enough to blow people down and throw rocks, dust, and other objects with enough speed to damage property or injure people.
- An airboat does not have brakes or reverse. Keep this in mind before you start moving. The rudders control the steering and must have air moving through them for the propeller in order to control the boat. The engine idling does not create enough wind to steer the boat.
- Always make sure that the driver and all passengers are seated securely before moving.
- Always make sure that no one has fingers, hands, or any other body parts hanging over the outside of the boat at any time. For example, do not hold on to the top rail of the boat with your fingers on the outer edge.
- To start the engine, turn the ignition switch on and allow the fuel pump to build up. Press the accelerator twice then turn the key to start the engine.
- The steering stick, which is held in your left hand, controls the direction of the airboat. Pulling the steering stick back will turn the boat to the left. Pushing the stick forward will turn the boat right. Keep in mind that the wind from the propeller must be flowing through the rudders for you to have steering control. Always hold the steering stick tight in your hand. Remember: The engine at an idle does not create enough wind to steer the boat.
- Accelerate to about half- or three-quarter-throttle in order to get the boat on a plane. Once the airboat is on a plane, back off of the throttle just enough to keep the airboat on a plane. If you do not know what a boat "being on plane" is, you do not have enough water vessel experience to drive an airboat.

- Use the steering stick, as described in item 8, to control the direction of the boat.
- Do not drive full speed at any time. In water drive with the boat just on a plane as described earlier. In marshy conditions do not drive faster than half-throttle.
- When you are "running" in water and you want to slow down, gradually let off of the throttle. In deep water if you get off of the throttle all at once you could take water in over the back of the boat.
- Do not, in water or marsh, get off of the throttle all at once while turning the boat. This could cause you to lose control and/or sink. Remember: Wind must be flowing through the rudders in order to steer the airboat. The wind from the propeller at an idle is not enough to steer the boat.
- In some situations you will find the need to use the engine power and the steering in combination to make a fast turn. Example: If you are driving and suddenly need to make a fast turn, pull or push the steering stick gently and accelerate. Once you complete the turn, return to your original speed. This will help you to make a faster turn. **Do not do this if you are traveling at high speeds and do not do this if the extra speed you will gain could cause you to lose control or run into something.**
- Airboats do not have brakes or reverse. You must learn through experience to calculate your stops and maneuvers. Use the steering stick to control the direction of the boat.
- Trim tabs – Some boats are equipped with a trim tab. Trim tabs are designed to stop a boat from porpoising. This is accomplished in pressing the trim tab button in the downward position until the boat stops porpoising. If the trim tab is lowered too far down it will make the boat run on its nose. This will make it very dangerous and hard to control. The trim tab should be adjusted to the point right before the boat begins to porpoise.