



# Quad-Aer Operator's Manual

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Need Help? Factory Support: 502-536-0716

## Introduction

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Thank you for purchasing this Stinger Equipment, Inc. product. This manual will explain the safety, maintenance and operation of your unit.

## Safety

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- All operators should read the product manual in its entirety before operating. All operators must be properly trained on the controls and their functions.
- All safety equipment, shields and covers must remain in place and free of any defects. Do not use this equipment if any guards or safety decals are not in place.
- Perform an inspection of the unit before each use. Ensure all fasteners are secure, the tires are properly inflated and engine oil level is correct.
- Do not use this unit on a slope of more than 20 degrees.
- Do not use if terrain exceeds skill or comfort level.

### Refueling the unit:

- Use an OSHA approved fuel can
- Do not fuel while the unit is running or hot
- Absolutely no smoking while refueling
- Refuel only outside and on level ground
- Do not overfill the unit
- Secure the fuel cap



This Symbol means: **ATTENTION! TAKE NOTICE!**  
Your attention is needed to ensure your safety and the safety of those around you. This symbol is followed by a Signal word describing the level of hazard. Throughout this manual and on all equipment you will see these safety labels.

### Signal word definitions:



**DANGER** indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.



**WARNING** indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.



**CAUTION** indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury. It may also be used to alert against unsafe practices or property damage.



# Maintenance

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Turn the unit off and remove key. Disconnect the negative battery cable and remove spark plug before performing any maintenance.

## Hydraulic System

- Hydraulic Fluid level should be checked daily.

Hydraulic Fluid Level Check Procedures.

1. Place unit on level ground. Locate the Site Glass on the hydraulic tank.
2. Oil level should be half way up the glass. If not please refer to the Hydraulic fluid change procedure for adding additional oil to the system.

- Change Hydraulic fluid and filter after the first 50 hours of use and then every 400 hours of use.



Figure 1



Figure 2

## Hydraulic Fluid and Filter Change Procedures:

1. Remove thigh pad.
2. Clamp return line above the filter with a pair of smooth tooth locking pliers. See figure 2.
3. Remove Hydro Filter.
4. Remove locking pliers and catch oil in a 13+ quart container and properly recycle or dispose of according to your local laws.
5. Remove fill cap. See figure 3
6. Install new hydro filter (P/N: 51563). Rub a small amount of new oil on the O-ring of the new filter prior to installing.
7. Add Synthetic 20W-50 (QA3600 - 13qts/QA3000 - 5qts) and reinstall fill cap. Note: May take less if unit was not completely evacuated. Watch the site glass when filling do not overfill.
8. Start engine at low rpm and make slow, small and calculated moves with the control levers as the hydro system pressurizes. Cycle times up and down. Check fluid level again!
9. Reinstall thigh pad.



Figure 3



Use caution as steering and speed can be erratic until the hydro system is fully pressurized.

## Belt

Inspect the engine belt every 200 hours for signs of wear.

### Main Belt and Auxiliary Belt Replacement Procedure:

1. Loosen idler pulley bolt to release belt pressure. The timing belt has a secondary bolt that needs to be loosened to allow the tension arm to swing freely.
2. Take note of the belt orientation and pathway before removing and discarding the old belt.
3. Replace with new belt as needed.
4. Apply tension with idler pulley and tighten bolt. The timing belt tension arm has a location for a  $\frac{1}{2}$ " drive breaker bar to be installed. Pull breaker bar with 20 ft-lb of force and tighten bolts. Remove breaker bar.



Figure 4

## Engine

- Run unleaded gasoline with an octane rating of 86 or higher and 10% or less ethanol.
- Check engine oil level on level ground daily.
- Change engine fluid and filter after the first 50 hours of use and then every 100 hours of use.
- Use 10w30 API Certified
- Clean/replace the air filter per engine manufacturer manual.
- See supplemental Engine manufacturer booklet for additional maintenance procedures and requirements

## Tracking Adjustment

### Forward Adjustment

1. Slide rod end clip up (figure 5) and gentle pull rod away from hydrostatic motor
2. Turn rod end clockwise or counter clockwise to increase or decrease speed on that side.

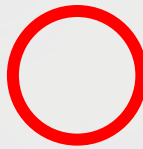


Figure 5

### Reverse Speed Limiter

1. Loosen bolt as shown in figure 6 and slide stop forward or backwards to decrease or increase reverse travel speed prospectively.
2. Tighten bolt.



Figure 6



# Unit Operation

## Starting and Stopping the Engine

1. Pull choke knob up to apply the choke. Used typically when engine is cold. Figure 7. If equipped with EFI skip this step.
2. Turn ignition key to position II until engine starts and release the key. Figure 7.
3. Turn off the Choke by push the choke knob down. If equipped with EFI skip this step.
4. Allow the unit to warm up and slide the throttle forward to the desired rpm. 3600 MAX RPM! You can use a lower RPM to slow the unit.
5. Turn key to the off position to turn off the engine.



Figure 7



Figure 8



## Tines

The tine Position switch as shown in figure 8, allows for 2 different operating styles and the ability to lock the tines in the up position for transport. In the UP position the tine assembly will remain up unless the foot pedal depressed. In transport mode, the foot switch is deactivated, and the tines will remain up. In the DOWN position the tines will remain in the ground until the foot pedal is depressed. Traditionally having the tines default to UP is most common. Default down position can be advantages for users that typically do larger properties.

## Tine Depth

Tine depth is determined by the amount of down pressure. For deep cores, turn the pressure up using the regulator shown in figure 9. Lower pressures will result in shallower cores. Tine pressure should be adjusted accord to soil conditions. Never increase pressure to the point that the rear tires are off the ground. This can lead to unsafe operation and could cause bodily harm.



Figure 9



## Unit Operation

1. Put operator platform down! Step on platform careful not to hit the foot switch. **DO NOT OPERATE UNIT WITH PLATFORM IN THE UP LOCKED POSITION!** Serious bodily harm can occur.
2. Release Parking brake as shown in figure 10 . Tire damage can occur if parking brake is not released.
3. Push both steering controls forward, to move the unit forward. The more pressure applied, the greater the speed.
4. Pulling back on both steering controls will put the unit in reverse.
5. Reduce the speed of the left or right steering control while moving forward to turn left or right.
6. Always set parking brake before stepping off or turning off the unit.

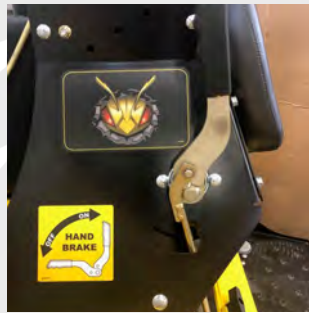


Figure 10

## Usage

1. Lower aeration tines into the ground by holding the foot pedal down (figure 11) or switching the tine position switch to down.
2. Lock the tines in the up position by switching to transport.
3. Tines can remain in the ground when making wide gentle turns. For sharper turns and 180's the tines must be lifted prior to turning this will prevent turf damage.
4. Always lift tines prior to transporting and crossing over concrete, tree roots, and other hard surfaces.



Figure 11



Always consider what might be below the turf prior to aerating.  
Does the property have unground utilities, invisible dog fence, low  
voltage lighting, irrigation., etc.?

Calling 811 or a private locate services is strongly recommended and  
maybe the law. Take appropriate actions to prevent damages



Know what's below.  
**811** before you dig.



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