

Count on it.

Operator's Manual

Aerator 686/687

Model No. 44850—Serial No. 314000001 and Up Model No. 44860—Serial No. 314000001 and Up

A WARNING

CALIFORNIA Proposition 65 Warning

This product contains a chemical or chemicals known to the State of California to cause cancer, birth defects, or reproductive harm.

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

This spark ignition system complies with Canadian ICES-002.

Important: This engine is not equipped with a spark arrester muffler. It is a violation of California Public Resource Code Section 4442 to use or operate the engine on any forest-covered, brush-covered, or grass-covered land. Other states or federal areas may have similar laws.

The enclosed *Engine Owner's Manual* is supplied for information regarding the US Environmental Protection Agency (EPA) and the California Emission Control Regulation of emission systems, maintenance, and warranty. Replacements may be ordered through the engine manufacturer.

This manual identifies potential hazards and has safety messages identified by the safety alert symbol (Figure 1), which signals a hazard that may cause serious injury or death if you do not follow the recommended precautions.



1. Safety alert symbol

This manual uses 2 words to highlight information. **Important** calls attention to special mechanical information and **Note** emphasizes general information worthy of special attention.

Introduction

This aerator is intended to be used by trained operators in residential and commercial applications. It is primarily designed for aerating areas of well-maintained lawns on residential grounds, parks, sports fields, and on commercial grounds.

Read this information carefully to learn how to operate and maintain your product properly and to avoid injury and product damage. You are responsible for operating the product properly and safely.

You may contact Toro directly at www.Toro.com for product and accessory information, help finding a dealer, or to register your product.

Whenever you need service, genuine Toro parts, or additional information, contact an Authorized Service Dealer or Toro Customer Service and have the model and serial numbers of your product ready. The 2 numbers are stamped on a plate which is riveted to the main arm. Write the numbers in the space provided.

Model No		
Serial No		

Contents

Safety	3
Safe Operating Practices	
Slope Indicator	
Safety and Instructional Decals	
Setup	
1 Installing the Wheels	
Product Overview	
Specifications	
Operation	
Before Attaching the Aerator	
Attaching the Aerator	
Installing the Tines	
Operating Instructions	
Maintenance	
Recommended Maintenance Schedule(s)	
Lubrication	
Lubricating the Bearings	
Main Arms	
Springs	
Tine Wear	
Storage	

Safety

Improper use or maintenance by the operator or owner can result in injury. To reduce the potential for injury, comply with these safety instructions and always pay attention to the safety alert symbol, which means *Caution*, *Warning*, or *Danger*—personal safety instruction. Failure to comply with the instruction may result in personal injury or death.

Safe Operating Practices

Training

- Read the *Operator's Manual* and other training material. If the operator(s) or mechanic(s) cannot read English it is the owner's responsibility to explain this material to them; other languages may be available on our website.
- Become familiar with the safe operation of the equipment, operator controls, and safety signs.
- All operators and mechanics should be trained. The owner is responsible for training the users.
- Never let children or untrained people operate or service the equipment. Local regulations may restrict the age of the operator.
- Only adults and mature teenagers should operate an aerator, and even mature teenagers should have adult supervision. Be sure a teenager:
 - 1. has read and understands the *Operator's Manual* and recognizes the risks involved;
 - 2. is sufficiently mature to use caution; and
 - 3. is of sufficient size and weight to operate the controls comfortably and to manage the aerator without taking risks.
- The owner/user can prevent and is responsible for accidents or injuries occurring to himself or herself, other people or property.

Preparation

- Evaluate the terrain to determine what accessories and attachments are needed to properly and safely perform the job. Only use accessories and attachments approved by Toro.
- Wear appropriate clothing including safety glasses, substantial footwear, long trousers, and hearing protection. Do not operate when barefoot or when wearing open sandals. Long hair, loose clothing or jewelry may get tangled in moving parts.

A CAUTION

This machine produces sound levels in excess of 85 dBA at the operator's ear and can cause hearing loss through extended periods of exposure.

Wear hearing protection when operating this machine.

 Inspect the area where the equipment is to be used and remove all rocks, toys, sticks, wires, bones, and other foreign objects which can be thrown by the machine and may cause personal injury to the operator or bystanders.

A DANGER

In certain conditions gasoline is extremely flammable and vapors are explosive.

A fire or explosion from gasoline can burn you, others, and cause property damage.

- Fill the fuel tank outdoors on level ground, in an open area, when the engine is cold. Wipe up any gasoline that spills.
- Never refill the fuel tank or drain the machine indoors or inside an enclosed trailer.
- Do not fill the fuel tank completely full. Fill
 the fuel tank to the bottom of the filler neck.
 The empty space in the tank allows gasoline
 to expand. Overfilling may result in fuel
 leakage or damage to the engine or emission
 system.
- Never smoke when handling gasoline, and stay away from an open flame or where gasoline fumes may be ignited by spark.
- Store gasoline in an approved container and keep it out of the reach of children.
- Add fuel before starting the engine. Never remove the cap of the fuel tank or add fuel when engine is running or when the engine is hot.
- If fuel is spilled, do not attempt to start the engine. Move away from the area of the spill and avoid creating any source of ignition until fuel vapors have dissipated.
- Do not operate without entire exhaust system in place and in proper working condition.

A DANGER

In certain conditions during fueling, static electricity can be released causing a spark which can ignite gasoline vapors. A fire or explosion from gasoline can burn you and others and cause property damage.

- Always place gasoline containers on the ground away from your vehicle before filling.
- Do not fill gasoline containers inside a vehicle or on a truck or trailer bed because interior carpets or plastic truck bed liners may insulate the container and slow the loss of any static charge.
- When practical, remove gas-powered equipment from the truck or trailer and refuel the equipment with its wheels on the ground.
- If this is not possible, then refuel such equipment on a truck or trailer from a portable container, rather than from a gasoline dispenser nozzle.
- If a gasoline dispenser nozzle must be used, keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete.

A WARNING

Gasoline is harmful or fatal if swallowed. Long-term exposure to vapors has caused cancer in laboratory animals. Failure to use caution may cause serious injury or illness.

- Avoid prolonged breathing of vapors.
- Keep face away from nozzle and gas tank/container opening.
- Keep away from eyes and skin.
- Never siphon by mouth.
- Check that the operator's presence controls, safety switches, and shields are attached and functioning properly. Do not operate unless they are functioning properly.

Operation

A WARNING

Operating engine parts, especially the muffler, become extremely hot. Severe burns can occur on contact, and debris, such as leaves, grass, brush, etc., can catch fire.

- Allow engine parts, especially the muffler, to cool before touching.
- Remove accumulated debris from muffler and engine area.

A WARNING

Engine exhaust contains carbon monoxide, which is an odorless deadly poison that can kill you.

Do not run engine indoors or in a small confined area where dangerous carbon monoxide fumes can collect.

- Operate only in daylight or good artificial light, keeping away from holes and hidden hazards.
- Lightning can cause severe injury or death. If lightning
 is seen or thunder is heard in the area, Do not operate
 the machine; seek shelter.
- Be sure all drives are in neutral and parking brake is engaged before starting engine.
- Never operate the machine with damaged guards, shields, or covers. Always have safety shields, guards, switches and other devices in place and in proper working condition.
- Do not change the engine governor setting or overspeed the engine.
- Park machine on level ground. Stop engine, wait for all moving parts to stop, remove key and engage parking brake:
 - Before checking, cleaning or working on the machine.
 - After striking a foreign object or abnormal vibration occurs (inspect the machine for damage and make repairs before restarting and operating the machine).
 - Before clearing blockages.
 - Whenever you leave the machine.
- Stop engine, wait for all moving parts to stop, and engage parking brake before refueling.

A WARNING

Hands, feet, hair, clothing, or accessories can become entangled in rotating parts. Contact with the rotating parts can cause traumatic amputation or severe lacerations.

- Do not operate the machine without guards, shields, and safety devices in place and working properly.
- Keep hands, feet, hair, jewelry, or clothing away from rotating parts.
- Never carry passengers. Do not operate the machine when people, especially children, or pets are in the area.
- Be alert, slow down and use caution when making turns. Look behind and to the side before changing directions.
- Raise the tines, slow down, and use caution when crossing surfaces other than grass and when transporting the machine to and from the work area.
- Do not operate the machine under the influence of alcohol or drugs.
- Use extreme care when loading or unloading the machine into a trailer or truck.
- Use care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.

Slope Operation

Use extreme caution when aerating and/or turning on slopes as loss of traction and/or tip-over could occur. The operator is responsible for safe operation on slopes.

A DANGER

Operating on wet grass or steep slopes can cause sliding and loss of control. Wheels dropping over edges, ditches, steep banks, or water can cause rollovers, which may result in serious injury, death or drowning.

- Do not operate on slopes when grass is wet.
- Do not operate near drop-offs or near water.
- Do not operate on slopes greater than 15 degrees.
- Reduce speed and use extreme caution on slopes.
- Avoid sudden turns or rapid speed changes.
- Reduce tine down pressure to prevent the drive tires from raising off the ground and to prevent the front tires from raising off of the ground while aerating uphill.
- Refer to Figure 2 to determine the approximate slope angle of the area to be aerated.
- Remove or mark obstacles such as rocks, tree limbs, etc. from the working area. Tall grass can hide obstacles.

- Watch for ditches, holes, rocks, dips and rises that change the operating angle, as rough terrain could overturn the machine.
- Avoid sudden starts when aerating uphill because the machine may tip backwards. The machine is more stable going uphill with the tines disengaged.
- Be aware that operating on wet grass, across steep slopes or downhill may cause the machine to lose traction. Loss of traction to the drive wheels may result in sliding and a loss of braking and steering.
- Always avoid sudden starting or stopping on a slope.
- Follow the manufacturer's recommendations for wheel weights or counter weights to improve stability.
- Use extreme care with attachments. They can change the stability of the machine and cause loss of control.

Maintenance and Storage

- Raise the tines, set the parking brake, stop engine and remove key or disconnect spark plug wire. Wait for all movement to stop before adjusting, cleaning or repairing.
- Keep engine and engine area free from excessive grease or oil and other debris which can accumulate in these areas. These materials can become combustible and may result in a fire.
- Let engine cool before storing and do not store near flame or any enclosed area where open pilot lights or heat appliances are present.
- Shut off fuel while storing or transporting. Do not store fuel near flames or drain indoors.
- Park machine on level, hard ground. Never allow untrained personnel to service machine.
- Use jack stands to support components when required.
- Carefully release pressure from components with stored energy.
- Disconnect battery or remove spark plug wire before making any repairs. Disconnect the negative terminal first and the positive last. Connect positive first and negative last
- Use care when checking and servicing tines. Wrap the tine(s) or wear gloves, and use caution when servicing them. Replace damaged tines; never straighten or weld them.
- Keep hands and feet away from moving parts. If possible, do not make adjustments with the engine running.
- Charge batteries in an open well ventilated area, away from spark and flames. Unplug charger before connecting or disconnecting from battery. Wear protective clothing and use insulated tools.

A DANGER

Charging or jump starting the battery may produce explosive gases. Battery gases can explode causing serious injury.

- Keep sparks, flames, or cigarettes away from battery.
- Ventilate when charging or using battery in an enclosed space.
- Make sure venting path of battery is always open once battery is filled with acid.
- Always shield eyes and face from battery.

A DANGER

Battery electrolyte contains sulfuric acid, which is poisonous and can cause severe burns. Swallowing electrolyte can be fatal or if it touches skin can cause severe burns.

- Wear safety glasses to shield eyes, and rubber gloves to protect skin and clothing when handling electrolyte.
- Do not swallow electrolyte.
- In the event of an accident, flush with water and call a doctor immediately.

A CAUTION

If the ignition is in the On position there is potential for sparks and engagement of components. Sparks could cause an explosion or moving parts could accidentally engage causing personal injury.

Be sure ignition switch is in the Off position before charging the battery.

- Keep all guards, shields and all safety devices in place and in safe working condition.
- Check all bolts frequently to maintain proper tightness.
- Frequently check for worn or deteriorating components that could create a hazard.

A WARNING

Removing standard original equipment parts and accessories may alter the warranty, traction, and safety of the machine. Failure to use original Toro parts could cause serious injury or death. Making unauthorized changes to the engine, fuel or venting system, may violate EPA and CARB regulations.

Replace all parts including, but not limited to, tires, belts, tines, and fuel system components with original Toro parts.

A WARNING

Hydraulic fluid escaping under pressure can penetrate skin and cause injury. Fluid accidentally injected into the skin must be surgically removed within a few hours by a doctor familiar with this form of injury or gangrene may result.

- If equipped, make sure all hydraulic fluid hoses and lines are in good condition and all hydraulic connections and fittings are tight before applying pressure to hydraulic system.
- Keep body and hands away from pinhole leaks or nozzles that eject high pressure hydraulic fluid.
- Use cardboard or paper, not your hands, to find hydraulic leaks.
- Before performing any work on the hydraulic system:
 - Safely relieve all pressure in the ground drive hydraulic system by placing the motion control levers in neutral and shutting off the engine.
 - Safely relieve all pressure in the auxiliary hydraulic system by shutting off the engine, turning the ignition switch to the On position, and pressing the tine ground engagement switch. Once the tines have lowered to the ground, release the tine ground engagement switch and turn the ignition switch to the Off position.

Slope Indicator

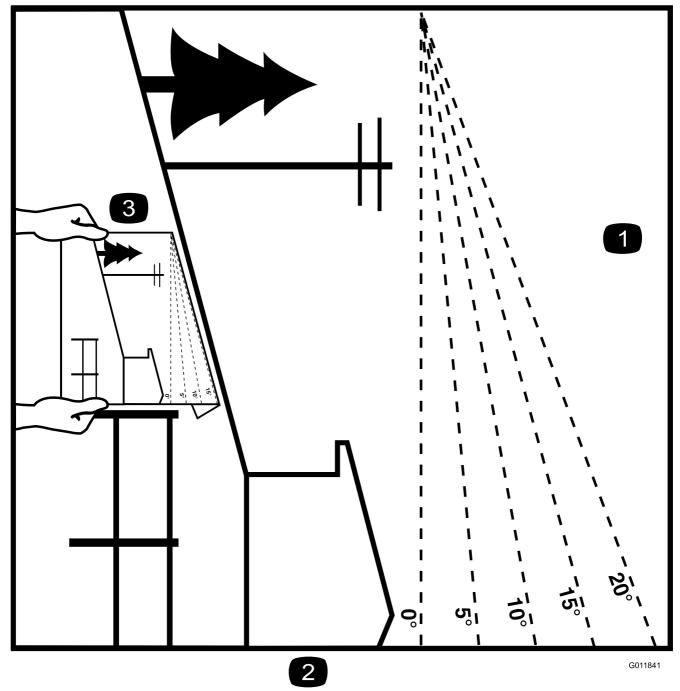


Figure 2

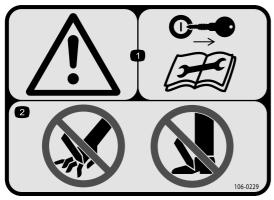
This page may be copied for personal use.

- 1. The maximum slope you can safely operate the machine on is **15 degrees**. Use the slope chart to determine the degree of slope of hills before operating. **Do not operate this machine on a slope greater than 15 degrees.** Fold along the appropriate line to match the recommended slope.
- 2. Align this edge with a vertical surface, a tree, building, fence pole, etc.
- 3. Example of how to compare slope with folded edge.

Safety and Instructional Decals



Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or lost.



106-0229

- Warning—remove the key from the ignition and read the Operator's Manual before performing maintenance.
- Cutting/severing hazard of hand; cutting/severing hazard of foot.



1. Grease

CALIFORNIA SPARK ARRESTER WARNING

Operation of this equipment may create sparks that can start fires around dry vegetation. A spark arrester may be required. The operator should contact local fire agencies for laws or regulations relating to fire prevention requirements.

117-2718

Setup

Media and Additional Parts

Description	Qty.	Use
Operator's Manual	1	Read before operating the machine.
Part's Catalog	1	Use for ordering parts.

Determine the left and right sides of the machine from the normal operating position.



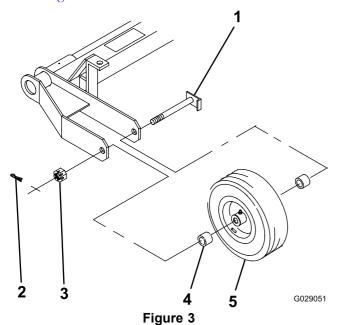
Installing the Wheels

Parts needed for this procedure:

2	Wheel assembly
4	Spacer
2	Axle
2	Slotted nut
2	Cotter pin

Procedure

1. Position the wheel assembly and 2 spacers (1 on each side of the wheel hub) between the frame as shown in Figure 3.



- 1. Axle
- 2. Cotter pin
- 3. Slotted nut
- 4. Wheel spacer
- 5. Wheel assembly

- 2. Insert the axle through the frame, spacers, and wheel (Figure 3).
- 3. Thread the slotted nut onto the axle and tighten it with a hand wrench to 8 to 20 N-m (75 to 180 in–lb).
- 4. Rotate the wheel to seat the bearings and remove any end play.
- 5. Loosen the castle nut until it is away from the frame, and the wheel hub has some end play.
- 6. Tighten the slotted nut to 1.5 to 2 N-m (15 to 20 in–lb) while rotating the wheel.

Note: If the cotter pin hole in the axle shaft is not aligned with a slot in the nut, loosen the nut until they are aligned.

- 7. Install the cotter pin.
- 8. Lubricate the wheel bearings until the wheel hub cavity is completely full and slight leakage is detected at the seals

Product Overview

Specifications

•	
Frame	Welded tubular steel; divided into 3 sections, each section moves horizontally and diagonally to follow contour, spring loaded.
Aerating wheels	12 castings, 70 lb, 4 per section, with permanent roll pin every other hole.
Shaft	1–1/4 inch, machined to 1 inch
Tines	96, 8 per wheel, secured with 1 bolt, roll pin in wheel secures second hole in tine; 1/2 or 3/4 inch open or closed, 4 inch slicing blades are available.
Bearings	Self sealed, self aligned
Transport tires (model 44850 only)	4.80 x 8 – 2 ply
Hitch	Drop pin (model 44850) 3 Point–Category 1 Tractor Type (model 44860)
Lift mechanism (model 44850 only)	Hand hydraulic pump to a 10 inch stroke cylinder. Hydraulic fluid required is Mobil DTE 15 M or equivalent.
Springs	6 to assist down pressure on tines.
Aerating swath	2 m (78 inches)
Pattern	15 cm (6 inches) on center
Operating speed	1 to 16 km/h (1 to 10 mph), depending on conditions
Overall width	2.2 m (90 inches) (model 44850)
	2 m (82 inches) (model 44860)
Weight	612 kg (1,350 lb) w/o weights (model 44850)
	508 kg (1,120 lb) w/o weights (model 44860)

Operation

Note: Determine the left and right sides of the machine from the normal operating position.

Before Attaching the Aerator

Service Interval: Before each use or daily

- 1. Stop the engine, wait for all moving parts to stop, and remove the key. Engage the parking brake.
- Visually inspect machine for any loose hardware or any other possible problem. Tighten hardware or correct the problem before operating.
- 3. For model 44850, check the tire pressure and maintain it at 413 kPa (60 psi).

Attaching the Aerator

For Model 44850

Attach the hitch of the aerator to the tongue of the towing vehicle using the towing vehicle's hardware.

Important: Do not lift the tongue by hand. Use the tongue jack or powered lift to align the hitch to the tow tractor.

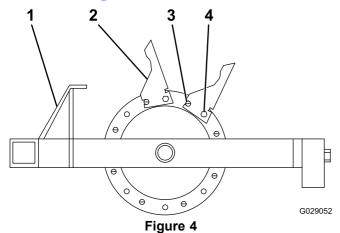
For Model 44860

- 1. Lower the 3-point hitch arms of the tractor.
- 2. Position the aerator so that the 3-point hitch arms of the tractor line up with the lift arms of the aerator.
- 3. Attach the arms of the tractor to the hitch pins on the aerator lift arms.
- 4. Attach the tractors stabilizer bar to the 3/4 inch x 4 inch bolt on the top of the lift arms.

Installing the Tines

Important: Install the tines only after attaching the aerator to the tractor or towing vehicle.

1. Start at the outside casting and install the tines as shown in Figure 4.



1. Hitch

3. Roll pin

2. Tine

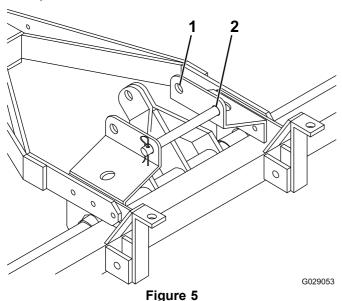
- 4. Bolt
- 2. Install all 8 tines on the casting, using a roll pin and 1/2 inch x 1–3/4 inch bolts. making sure the roll pin is in the front position (Figure 4).

Note: Make sure that the roll pin is in the front hole and the bolt is in the second one.

Operating Instructions

For Model 44850

1. Move the lock pin to the rear (aerating) position (Figure 5).



- Transport position
- 2. Aerating position

- 2. Open the hydraulic hand-pump bleed-valve on the base of the pump to release pressure and lower the aerator to the ground.
- 3. Return to the operator's seat and follow the vehicle instructions and procedures for towing an implement.
- 4. At the end of the desired aerating region, stop the tractor, set the parking brake, turn off the engine, and remove the key before getting out of operator's seat.
- 5. Close the hydraulic hand-pump bleed-valve and stroke the pump handle to raise the aerator to the transport position.
- 6. When transporting model 44850, place the lock pin in the front hole (Figure 5).

For Model 44860

- 1. Start the tractor engine and run at a low rpm.
- 2. With 3-point or remote-hydraulics control of the tractor, slowly lower the aerator while the tractor or towing vehicle is moving slowly forward.
- 3. As aerating begins, increase the speed of the tractor or towing vehicle.
- 4. Raise the aerator at the end of the pass before turning.

Maintenance

A WARNING

While maintenance or adjustments are being made, someone could start the engine. Accidental starting of the engine could seriously injure you or other bystanders.

Remove the key from the ignition switch, engage parking brake, and pull the wire(s) off the spark plug(s) before you do any maintenance. Also push the wire(s) aside so it does not accidentally contact the spark plug(s).

Recommended Maintenance Schedule(s)

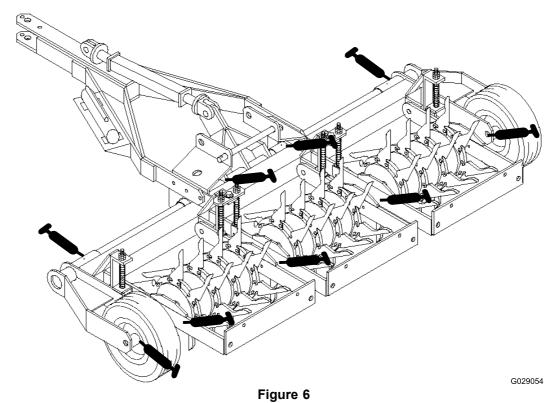
Maintenance Service Interval	Maintenance Procedure	
Before each use or daily	Check the tire pressure (model 44850 only).Check tines for wear.	
Every 40 hours	Grease the fittings.	
Every 100 hours	Check main arm bushings for wear.	

Lubrication

The aerator has 6 self sealing bearings that must be lubricated with a No. 2 general-purpose lithium-based grease.

Lubricating the Bearings

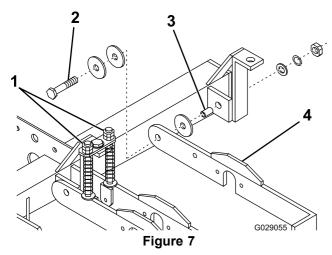
Every 40 hours



Main Arms

The 6 main arms pivot freely horizontally and vertically to allow the unit to follow the contour of the ground. A bronze bushing is pressed inside the pivot holes between the main arm and mainframe. The bronze bushing is 3 mm (1/8 inch) longer than the thickness of both plates combined. The 5/8 inch x 2 inch bolt should be tightened against the bushings, not the arms, to allow it to pivot freely (Figure 7).

Check the bronze bushings every 100 hours of operation for signs of wear. Replace any worn bushings.



- 1. Spring rod nuts
- 2. 5/8 inch x 2 inch bolt
- Bronze bushing
- 4. Main arm

Springs

The purpose of the springs is to distribute the weight evenly and reduce the shock load on the pivot points. The springs are adjusted evenly across to level the unit. Use the nuts on top of the spring rod to adjust the springs (Figure 7).

Important: Do not adjust the spring so the coils are completely compressed. Allow at least 1/16 inch of space between coils.

Tine Wear

To obtain maximum aerating performance, always check the tines for wear before every use. Severely worn tines are easy to bend or break and will leave the cores in the ground. See Figure 8 for examples of tine wear.

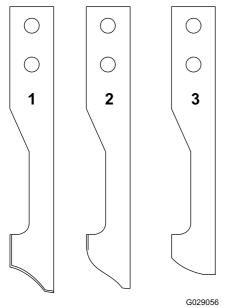


Figure 8

1. New

- 3. Needs to be replaced
- 2. Badly worn but usable

Always clean cores out of the tines before storage. Cores left in tines for extended periods can cause pitting on the inside of the tine which keep the core from ejecting.

Storage

- 1. Raise the tines, stop the machine, stop the engine, set the parking brake, and remove the key.
- 2. Remove dirt and grime from the entire machine.

Important: You can wash the machine with mild detergent and water. Do not pressure wash the machine. Avoid excessive use of water, especially near the engine and hydrostatic drive.

- 3. Lubricate the machine.
- 4. Check the condition of the tines. Replace and broken or worn tines.
- Check and tighten all bolts, nuts, and screws. Repair or replace any part that is damaged.
- 6. Paint all scratched or bare metal surfaces. Paint is available from your Authorized Service Dealer.
- 7. Store the machine in a clean, dry garage or storage area.
- 8. Cover the machine to protect it and keep it clean.



The Toro Warranty A limited warranty (see warranty periods below)

Conditions and Products Covered

The Toro Company and its affiliate, Toro Warranty Company, pursuant to an agreement between them, jointly warrant your Toro Products listed below to be free from defects in materials or workmanship.

This warranty covers the cost of parts and labor, but you must pay transportation costs.

The following time periods apply from the date of purchase:

Products Turf Renovation	Warranty Period
Walk-Behind Aerator • Engine	1 year 2 years
Stand-On Aerator - Battery	1 year 90 days Parts and Labor 1 year Parts Only
EngineDethatcherEngineTurf SeederEngine	2 years 1 year 2 years 1 year 2 years 2 years
Stand-On Spreader Sprayer Battery	1 year 90 days Parts and Labor 1 year Parts Only
EngineWalk-Behind Rotary BroomEngine	2 years 1 year 2 years

Where a warrantable condition exists, we will repair the Product at no cost to you including diagnosis, labor, and parts.

Instructions for Obtaining Warranty Service

If you think that your Toro Product contains a defect in materials or workmanship, follow this procedure**:

- Contact any Authorized Servicing Outlet to arrange service at their dealership. To locate one convenient to you, access our website at www.Toro.com. Select "Where to Buy" and select "Contractor" under product type. You may also call our toll free number below.
- 2. Bring the product and your proof of purchase (sales receipt) to them.
- If for any reason you are dissatisfied with the Service Outlet's analysis or with the assistance provided, contact us at:

SWS Customer Care Department Toro Warranty Company 8111 Lyndale Avenue South Bloomington, MN 55420-1196 Toll Free: 888-384-9939

"Toro Authorized Rental Customers who have purchased products directly from Toro and have signed the Toro Rental Customer Agreement have the ability to perform their own warranty work. Please visit Toro's Rental Portal for electronic warranty clam filing procedures or call the toll free number above.

Owner Responsibilities

You must maintain your Toro Product by following the maintenance procedures described in the *Operator's Manual*. Such routine maintenance, whether performed by a dealer or by you, is at your expense. Parts

scheduled for replacement as required maintenance ("Maintenance Parts"), are warranted for the period of time up to the scheduled replacement time for that part. Failure to perform required maintenance and adjustments can be grounds for disallowing a warranty claim.

Items and Conditions Not Covered

Not all product failures or malfunctions that occur during the warranty period are defects in materials or workmanship. This express warranty does not cover the following:

- Product failures which result from installation and use of add-on, modified, or unapproved accessories
- Failure to perform required maintenance and/or adjustments
- Repairs necessary due to failure to follow recommended fuel procedure (consult Operator's Manual for more details)
 - Removing contaminants from the fuel system is not covered
 - Use of old fuel (more than one month old) or fuel which contains more than 10% ethanol or more that 15% MTBE
 - Failure to drain the fuel system prior to any period of non-use over one month
- Product failures which result from operating the product in an abusive, negligent or reckless manner
- Parts subject to consumption through use unless found to be defective.
 Examples of parts which are consumed, include, belts, cutters, blades, teeth, spark plugs, tires, filters, etc.
- Failures caused by outside influence include, weather, storage, contamination, lubricants, additives, or chemicals, etc.
- Normal "wear and tear" items incudes painted surfaces and scratched decals, etc.
- Any component covered by a separate manufacturer's warranty
- Pickup and delivery charges

General Conditions

Repair by an Authorized Servicing Outlet or Self-Service as an Authorized Rental Customer is your sole remedy under the warranty.

Neither The Toro Company nor Toro Warranty Company is liable for indirect, incidental or consequential damages in connection with the use of the Toro Products covered by this warranty, including any cost or expense of providing substitute equipment or service during reasonable periods of malfunction or non-use pending completion of repairs under this warranty. All implied warranties of merchantability and fitness for use are limited to the duration of this express warranty. Some states do not allow exclusions of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions and limitations may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Except for the engine warranty coverage and the Emissions warranty referenced below, if applicable, there is no other express warranty. The Emissions Control System on your Product may be covered by a separate warranty meeting requirements established by the U.S. Environmental Protection Agency (EPA) or the California Air Resources Board (CARB). Refer to the California Emission Control Warranty Statement supplied with your Product or contained in the engine manufacturer's documentation for details.

Countries Other than the United States or Canada

Customers who have purchased Toro products outside the United States or Canada should contact their Toro Distributor (Dealer) to obtain guarantee policies for your country, province, or state. If for any reason you are dissatisfied with your Distributor's service or have difficulty obtaining guarantee information, contact the Toro importer. If all other remedies fail, you may contact us at Toro Warranty Company.

Australian Consumer Law: Australian customers will find details relating to the Australian Consumer Law either inside the box or at your local Toro Dealer.