



ZT

Owner/Operator Manual

Models

915074 - ZT1640

915076 - ZT1840

915078 - ZT2044

915080 - ZT2348

915082 - ZT2552



GB ENGLISH

F FRANÇAIS

E ESPAÑOL

Transfer model & serial number label from product registration here.

Coller l'autocollant du modèle et du numéro de série dans cet encadré.

Transferir aquí la etiqueta del modelo y número de serie del registro del producto.

00466700 11/05
Printed in USA

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INTRODUCTION

THE MANUAL

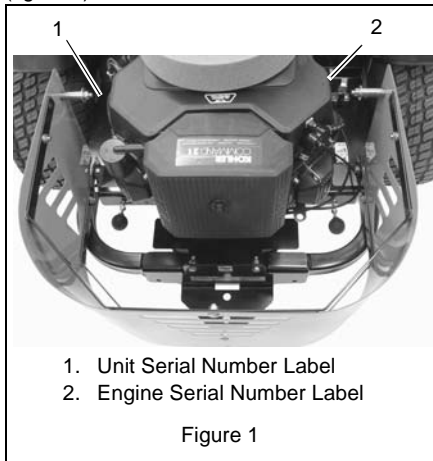
Before operation of unit, carefully and completely read your manuals. The contents will provide you with an understanding of safety instructions and controls during normal operation and maintenance.

All reference to left, right, front, or rear are given from operator seated in operation position and facing the direction of forward travel.

MODEL AND SERIAL NUMBERS

When ordering replacement parts or making service inquiries, know the Model and Serial numbers of your unit and engine.

Numbers are located on the product registration form in the unit literature package. They are printed on a serial number label, located on the frame of your unit (figure 1).



- Record Unit Model and Serial numbers here.

- Record Engine Model and Serial numbers here.

PRODUCT REGISTRATION

The Gravely dealer must register the product at the time of purchase. Registering the product will help the company process warranty claims or contact you with the latest service information. All claims meeting requirements during the limited warranty period will be honored, whether or not the product registration card is returned. Keep a proof of purchase if you do not register your unit.

Customer Note: If the dealer does not register your product, please fill out, sign, and return the product registration card to Gravely.

UNAUTHORIZED REPLACEMENT PARTS

Use only Gravely replacement parts. The replacement of any part on this unit with anything other than a Gravely authorized replacement part may adversely affect the performance, durability, and safety of this unit and may void the warranty. Gravely disclaims liability for any claims or damages, whether warranty, property damage, personal injury or death arising out of the use of unauthorized replacement parts.

DELIVERY

Customer Note: If you have purchased this product without complete assembly and instruction by your retailer, it is your responsibility to:

- Read and understand all assembly instructions in this manual. If you do not understand or have difficulty following the instructions, contact your nearest Gravely Dealer for assistance.

NOTE: To locate your nearest Gravely Dealer, go to www.gravely.com on the internet.



WARNING: Improper assembly or adjustments can cause serious injury.

Before Attempting To Operate Your Unit:

1. Make sure all assembly has been properly completed.
2. Understand all Safety Precautions provided in the manuals.
3. Review control functions and operation of the unit. Do not operate the unit unless all controls function as described in this manual.
4. Review recommended lubrication, maintenance and adjustments.

5. Review Limited Warranty Policy.
6. Fill out a product registration card and return the card to the Gravely Company or go to www.gravely.com.

DISCLAIMER

Gravely reserves the right to discontinue, change, and improve its products at any time without notice or obligation to the purchaser.

The descriptions and specifications contained in this manual were in effect at printing. Equipment described within this manual may be optional. Some illustrations may not be applicable to your unit.

SAFETY



WARNING: This cutting machine is capable of amputating hands and feet and throwing objects. Failure to observe the safety instructions in the manuals and on decals could result in serious injury or death.

Slopes are a major factor related to loss-of-control and tip-over accidents. Operation on all slopes requires extra caution.

Tragic accidents can occur if the operator is not alert to the presence of children. Never assume that children will remain where you last saw them.

Gasoline is extremely flammable and the vapors are explosive, handle with care.

Disengage attachment, stop unit and engine, remove key, engage parking brake, and allow moving parts to stop before leaving operator's position.



DANGER: IMMINENTLY HAZARDOUS SITUATION! If not avoided, WILL RESULT in death or serious injury.



WARNING: POTENTIALLY HAZARDOUS SITUATION! If not avoided, COULD RESULT in death or serious injury.



CAUTION: POTENTIALLY HAZARDOUS SITUATION! If not avoided, MAY RESULT in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTATIONS

NOTE: General reference information for proper operation and maintenance practices.

IMPORTANT: Specific procedures or information required to prevent damage to unit or attachment.

SAFETY ALERTS



Look for these symbols to point out important safety precautions. They mean:

- **Attention!**
- **Personal Safety Is Involved!**
- **Become Alert!**
- **Obey The Message!**



The safety alert symbol is used in decals and with this manual. Understand the safety message. It contains important information about personal safety.

SAFETY DECALS AND LOCATIONS

ALWAYS replace missing or damaged Safety Decals. Refer to figure 2 for Safety Decal locations.

1. Caution!

- Maximum Tongue weight: 30 lbs.
- Maximum Trailer weight: 300 lbs.
- Do not use hitch with bagger attached.
- Do not use on steep hills or slopes.
- Do not park on hills when trailer is attached.
- Do not use with any ground engaging equipment.

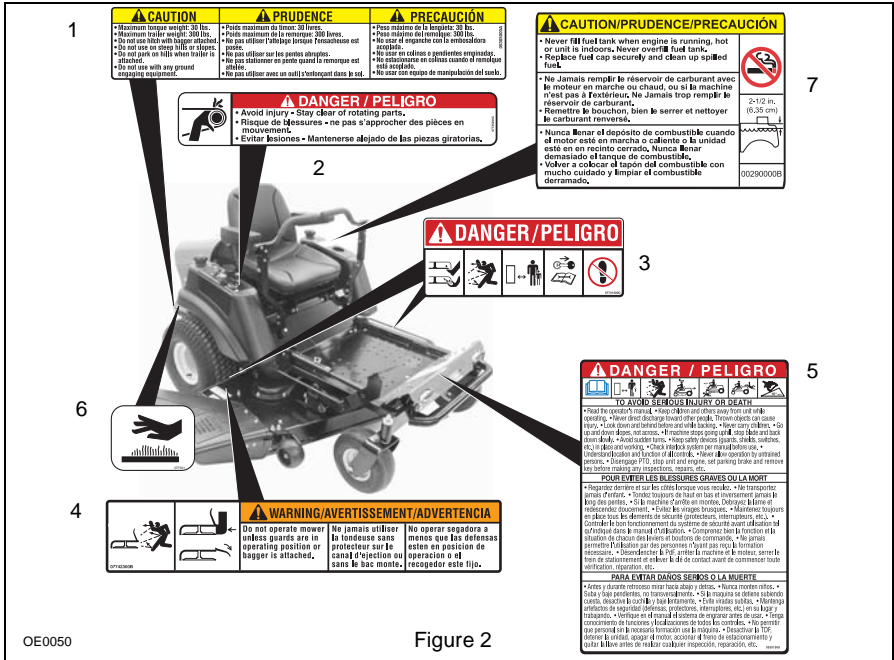


Figure 2

2. Danger!



Avoid injury - Stay clear of rotating parts.



NO STEP! Always keep feet away from rotating parts.

3. Danger!



Always keep feet and hands away from rotating parts.

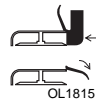


Always stand clear of discharge area. Do not direct discharge toward other people.

4. Warning!



Always stand clear of discharge area.



Do not operate mower unless bagger is attached or guards are in operating position.

5. Danger! To Avoid Serious Injury or Death



Keep people away from unit while operating.



Read the operator's manual.



Shut off engine, remove key, and read manual before you adjust or repair unit.



Keep children and others away from unit while operating.



Never direct discharge toward other people. Thrown objects can cause injury.



Look down and behind before and while backing.



Never carry children.



Go up and down slopes, not across.



DO NOT operate on slopes over 10°.

- If machine stops going uphill, stop blade and back down slowly.
- Avoid sudden turns.
- Keep safety devices (guards, shields, switches, etc.) in place and working.
- Check interlock system per manual before use.
- Understand location and function of all controls.
- Never allow operation by untrained persons.
- Disengage PTO, stop unit and engine, set parking brake and remove key before making any inspections, repairs, etc.

6. Hot Surfaces!

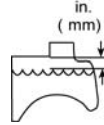


DO NOT touch parts which are hot from operation. ALWAYS allow parts to cool.

7. Caution



No smoking.



Fill fuel tanks to 2-1/2 in. (6.35 cm) below bottom of filler neck.

- Never fill fuel tank when engine is running, hot or unit is indoors. Never overfill fuel tank.
- Replace fuel cap securely and clean up spilled fuel.

SAFETY RULES

If unit is to be used by someone other than original purchaser; loaned, rented or sold, ALWAYS provide this manual and any needed safety training before operation.

Only the user can prevent and is responsible for accidents or injuries occurring to themselves, other people or property.

Read, understand, and follow all safety practices in Owner/Operator Manual before assembling, using or working on this mower. ALWAYS remove key from ignition and wire from spark plug before assembly, or working on this unit.

Inspect unit before each use for: missing or damaged decals and shields, correctly operating safety interlock system, and deterioration of grass catchers. Replace or repair as needed.

ALWAYS check overhead and side clearances carefully before operation. ALWAYS be aware of traffic when crossing or operating along streets or curbs.

Keep children, people, and pets away. Be alert and shut off unit if anyone enters work area. Keep children under watchful care of a responsible adult.

NEVER allow children to operate or play on or near unit.

Keep area of operation clear of all toys, and debris. Thrown objects can cause injury.

Stay alert for hidden hazards, holes, and ruts.

Avoid uneven or rough terrain. DO NOT operate near drop-offs, ditches, or embankments. Unit can suddenly turn over if a wheel is over the edge of a cliff or ditch, or if an edge caves in.

Dust, fog, etc. can reduce vision and cause an accident. Operate unit only when there is good visibility and light.

Data indicates that operators, age 60 and above, are involved in a larger percentage of riding mower related injuries. These operators should evaluate their ability to operate the riding mower safely enough to protect themselves and others from serious injury.

Wear adequate safety gear, sturdy shoes, and protective gloves.

Only trained adults may operate unit. Training includes being familiar with controls and actual operation.

NEVER operate unit after or during the use of medication, drugs or alcohol.

NEVER allow anyone to operate this unit when their alertness or coordination is impaired.

DO NOT wear loose clothing or jewelry and tie back hair that may get caught in rotating parts.

Protect eyes, face and head from objects that may be thrown from unit. Wear appropriate hearing protection. Always wear safety goggles or safety glasses with side shields when operating mower.

Avoid sharp edges. Sharp edges can cut. Moving parts can cut off fingers or a hand.

ALWAYS keep hands and feet away from all rotating parts during operation. Rotating parts can cut off body parts.

ALWAYS keep hands away from all pinch points.

Start and operate unit only when seated in operator's position. Steering control levers must be in neutral, PTO disengaged and parking brake set when starting engine.

ALWAYS keep body and hands away from pin holes or nozzles which eject hydraulic fluid under pressure.

DO NOT touch unit parts which might be hot from operation. Allow parts to cool before attempting to maintain, adjust or service.

NEVER place your hands or any part of your body or clothing inside or near any moving part while unit is running.

NEVER direct discharge towards persons or property. Thrown objects may ricochet back towards operator. ALWAYS stand clear of the discharge area.

ALWAYS disengage attachment, stop unit and engine, remove key, engage parking brake, and allow moving parts to stop before leaving operator's position.

Use extreme caution on gravel surfaces.

Disengage PTO when attachment is not in use and when crossing gravel surfaces.

DO NOT operate unit if safety interlock system is damaged or disabled. Check safety interlock before each use.

ALWAYS remove key to prevent unauthorized use.

DO NOT operate at too fast a rate. Slow down before turning.

Stop engine before removing grass catcher or unclogging chute.

DO NOT mow on wet grass. Reduced traction could cause sliding.

DO NOT mow with the deck access plate open. Always make sure the access plate is down, or secured down, with the knob.

DO NOT try to stabilize the machine by putting your foot on the ground.

Know the weight of loads. Limit loads to those you can safely control and the unit can safely handle.

ALWAYS keep protective structures, guards and panels in good repair, in place and securely fastened.

Do not operate without either entire grass catcher or the discharge guard in place.

DO NOT operate in reverse unless absolutely necessary. ALWAYS look down and behind before and while backing; especially for children.

Follow the manufacturer's recommendations for wheel weights or counterweights to improve stability when using attachments.

NEVER carry passengers—especially children—even with blades off.

Use extra care when approaching blind corners or objects that may obscure vision of hidden obstacles and children.

If you cannot back up a slope or you feel uneasy on it, do not mow it.

Mow up and down slopes, not across them.

Use slow speed on any slope. Tires may lose traction on slopes even though the brakes are functioning properly.

Keep all movements on the slope *slow* and *gradual*. DO NOT make sudden changes in speed or direction.

Use extra care while operating machines with grass catcher or other attachments. They can affect stability of the machine.

Avoid starting, stopping, or turning on a slope. If tires lose traction, disengage the blades and proceed slowly *straight* down the slope.

DO NOT operate on slopes over 10°.

DO NOT park on slopes unless necessary. If unit is parked on a slope, ALWAYS chock or block wheels and set parking brake.

DO NOT disengage or bypass transmission and coast downhill.

Tow only with a machine that has a hitch designed for towing. Do not attach towed equipment except at the hitch point.

Follow the manufacturer's recommendations for weight limits for towed equipment and towing on slopes.

NEVER allow children or others in or on towed equipment.

On slopes, the weight of the towed equipment may cause loss of traction and loss of control.

Travel slowly and allow extra distance to stop.

Use extra care when loading or unloading unit onto trailer or truck.

Secure unit chassis to transport vehicle. NEVER secure from rods or linkages that could be damaged.

DO NOT transport machine while engine is running.

ALWAYS turn off power to attachment and shut off fuel when transporting unit.

Keep unit free of grass clippings, leaves, and other debris. Clean up oil or fuel spills.

This product is equipped with an internal combustion type engine. DO NOT use unit on or near any unimproved, forest-covered or brush covered land unless exhaust system is equipped with a spark arrester meeting applicable local, state or federal laws. A spark arrester, if it is used, must be maintained in effective working order by operator.

Fuel is highly flammable and its vapors are explosive. Handle with care. Use an approved fuel container.

NO smoking, NO sparks, NO flames. ALWAYS allow engine to cool before servicing.

NEVER fill fuel tank when engine is running or hot from operation.

NEVER fill or drain fuel tank indoors.

NEVER overfill fuel tank.

Replace fuel cap securely and clean up spilled fuel.

NEVER fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground away from your vehicle before filling.

When practical, remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment on a trailer with a portable container, rather than from a gasoline dispenser nozzle.

Keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete. Do not use a nozzle lock-open device.

If fuel is spilled on clothing, change clothing immediately.

Avoid Electric Shock. Objects contacting both battery terminals at the same time may result in injury and unit damage. DO NOT reverse battery connections.

Explosive Gases from battery can cause death or serious injury. Poisonous battery fluid contains sulfuric acid and its contact with skin, eyes or clothing can cause severe chemical burns.

NO flames, NO sparks, NO smoking near battery.

ALWAYS wear safety glasses and protective gear near battery. Use insulated tools.

Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.

DO NOT TIP battery beyond a 45° angle in any direction.

ALWAYS keep batteries out of reach of children.

Reverse connections may result in sparks which can cause serious injury. Always connect positive (+) lead of charger to positive (+) terminal, and negative (-) lead to negative (-) terminal.

ALWAYS disconnect negative (-) cable FIRST and positive (+) cable SECOND. ALWAYS connect positive (+) cable FIRST, and negative (-) cable SECOND.

A frozen battery can explode and result in death or serious injury. DO NOT charge or jump start a battery containing frozen fluid. Thaw the battery before putting on a charger or jump starting.

ALWAYS keep protective structures, guards, and panels in good repair, in place and securely fastened. NEVER modify or remove safety devices.

DO NOT change engine governor settings or over-speed engine.

Fumes from engine exhaust can cause injury or death. DO NOT run engine in an enclosed area. Always provide good ventilation.

ALWAYS maintain unit in safe operating condition. Damaged or worn out muffler can cause fire or explosion.

Stop and inspect equipment if you strike an object or if there is an unusual vibration. Repair, if necessary, before restarting. Never make adjustments or repairs with the engine running.

Mower blades are sharp and can cut you. Wrap the blade(s) or wear gloves, and use extra caution when servicing them. NEVER weld or straighten mower blades.

Rotation of one blade may cause rotation of the other blades.

Check brake operation frequently. Adjust and service as required.

Keep all hardware properly tightened.

Stored energy in springs can cause injury.

Maintain or replace safety and instruction labels, as necessary.

Never store the machine or fuel container inside a building where there is an open flame, such as a water heater.

Shut off fuel (if provided) and allow engine to cool completely before storing in closed area or covering unit.

Clean grass and debris from unit, especially from around muffler and engine, to help prevent fires.

For extended storage, clean unit thoroughly. See Engine Manual for proper storage.

Use only attachments or accessories designed for your unit.

Check attachment components frequently. If worn or damaged, replace with manufacturer's recommended parts.

ASSEMBLY



WARNING: AVOID INJURY. Read and understand the entire *Safety* section before proceeding.

Tools Required

- Adjustable wrench
- Petroleum jelly or dielectric grease.

Unpack Unit

Remove unit and all other components from the shipping container. Engage transmission bypass lever (see on page 13). Push unit from container onto a level surface. Disengage transmission bypass lever.

Connect Battery

See *Battery Removal and Installation* on page 19 and perform steps 2 and 3 in the installation section.

Place Unit in Operating Position (figure 3):

1. Tip seat back.
2. Secure seat to unit with clamping knob (located in literature pack).
3. Install steering levers on the handlebar brackets with mounting hardware.
4. Adjust steering levers (see *ADJUSTING STEERING LEVERS* on page 20).

Check Engine Oil Level

Refer to Engine Manual.

Check Tire Pressure

See *SPECIFICATIONS* on page 26.

Level Mower Deck

See *LEVELLING AND ADJUSTING PITCH OF MOWER DECK* on page 15.

Fill Fuel Tanks

See *FILLING FUEL TANKS* on page 11.

Adjust Seat

See *Adjusting Seat* on page 11.

Check Safety Interlock System



WARNING: Safety interlock failure and improper operation of unit can result in death or serious injury. Check system before each use to make sure it is functioning properly.

See *Safety Interlock System* on page 9.

Check function of all controls

See *OPERATION* on page 9.

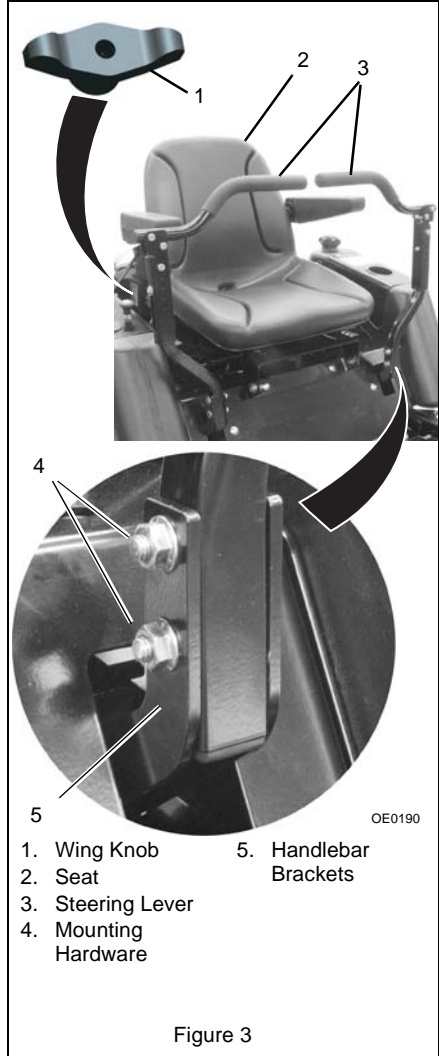


Figure 3

CONTROLS AND FEATURES

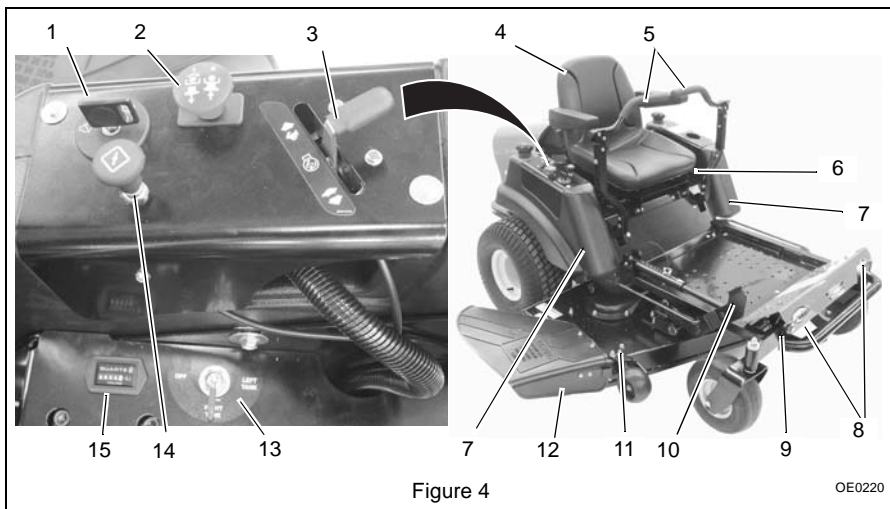


Figure 4

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- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> 1. Ignition Switch 2. PTO Switch 3. Throttle Lever 4. Seat 5. Steering Levers 6. Parking Brake 7. Fuel Tanks 8. Headlights (915078, 080, 082) | <ul style="list-style-type: none"> 9. Axle Lock (915078, 080, 082) 10. Mower Lift Pedal 11. Mower Deck 12. Discharge Chute 13. Fuel Shut-Off Valve 14. Choke Control (915078, 080, 082) 15. Hour meter (915076, 078, 080, 082, and optional on 915074) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

OPERATION



WARNING: AVOID INJURY. Read and understand the entire *Safety* section before proceeding.

CONTROLS AND FEATURES

See figure 4 for all controls and features locations.

Safety Interlock System



WARNING: Safety interlock failure and improper operation of unit can result in death or serious injury. Check system before each use to make sure it is functioning properly.

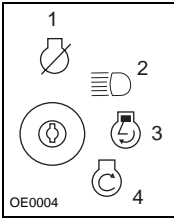
Perform the following tests to ensure the safety interlock system is working properly. If the unit does not perform as stated contact your Gravelly dealer for repairs.

Test	Steering Lever	PTO	Parking Brake	Engine
1	Neutral Position	Off	Engaged	Starts
2	Neutral Position	On	Engaged	Doesn't Start
3	Neutral Position	Off	Disengaged	Doesn't Start
4*+	Out of Neutral Position	Off	Disengaged	Shuts Off
5*+	Neutral Position	On	Engaged	Shuts Off

* Test with engine running.

+ Operator lifts off seat.

Ignition Switch



Operate ignition switch with a removable key. Ignition switch has four positions: Stop (1), Headlight (2), Run (3), Start (4). See *STARTING AND SHUTTING OFF ENGINE* on page 12 for detailed instructions on how to start engine.

Throttle Lever (915074, 076)



Choke (1) – Use to start a cold engine.

Fast (2) – Increases engine speed.

Slow (3) – Decreases engine speed.

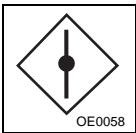
Throttle Lever (915078, 080, 082)



Fast (1) – Increases engine speed.

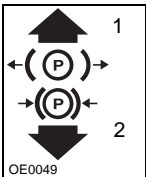
Slow (2) – Decreases engine speed.

Choke Control (915078, 080, 082)



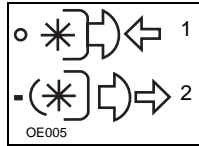
Use to start a cold engine. Pull choke control out to choke engine. Push choke control in when engine is warm.

Parking Brake



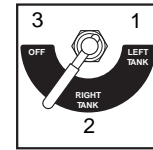
Engages (2) and disengages (1) parking brake.

Power Take-Off (PTO) Switch



Engages (2) and disengages (1) mower blades.

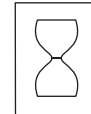
Fuel Shut-Off Valve



Controls fuel flow from left fuel tank (1) or right fuel tank (2).

Open the valve to operate the engine. Turn the valve to off (3) when storing or transporting the unit.

Hour Meter (915076, 078, 080, 082, and Optional on 915074)

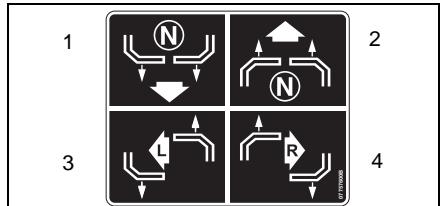


Records total number of hours engine has been run.

NOTE: Hour meter will continue to run if ignition key is left in the run position with the engine turned off.

Steering Levers

- Reverse (1) – Pull both steering levers backward.
- Forward (2) – Push both steering levers forward.
- Left (3) – Pull left steering lever back or push right steering lever forward or a combination of both.
- Right (4) – Pull right steering lever back or push left steering lever forward or a combination of both.



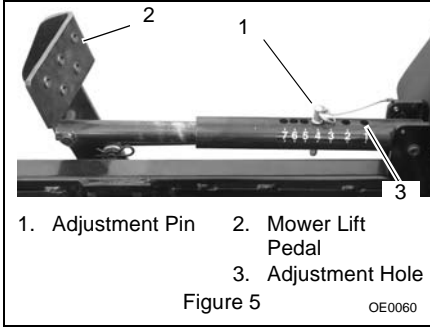
NOTE: To stop, return both steering levers to neutral.

NOTE: The steering levers must be in the neutral position to start the engine.

NOTE: The parking brake must be disengaged prior to moving the steering levers from the neutral position.

Mower Lift Pedal (Figure 5)

Raises and lowers mower deck.



NOTE: The adjustment pin is used to set the height of the mower deck. See *SPECIFICATIONS* on page 26 for cutting height dimensions.

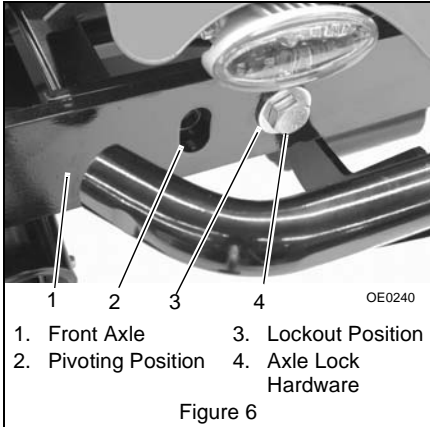


Press mower lift pedal and install adjustment pin in the desired adjustment hole.



NOTE: Adjusting the seat further forward will help increase the leverage in lifting the mower deck (see *Adjusting Seat* on page 11).

Axle Locks (915078, 080, 082) (Figure 6)



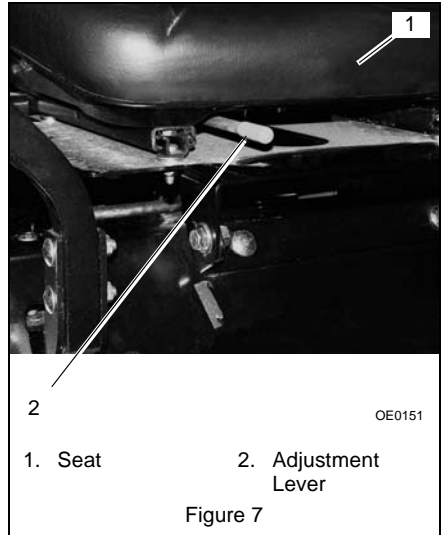
NOTE: The unit comes shipped with the front axle in the lockout position.

If a pivoting front axle is needed: Remove axle lock hardware from lockout position and install axle lock hardware in pivoting position on both sides of front axle.

NOTE: To lock front axle, install axle lock hardware in the lockout position on both sides of the axle.

Adjusting Seat

Lift adjustment lever and slide seat forward or backward to the desired position.



FILLING FUEL TANKS

1. Clean fuel caps and surrounding area to prevent dust, dirt, and debris from entering fuel tanks.
 2. Remove fuel caps.
- IMPORTANT:** See Engine Manual for correct type and grade of fuel.
3. Fill fuel tanks to 2-1/2 in. (6.35 cm) below bottom of filler neck. See *SPECIFICATIONS* on page 26 for capacity of fuel tanks.
 4. Replace fuel caps.

STOPPING IN AN EMERGENCY

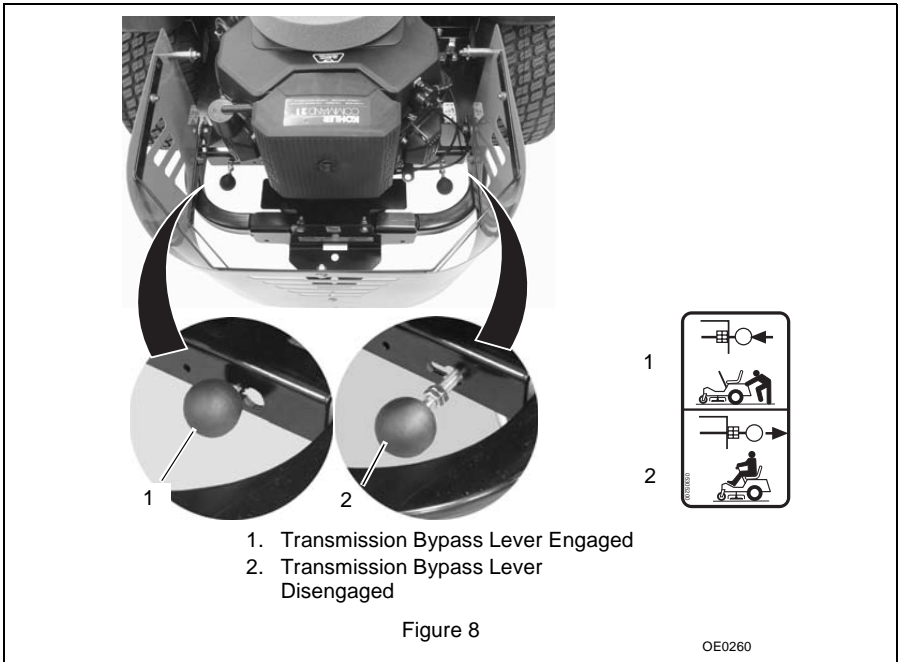
Bring steering levers back to neutral, set parking brake, and turn off engine.

MOVING UNIT MANUALLY



WARNING: DO NOT disengage or bypass transmission and coast downhill.

Disengage (2) transmission bypass levers to drive unit and engage (1) transmission bypass levers to push unit manually (figure 8).



STARTING AND SHUTTING OFF ENGINE

Starting the Engine

NOTE: Disengage the PTO, engage the parking brake, and place the steering levers in neutral prior to starting the engine.

1. Set throttle lever to choke (915074, 076) or engage choke control (915078, 080, 082) for a cold engine. Set throttle lever at 1/3 throttle for a warm engine.

IMPORTANT: DO NOT operate starter for more than 15 seconds per minute as damage can occur.

2. Turn ignition key to start position and release once the engine has started.
3. After engine starts, set throttle lever to fast. Disengage choke control (915078, 080, 082).

IMPORTANT: Let the engine warm up several seconds to several minutes depending on outside temperature.

Stopping the Engine

1. Stop unit.
2. Disengage PTO.
3. Set throttle lever to slow.
4. Turn ignition switch to off position and remove key.

5. Set parking brake.

OPERATING MOWER

1. Start engine.
2. Set throttle lever to fast.

IMPORTANT: Never engage PTO if mower is plugged with grass or other material.

3. Engage PTO to start mower blades.

NOTE: The parking brake must be disengaged prior to moving the steering levers from the neutral lockout position.

4. Release parking brake.
5. Use steering levers to move the unit.
6. Disengage PTO to stop mower blades.

TRANSPORTING UNIT

ALWAYS shut off engine, set parking brake, remove key, and close fuel shut-off valve or drain fuel when transporting unit on a truck or trailer. Tie unit down securely. Do not tie down by linkages, guards, cables or other parts that may be damaged.

FOR BEST PERFORMANCE

Cut grass when it is dry.
Keep mower blades sharp.
Keep mower deck properly leveled.
Adjust anti-scalp rollers to prevent scalping.

Do not set height of cut too low. For very tall grass, mow twice.
 Do not travel too fast.
 Mow with the engine set at full throttle.
 When mulching, only remove 1/3 of grass length per cutting.

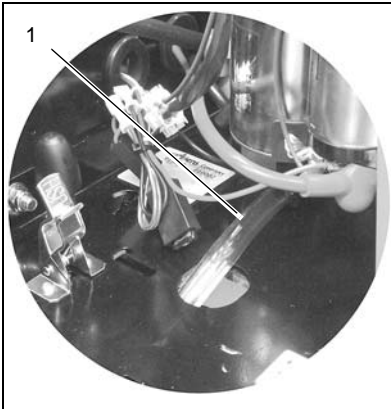
Discharge clippings into areas already cut.
 Vary cutting pattern with each mowing.
 Do not allow grass or debris to collect inside of mower deck. Clean after each use.

MAINTENANCE SCHEDULE

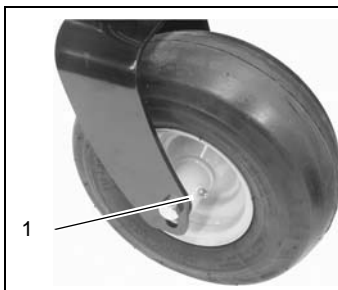
⚠ WARNING: AVOID INJURY. Read and understand the entire *Safety* section before proceeding.

IMPORTANT: Proper maintenance can prolong the life of unit. The following chart shows the recommended service schedule. Refer to the maintenance instructions in the Engine Manual for additional information.

NOTE: To have full access to the engine, the seat must be tipped forward (see *TIPPING SEAT FORWARD* on page 14) and the hood opened (see on page 15).

Interval	Task	Action
Each Use	Check Safety Interlock System	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">⚠</div> <p>WARNING: Safety interlock system failure and improper operation of unit can result in death or serious injury. Test this system each time the unit is operated. If this system does not function as described, do not operate until repairs are made (see <i>Safety Interlock System</i> on page 9).</p> </div>
	Check Parking Brake	Engage parking brake and engage transmission bypass lever (see on page 13). Push unit. If unit rolls, contact your Gravely Dealer.
	Clean Unit	Clean engine, battery, seat, mower deck, etc. of all dirt and debris. Do not use solvents, hard cleaners, or abrasives. NOTE: Protect painted surfaces with automotive type wax.
	Check Tires	See <i>SPECIFICATIONS</i> on page 26 for correct tire pressure.
	Check Mower Blades	Check for worn or damaged mower blades (see <i>SHARPENING MOWER BLADE</i> on page 17).
Each Use	Follow Engine Manual Maintenance Schedule	<p>Perform scheduled engine maintenance. Refer to Engine Manual for detailed instructions.</p> <p>NOTE: To drain the oil, use the oil drain petcock (1) supplied with unit, not the drain plug that is shown in the Engine Manual.</p> <div style="text-align: right;">  </div>

Interval	Task	Action
25 Hours or Every Season	Check Battery	Keep battery and battery terminals clean (see <i>Cleaning Battery and Battery Cables</i> on page 19).
	Lubricate Unit	Apply grease to zerk (1) on each front wheel
50 Hours or Every Season	Check Fasteners	Check mower blade mounting hardware and all other fasteners. Replace fasteners that are missing or damaged. Tighten all nuts and bolts to the correct torque value.
100 Hours or Every Season	Check All Belts	Replace worn or deteriorated belts. <ul style="list-style-type: none"> • Check hydrostatic belt (see <i>REPLACING HYDROSTATIC BELT</i> on page 21 for hydrostatic belt location). • Check PTO belt (see <i>REPLACING PTO BELT</i> on page 21 for PTO belt location).



SERVICE AND ADJUSTMENTS



WARNING: AVOID INJURY. Read and understand the entire *Safety* section before proceeding.

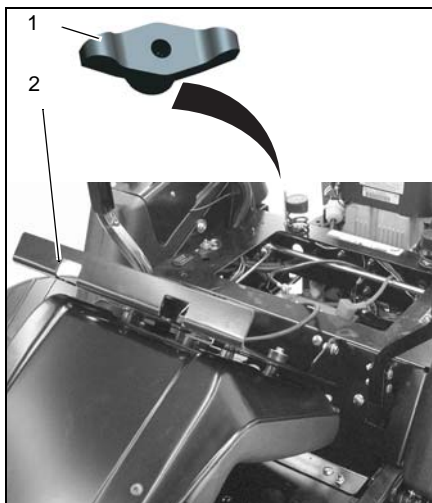
TIPPING SEAT FORWARD

Remove clamping knob and tip seat forward to access the battery and engine.

Tip seat back and secure to unit with clamping knob (figure 9).

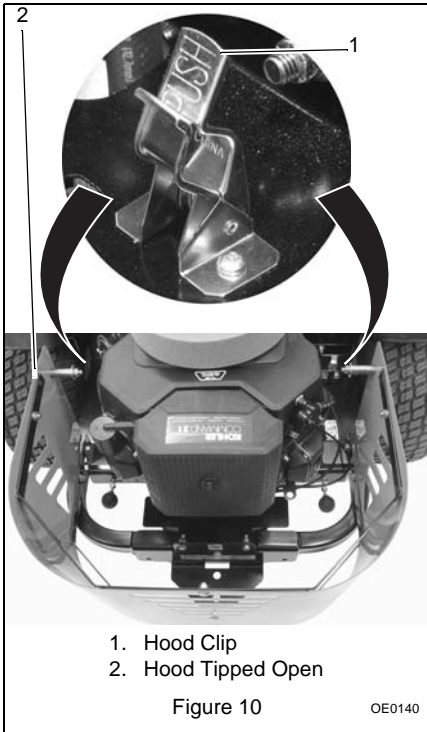
OPENING AND CLOSING HOOD

To open, pull up on the front of the hood to open and push down on top of hood to close until hood snaps into hood clips (figure 10).



1. Clamping Knob
2. Seat Tipped Forward

Figure 9

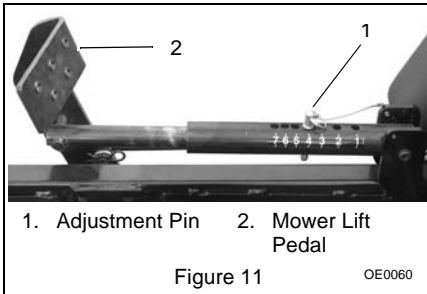


LEVELLING AND ADJUSTING PITCH OF MOWER DECK

Adjust on a level surface, with the tires inflated to the correct air pressure (see *SPECIFICATIONS* on page 26).

Level Mower Deck

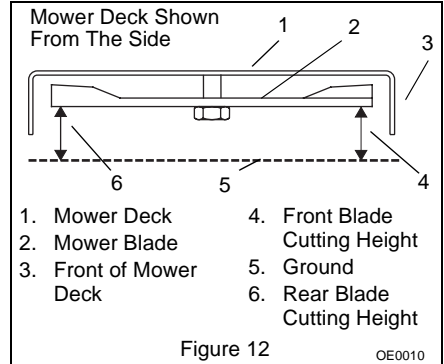
1. Install adjustment pin in the fourth adjustment hole (figure 11).



2. Rotate the right and left mower blades until the ends of both mower blades are facing rearward (figure 12).

NOTE: The rear blade cutting height should be 2-7/8 to 3 in. (7.3 to 7.6 cm) from rear edge of mower blades to the ground on both blades (figure 12).

IMPORTANT: The distance from rear edge of mower blades to the ground **MUST NOT** exceed 3 in. (7.6 cm) (figure 12).



3. Measure from rear edge of mower blades to the ground (figure 12).
4. Perform steps 5 through 7 if the measurement is too high or too low on either side of mower deck.
5. Remove rear lift link and rear trunnion from mower deck and mower lift (figure 13).
 - TO RAISE the mower deck, turn rear trunnion clockwise several turns.
 - TO LOWER the mower deck, turn rear trunnion counterclockwise several turns.
6. Install rear trunnion and rear lift link on mower deck and mower lift (figure 13).
7. Check that the mower deck is level:
 - a. Rotate right and left mower blades to face side-to-side.
 - b. Measure outer edge of mower blades to ground. Measurement must be within 1/4 inch (6.35 mm).
 - If mower deck is not level, repeat steps 5 and 6.
 - If mower deck is level, record the distance from rear edge of mower blades to the ground and then adjust pitch of mower deck.

Adjust Pitch of Mower Deck

IMPORTANT: The mower blade end used to level the mower deck must be used to adjust the pitch of the mower deck.

1. Rotate the right and left mower blades 180 degrees until the end of the mower blade that was used to level the mower deck is facing forward (figure 12).

NOTE: The front blade cutting height should be 1/16 - 1/4 in. (1.59 - 6.35 mm) lower than the rear blade cutting height (figure 12).

2. Measure from front edge of right and left mower blades to the ground.
3. Subtract front blade cutting height measurement from rear blade cutting height measurement (figure 12).
4. Perform steps 5 through 7 if the front blade cutting height is too high or too low on either side on either side of mower deck.

5. Remove front lift link and front trunnion from mower deck and mower lift (figure 13).
 - TO RAISE the mower deck, turn front trunnion clockwise several turns.
 - TO LOWER the mower deck, turn front trunnion counterclockwise several turns.
6. Install front trunnion and front lift link on mower deck and mower lift (figure 13).
7. Check mower deck pitch.
 - If mower deck pitch is not correct, repeat steps 2 through 6.
 - If mower deck pitch is correct, the adjustment is complete.

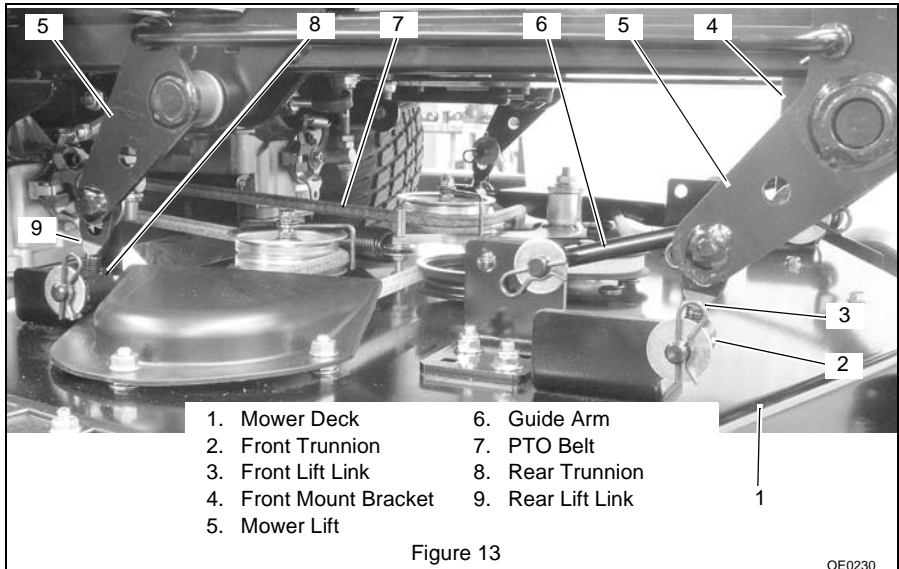


Figure 13

OE0230

REMOVING MOWER DECK

Remove (Figure 13)

1. Remove PTO belt from electric clutch (see *REPLACING PTO BELT* on page 21).

NOTE: Perform step 2 and 3 for the right and left side of unit.

2. Remove guide arm from front mount bracket.
3. Remove rear lift link, rear trunnion, front lift link, and front trunnion from mower deck and mower lift.
4. Slide mower deck out from under unit.

Install (Figure 13)

1. Slide mower deck under unit.

NOTE: Perform step 2 and 3 for the right and left side of unit.

2. Install rear lift link, rear trunnion, front lift link, and front trunnion on mower deck and mower lift.
3. Install guide arm on front mount bracket.
4. Install PTO belt on electric clutch (see *REPLACING PTO BELT* on page 21).

OPENING DECK ACCESS PLATE

1. Install adjustment pin in the first adjustment hole (figure 14).
2. Remove the knob located between the deck and the access plate (figure 14).
3. Raise deck access plate.

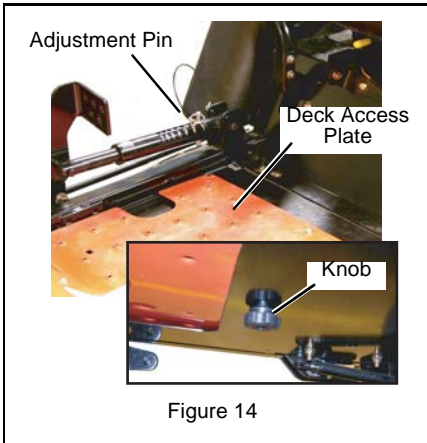


Figure 14

REPLACING MOWER BLADE

Remove (Figure 15)

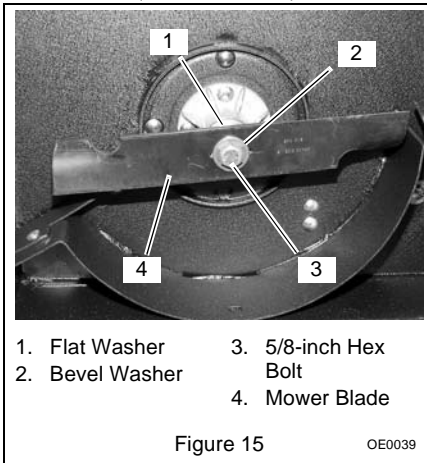


CAUTION: Mower blades are sharp and can cut you. Wrap the blades or wear gloves, and use extra caution when servicing them.

1. Block mower blades to prevent rotation.
2. Remove mounting hardware and mower blades from mower deck.

Install (Figure 15)

1. Install mower blades on mower deck with mounting hardware.
2. Torque 5/8-inch hex bolt to 80 to 120 lbf-ft (108 to 163 N•m).



SHARPENING MOWER BLADE



CAUTION: DO NOT sharpen mower blade while on unit. An unbalanced mower blade will cause excessive vibration and eventual damage to unit. Check mower blade balance prior to reinstalling mower blades. NEVER weld or straighten mower blades.

1. Remove mower blade from unit (see *REPLACING MOWER BLADE* on page 17).

Gravely recommends having mower blades sharpened by a professional. Contact your Gravely dealer.

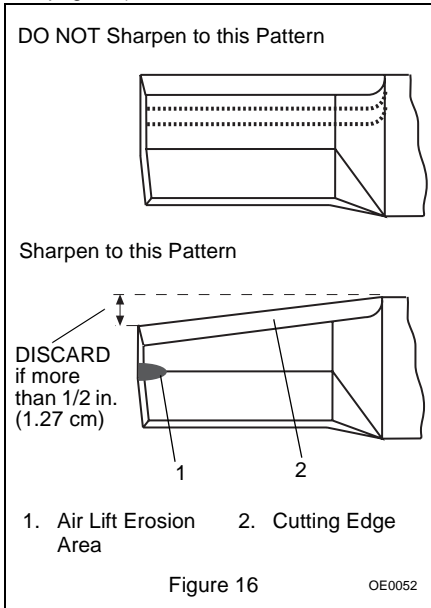
Discard mower blade if (figure 16):

- more than 1/2 in. (1.27 cm) of metal is removed.
- the air lift erosion area is eroded.
- the mower blade is bent or broken.

Do not change angle of cutting edge or round the corner at the end of mower blade.

2. Sharpen mower blade by removing an equal amount of material from each end of mower blade.
3. Check mower blade balance by sliding mower blade on an unthreaded bolt. If blade is balanced, it should remain in a horizontal position. If either end of mower blade moves downward, sharpen the heavy end until mower blade is balanced.

4. Install mower blade on unit (see *REPLACING MOWER BLADE* on page 17).



ADJUSTING ANTI-SCALP ROLLER

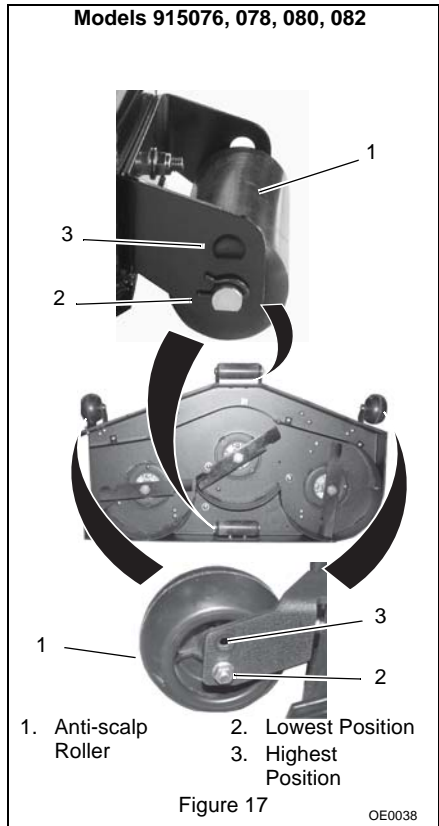
NOTE: The anti-scalp rollers are intended to prevent lawn scalping, not to control cutting height. All anti-scalp rollers should be set at the same height.

See figure 17 for anti-scalp locations on models 915076, 078, 080, 082. See figure 18 for anti-scalp locations on model 915074.

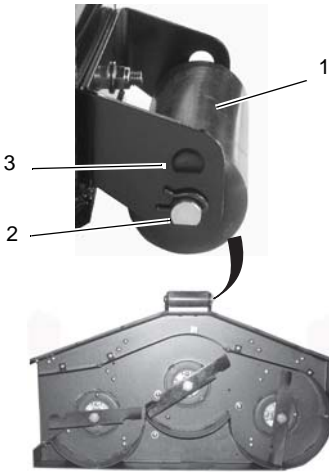
There are two positions:

- Highest Position: Use to disable anti-scalp feature.
- Lowest Position: Use for all cutting positions.

In the lowest position the anti-scalp rollers will touch the ground.



Model 915074



1. Anti-scalp Roller
2. Lowest Position
3. Highest Position

Figure 18

OE0310

SERVING BATTERY

NOTE: Unit comes equipped with a maintenance-free battery that requires no regular maintenance except cleaning the terminals.



WARNING: Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.

Battery Removal and Installation

Remove (Figure 19)

1. Tip seat forward (see *TIPPING SEAT FORWARD* on page 14).
2. Disconnect negative (-) cable first, then positive (+) cable.
3. Remove battery hold-down bracket and battery from unit.

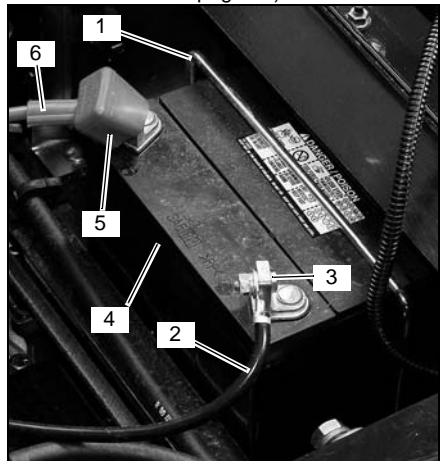
Install (Figure 19)

1. Install battery on the unit with battery hold-down bracket.
2. Connect positive (+) cable first, then negative (-) cable.
3. Apply petroleum jelly or dielectric grease to battery cable ends and terminals.

4. Tip seat back (see *TIPPING SEAT FORWARD* on page 14).

Cleaning Battery and Battery Cables (Figure 19)

1. Tip seat forward (see *TIPPING SEAT FORWARD* on page 14).
2. Disconnect negative (-) cable first, then positive (+) cable.
3. Clean battery cable ends, negative (-) terminal, and positive (+) terminal with a wire brush and rinse with a weak baking soda solution.
4. Connect positive (+) cable first, then negative (-) cable.
5. Apply petroleum jelly or dielectric grease to battery cable ends and terminals.
6. Tip seat back (see *TIPPING SEAT FORWARD* on page 14).



1. Battery Hold-Down Bracket
2. Negative (-) Cable
3. Negative (-) Terminal
4. Battery
5. Positive (+) Terminal
6. Positive (+) cable

Figure 19

OE0120

Charging the Battery

(Figure 19)



WARNING: FROZEN BATTERIES CAN EXPLODE and result in death or serious injury. DO NOT charge a frozen battery. Let the battery thaw before charging.

Follow First Aid directions for contact with battery fluid.

- External Contact: Flush with water.
- Eyes: Flush with water for at least 15 minutes and get medical attention immediately!
- Internal Contact: Drink large quantities of water. Follow with Milk of Magnesia, beaten egg or vegetable oil. Get medical attention immediately!
- In case of internal contact, DO NOT induce vomiting!

IMPORTANT: DO NOT fast charge.

Charging at a higher rate will damage or destroy battery.

IMPORTANT: ALWAYS follow information provided on battery and battery charger. Contact battery and battery charger manufacturers' for detailed instructions.

1. Remove battery from unit (see *Battery Removal and Installation* on page 19).
2. Place battery in a well-ventilated area.
3. Connect positive (+) lead of charger to positive (+) terminal, and negative (-) lead of charger to negative (-) terminal.
4. Charge battery according to battery charger and battery manufacturers' instructions.
5. Install battery on unit (see *Battery Removal and Installation* on page 19).

Jump-Starting

Gravely does not recommend jump-starting your unit. Jump-starting can damage engine and electrical system components. See your engine manual for more detailed information.

ADJUSTING STEERING LEVERS

Adjusting Steering Lever Height (Figure 20)

NOTE: Perform steps 1 and 2 for both steering levers.

1. Remove mounting hardware and move handlebar up or down until the steering levers are at the appropriate height.
2. Install mounting hardware.

NOTE: Align handlebars by adjusting eccentric spacer until the height of handlebars are the same.

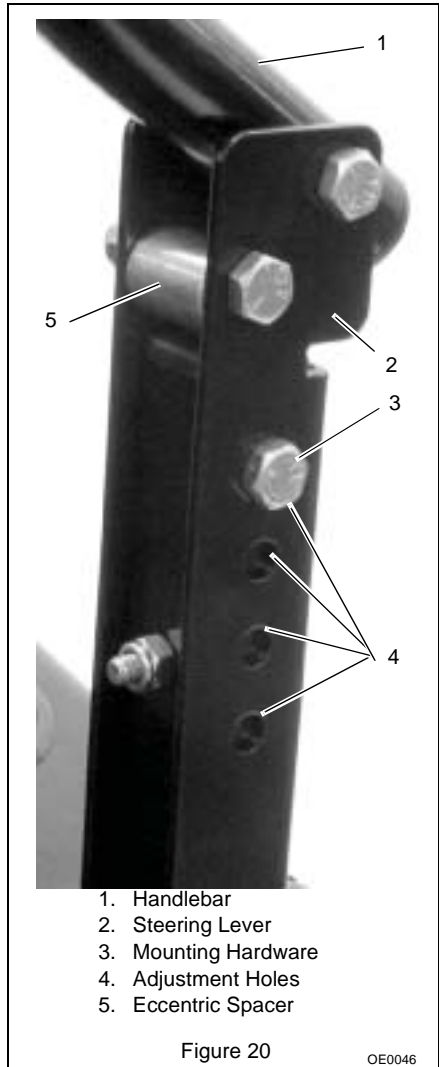


Figure 20

OE0046

Forward and Reverse Speed Adjustment

(Figure 21)

IMPORTANT: The unit should track within 2 feet (0.61 m) of a straight line for 30 feet (9.14 m).

The travel of the steering levers may need adjustment if:

- The unit turns to the right or left when both steering levers are pushed as far forward as possible.

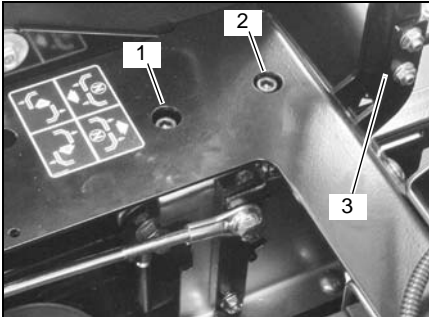
- The unit turns to the right or left when both steering levers are pulled back as far rearward as possible.

NOTE: The side the unit turns toward indicates that the wheel on that side is turning slower than the other wheel. Either the wheel that is turning faster needs to slow down or the wheel that is turning slower needs to be sped up to allow the unit to travel in a straight line.

1. Determine which way the unit turns.
2. Tip seat forward (see *TIPPING SEAT FORWARD* on page 14).

NOTE: The forward travel adjustment bolt adjusts the forward travel of the steering lever. The rear travel adjustment bolt adjusts the rearward travel of the steering lever.

3. Adjust speed by:
 - Turning adjustment bolt clockwise to decrease steering lever travel.
 - Turning adjustment bolt counter clockwise to increase steering lever travel.



1. Forward Travel Adjustment Bolt
2. Rear Travel Adjustment Bolt
3. Steering Lever

OE0330

Figure 21

REPLACING PTO BELT

Remove (Figure 22)

1. Lower mower deck to the ground.
2. Remove belt covers from mower deck.



CAUTION: Use care when releasing idler spring tension. Keep body parts well away from idler when performing this operation.

3. Hook a puller into idler hole and pull idler arm towards outside of unit until tension is removed from PTO belt.

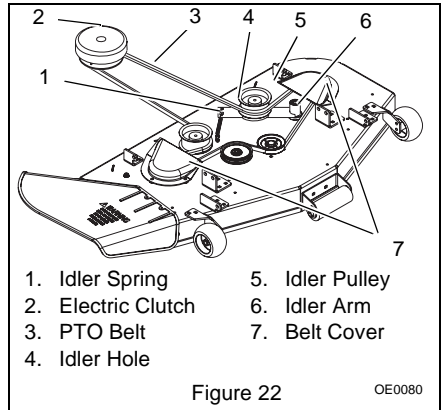


Figure 22

OE0080

4. Remove PTO belt from left mower deck pulley.
5. Slowly release idler arm until tension is removed from idler spring.
6. Remove PTO belt from mower deck and electric clutch.

Install (Figure 22)

NOTE: Do not install PTO belt on left mower deck pulley in step 1.

1. Install PTO belt on electric clutch and mower deck.
2. Hook a puller into idler hole and pull idler arm towards outside of unit until PTO belt can be routed around left mower deck pulley.
3. Slowly release idler arm until idler pulley rests firmly against PTO belt.
4. Install belt covers on mower deck.

REPLACING HYDROSTATIC BELT

Remove (Figure 23)

1. Remove PTO belt (see *REPLACING PTO BELT* on page 21).
2. Disconnect electric clutch connector.
3. Remove clutch stop.

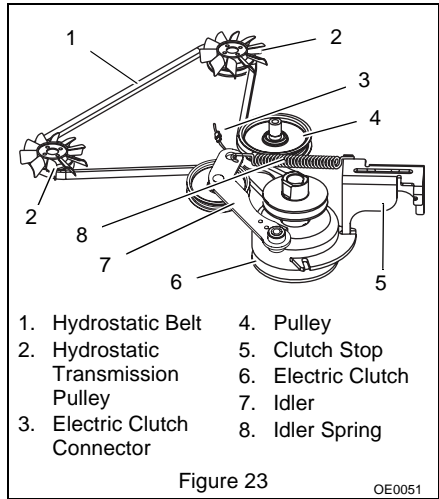


CAUTION: Use care when releasing idler spring tension. Keep body parts well away from idler when performing this operation.

4. Disconnect idler spring.
5. Remove hydrostatic belt from hydrostatic transmission pulleys, pulley, electric clutch, and idler.

Install (Figure 23)

1. Install hydrostatic belt on idler, electric clutch, pulley, and hydrostatic transmission pulleys.
2. Connect idler spring.
3. Install clutch stop.
4. Connect electric clutch connector.
5. Install PTO belt (see *REPLACING PTO BELT* on page 21)



STORAGE

Short Term Storage

IMPORTANT: NEVER clean unit with high-pressure water or store unit outdoors. Remove all dirt, grease, leaves, etc. Store in a clean dry area. Inspect unit for signs of wear or damage. Ensure all fasteners are properly tightened.

Long Term Storage

Follow all instructions under *Short Term Storage*.

Remove and fully charge battery. Store in a clean dry area.

Drain fuel from fuel tank.

Refer to Engine Manual for the proper engine storage procedures.

Touch up all scratched or chipped paint surfaces.

TROUBLESHOOTING

PROBLEM	PROBABLE CAUSE	CORRECTION
Engine will not crank/start.	<ol style="list-style-type: none"> 1. Safety interlock system is not engaged or is faulty. 2. Fuel tanks empty. 3. Fuel shut-off valve closed. 4. Discharged battery. 5. Poor connection between battery and battery cables. 6. Spark plug wire(s) loose or spark plug(s) faulty. 7. Faulty electrical system. 8. Faulty engine. 	<ol style="list-style-type: none"> 1. Check safety interlock system (see <i>Safety Interlock System</i> on page 9). 2. Fill fuel tanks (see <i>FILLING FUEL TANKS</i> on page 11). 3. Open fuel shut-off valve. 4. Charge battery (see <i>Charging the Battery</i> on page 20). 5. Tighten battery cables and/or clean battery and battery cables (see <i>Cleaning Battery and Battery Cables</i> on page 19). 6. Connect spark plug wire(s) or replace spark plug(s). Refer to Engine Manual for detailed instructions. 7. Contact your Gravely Dealer. 8. Contact your Gravely Dealer.
Engine runs rough.	<ol style="list-style-type: none"> 1. Choke engaged. 2. Air filter cartridge plugged. 3. Faulty engine. 	<ol style="list-style-type: none"> 1. Disengage choke. 2. Clean or replace air filter cartridge. Refer to Engine Manual for detailed instructions. 3. Contact your Gravely Dealer.
Unit does not move with engine running when using steering levers.	<ol style="list-style-type: none"> 1. The transmission bypass lever is engaged. 2. Faulty hydrostatic belt. 3. Faulty transmission. 	<ol style="list-style-type: none"> 1. Disengage transmission bypass lever (see on page 13). 2. Replace hydrostatic belt (see <i>REPLACING HYDROSTATIC BELT</i> on page 21). 3. Contact your Gravely Dealer.
PTO or mower blades do not engage or shuts off.	<ol style="list-style-type: none"> 1. Operator presence switch not depressed. 2. Faulty operator presence switch. 3. Electric clutch connector is loose or disconnected. 4. Faulty PTO belt. 5. Faulty PTO switch, wires, connectors, or clutch. 	<ol style="list-style-type: none"> 1. Depress operator presence switch by sitting on seat. 2. Contact your Gravely Dealer. 3. Connect the electric clutch connector. See <i>REPLACING HYDROSTATIC BELT</i> on page 21 for the electric clutch connector location. 4. Replace PTO belt (see <i>REPLACING PTO BELT</i> on page 21). 5. Contact your Gravely Dealer.
Engine overheats.	<ol style="list-style-type: none"> 1. Engine oil level low. 2. Cooling system plugged. 3. Faulty engine. 	<ol style="list-style-type: none"> 1. Add engine oil. Refer to Engine Manual for detailed instructions. 2. Clean cooling system. Refer to Engine Manual for detailed instructions. 3. Contact your Gravely Dealer.

PROBLEM	PROBABLE CAUSE	CORRECTION
Unit moves with engine off and parking brake engaged.	<ol style="list-style-type: none"> 1. The parking brake needs adjustment. 2. Faulty parking brake. 	<ol style="list-style-type: none"> 1. Contact your Gravely Dealer. 2. Contact your Gravely Dealer.
Hour meter continues to run when engine is not running.	<ol style="list-style-type: none"> 1. Ignition key is in the run position with engine turned off. 	<ol style="list-style-type: none"> 1. Turn ignition key to the off position. 1. david
Unit does not travel in a straight line.	<ol style="list-style-type: none"> 1. Incorrect tire pressure. 2. Steering levers need adjustment. 3. Hydrostatic transmission and/or linkage needs adjustment. 	<ol style="list-style-type: none"> 1. Check tire pressure (see <i>SPECIFICATIONS</i> on page 26). 2. Adjust steering levers (see <i>Forward and Reverse Speed Adjustment</i> on page 20) 3. Contact your Gravely Dealer.
Unit creeps with steering levers in neutral position.	<ol style="list-style-type: none"> 1. Hydrostatic transmission and/or linkage needs adjustment. 	<ol style="list-style-type: none"> 1. Contact your Gravely Dealer.
Poor cutting quality.	<ol style="list-style-type: none"> 1. Mower deck not level or mower pitch is incorrect. 2. Dull or faulty mower blades. 	<ol style="list-style-type: none"> 2. Level and adjust pitch of mower deck (see <i>LEVELLING AND ADJUSTING PITCH OF MOWER DECK</i> on page 15). 3. Sharpen mower blades (see <i>SHARPENING MOWER BLADE</i> on page 17) or replace mower blades (see <i>REPLACING MOWER BLADE</i> on page 17).

SERVICE PARTS

Be sure to always use genuine Gravelly parts to keep your unit running like new.

Part No.	Qty	Description
03498400	1	40-Inch Mower Blade (915074, 076)
01593900	1	44-Inch Mower Blade (915078)
04919100	1	48-Inch Mower Blade (915080)
04916400	1	52-Inch Mower Blade (915082)
01554800	1	Battery
07241400	1	Hydrostatic Belt
07241800	1	40-Inch PTO Belt (915074)
07200001	1	40-Inch PTO Belt (915076)
07241700	1	44-Inch PTO Belt (915078)
07241500	1	48-Inch PTO Belt (915080)
07241600	1	52-Inch PTO Belt (915082)

ACCESSORIES

See your authorized Gravelly dealer to add these optional accessories to your unit.

Part no.	Qty	Description
71502900	1	Dump Cart
81501200	1	46-Inch Snow Head
81501300	1	54-Inch Dozer Blade
71503200	1	48-Inch Aerator
71503300	1	36-Inch Roller
71503400	1	48-Inch Dethatcher
71503500	1	15-Gallon Sprayer
71503600	1	Spreader
71504900	1	Sunshade
71503800	1	48-Inch Lawn Sweeper
81501500	1	Bagger
71505100	1	Baffle Kit
71501200	1	Hour Meter Kit(915074)
71504100	1	Light Kit(915074)
71504700	1	Striper Kit(915074)
71505900	1	Anti-Scalp Kit(915074)

SPECIFICATIONS

Model Number	915074	915076	915078	915080	915082
Model	1640	1840	2044	2348	2552
Engine					
Type	Single Cylinder Kohler		Twin Cylinder Kohler		
Engine Power – HP (kW) at Governed RPM	16 (11.9)	18 (13.4)	20 (14.9)	23 (17.2)	25 (18.7)
Max Governed RPM	3375		3250		
Speed					
Forward Max. – m.p.h. (km/h)	6.5 (10.5)				
Reverse Max. – m.p.h. (km/h)	3 (3.2)				
Turning Radius	Zero				
Brakes	Internal Transmission				
Electrical					
Starter	Electric				
Battery	12 Volt Maintenance Free				
PTO (Power Take-Off)	Electric Clutch/Brake				
Fuel					
Fuel Type	Refer to Engine Manual				
Fuel Tank Capacity – gal. (L)	8 (30.3)				
Transmission	Hydrostatic Drive				
Size and Weight					
Length – in. (cm)	76 (193)				
Width – in. (cm)	55.5 (141)		59 (150)	63 (160)	66 (168)
Weight – lbs (kg)	633 (287)	686 (311)	687 (312)	714 (324)	742 (336)
Height – in. (cm)	40 (102)		43 (109)		
Tires					
Front Tire Size – in. (cm)	11 x 4 (27.9 x 10.2)		11 x 4 (27.9 x 10.2)		
Rear Tire Size – in. (cm)	18 x 8.5 (45.7 x 21.6)		18 x 9.5 (45.7 x 24.1)		
Front Tire Pressure – psi (kPa)	46 (317)			46 (317)	
Rear Tire Pressure – psi (kPa)	10 (69)			12 (83)	
Mower Deck					
Cutting Height – in. (cm)	1-1/2 - 4-1/2 (3.81 - 11.4)				
Cutting width – in. (cm)	40 (102)		44 (112)	48 (122)	52 (132)
Max. Towing Capacity – lbs (kg)	300 (136)				
Max. Tongue Weight – lbs (kg)	30 (13.6)				



Ariens Limited Warranties



2-Year Limited Lawn and Garden Consumer Warranty

Ariens Company (Ariens) warrants to the **original purchaser** that Ariens and Gravely brand consumer products manufactured by Ariens Company will be free from defects in material and workmanship for a period of two (2) years after the date of purchase, and that Ariens will repair any defect in material or workmanship, and repair or replace any defective part, subject to the conditions, limitations and exclusions set forth herein. Such repair or replacement will be free of charge to the **original purchaser** (labor and parts), except as noted below.

The two-year duration of this warranty applies only if the product is put to ordinary, reasonable, and usual personal, family, or household uses. If the product is put to any business, commercial, or industrial use such as, but not limited to, commercial landscaping, mowing or snow removal services, or golf course or park maintenance, or agricultural or farmstead use, then the duration of this warranty is ninety (90) days after the date of purchase, or one (1) year after the date of purchase if the product is labeled as a Professional/Commercial Product. The duration of this warranty shall be ninety (90) days after the date of purchase if any product is rented or leased.

2-Year Limited Lawn and Garden Commercial Warranty

The Ariens Company (Ariens) warrants to the **original purchaser** that all Gravely Pro and ProMaster products manufactured by Ariens will be free from defects in material and workmanship for a period of two (2) years after the date of purchase or 1000 hours of use, whichever comes first. An authorized Gravely dealer will repair any defect in material or workmanship, and repair or replace any defective part, subject to the conditions, limitations and exclusions set forth herein. Such repair or replacement will be free of charge to the **original purchaser** (labor and parts), except as noted below.

The duration of this warranty shall be ninety (90) days after the date of purchase or 1000 hours of use, whichever comes first, if any product is rented or leased.

3-Year Limited Sno-Thro Warranty

Ariens Company (Ariens) warrants to the **original purchaser** that Sno-Thro products manufactured by Ariens Company will be free from defects in material and workmanship for a period of three (3) years after the date of purchase, and will repair any defect in material or workmanship, and repair or replace any defective part, subject to the conditions, limitations and exclusions set forth herein. Such repair or replacement will be free of charge to the **original purchaser** (labor and parts), except as noted below.

The three-year duration of this warranty applies only if the product is put to ordinary, reasonable, and usual personal, family, or household uses. If the product is put to any business, commercial, or industrial use, then the duration of this warranty is ninety (90) days after the date of purchase, or one (1) year after the date of purchase if the product is labeled as a Professional/Commercial Product. The duration of this warranty shall be ninety (90) days after the date of purchase if any product is rented or leased.

DURA-CLEAN™ Auger Limited Lifetime Warranty

Ariens Company (Ariens) warrants to the **original purchaser** that the rubber components of the DURA-CLEAN™ Auger manufactured by Ariens Company will be free from defects in material and workmanship and will not wear out for the life of the Sno-Thro, except as noted below.

Ariens Company will provide for the replacement of any of the rubber components of the DURA-CLEAN™ Auger found upon examination by the Ariens Company to be defective or worn out. Replacements will be supplied free of charge. Labor is not included after two (2) years from the date of purchase of the Sno-Thro.

The lifetime limited warranty shall apply if the product is put to ordinary, reasonable, and usual personal household use. If the product is put to any business, commercial, industrial, rental, or leased use, the warranty shall be against defects in material and workmanship for ninety (90) days following the date of purchase.

Exceptions, Limitations, Exclusions

These warranties are subject to the following conditions, limitations, and exclusions:

To obtain warranty service, the following conditions must be met:

- The purchaser must perform the maintenance and minor adjustments explained in the owner's manual.
- The purchaser must promptly notify Ariens Company or an authorized Ariens service representative of the need for warranty service.
- The purchaser must transport the product to and from the place of warranty service.
- Warranty service must be performed by a respective Ariens or Gravelly authorized service representative.
- To find an Ariens or Gravelly authorized service representative, contact Ariens at:

655 W. Ryan St, P.O. Box 157
Brillion, WI 54110-0157
(920) 756 - 2141
www.ariens.com
www.gravelly.com

This warranty is subject to the following limitations:

- Genuine Ariens or Gravelly brand service parts and accessories not purchased with the product covered by this warranty, but which are later purchased and used with that product, are warranted to be free from defects in material and workmanship for a period of ninety (90) days after date of purchase, and Ariens Company will repair or replace any such part or accessory free of charge, except for labor, during that period.
- Batteries are warranted only for a period of twelve (12) months after date of purchase, on a prorated basis. For the first ninety (90) days of the warranty period, a defective battery will be replaced free of charge. If the applicable warranty period is more than 90 days, Ariens Company will cover the prorated cost of any defective battery, for up to twelve (12) months after the date of purchase.

Ariens may from time to time change the design of its products. Nothing contained in this warranty shall be construed as obligating Ariens to incorporate such design changes into previously manufactured products, nor shall such changes be construed as an admission that previous designs were defective.

LIMITATION OF REMEDY AND DAMAGES

Ariens Company's liability under this warranty, and under any implied warranty that may exist, is limited to repair of any defect in workmanship, and repair or replacement of any defective part. Ariens Company shall not be liable for incidental, special, or consequential damages (including lost profits). Some states do not allow the exclusion of incidental or consequential damages, so the above limitation or exclusion 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.

The following items are excluded from this warranty:

- Engines and enty and are not covered by this warranty.
- Hydro-Gear transmissions and/or Hydro-Gear drive components are covered only by the Hydro-Gear warranty and are not covered by this warranty.
- Parts that are not genuine Ariens or Gravelly brand service parts are not covered by this warranty.
- Except as specifically warranted, normal maintenance, services, and normal replacement items, such as spark plugs, oil, oil filters, air filters, mufflers, belts, tires, shoes, runners, scraper blades, shear bolts, mower blades, mower vanes, headlights, light bulbs, knives, etc. are not covered by this warranty except as noted below.
- Mufflers, belts, and tires on consumer lawn and garden products are warranted to the **original purchaser** for two years.
- Friction discs, idlers, cables, and electrical components on Sno-Thros put to usual personal household use are warranted to the **original purchaser** for two years.
- Any defect which is the result of misuse, alteration, improper assembly, improper adjustment, neglect, or accident is not covered by this warranty.

This warranty applies only to products purchased in the United States (including Puerto Rico) and Canada. In all other countries, contact place of purchase for warranty information.

DISCLAIMER OF FURTHER WARRANTY

Ariens Company makes no warranty, express or implied, other than what is expressly made in this warranty. If the law of your state provides that an implied warranty of merchantability, or an implied warranty of fitness for particular purpose, or any other implied warranty, applies to Ariens Company, then any such implied warranty is limited to the duration of this warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.



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WARNING



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