

# Models

915244 - ZT 34 (SN 000101 +)

915246 - ZT 42 (SN 000101 +)







ENGLISH

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# WELCOME

Congratulations on your purchase and welcome to the Gravely family! Every machine in the Gravely lineup is designed for long-lasting and unsurpassed performance. We are confident your machine will be part of your family for many years to come.

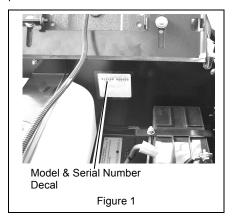
# Have Questions or Need Assistance? www.gravely.com

A parts manual for your unit is available for free download or purchase at www.gravely.com Puede descargar gratuitamente o comprar un manual de repuestos de su unidad en www.gravely.com.

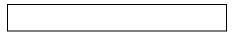
**REGISTER YOUR PRODUCT!** 

It is extremely important to register your product at time of purchase. Product registration activates the warranty and establishes a communication link from AriensCo.

Locate the model and serial number decal on your unit and register those numbers online at www.gravely.com. See Figure 1 for decal location. Be aware that the original selling dealer may have already completed product registration on behalf of the original purchaser.



Record model number here.



Record serial number here.

## MANUALS

Before operating or servicing the unit, carefully and completely read the manuals provided with the unit. They contain safety instructions and important information about unit controls.

The engine on this unit is covered by a separate manual. Refer to the engine manual for engine service recommendations. Contact the engine manufacturer for a replacement manual if necessary.

Your dealer must review important information in this manual with you before or upon delivery of the unit. It is your responsibility to read and understand all safety precautions and instructions in the manuals. If you do not understand or have difficulty following the instructions, contact your Gravely dealer for assistance. To locate your nearest Gravely dealer, go to www.gravely.com.

#### DISCLAIMER

Gravely reserves the right to discontinue, make changes to, and add improvements upon its products at any time without public notice or obligation. The descriptions and specifications contained in this manual were in effect at printing. Equipment described in this manual may be optional. Some illustrations may not be applicable to your unit.

# SAFETY

Read these safety rules and follow them closely. Failure to follow these rules could lead to loss of control of unit, severe personal injury or death to you or bystanders, or result in damage to property or the machine.

## **PRACTICES & LAWS**

Practice usual and customary safe working precautions. Learn applicable rules and laws in your area. Always follow the practices set forth in this manual.

# **EMISSION CONTROL SYSTEM**

This equipment and/or its engine may include exhaust and evaporative emissions control system components required to meet U.S. Environmental Protection Agency (EPA) and/or California Air Resources Board (CARB) regulations. Tampering with emission controls and components by unauthorized personnel may result in severe fines or penalties. Emission controls and components can only be adjusted by an AriensCo dealer or an authorized engine manufacturer's service center. Contact your AriensCo Equipment Retailer concerning emission controls and component questions.

#### REQUIRED OPERATOR TRAINING



Read and understand the Operator's Manual and decals on the unit. This information is for your safety and the proper use of your equipment. Failure to follow these

instructions and warnings may cause death or serious injury. If you have purchased this product from an Gravely dealer, the dealer can provide you with training.

Familiarize yourself and any other operators with all controls and the safe use of the features of this unit. If you loan, rent or sell this product to others, provide them with all manuals.

If you have any questions, please call our customer support line at 920-756-4688 or contact us at www.gravely.com. Do not use this equipment if, after reading the Operator's Manual and the on-board decals, you have any questions about the safe use of this product.



WARNING: AVOID INJURY. 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.

# SAFETY ALERT SYMBOL



This is the safety alert symbol. It means:

- ATTENTION!
- YOUR SAFETY IS INVOLVED!

When you see this symbol:

- BECOME ALERT!
- OBEY THE MESSAGE!

## SIGNAL WORDS

The safety alert symbol above and signal words below are used on decals and in this manual. Read and understand all safety messages.

#### 1. Danger



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

## 2. Warning



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

## 3. Caution



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

## 4. Notice

**NOTICE:** Indicates information or procedures that are considered important but not hazard related. If not avoided property damage could result.

## 5. Important

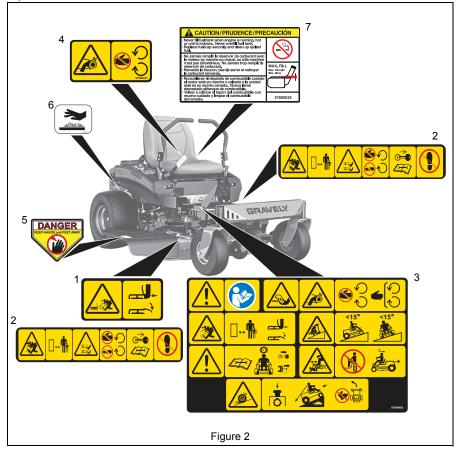
**IMPORTANT:** Indicates general reference information worthy of special attention.

# SAFETY DECALS

The safety decals on your machine are visual reminders of the important safety information in this manual. All messages on your unit must be fully understood and carefully followed. Safety decals on the machine are explained below.

# SAFETY DECAL LOCATIONS

ALWAYS replace missing or damaged safety decals. Replacement decal part numbers are found in the parts manual for your machine and may be ordered from your dealer. See Figure 2 for safety decal locations.



## Safety Decal Descriptions

## 1. DANGER!



Discharge Hazard - NEVER direct discharge toward people, pets or property. Thrown objects can cause injury or damage.



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

## 2. DANGER!



Discharge Hazard - NEVER direct discharge toward people, pets or property. Thrown objects can cause injury or damage.



Amputation Hazard -NEVER stick hands or feet under deck or shielded areas.



Shut off engine, remove key, and read manual before servicing or making adjustments to unit.



Keep children and others away from unit while unit is in operation.



Keep feet and hands away from all rotating or moving parts.



DO NOT step or stand in this area.

## 3. DANGER!



Read and understand the operator's manual before operating unit.

DANGER!

## 3.1 Amputation Hazard



To avoid amputation hazard do not put hands near rotating blades.



To avoid amputation hazard do not put hands near moving belts.



Keep hands away from all rotating or moving parts.



Keep all guards and shields in place.

## 3.2 Discharge Hazard



Discharge Hazard - NEVER direct discharge toward people, pets or property. Thrown objects can cause injury or damage.



Keep children and others away from unit while unit is in operation.



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

## 3.3 Tipping Hazard



Avoid tipping hazard.



DO NOT operate on slopes over  $15^{\circ}$ .



DO NOT operate on slopes over 15°.

#### 3.4 Service Hazard



Before servicing unit do the following:



Read owners manual before servicing or making adjustments to unit.



Set parking brake.



Remove key and disconnect spark plug before servicing or making adjustments to unit.

## 3.5 Bystander Hazard



DO NOT operate the unit in the presence of bystanders.



Do not carry passengers.



Look behind when operating the unit in reverse.

#### 3.6 Loss of Traction Hazard



If loss of traction is experienced do the following:



Disengage PTO.



Proceed off slope slowly.



Do not try to turn or speed up.

#### 4. DANGER!



To avoid amputation hazard do not put hands near moving belts.



Keep hands away from all rotating or moving parts.

## 5. DANGER!



DANGER!



ALWAYS Keep hands and feet away from discharge chute.



Dismemberment Hazard -NEVER put hands or feet beneath guards and or shields.

## 6. DANGER!



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

## 7. CAUTION!



No smoking.



IMPORTANT: DO NOT overfill. Fill fuel tank to below bottom of filler neck



WARNING: Overfilling may cause severe damage to evaporative system!

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

## SAFETY INSTRUCTIONS

The following safety instructions are based on the B71.1 specifications of the American National Standards Institute and ISO 5395 in effect at the time of production.

#### Safe Practices for Ride-On Mowers

If used improperly, this machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death. Use only for purposes intended as set forth in the Operator's Manual. Other use is improper and may cause serious injury or death.

#### **General Information**

Read, understand, and follow instructions and warnings in this manual and on the machine, engine and attachments.

Only allow operators, who are responsible, trained, familiar with the instructions, and physically capable to operate the machine.

DO NOT carry passengers and keep people or pets away from the mowing area.

DO NOT operate the machine while physically or mentally impaired, feeling tired, ill or under the influence of alcohol or drugs.

Follow the manufacturer's recommendation for wheel weights or counterweights.

DO NOT touch parts which are hot. Allow parts to cool.

#### **Preparation Before Operating**

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

Clear the operating area of all objects which could be thrown by or interfere with operation of the machine.

Keep the area of operation clear of all bystanders, particularly small children. Stop the machine and attachment(s) if anyone enters the area

DO NOT operate the machine without the entire grass catcher, discharge chute, or other safety devices in place and functioning properly. Check frequently for signs of damage, wear or deterioration and replace as needed. NEVER tamper with safety devices. Check their proper operation regularly. NEVER do anything to interfere with the intended function of a safety device or to reduce the protection provided by the safety device.

Check parking brake operation frequently. Adjust and service as required.

Wear appropriate personal protective equipment such as safety glasses, hearing protection, and substantial footwear. DO NOT mow barefoot or while wearing sandals.

## Operating

Improper use of power equipment can cause serious permanent injury or death to the operator or a bystander. Understand:

- How to operate all controls
- The functions of all controls
- How to STOP in an emergency
- Braking and steering characteristics
- · Turning radius and clearances

If the operator or the mechanic cannot read the manual, it is the owner's responsibility to explain it to them.Manuals are available in other languages at www.ariens.com.

Releasing the operator presence control (OPC) handle stops engine and blade within 3 seconds. Check this feature frequently. If feature fails to operate, disconnect spark plug wire and have the unit inspected and repaired by an authorized dealer before using.

Only run the engine in well ventilated areas. Exhaust gases contain carbon monoxide, an odorless deadly poison.

Only operate the machine in daylight or good artificial light.

Avoid holes, ruts, bumps, rocks and other hazards. Uneven terrain could overturn the machine, or cause operator to lose their balance, footing and/or control of the mower.

DO NOT put hands or feet near rotating parts or under the machine. Keep clear of the discharge opening at all times.

Avoid slippery surfaces. ALWAYS be sure of your footing.

Stop engine before removing grass catcher or unclogging chute.

DO NOT direct discharge material toward anyone. Avoid discharging material against a wall or obstruction. Material may ricochet back toward the operator. Stop the blade(s) when crossing gravel surfaces. DO NOT mow into roads or across sidewalks.

DO NOT leave a running machine unattended. ALWAYS park on level ground, disengage the attachment, set parking brake, stop engine and remove key (if applicable) before leaving the operator's position.

DO NOT mow in reverse unless absolutely necessary. ALWAYS look down and behind before and while backing.

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.

If you strike a foreign object, stop and inspect the machine. Repair, if necessary, before restarting.

ALWAYS check overhead and side clearances carefully before operation. Keep in mind that your mower deck may be wider than your track width.

#### **Children Specific**

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. NEVER assume that children will remain where you last saw them.

Keep children out of the operating area and under the watchful care of a responsible adult other than the operator.

Do not carry children, even with the blade(s) shut off. Children could fall off and be seriously injured or interfere with safe machine operation. Children who have been given rides in the past could suddenly appear in the mowing area for another ride and be run over or backed over.

DO NOT allow children under the age of 18 to operate any outdoor power equipment.

#### **Slope Specific**

Slopes are a major factor related to accidents. Operation on slopes requires extra caution. If you feel uneasy on a slope DO NOT mow it. Use the parking brake for emergency stops.

DO Not operate on slopes of more than 15°.

Do not mow within 1.2 M (4 feet) of a drop off. Do not mow within 1.2 M (4 feet) of a pond or other waterway.

The primary hazard of slope operation is loss of control and/or roll over.

Mow up and down slopes, NEVER across. Exercise caution when changing direction on slopes. Use caution while operating near dropoffs.

Avoid mowing wet grass. Wet surfaces can cause a loss of traction and control.

DO NOT operate machine under any condition where traction, steering, or stability is in question. Tires could slide even if the wheels are stopped.

Always keep the machine in gear when going down slopes. Do not coast downhill.

Avoid starting and stopping on slopes. Avoid making sudden changes in speed or direction. Make turns slowly and gradually.

Use extra care while operating machine with a grass catcher or other attachment(s). They can affect the stability of the machine.

#### **Fire and Fuel Specific**

Extinguish all cigarettes, cigars, pipes and other sources of ignition.

Use only an approved fuel container.

DO NOT remove fuel cap or add fuel with the engine running or while hot.

DO NOT refuel indoors or in enclosed spaces.

DO NOT store the machine or fuel container, or refuel, where there is an open flame, spark, or pilot light such as on a water heater or other appliance.

If fuel is spilled, DO NOT attempt to start the engine and avoid creating any source of ignition until fuel vapors have dissipated.

To help prevent fires: keep machine free of grass, leaves, or other debris build up; clean up oil or fuel spillage and remove any fuel soaked debris; allow engine to cool before storing.

Use extra care in handling gasoline and other fuels. They are flammable and vapors are explosive.

#### Hauling

Use a single full-width ramp for loading and unloading a machine for transport. Secure with appropriate straps.

#### Towing

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

#### Service

Keep machine in good working order. Replace worn or damaged parts.

Use caution when servicing blades. Wrap the blade(s) or wear gloves. Replace damaged blades. DO NOT repair or alter blade(s).

Disconnect spark plug wire(s) and the negative battery cable before making any repairs.

Use only attachments recommended by AriensCo that are appropriate to your use and can be used safely in your application.

The use of non-genuine replacement parts or accessories could adversely affect machine operation and safety.

DO NOT change engine governor setting or overspeed the engine.

# ASSEMBLY



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

#### **Tools Required**

- Adjustable wrenches
- Petroleum jelly or dielectric grease

#### **Unpack Unit**

- 1. Remove unit and all other components from the shipping container.
- 2. Engage transmission bypass lever. See *Moving Unit Manually* on page 16.
- 3. Push unit from container onto a level surface.
- 4. Disengage transmission bypass lever.
- Cut all packaging cable ties on unit and discard.
- 6. Remove packaging material from unit and discard.

#### **Connect Battery**

See Install Factory-Installed Battery on page 23 and perform steps 4 and 6 in the installation section.

#### Place Unit in Operating Position

#### (Figure 3)

**NOTE:** The unit is shipped with the seat positioned as far forward as possible and in service position.

- 1. Remove steering lever hardware from bottom hole of the steering lever.
- 2. Rotate steering lever forward to align bottom hole with hole in pivot arm and reinstall hardware.

**NOTE:** Do not tighten hardware before reviewing *Adjusting Steering Levers* on page 24. If no adjustment is desired, tighten hardware.

- 3. Cut all packaging cable ties on unit and discard.
- 4. Push steering levers aside and tip seat into operating position.
- 5. Adjust the seat as needed. See Seat Adjustment on page 13.

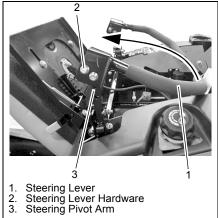


Figure 3

#### Check Engine Oil Level

Refer to Engine Manual.

#### Check Tire Pressure



**CAUTION:** Avoid injury! Explosive separation of tire and rim parts is possible when they are serviced incorrectly:

- Do not attempt to mount a tire without the proper equipment and experience to perform the job.
- Do not inflate the tires above the recommended pressure.
- Do not stand in front or over the tire assembly when inflating. Use a clip-on chuck and extension hose long enough to allow you to stand to one side.

See Specifications on page 30.

#### Level Mower Deck

See Leveling and Adjusting Pitch of Mower Deck on page 20.

#### Fill Fuel Tank

Fill fuel tank. DO NOT OVERFILL! See Filling Fuel Tank on page 14.

#### **Check Safety Interlock System**



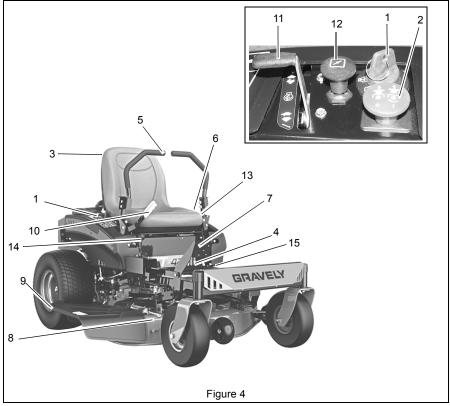
**WARNING:** Safety interlock failure and improper operation of unit can result in death or serious injury. Check system before each use to make sure it is functioning properly.

See Safety Interlock System on page 12.

**Check Function of all Controls** 

See Operation on page 12.

# **CONTROLS AND FEATURES**



- 1. Ignition Switch
- 2. PTO Switch
- 3. Seat
- 4. Fuel Level
- 5. Steering Levers (2)
- 6. Fuel Tank
- 7. Mower Lift Pedal
- 8. Mower Deck

- 9. Discharge Chute
- 10. Parking Brake Lever
- 11. Throttle Lever
- 12. Choke
- 13. Seat Adjustment Lever (Model 915246)
- 14. Height of Cut Selector Lever
- 15. Washout Port (Model 915246)

# 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

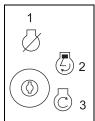


WARNING: Safety interlock failure and improper operation of unit can result in death or serious injury. Check system before each use to make sure it is functioning properly.

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

Test	Steering Lever	РТО	Parking Brake	Engine
1	Neutral Position Of		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 v	with engine running.		+ Operator lifts off	seat.

#### **Ignition Switch**



Operate ignition switch with a removable key. Ignition switch has three positions: Stop (1), Run (2), Start (3). See *Starting and Shutting Off Engine* on page 15 for detailed instructions on how to start engine.

#### Throttle



Fast (1) – Increases engine speed.

Slow (2) – Decreases engine speed.

#### Choke



Pull choke control out to start a cold engine.

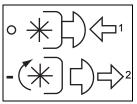
Push choke control in when engine is warm.

## Parking Brake Lever



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

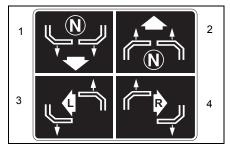
## Power Take-Off (PTO) Switch



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

#### **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.



**NOTICE:** To stop, return both steering levers to neutral.

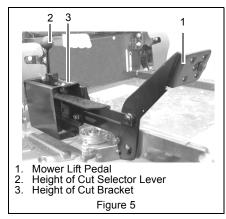
**NOTICE:** The steering levers must be in the neutral position to start the engine.

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

## Height of Cut

(Figure 5)

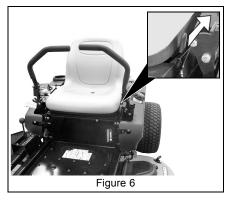
- 1. Press the mower lift pedal to raise the deck.
- 2. Position height of cut selector lever at the desired setting in the height of cut bracket.
- 3. Release mower lift pedal.



#### Seat Adjustment Model 915246

#### (Figure 6)

Push lever back and slide seat forward or backward to the desired position. Release lever to lock seat in position.



#### Seat Adjustment Model 915244

- 1. Tip the seat forward. See *Tipping Seat Forward* on page 19.
- Loosen mounting hardware and slide seat forward or backward to desired position. Tighten mounting hardware (figure 9).
- 3. Tip seat back.

# Washout Port

#### Model 915246

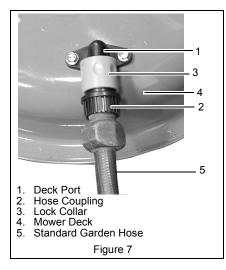
(Figure 7)



WARNING: A broken or missing deck port can result in exposure to harmful thrown objects or blade contact. Replace broken or missing deck port before using unit.

NEVER put your hands or feet under the mower or through openings in the mower.

**NOTICE:** Wash the underside of the mower after each use to prevent grass buildup and improve mulch action and clipping dispersal.



- 1. Park the unit on a level surface, within reach of hose and in a location where the dispersal of wet grass clippings is acceptable.
- 2. Disengage the PTO switch, shut off the engine, remove key, engage parking brake and allow unit to cool for at least 30 minutes.

**IMPORTANT:** Do not wash the unit with water when the unit is warm from operation. Water can seep into bearings and cause damage.

- Attach the hose coupling to a standard garden hose connected to a water supply.
- 4. Pull back the lock collar of the hose coupling and push the coupling onto the deck port until the coupling is tightly in place. Release the lock collar to lock the coupling to the deck port.

**NOTICE:** Apply petroleum jelly to washout fitting O-ring to allow the coupling to slide on easier and to protect the O-ring.

**NOTICE:** The coupling contains a valve that will not allow water flow unless coupling is attached to washout fitting. Water supply should be turned off before attaching coupling to the fitting.

- 5. Lower deck to lowest cutting height.
- 6. Turn the water supply on high.

**NOTICE:** If water leaks excessively from hose coupling onto top of deck, coupling may not be fully seated onto washout port. Turn off water supply and repeat steps 4 through 6. Use firm pressure while installing coupling onto washout port.



**WARNING:** When using the deck wash system, NEVER engage the deck from any position other than the operator's seat.

DO NOT engage deck in the presence of ANY bystander.

 From the operators seat, start the engine and engage the PTO. Allow unit to run as needed - typically 2 to 3 minutes.

**NOTICE:** Water spraying from discharge chute should change from green to clear when deck is clean.

- Disengage the PTO, turn off engine, remove key and wait for all moving parts to stop.
- 9. Turn the water supply off and remove coupling from the washout fitting.

**NOTICE:** If the mower deck is not clean after one washing, soak it and let stand for 30 minutes. Then repeat process.

10. After cleaning the mower deck, run the unit again for 2 to 3 minutes to remove access water.

#### Fuel Level



Slot in seat plate shows the fuel level in the tank. Refill when level reaches bottom of slot.

## FILLING FUEL TANK

**IMPORTANT: DO NOT OVERFILL!** 

To add fuel to the fuel tank:

- 1. Clean fuel cap and surrounding area to prevent dust, dirt and debris from entering fuel tank.
- 2. Remove fuel cap.

**IMPORTANT:** Refer to Engine Manual for correct type and grade of fuel.

3. Fill fuel tank to the bottom of filler neck. See *Specifications* on page 30 for fuel tank capacity. **IMPORTANT: DO NOT OVERFILL! This** equipment and/or its engine may include evaporative emissions control system components, required to meet EPA and/or CARB regulations, that will only function properly when the fuel tank has been filled to the recommended level. Overfilling may cause permanent damage to evaporative emissions control system components. Filling to the recommended level ensures a vapor gap required to allow for fuel expansion. Pay close attention while filling the fuel tank to ensure that the recommended fuel level inside the tank is not exceeded. Use a portable gasoline container with an appropriately sized dispensing spout when filling the tank. Do not use a funnel or other device that obstructs the view of the tank filling process.

- 4. Replace fuel cap and tighten.
- 5. ALWAYS clean up spilled fuel.

## GASOLINE

Use fresh unleaded fuel with an octane rating of at least 87. DO NOT use E85 blended fuels; the engine is not E20 / E30 / E85 compatible. The maximum recommended ethanol content is 10%.

**NOTICE:** All gasoline is not the same. If the engine experiences starting or performance problems after using a new gasoline, switch to a different fuel provider or fuel brand.

**IMPORTANT:** Excessively oxygenated or reformulated fuels (fuels blended with alcohols or ethers) can damage the fuel system or cause performance problems. If any undesirable operating problems occur, use a gasoline with a lower percentage of alcohol or ether.

#### Fuel Stabilizer

Gasoline left in the fuel system for extended periods without a stabilizer will deteriorate, resulting in gum deposits in the system. These deposits can damage the carburetor and the fuel hoses, filter and tank. Prevent deposits from forming in the fuel system during storage by adding a quality fuel stabilizer to the fuel. Follow the recommended mix ratio found on the fuel stabilizer container.

# STOPPING IN AN EMERGENCY



**WARNING:** Operating unit on slopes may lead to loss of steering control. When operating on slopes be prepared to react to an emergency situation.

- 1. Return steering levers to neutral position.
- 2. Immediately set parking brake.
- 3. Turn off PTO and engine.

**NOTE:** This unit is equipped with the return to neutral function. The control arms will automatically return gradually to neutral when released from the forward position.

#### STARTING AND SHUTTING OFF ENGINE

#### Starting the Engine

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

1. If the engine is cold, apply choke. If the engine is warm or hot, do not use choke. See on page 12.

**IMPORTANT:** DO NOT operate starter for more than 10 seconds per minute as damage can occur.

- 2. Turn ignition key to start position and release once the engine has started.
- 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. It will take 2 – 3 seconds for the blades to engage.

**NOTICE:** 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 properly remove 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.
- 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 one-third 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.

## MOVING UNIT MANUALLY

(Figure 8)

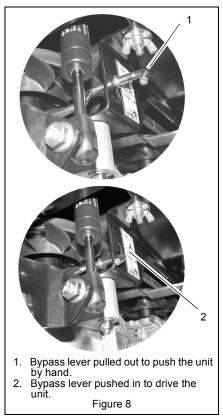


**WARNING:** DO NOT disengage or bypass transmission and coast downhill.

Pull the bypass lever out and lock it in place and then release the parking brake to push the unit by hand.

Push the bypass lever in to drive the unit normally.

**NOTICE:** There are two bypass levers (one on each side of the unit).



# 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.

**NOTICE:** To have full access to the engine, the seat must be tipped forward (see *Tipping Seat Forward* on page 19) and the hood opened (see *Mower Deck Removal and Installation* on page 19).

Interval	Task	Action			
	Check Safety Interlock System	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 12.			
	Check Parking Brake	Engage parking brake and engage transmission bypass lever. See <i>Moving Unit Manually</i> on page 16. Push unit. If unit rolls, contact your Gravely dealer.			
	Clean Unit	Clean engine, battery, seat, etc. of all dirt and debris. Do not use solvents, hard cleaners, or abrasives. For deck cleaning instructions, see <i>Washout Port</i> on page 13.			
		<b>NOTICE:</b> Protect painted surfaces with automotive type wax.			
Each Use		<b>IMPORTANT:</b> Do not spray the unit with water, especially when the unit is warm from operation.			
	Check	See Specifications on page 30 for correct tire pressure.			
	Tires	<ul> <li>CAUTION: Avoid injury! Explosive separation of tire and rim parts is possible when they are serviced incorrectly:</li> <li>Do not attempt to mount a tire without the proper equipment and experience to perform the job.</li> <li>Do not inflate the tires above the recommended pressure.</li> <li>Do not stand in front or over the tire assembly when inflating. Use a clip-on chuck and extension hose long enough to allow you to stand to one side.</li> </ul>			
	Check Mower Blades	Check for worn or damaged mower blades. See <i>Sharpening Mower Blade</i> on page 21.			
Each Use	Follow Engine Manual Mainten- ance Schedule	Perform scheduled engine maintenance. Refer to Engine Manual for detailed instructions. <b>NOTICE:</b> To drain the oil, remove oil drain cap and attach the oil drain hose, supplied in the lit pack, to the drain plug. Rotate the drain to the left to allow oil to drain. Turn the drain to the right to close. Oil Drain Plug			

Interval	Task	Action
	Check Battery	Keep battery and battery terminals clean. See <i>Cleaning Battery and Battery Cables</i> on page 24.
	<ol> <li>Apply grease to zerk (1) on each front wheel.</li> <li>Apply grease to quick adjust seat mechanism through slots (2) on bottom side of seat plate. Work grease into mechanism by sliding seat back and forth repeatedly.</li> </ol>	
25 Hours or Every Season		
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 values.
100 Hours or Every Season	Check All Belts	<ul> <li>Replace worn or deteriorated belts.</li> <li>Check hydrostatic belt. See <i>Replacing Hydrostatic Belt</i> on page 26 for hydrostatic belt location.</li> <li>Check PTO belt. See <i>Replacing PTO Belt</i> on page 25 for PTO belt location.</li> </ul>

# SERVICE AND ADJUSTMENTS

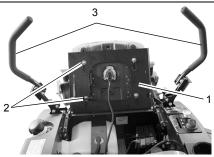


**WARNING:** AVOID INJURY. Read and understand the entire *Safety* section before proceeding.

## TIPPING SEAT FORWARD

#### (Figure 9)

Move steering levers to neutral position and rotate handles outward. Tip seat forward.



- 1. Seat Tipped Forward
- 2. Mounting Hardware
- 3. Steering Levers

# MOWER DECK REMOVAL AND INSTALLATION

#### Remove

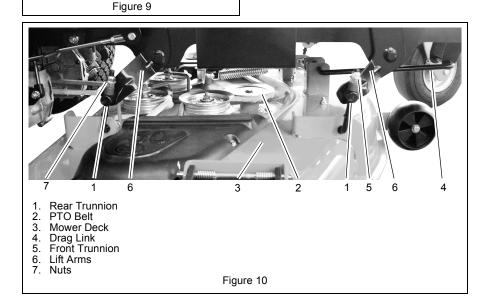
(Figure 10)

- 1. Remove PTO belt from the engine drive pulley. See *Replacing PTO Belt* on page 25.
- 2. Disconnect drag link from the front deck bracket.
- 3. Disconnect front and rear trunnions from the lift arms on both sides of the unit by removing the 3/8" nuts. Keep hardware for reinstallation.
- 4. Slide mower deck out from under unit.

#### Install

#### (Figure 10)

- 1. Slide mower deck under unit.
- 2. Connect drag link to front deck bracket.
- Connect front and rear trunnions to the lift arms on both sides of the unit using 3/8" nuts.
- Install PTO belt on the engine drive pulley. See *Replacing PTO Belt* on page 25.
- Level and adjust pitch of mower deck. See Leveling and Adjusting Pitch of Mower Deck on page 20.



### LEVELING AND ADJUSTING PITCH OF MOWER DECK

Pitch is the difference in blade height from front to back or from side to side.

Adjust on a level surface with the tires inflated to the correct air pressure. See Specifications on page 30.

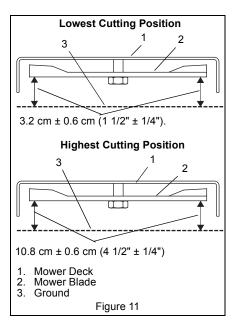
Three measurements are required to level and adjust the pitch of the mower deck:

- 1. The distance from the mower blades to the ground.
- 2. The forward pitch of the mower blades.
- 3. The side-to-side pitch of the mower blades.

# The Distance From The Mower Blades To The Ground

(Figure 11)

- In the lowest cutting position should be 3.2 cm ± 0.6 cm (1 1/2" ± 1/4").
- In the highest cutting position should be 10.8 cm ± 0.6 cm (4 1/2" ± 1/4").



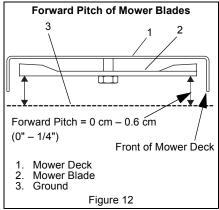
# The Forward Pitch Of The Mower Blades

(Figure 12)

•

Front tip of blades should be 0 cm - 0.6 cm (0" - 1/4") lower than the rear of the blades.

**NOTICE:** This measurement must be taken when the mower blade ends point forward.

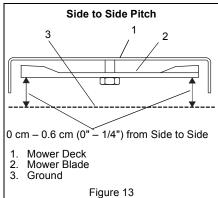


# The Pitch Of The Mower Blades From Side To Side

(Figure 13)

 Should be within 0 cm – 0.6 cm (0" – 1/4") as measured on each side of the mower deck.

**NOTICE:** This measurement must be taken when the mower blade ends point left and right.



#### Adjusting The Mower Deck To Adjust Mower Blade Height And Pitch

(Figure 14)

**NOTICE:** Adjusting the mower deck will adjust the height and pitch of the mower blades.

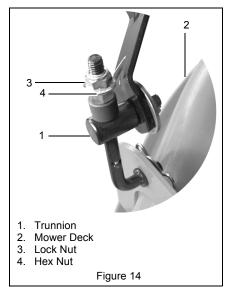
- Adjust the trunnions first and re-take the three measurements required to level and adjust the pitch of the mower deck. These measurements are:
  - a. The distance from the mower blades to the ground.
  - b. The forward pitch of the mower blades.
  - c. The pitch of the mower blades from side to side.

Adjust Trunnions:

1. Using an adjustable or open ended wrench tighten or loosen the lock nut on top.

**NOTICE:** To avoid over-adjustment note which nuts have been adjusted and the amount each has been loosened or tightened.

- 2. Using the same tool, tighten the bottom hex nut to raise the deck OR loosen the bottom hex nut to lower the deck.
- 3. Tighten the lock nut on top to secure the link in the desired location.
- 4. Repeat step 1 as needed until all three measurements (a, b, and c) are within the tolerances specified.



# **REPLACING MOWER BLADE**

#### Remove

(Figure 15)



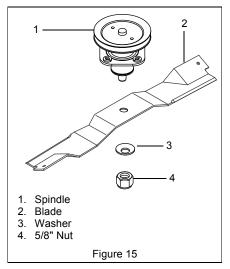
**CAUTION:** Mower blades are sharp and can cut you. Wrap the blades or wear gloves and use extra caution when servicing them.

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

#### Install

(Figure 15)

- 1. Install mower blades on spindles with mounting hardware.
- Torque 5/8" nut to 136 N•m to 163 N•m (100 lb-ft – 120 lb-ft).



# 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 21.

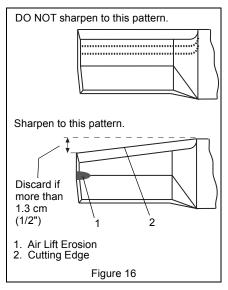
Gravely recommends having mower blades sharpened by a professional. Contact your Gravely dealer.

Discard mower blade if (Figure 16):

- more than 1.3 cm (1/2") 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.
- 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 21.



# SERVICING YOUR BATTERY

**NOTICE:** 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.

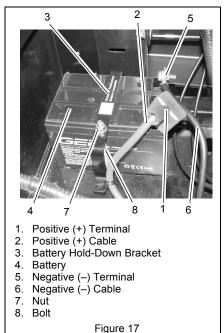
### FACTORY-INSTALLED BATTERY REMOVAL AND INSTALLATION

## Remove Factory-Installed Battery

(Figure 17)

- 1. Lower deck to the lowest cutting height.
- 2. Tip seat forward. See *Tipping Seat Forward* on page 19.
- 3. Disconnect negative (–) cable first, then positive (+) cable.

**NOTICE:** Do not cut cable tie securing positive cable to battery hold-down bracket unless installing U1 battery.



4. Remove nut and bolt securing battery hold down bracket. Save for reinstallation.

**NOTICE:** The bolt securing the battery is mounted through the underside of the frame. Place hand beneath frame to catch loose bolt

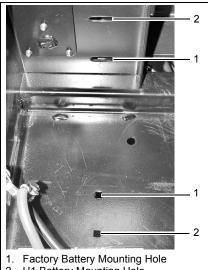
5. Remove battery from unit.

#### Install Factory-Installed Battery

(Figure 17)

- 1. Tip seat forward. See Tipping Seat Forward on page 19.
- 2. Set battery inside the frame, underneath the seat with battery terminals positioned as shown (Figure 17).
- 3. Place battery hold down bracket on top of the battery. Hook the curved end of the bracket in the lower mounting hole in the wall of the frame (Figure 18).
- 4. Position bolt through the mounting hole nearest to the battery and through mounting bracket. Secure with nut.

**IMPORTANT:** Tighten nut until batterv is secure and will not move or rattle during operation. DO NOT overtighten.



2. U1 Battery Mounting Hole

Figure 18

- 5. Connect positive (+) cable first, then negative (-) cable.
- 6. Apply petroleum jelly or dielectric grease to battery cable ends and terminals.
- 7. Tip seat back. See Tipping Seat Forward on page 19.

#### **U1 Battery Installation**

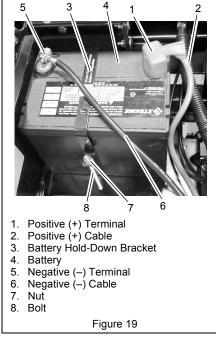
(Figures 18 and 19)

1. Remove factory battery. See Remove Factory-Installed Battery on page 22.

NOTICE: Be sure to cut cable tie connecting positive battery cable to battery hold down bracket.

- 2. Set battery inside the frame, underneath the seat with terminals positioned as shown (Figure 19).
- 3. Place battery hold down bracket on top of the battery. Attach the curved end of the bracket in the upper mounting hole in the wall of the frame (Figure 18).
- 4. Position bolt through the mounting hole nearest to the battery and through mounting bracket. Secure with nut.

**IMPORTANT:** Tighten nut until battery is secure and will not move or rattle in the frame



- 5. Connect positive (+) cable first, then negative (-) cable.
- 6. Apply petroleum jelly or dielectric grease to battery cable ends and terminals.
- 7. Tip seat back. See Tipping Seat Forward on page 19.

## **Cleaning Battery and Battery Cables**

(Figure 17)

- 1. Tip seat forward. See *Tipping Seat Forward* on page 19.
- 2. Disconnect negative (–) cable first, then positive (+) cable.
- Clean battery cable ends, negative (–) terminal, and positive (+) terminal with a wire brush and rinse with a weak baking soda solution.
- 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 19.

## Charging the Battery

(Figure 17)



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

**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.

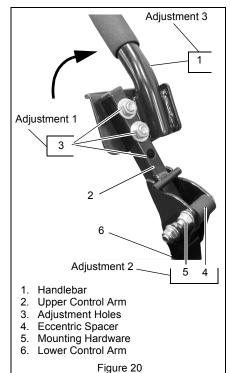
- 1. Remove battery from unit. See Factory-Installed Battery Removal and Installation on page 22.
- 2. Place battery in a well-ventilated area.
- Connect positive (+) lead of charger to positive (+) terminal, and negative (-) lead of charger to negative (-) terminal.
- Charge battery according to battery charger and battery manufacturers' instructions.
- 5. Install battery on unit. See Factory-Installed Battery Removal and Installation on page 22.

#### 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

(Figure 20)



**IMPORTANT:** Adjust each steering lever equally.

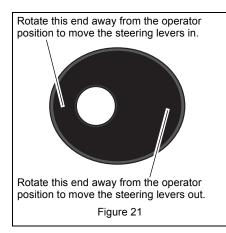
**NOTICE:** When adjusting steering levers for the first time it is recommended that you make adjustments in the following order.

#### 1. Adjust Steering Lever Height

- 1. Remove mounting hardware that attaches the handlebars to the upper control arm. Move handlebar up or down until the handlebar mounting holes are aligned with the preferred adjustment holes.
- 2. Install mounting hardware and tighten.

#### 2. Adjust Steering Lever Width

- 1. Loosen hardware at the base of the lower control arm (item 5).
- 2. Rotate eccentric spacer to move the levers away from or closer to the operators position (figure 21).
- 3. Tighten hardware.



#### 3. Adjust Steering Lever Forward or Backward

- 1. Loosen, do not remove, the bolts securing the handlebar to the upper control arm.
- 2. Rotate steering lever forward or backward to desired position and tighten bolts

NOTICE: Tighten upper bolt first.

#### Forward Speed Adjustment

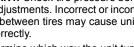
#### (Figure 22)

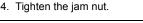
The travel of the steering levers may need adjustment if the unit turns to the right or left when both steering levers are pushed as far forward as possible. The unit should track within 0.6 m (2') of a straight line for 9.1 m (30').

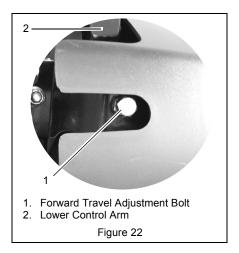
The side the unit turns toward indicates that the drive wheel on that side is turning slower than the opposite drive wheel. Either the wheel that is turning faster needs to slow down or the wheel that is turning slower needs to speed up to allow the unit to travel in a straight line.

**IMPORTANT:** Check tire pressure before making adjustments. Incorrect or inconsistent pressure between tires may cause unit to track incorrectly.

- 1. Determine which way the unit turns.
- Loosen jam nut on the adjustment bolt.
- 3. Adjust speed by:
  - Turning adjustment bolt clockwise to decrease steering lever travel.
- Turning adjustment bolt counterclockwise to increase steering lever travel.







NOTICE: Reverse speed cannot be adjusted. If unit tracks excessively left or right in reverse, see your dealer for repair.

# REPLACING PTO BELT

#### Remove

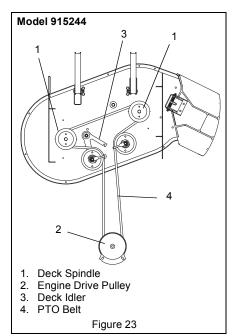
(Figure 23)

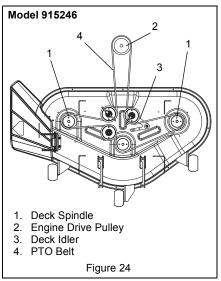
- 1. Lower mower deck to the ground.
- 2. Remove belt covers from mower deck.



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

- 3. Rotate idler arm clockwise until tension is removed from PTO belt.
- 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 engine drive pulley.





## Install

(Figure 23)

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

1. Install PTO belt on engine drive pulley and mower deck.

- 2. Rotate idler arm clockwise 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.

**NOTICE:** Ensure that belt is still positioned in the groove of the sheaves after belt covers are installed.

## REPLACING HYDROSTATIC BELT

## Remove

(Figure 25)

1. Remove PTO belt. See *Replacing PTO Belt* on page 25.



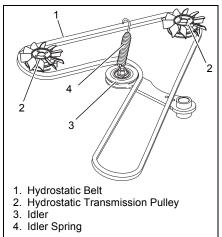
**CAUTION:** Use care when releasing idler spring tension. Keep body parts well away from idler when performing this operation.

- 2. Disconnect idler spring.
- 3. Remove hydrostatic belt from hydrostatic transmission pulleys, drive pulley and idler.

#### Install

(Figure 25)

- 1. Install hydrostatic belt on idler, drive pulley and hydrostatic transmission pulleys.
- 2. Connect idler spring.
- 3. Install PTO belt. See *Replacing PTO Belt* on page 25.



#### Figure 25

# STORAGE

#### Short Term Storage

**IMPORTANT:** NEVER clean unit with highpressure 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.

Refer to Engine Manual for the proper engine storage procedures.

Touch up all scratched or chipped paint surfaces.

#### Fuel System

Gasoline left in the fuel system for extended periods without a stabilizer will deteriorate, resulting in gum deposits in the system. These deposits can damage the carburetor and the fuel hoses, filter and tank. Prevent deposits from forming in the fuel system during storage by adding a quality fuel stabilizer to the fuel. Follow the recommended mix ratio found on the fuel stabilizer container.

**IMPORTANT:** NEVER store the engine with fuel in the fuel tank inside of a building with potential sources of ignition.

#### Add Fuel Stabilizer

- 1. Drain fuel from fuel tank.
- Allow the engine to run until it stops. Turn engine OFF when it begins surging to avoid engine damage.
- 3. Add fuel stabilizer to fuel, following the manufacturer's instructions. See SERVICE PARTS on page 29.
- 4. Pour fuel into the tank.
- 5. Re-start engine.
- Run the engine outdoors for 1 to 2 minutes to be sure that treated gasoline has replaced the untreated gasoline in the carburetor.
- 7. Slow the engine to an idle speed.
- 8. Repeat step 2.

# TROUBLESHOOTING

PROBLEM	PROBABLE CAUSE		CORRECTION	
	1.	Safety interlock system is not engaged or is faulty.	1.	Check safety interlock system. See Safety Interlock System on page 12.
	2.	Fuel tank is empty.	2.	Fill fuel tank. See <i>Filling Fuel Tank</i> on page 14.
	3.	Discharged battery.	3.	Charge battery. See <i>Charging the Battery</i> on page 24.
Engine will not crank/start.	4.	Poor connection between battery and battery cables.	4.	Tighten battery cables and/or clean battery and battery cables. See <i>Cleaning Battery and Battery Cables</i> on page 24.
	5.	Spark plug wire(s) loose or spark plug(s) faulty.	5.	Connect spark plug wire(s) or replace spark plug(s). Refer to Engine Manual for detailed instructions.
	6.	Faulty electrical system.	6.	Contact your Gravely dealer.
	7.	Faulty engine.	7.	Contact your Gravely dealer.
	1.	Choke engaged.	1.	Disengage choke.
Engine runs rough.	2.	Air filter cartridge plugged.	2.	Clean or replace air filter cartridge. Refer to Engine Manual for detailed instructions.
	3.	Faulty engine.	3.	Contact your Gravely dealer.
Unit does not move with	1.	The transmission bypass lever is engaged.	1.	Disengage transmission bypass lever. See <i>Moving Unit Manually</i> on page 16.
engine running when using steering levers.	2.	Faulty hydrostatic belt.	2.	Replace hydrostatic belt. See Replacing Hydrostatic Belt on page 26.
otooning lovero.	3.	Faulty transmission.	3.	Contact your Gravely dealer.
	1.	Operator presence switch not depressed.	1.	Depress operator presence switch by sitting on seat.
PTO or mower blades do not	2.	Faulty operator presence switch.	2.	Contact your Gravely dealer.
engage or shut off.	3.	Faulty PTO belt.	3.	Replace PTO belt. See <i>Replacing PTO Belt</i> on page 25.
	4.	Faulty PTO switch, wires, connectors, or clutch.	4.	Contact your Gravely dealer.
	1.	Engine oil level low.	1.	Add engine oil. Refer to Engine Manual for detailed instructions.
Engine overheats.	2.	Cooling system plugged.	2.	Clean cooling system. Refer to Engine Manual for detailed instructions.
	3.	Faulty engine.	3.	Contact your Gravely dealer.
Unit moves with engine off and	1.	The parking brake needs adjustment.	1.	Contact your Gravely dealer.
parking brake engaged.	2.	Faulty parking brake.	2.	Contact your Gravely dealer.

PROBLEM	PROBABLE CAUSE	CORRECTION	
	1. Incorrect tire pressure.	1. Check tire pressure. See Specifications on page 30.	
Unit does not travel in a	<ol> <li>Steering levers need adjustment.</li> </ol>	<ol> <li>Adjust steering levers. See Forward Speed Adjustment on page 25.</li> </ol>	
straight line.	<ol> <li>Hydrostatic transmission and/or linkage needs adjustment.</li> </ol>	3. Contact your Gravely dealer.	
Unit creeps with steering levers in neutral position. 1. Hydrostatic transmission and/ linkage needs adjustment.		1. Contact your Gravely dealer.	
Poor outting	<ol> <li>Mower deck not level or mower pitch is incorrect.</li> </ol>	<ol> <li>Level and adjust pitch of mower deck. See Leveling and Adjusting Pitch of Mower Deck on page 20.</li> </ol>	
Poor cutting quality.	<ol> <li>Dull or faulty mower blades.</li> </ol>	2. Sharpen mower blades (see Sharpening Mower Blade on page 21) or replace mower blades (see Replacing Mower Blade on page 21).	

	SERVICE PARTS				
	Be sure to always use genuine Gravely parts				
	ur unit running like new.				
Part No.	Description				
51519500	34-Inch Spindle Assembly				
51520900	42-Inch Spindle Assembly				
07100124	Front Wheel				
07200116	34-Inch Deck Belt				
07200010	HA Raw Laminated Belt –				
	Hydraulic Drive				
03971900	34-Inch Mower Blade				
03797300	34-Inch Mulching Blade				
04265400	42-Inch Mower Blade				
07200523	42-Inch Deck Belt				
	Fuel Stabilizer – 118 ml (4 oz)				
04730300	Except Canada				
04742400	For Canada Only				
21500009	Spark Plug				
21541500	Fuel Filter				
21541400	Oil Filter				
21555500	Air Filter				

	ACCESSORIES
	uthorized Gravely dealer to add
these optic	onal accessories to your unit.
Part No.	Description
71503300	36-Inch Roller
71503400	48-Inch Dethatcher
71503600	Spreader
71508200	48-Inch Aerator
71510800	34-Inch Mulch Kit
71510900	Trailer Hitch Kit
71513000	Washout Port Kit (Model 915244)
81513400	34-Inch Non-Powered Bagger
81514200	42-Inch Non-Powered Bagger
71513100	42-Inch Mulch Kit
	•

SPECI	FICATIONS		
Model Number	915244	915246	
Model	ZT 34	ZT 42	
Engine			
Туре	Kohler 60	00 Series	
Engine Displacement -cm <sup>3</sup> (in <sup>3</sup> )	660 (	(40:3)	
Maximum RPM - No Load	3600 +	0 / - 100	
Drive			
Forward Max km/h (mph)	9.6	(6.0)	
Reverse Max km/h (mph)	4.8	(3.0)	
Turning Radius	Ze	ero	
Brakes	Internal Tra	ansmission	
Transmission	Hydrosta	atic Drive	
Electrical			
Starter	Ele	ctric	
Battery	12V Maintenanc	e Free 190 CCA	
PTO	Electric	c Clutch	
Fuel			
Fuel Type	Refer to Engine Manual		
Fuel Tank Capacity - L (gal)	7.5	(2.0)	
Size and Weight			
Length - cm (in)		1 (65)	
Width - cm (in)	114.3 (45)	137.2 (54)	
Weight - kg (lbs)	202 (446)	225 (495)	
Height - cm (in)	102	(40)	
Tires			
Front Tire Size - in		4.5	
Rear Tire Size - in	18 x 6.5-8	18 x 8.5-8	
Front Tire Pressure - kPa (psi)	317 (46)		
Rear Tire Pressure - kPa (psi)	69.0 (10.0)		
Mower Deck			
Cutting Height - cm (in)		(1.5 - 4.5)	
Cutting Width - cm (in)			
Max. Towing Capacity - kg (lbs)	136 (300)		
Max Tongue Weight - kg (lbs)	13.6 (30)		



AriensCo warrants to the **original purchaser** that Gravely brand products purchased on or after 3/16/2018 will be free from defects in material and workmanship for the time period noted in the chart below. Equipment put to personal use around a single household or residence is considered "Residential Use." Equipment put to any business use (agricultural, commercial, or industrial) or used at multiple locations is considered "Commercial Use." If any product is rented or leased, then the duration of these warranties shall be 90 days after the date of purchase.

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 (labor and parts) to the original purchaser; except as noted below. Pick-up and delivery are at the owner's expense.

The warranty code is found on the model and serial number identification label on the unit.

Warranty Code	Product Group	Warranty Period				
	Products Purchased Prior to 3/16/2018					
CA	Pro-Turn 100, Pro-Turn 200, Compact-Pro, Pro-Stance and Pro-Walk Mowers	3 Years Residential Use. 2 Years Commercial Use.				
CD	Pro-Turn 400 Mowers	3 Years Residential Use. 3 Years Commercial Use (Years 1 & 2: Parts & Labor, Year 3: Parts Only).				
CF	Pro-Turn Mowers	3 Years Residential Use. 2 Years or 1000 Hours* Commercial Use.				
CG	Pro-QXT, Two-wheel Tractors	2 Years.				
	Products Purchas	ed on or After 3/16/2018				
СН	Pro-Turn Z and Pro-Turn ZX Mowers	4 Years or 750 Hours.*				
CG,CJ	Pro-QXT	4 Years or 500 Hours.*				
CA, CK	Compact-Pro and Pro-Walk Hydro Mowers	4 Years or 750 Hours.* No Hour Limit for First 2 Years.				
CA, CL	Pro-Turn 100 and Pro-Stance Mowers	5 Years or 1000 Hours.* No Hour Limit for First 2 Years.				
CA, CM	Pro-Turn 200 Mowers	5 Years or 1250 Hours.* No Hour Limit for First 2 Years				
CD, CN	Pro-Turn 400 Mowers	5 Years or 1500 Hours.* No Hour Limit for First 2 Years				
CO	Pro-Walk Gear Mowers	2 Years.				
CP	Pro-Turn Mowers	4 Years or 1000 Hours.*				
	Products Not Affected by Purchase Date					
AA	Serialized Attachments	1 Year.				
AB	Serialized Attachments	2 Years.				
HA	ZT, ZT-X and ZT-XL Mowers	3 Years Residential Use. 90 Days Commercial Use.				
HB	ZT-HD Mowers	3 Years Residential Use. 1 Year Commercial Use.				
UG	Atlas JSV	1 Year.				

\* Whichever comes first.



#### Special Extensions

The chart below details special **extensions** to warranty terms. Warranty terms are total time periods covered. If any product is rented or leased, there are no extensions to the 90-day warranty.

Warranty Code	Warranty Term Extension	Warranty Period	Detail
CA, CD, CL, CM, CN, CO	Mower Deck Shell and Main Frame	Lifetime Limited for Residential and Commercial Use.	Warranty is for parts only after the initial warranty period. Components are covered for manufacturer's defect only, not wear.
CH	Gravely V-Twin Engine	4 Years or 500 Hours* for Residential and Commercial Use	
HA, HB	Mower Deck Shell and Main Frame	5 Years Limited Residential Use. No Commercial Warranty.	Years 1 – 3 parts and labor. Years 4 – 5 parts only.

\* Whichever comes first.

#### Exclusions and Limitations

The charts below detail special exclusions and limitations to this warranty.

Warranty Term Exclusions	Warranty Period
Air filters, brake arms, brake linings, brake shoes, brushes, cutters, fuel filters, headlights, knives, light bulbs, lubricants, mower blades, oil, oil filters, spark plugs, scraper blades, shear bolts, skid shoes and spoon tines.	Components are not covered under warranty.

#### Hydro-Gear Transaxle Limitation

See Hydro-Gear warranty. The warranty is administrated by AriensCo.

Warranty Term Limitations	Warranty Period
Cloth, Plastic and Rubber Components. Mufflers, Tires, Belts and Cables.	2 Years Residential Use. No Commercial Warranty. Components are covered for manufacturer's defect only, not wear.

#### Exclusions – Items Not Covered by This Warranty

- Parts that are not genuine Gravely service parts are not covered by this warranty and may void the warranty if the parts result in premature wear or damage to the product.
- Damages resulting from the installation or use of any part, accessory, or attachment which is not approved by the AriensCo for use with product(s) identified herein are not covered by this warranty.
- Any misuse, alteration, improper assembly, improper adjustment, neglect, or accident which requires repair is not covered by this warranty.
- Repairs or adjustments required due to failure to use fresh fuel or failure to properly prepare the unit for periods of non-use.
- Use of gasoline blends exceeding 10% ethanol voids any and all warranties.
- Products are designed to the specifications in the area that the product was originally distributed. Different areas may have significantly different legal and design requirements. This warranty is limited to the requirements in the area in which the unit was originally distributed. AriensCo does not warrant this product to the requirements of any other area. Warranty service is limited to service within the area originally distributed.
- In countries other than the United States and Canada, contact the AriensCo dealer for warranty policies that govern within your country. Rights may vary from country to country and within any one country.

#### Evaporative Emissions Control Warranty Exception

As required by the California Air Resources Board (CARB) and the US Environmental Protection Agency (EPA) the evaporative emissions control system is warranted to the ultimate purchaser, and any subsequent owner, for two years.

The CARB and EPA evaporative emissions control system warranty is described in a separate evaporative emission control warranty statement.



#### Special Exclusions for Job-site Vehicles

The following uses void the warranty terms on Atlas JSV (Warranty Code UG) vehicles:

- Renting or leasing the vehicle.
- · Using the vehicle to tow or carry loads in excess of the limits specified in the operator's manual.
- Modifying the vehicle with parts and accessories that are not genuine or authorized Gravely parts or accessories.
- Modifying the vehicle without express written authorization from Gravely.
- Operating the vehicle when it has not been completely and properly assembled and pre-delivered by an authorized Gravely dealer.

#### Pro-Rated Battery Warranty

Battery warranty is pro rated for one year and is based on the total cost for battery replacement. Units used for rental or lease have no exceptions to the 90-day warranty. Total battery reimbursement will not exceed 45.00 USD.

Months	% Coverage	Ι Γ	Months	% Coverage	Ī	Months	% Coverage
1 – 3 4 5	100 75 66.6		6 7 8	58.3 50.0 41.6		9 10 11 12	33.3 25.0 16.6 8.3

#### Engines

The chart below details engine warranty information. Engine warranty terms may vary from the specific terms of this warranty. If inconsistent, the terms of the engine warranty shall apply to the engine and its component parts.

Engine Manufacturer	Detail	
	Gravely- and Yamaha-branded engines are warranted by	
Yamaha	manufacturer and the warranty is administrated by AriensCo. Refer to the engine manual for warranty statements.	
Briggs & Stratton, Kawasaki, Kohler, Subaru	Covered by the engine manufacturer's warranty. Refer to the engine manufacturer's warranty statements.	

#### Parts and Accessories

Service replacement parts and non-serialized accessories are warranted for 90 days from date of purchase. Parts and accessories must be installed by an authorized Gravely dealer to be covered. Labor is not included.

#### Customer Responsibilities

Register the product immediately at the time of sale. If the dealer does not register the product, the customer must register the unit on-line at www.gravely.com.

To obtain warranty service, the **original purchaser** must:

- Ensure that the maintenance and adjustments explained in the Operator's Manual are routinely completed.
- Promptly notify AriensCo or an authorized Gravely service representative of the need for warranty service.
- Transport the product to and from the place of warranty service at owner's expense.
- · Have the warranty service performed by an authorized Gravely service representative.

To find an authorized dealer use the dealer locator on our websites, or contact us by mail or phone.

Globally except Australia or New Zealand:	Australia:	New Zealand:
AriensCo 655 W. Ryan Street Brillion, WI 54110 Phone: (920) 756 - 4688 www.gravely.com	Masport Australia Pty Ltd 27 Commercial Drive Dandenong South Victoria 3175 Australia Phone: 1300 366 225 www.masport.com.au	Masport Ltd 1-37 Mt. Wellington Highway, Panmure, Auckland 1060 New Zealand Phone: 0800 627 7678 www.masport.co.nz



#### Disclaimer

AriensCo may from time to time change the design of its products. Nothing contained in this warranty shall be construed as obligating the AriensCo 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

AriensCo 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. AriensCo 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.

#### Australian Consumer Law

The following applies solely to warranties subject to Subsection 102(1) of the Australian Consumer Law: Our goods come with guarantees that cannot be excluded by the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and failure does not amount to a major failure.

#### Disclaimer of Further Warranty

AriensCo 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 AriensCo 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.

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





655 West Ryan Street Brillion, WI 54110

www.gravely.com

## WARNING

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



