ZT™

Operator's Manual
Manuel de l'utilisateur

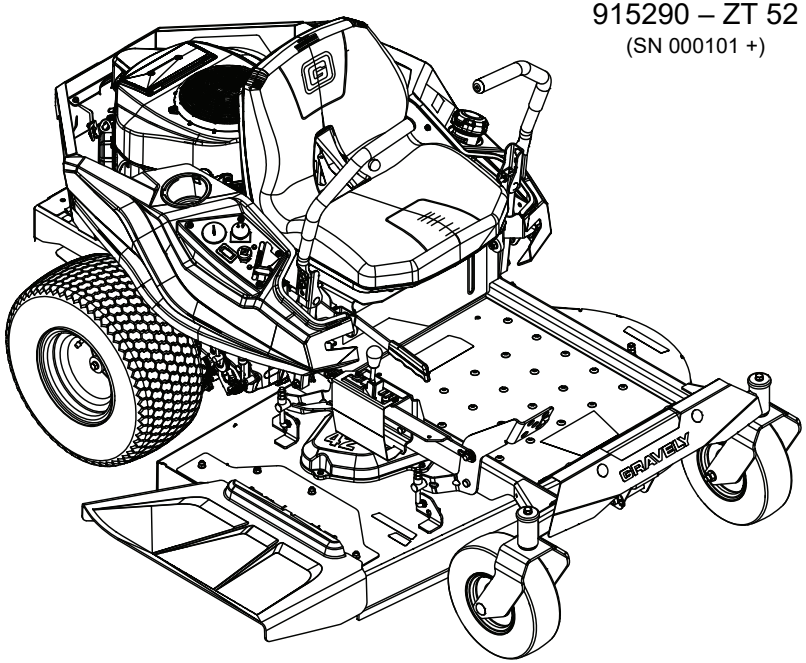
GRAVELY

Models

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TABLE OF CONTENTS

WELCOME 1
Register Your Product!. 1
SAFETY. 2
Practices & Laws 2
Emission Control System. 2
Required Operator Training 2
Safety Alert Symbol 2
Signal Words 2
Safety Decals. 3
Safety instructions 6
ASSEMBLY. 9
CONTROLS AND FEATURES 10
Ignition Key 11
Choke Control Knob. 11
Throttle Control Lever 11
Power-Take-Off (PTO) Knob 11
Hour Meter. 11
Height-of-Cut Adjustment System 12
Deck Lift Pedal. 12
Seat Adjustment Lever. 12
Parking Brake Lever 12
Safety Interlock System 12
Steering Levers 12
Transaxle Bypass Levers. 12
OPERATION 13
Emergency Stopping 13
Before Operating Unit 13
Start the Engine 13
Operate Unit. 13
Stop the Engine 14
Move Unit Manually 14
Transport Unit 15
MAINTENANCE 15
Maintenance Schedule 15
Service Parts 16
Service Position 16
Check Safety Interlock System 17
Check Parking Brake 17
Check Engine Oil 17
Check Tire Pressure 17
Check Fasteners 17
Lubricate Unit. 17
Check Mower Blades. 18
Check Battery 18
Check Mower Belts 18
ADJUSTMENTS 18
Adjust Seat 18
Adjust Steering Levers. 18
TROUBLESHOOTING 20
STORAGE. 22
Short-Term Storage. 22
Long-Term Storage 22
Start-of-Season Preparation 22
ACCESSORIES. 22
SPECIFICATIONS. 23
WARRANTY 24

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.

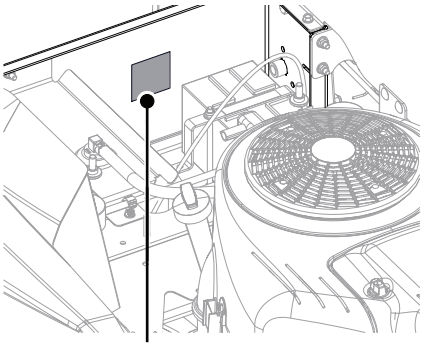
Have Questions or Need Assistance?
www.gravely.com

A parts manual and service 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.



Model & Serial Number Decal

Figure 1

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 Gravely dealer or an authorized engine manufacturer's service center. Contact your Gravely 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.

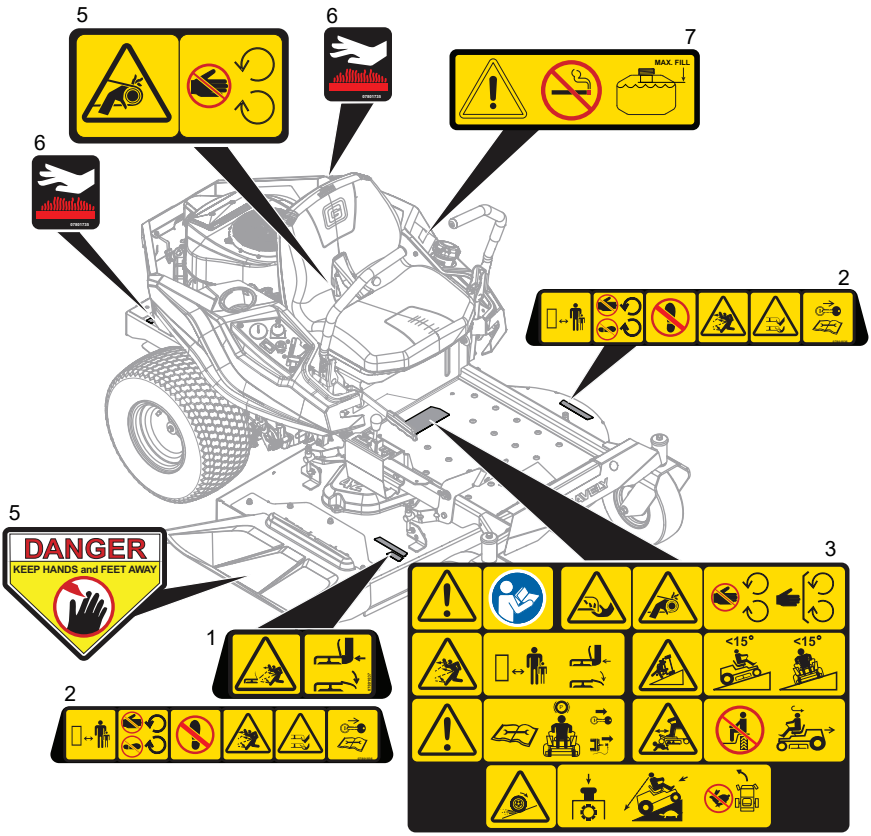


Figure 2

Safety Decal Descriptions

1. DANGER!



Discharge Hazard - NEVER operate unit without discharge chute in operating position. 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!



DANGER!



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

3. 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. Discharge Hazard



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.



Keep children and people away from unit during operation.

3. Tipping Hazard



Avoid tipping hazard.



DO NOT operate on slopes over 15°.



DO NOT operate on slopes over 15°.

3. Service Hazard



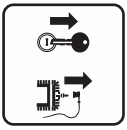
Before servicing unit do the following:



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. Bystander Hazard



DO NOT operate the unit in the presence of bystanders.



DO NOT carry passengers.

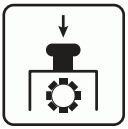


Look behind when operating the unit in reverse.

3. 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!



ALWAYS keep hands and feet away from discharge chute.

6. HOT PARTS!



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

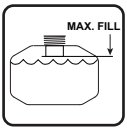
7. CAUTION!



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 spilled fuel.

SAFETY INSTRUCTIONS

The following safety instructions are based on B71.1, B71.4 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.gravely.com.

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 *Safety* section before proceeding.

1. Remove wrap and packaging materials from unit.
2. Remove unit from shipping container. See *Move Unit Manually* on page 14.
3. Place discharge chute in the operating position. See Figure 3.

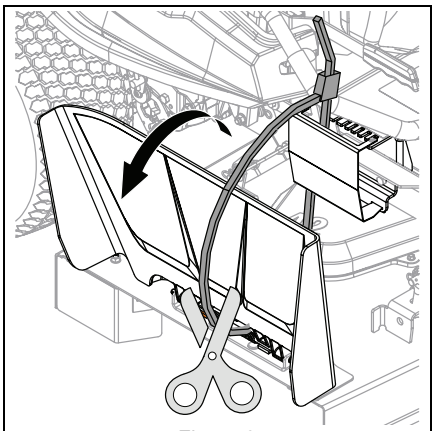


Figure 3

4. Remove hardware from negative (-) battery cable, but DO NOT discard.
5. Secure negative (-) battery cable to negative (-) battery terminal with hardware removed in step 4. See Figure 4.

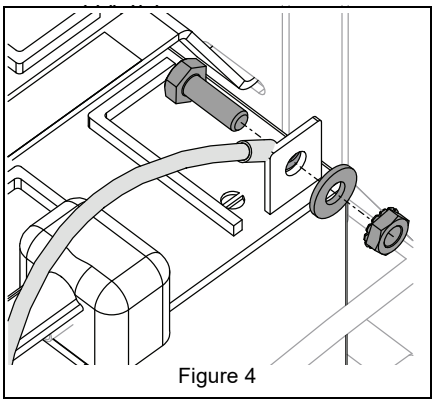


Figure 4

6. Loosen lower mounting hardware on steering levers.
7. Remove and retain upper mounting hardware from steering levers.
8. Rotate steering levers rearward to align upper holes with holes in pivot arm and reinstall hardware. DO NOT fully tighten hardware yet. See Figure 5.

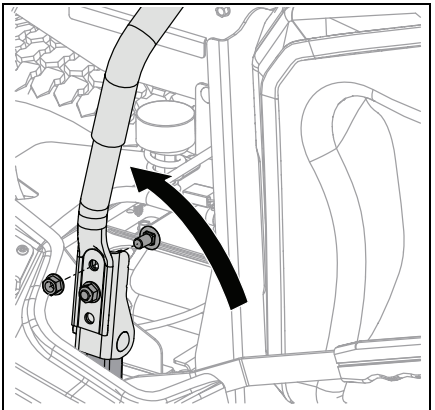


Figure 5

See Figure 6.

9. Rotate steering levers outward.
10. Return seat to operating position.

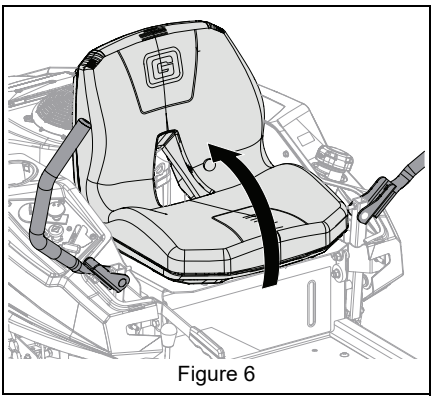


Figure 6

11. Adjust steering levers. Ensure levers are aligned. See *Adjust Steering Levers* on page 18.
12. Tighten steering lever hardware.
13. Check tire pressures and inflate to recommendation. See *Check Tire Pressure* on page 17. See *Specifications* on page 23.
14. Ensure all hardware is tight.

CONTROLS AND FEATURES

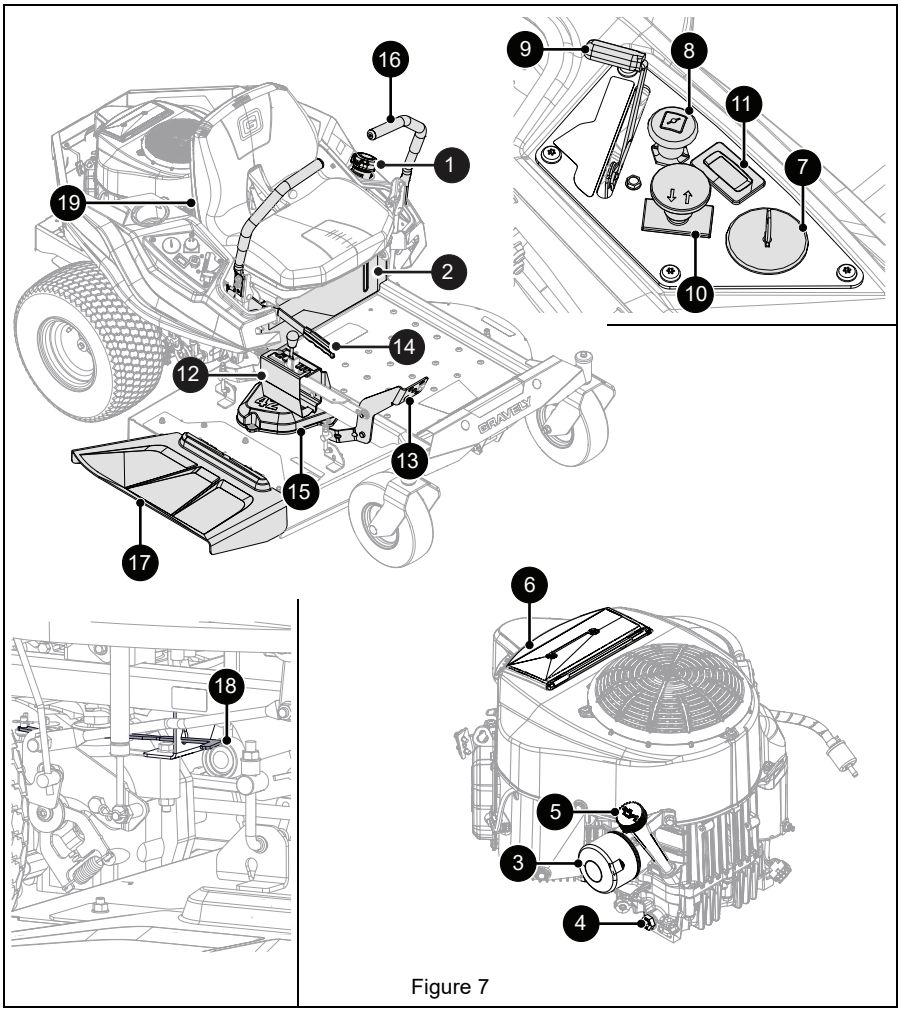


Figure 7

1. Fuel Tank and Cap
2. Fuel Level Window
3. Oil Filter
4. Oil Drain
5. Engine Oil Dipstick
6. Air Filter
7. Ignition Key
8. Choke Control Knob
9. Throttle Control Lever
10. Power Take-off (PTO) Knob
11. Hour Meter
12. Height-of-Cut Adjustment System
13. Deck Lift Pedal
14. Parking Brake Lever
15. Belt Cover (2)
16. Steering Lever (2)
17. Discharge Chute
18. Transaxle Bypass Lever (2)
19. Battery (Under Seat)

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

See Figure 7 for all controls and features locations.

IGNITION KEY

See Figure 8.

Controls power to the engine. The key cannot be removed when in run position.

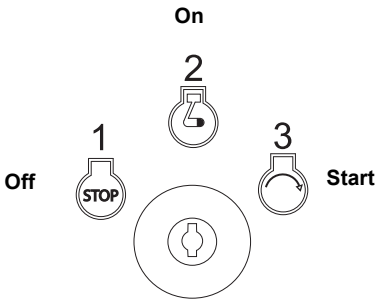


Figure 8

CHOKE CONTROL KNOB

See Figure 9.

Controls airflow to the engine.

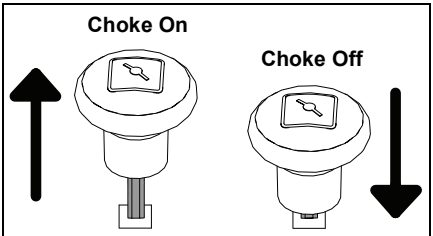


Figure 9

THROTTLE CONTROL LEVER

See Figure 10.

Controls engine speed.

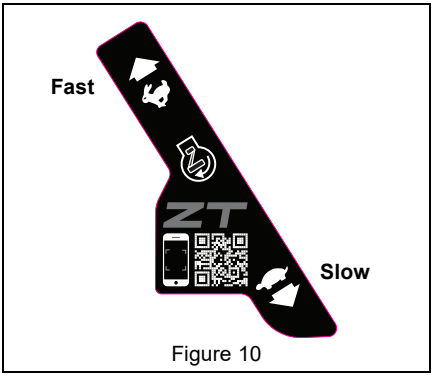


Figure 10

POWER-TAKE-OFF (PTO) KNOB

See Figure 11.

Controls power to mower blades. The engine will not start with the PTO knob in the on position.

WARNING: AVOID INJURY. Blades will not *immediately* stop after pushing PTO knob down to off position.

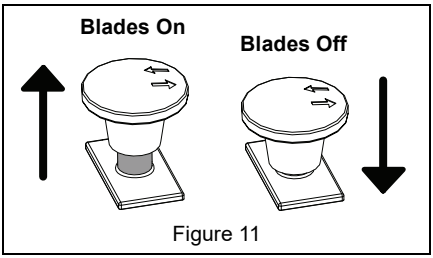


Figure 11

HOUR METER

Hour meter measure engine runtime and cannot be reset.

HEIGHT-OF-CUT ADJUSTMENT SYSTEM

See Figure 12.

Sets the height of cut.

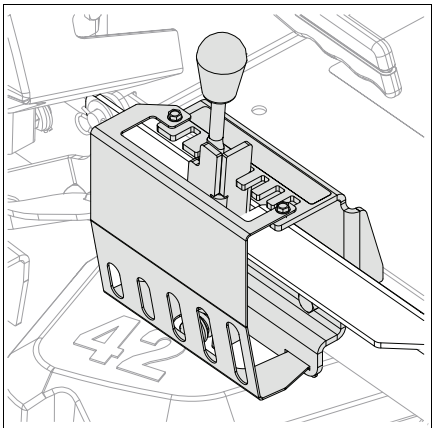


Figure 12

DECK LIFT PEDAL

Raises mower deck to change height-of-cut setting.

SEAT ADJUSTMENT LEVER

Unlocks seat to allow operator to move seat forward or backward and then lock in desired position.

PARKING BRAKE LEVER

See Figure 13.

Controls the parking brake. The engine will not start with brake in the off position.

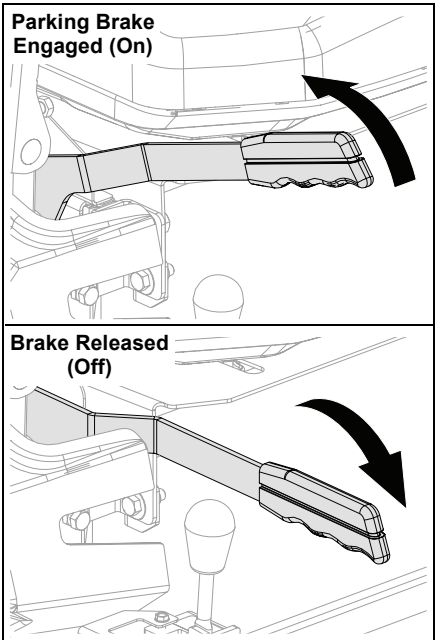


Figure 13

SAFETY INTERLOCK SYSTEM

Monitors the interaction of various unit features for operator safety.

STEERING LEVERS

Control the direction and speed of unit. To stop unit, return both steering levers to neutral.

TRANSAXLE BYPASS LEVERS

Control the transaxles so unit may be moved with the engine off.

OPERATION

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

IMPORTANT: All references to left, right, front or rear are given from the perspective of operator in operator's position, facing the direction of forward travel.

EMERGENCY STOPPING

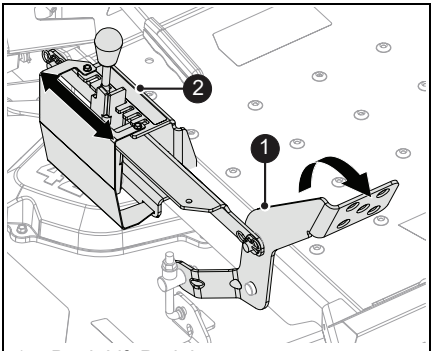
1. Move steering levers to neutral position.
2. Engage parking brake.
3. Push PTO knob down to off position.
4. Turn ignition key to off position and remove key from ignition.

BEFORE OPERATING UNIT

1. Check fuel level and add fuel if needed.

IMPORTANT: 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%. Gravely recommends using a quality fuel stabilizer in all fuel. See *Short-Term Storage* on page 22.

2. Check engine oil level and add oil if needed. Refer to engine manual.
3. Check condition of air cleaner. Refer to engine manual.
4. Check function of the Safety Interlock System by performing the tests in *Check Safety Interlock System* on page 17. Contact your Gravely dealer for repair if any of the tests fail.
5. Set cutting height. See Figure 14.
   a. Depress and hold deck lift pedal in forward position.
   b. Position height of cut selector lever at the desired setting in the height of cut bracket.
   c. Slowly return deck lift pedal to resting position.



1. Deck Lift Pedal
2. Height-of-Cut Adjustment System

Figure 14

START THE ENGINE

1. Push PTO knob down to off position.
2. Move steering levers to neutral position.
3. Engage parking brake.
4. If the engine is cold, move the choke to the on position. If engine is warm or hot, turn choke off.
5. Set throttle to slow speed.
6. Insert ignition key and turn to start position. Release key when engine starts.

IMPORTANT: Do not operate the starter for more than 10 seconds at a time. If the engine does not start, allow a 60-second cool down period between starting attempts.

7. If choke is on, wait a few seconds after engine starts and then turn choke off.

IMPORTANT: Make sure choke is completely off. Engine will not run smoothly using partial choke.

OPERATE UNIT

1. Release parking brake.
2. Set throttle control lever to fast position.

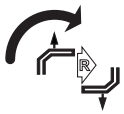
IMPORTANT: Engaging the PTO knob with the throttle lever set lower than fast position can cause excessive belt wear. ALWAYS use fast position when engaging the PTO.

3. Pull PTO knob up to on position.

IMPORTANT: Never engage the PTO if the mower is plugged with grass or other material. This may cause damage to the electric clutch.

WARNING: AVOID INJURY. Move the steering levers slowly and keep the throttle at slow speed until you learn how to operate the unit.

4. Move steering levers to begin mowing.

Direction of Travel	Lever Position	
Forward	Push both levers forward from neutral position.	
Reverse	Pull both levers backward from neutral position.	
Right Turn	Push left lever farther forward than the right lever.	
Left Turn	Push right lever farther forward than the left lever.	
Stop	Return both levers to neutral position.	

IMPORTANT: Aggressive turning can scuff or damage lawns. Always keep both wheels rotating when making sharp turns. DO NOT make turns with inside wheel completely stopped. For minimum turning radius, slowly reverse inside wheel while moving outside wheel slowly forward.

For Best Mowing Results

- 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 1/3 of grass length per cutting. Do not cut more than 2.5 cm (1") at any one time.
- 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.

STOP THE ENGINE

WARNING: AVOID INJURY. Wait for all moving parts to stop before leaving operator's position.

1. Move steering levers to neutral position and rotate outward.
2. Engage parking brake.
3. Push PTO knob down to off position.
4. Set throttle to slow speed.
5. Turn ignition key to off position and remove key from ignition.

MOVE UNIT MANUALLY

Bypass the transaxles to move the unit with the engine off.

IMPORTANT: There is one transaxle bypass lever on each side of unit. Ensure that both levers are fully in front or rear position.

1. Stop engine, remove key and wait for moving parts to stop and for hot parts to cool.
2. Pull both transaxle bypass levers out into bypass position. See Figure 15.

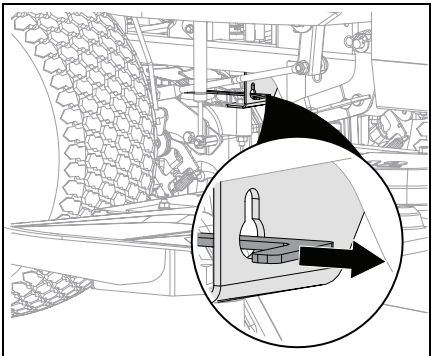


Figure 15

3. Release parking brake and push unit to desired location.
4. Engage parking brake.

5. Return transaxle bypass levers to operating position. See Figure 16.

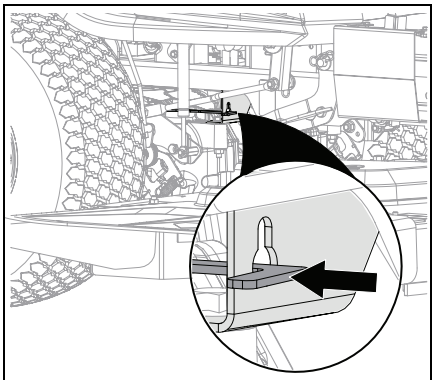


Figure 16

TRANSPORT UNIT

1. Push deck lift pedal completely forward to engage transport lock. Release pedal.
2. Move unit to transport vehicle.
3. Stop engine, engage parking brake and remove key from ignition.
4. Secure mower frame to transport vehicle.

NOTICE: NEVER secure unit to vehicle from rods or linkages that could be damaged.

MAINTENANCE

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

Your Gravely dealer can provide service and adjustments to keep your unit operating at peak efficiency.

Contact an authorized engine manufacturer's service center for engine service.

MAINTENANCE SCHEDULE

Service Performed	Each Use	Every 25 hrs.	Every 50 hrs.	Every 100 hrs.
Clean Engine of any Grass or Debris	•			
Check Safety Interlock System	•			
Check Parking Brake	•			
Check Engine Oil *	•			
Change Engine Oil *				
Check Tire Pressure	•			
Check Mower Blades	•			
Check Battery		•		
Clean Battery		•		
Check Air Filter *				
Change Air Filter *				
Check Fasteners			•	
Lubricate Unit			•	
Clean Engine Cooling System*				•
Check Belts				•

* Refer to engine manual for instructions

SERVICE PARTS

See your Gravely dealer to purchase service parts for your unit.

Description	Qty.	Part No.
HA Raw Laminated Belt – Hydraulic Drive	1	07200010
Mower Blade – 34"	2	03971900
Mower Blade – 42"	2	04965000
Mower Blade – 52"	3	04771200
Mower Belt – 34"	1	07200116
Mower Belt – 42"	1	07226700
Mower Belt – 52"	1	07241600
Mulching Blade – 34"	2	03797300
Mulching Blade – 42"	2	05027400
Mulching Blade – 52"	3	04794400
Fuel Filter (Model 915290)	1	21538400
Fuel Filter (Models 915288, 915289)	1	21548101
Engine Oil Filter – Short	1	21548100
Engine Oil Filter – Tall (Models 915288, 915289)	1	21535800
Air Filter (Model 915290)	1	21548000
Air Filter (Models 915288, 915289)	1	21565300

SERVICE POSITION

Before starting any of the following maintenance procedures:

1. Park unit on a flat, level surface.
2. Stop engine, remove key and wait for all moving parts to stop and for hot parts to cool.
3. Engage parking brake.
4. Chock wheels. Strap and clamp unit onto lift, if used.
5. Disconnect spark plug wires.
6. Place steering levers in neutral position and rotate outward.
7. Rotate seat forward. See Figure 17.

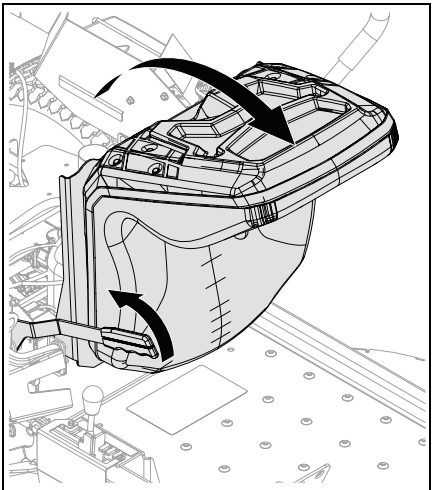


Figure 17

IMPORTANT: Reconnect spark plug wires after maintenance.

CHECK SAFETY INTERLOCK SYSTEM

Check function of the Safety Interlock System by performing the tests below. Contact your Gravely dealer for repair if any of the tests fail.

Test	Steering Levers	PTO	Parking Brake	Result
Starting Interlock				
1	Neutral	Off	On	Engine starts.
2	Forward, Neutral, Reverse	On	On or Off	Engine does not start.
3	Forward, Neutral, Reverse	On or Off	Off	Engine does not start.
Operating Interlock (Engine On)				
4 *	Forward, Neutral, Reverse	On	On or Off	Engine shuts off.
5 *	Forward, Neutral, Reverse	On or Off	Off	Engine shuts off.
* When operator lifts off seat.				

CHECK PARKING BRAKE

1. Place unit in service position. See *Service Position* on page 16.
2. Bypass transaxles. See *Move Unit Manually* on page 14.
3. Push unit forward.
   - If unit does not move forward, no further action is needed.
   - If unit easily moves forward, adjust the brake lever. Refer to your unit's Service Manual.

CHECK ENGINE OIL

NOTICE: Engine oil level must be maintained at correct level or engine damage may occur. Refer to engine manual.

CHECK TIRE PRESSURE

See *Specifications* on page 23 for recommended tire pressure.

WARNING: AVOID INJURY. Explosive separation of tire and rim parts is possible.

- DO NOT inflate tires above the recommended pressure.
- DO NOT inflate tires with a compressor; use a hand pump.
- DO NOT stand in front of tire assembly when inflating. Use a clip-on chuck and extension hose long enough to allow you to stand to one side.

CHECK FASTENERS

Check for loose or missing hardware.

LUBRICATE UNIT

1. Apply oil to all pivot points and pin connections.

Lubricate Seat

See Figure 18.

1. Place unit in service position.
2. Apply grease to seat tracks through slots under seat plate.

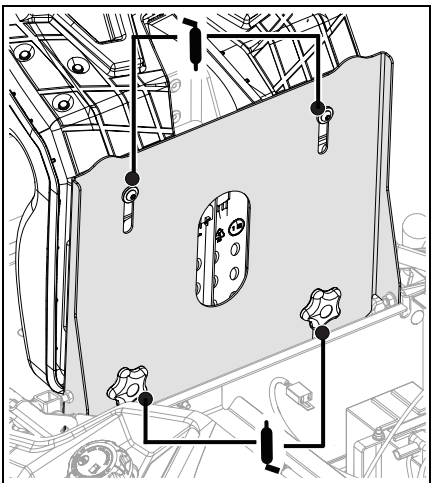


Figure 18

3. Return seat to operating position and slide seat back and forth to spread grease along tracks.

CHECK MOWER BLADES

Check blades for wear and damage. Replace or sharpen as needed.

CAUTION: AVOID INJURY. Use sturdy gloves or padding to protect hands when working with mower blades.

Rotation of one blade rotates the other blades.

CAUTION: Unbalanced blades cause excessive vibration and eventual damage to unit. Balance blades before reinstalling on unit.

NEVER weld or straighten blades.

CHECK BATTERY

WARNING: Battery posts, terminals and related accessories contain lead. Wash hands after handling.

Clean Battery

CAUTION: AVOID DAMAGE. DO NOT allow tools to contact metal surfaces when removing positive battery cable.

1. Disconnect battery cables, negative cable first.
2. Clean terminals and battery cable ends with a wire brush.
3. Coat terminals with dielectric grease or petroleum jelly.
4. Reinstall battery cables, positive first.

CHECK MOWER BELTS

Check belts for wear and replace as needed.

CAUTION: Keep body parts away from idler when releasing idler spring tension.

ADJUSTMENTS

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

ADJUST SEAT

1. Tip the seat forward.
2. Loosen the two wing knobs located toward the front of the seat plate. See Figure 19.

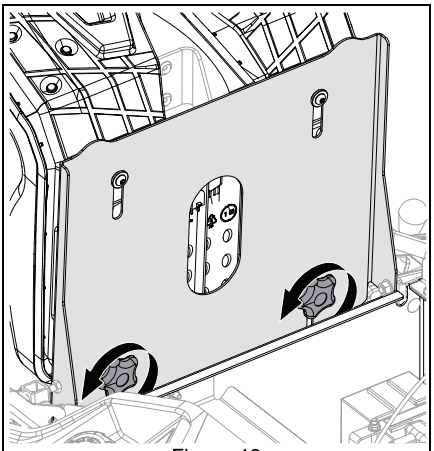


Figure 19

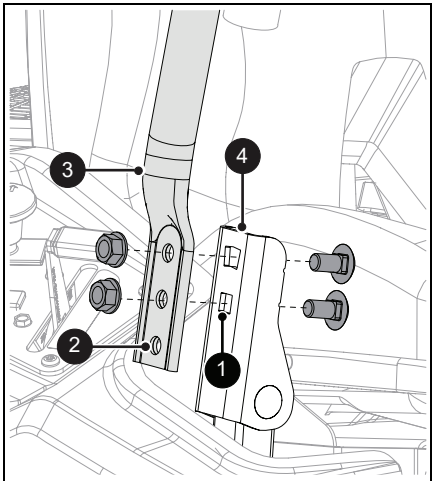
3. Move seat to desired position.
4. Tighten wing knobs.
5. Return seat to operating position.

ADJUST STEERING LEVERS

Adjust Steering Lever Height

See Figure 20.

1. Remove hardware securing steering lever to upper control arm.
2. Place steering lever in desired adjusting hole.
   - Use upper and middle holes for highest lever position.
   - Use middle and lower holes for lowest lever position.
3. Reinstall hardware in upper control arm.
4. Align levers side to side. See *Adjust Steering Level Reach* on page 19.
5. Fully tighten hardware.

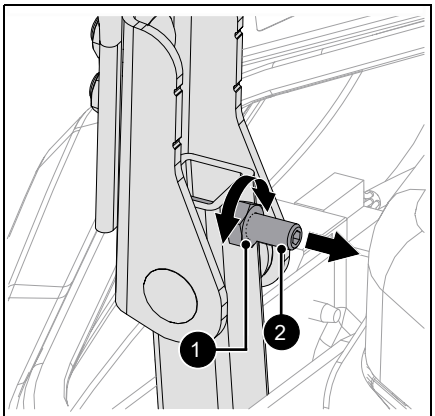


1. Adjusting Hole
2. Mounting Hole
3. Steering Lever
4. Upper Control Arm

Figure 20

See Figure 21.

6. Loosen lock nut on height-adjustment bolt.
7. Turn bolt in or out until levers are at the same height.
8. Tighten lock nut.



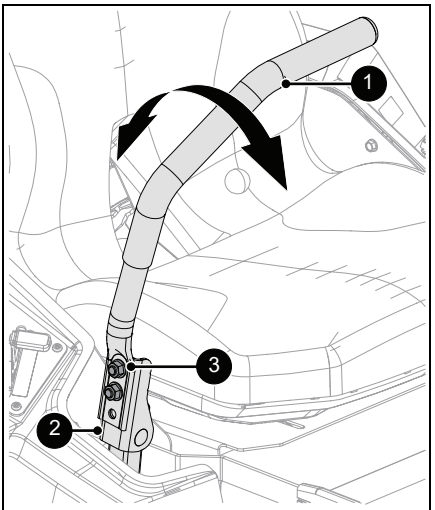
1. Lock Nut
2. Height-adjuster Bolt

Figure 21

Adjust Steering Level Reach

See Figure 22.

1. Loosen hardware securing steering lever to upper control arm.
2. Pivot steering lever to desired position.
3. Ensure levers are aligned with each other.
4. Tighten hardware.



1. Steering Lever
2. Upper Control Arm
3. Hardware

Figure 22

TROUBLESHOOTING

Problem	Probable Cause	Correction
Engine does not start.	Safety Interlock System is not engaged or is faulty.	Check Safety Interlock System. See *Check Safety Interlock System* on page 17.
	Fuel tank is empty.	Fill fuel tank. See *Before Operating Unit* on page 13.
	Fuel supply is contaminated.	Replace with clean fuel.
	Battery is discharged.	Charge battery. Refer to your unit's Service Manual.
	Connection between battery and battery cables is poor.	Tighten and/or clean battery and battery cables. See *Clean Battery* on page 18.
	Spark plug wire(s) are loose or spark plug(s) are faulty.	Connect spark plug wire(s) or replace spark plug(s). Refer to engine manual.
	Electrical system is faulty.	Contact your Gravely dealer.
	Engine is faulty.	Contact your Gravely dealer.
Engine runs rough.	Choke is in the on position.	Move choke to the off position.
	Air filter cartridge is plugged.	Clean or replace air filter cartridge. Refer to engine manual.
	Engine is faulty.	Contact your Gravely dealer.
Engine overheats.	Engine oil level is low.	Add engine oil. Refer to engine manual.
	Cooling fins are plugged.	Clean engine. Refer to engine manual.
	Engine is faulty.	Contact your Gravely dealer.
Unit does not drive.	The transaxles are bypassed.	Engage levers. See *Move Unit Manually* on page 14.
	Transaxle drive belt is faulty.	Contact your Gravely dealer.
	Transaxles are faulty.	Contact your Gravely dealer.
PTO malfunctions.	Operator presence switch is not engaged.	Activate switch by sitting on operator seat.
	Operator presence switch is faulty.	Contact your Gravely dealer.
	PTO belt is faulty.	Replace belt. Refer to your unit's Service Manual.
	PTO switch, wiring, connectors or clutch are faulty.	Contact your Gravely dealer.
Unit moves with engine off and parking brake engaged.	Parking brake needs adjustment.	Adjust parking brake lever. Refer to your unit's Service Manual.
	Parking brake is faulty.	Contact your Gravely dealer.
Unit does not drive straight.	Tire pressure is incorrect.	Check tire pressure. See *Specifications* on page 23.
	Steering levers need adjustment.	Refer to your unit's Service Manual.
Unit creeps when steering levers are in neutral position.	Transmission and/or linkage need adjustment.	Contact your Gravely dealer.

TROUBLESHOOTING		
Problem	**Probable Cause**	**Correction**
Poor cutting quality.	Mower blades not level or mower deck pitch is incorrect.	Level and adjust pitch of mower deck. Refer to your unit's Service Manual.
	Mower blades are dull or faulty.	Sharpen or replace mower blades. Refer to your unit's Service Manual.
	Mowing speed is too fast.	Drive slower when cutting grass.
	Belt tension or condition is poor.	Replace mower belts. Refer to your unit's Service Manual.
	Cutting height is too low.	Do not set height of cut too low. For very tall grass, mow twice.

STORAGE

SHORT-TERM STORAGE

IMPORTANT: NEVER wash unit with high-pressure water or store outdoors.

1. Allow unit to cool and clean with mild soap and water.
2. Tighten all hardware to correct specifications.
3. Inspect unit for visible signs of wear or damage. Repair as needed.
4. Prepare fuel system for storage.

NOTICE: Gravely recommends using a quality fuel stabilizer in all fuel. Gasoline left in the fuel system without a stabilizer, even for short periods of time, deteriorates and leaves gummy deposits in the system that may damage the carburetor and fuel hoses, filter and tank. For the best effectiveness, add stabilizer to all fuel containers whenever purchasing fuel. Add the stabilizer to the container before adding fuel.

   a. Add fuel stabilizer (see *Service Parts* on page 16) or equivalent according to manufacturer's instructions to the fuel tank and any fuel containers with remaining fuel.
   b. Run engine outdoors for at least 5 minutes to allow stabilizer to reach the carburetor.

5. Turn ignition key to off position and remove from ignition.
6. Store unit in a cool, dry, protected area. DO NOT store unit outdoors.

LONG-TERM STORAGE

1. Perform short-term storage procedures.
2. Lubricate as directed in *Maintenance* on page 15.
3. Touch-up all scratched painted surfaces.
4. Remove and charge battery. Refer to your unit's Service Manual. Store battery in a cool, dry, protected area.
5. Store unit in a cool, dry, protected area. Do not store unit outdoors.

START-OF-SEASON PREPARATION

1. Before adding fuel for the first time after long-term storage, add fresh, stabilizer-treated fuel to fuel tank and any fuel containers with remaining fuel.
2. Charge and install the battery.

ACCESSORIES

See your Gravely dealer for a complete list of compatible accessories and attachments for your unit.

Description	Part No.
Trailer Hitch Kit	71502800
36" Roller	71503300
48" Dethatcher	71503400
Spreader	71503600
48" Aerator	71508200
Arm Rest Kit	71508400
15 Gallon Sprayer	71510300
34" Mulch Kit	71510800
42" Mulch Kit	71516000
52" Mulch Kit	71514000
Seat Cover – Plain	71515000
Zero-Turn Cover	71515300
LED Light Kit	71517600
Hub Caps (2)	79101900
Universal Flextend Arm Rest	79102300
34" Bagger	81505000
42" Bagger	81505100
52" Bagger	81505200

SPECIFICATIONS

Model Number	915288	915289	915290
Description	ZT 34	ZT 42	ZT 52
Engine	Kawasaki FR600		Kawasaki FR651V
Engine Displacement – cm^3 (in^3)	603 (36.8)		726 (44.3)
Maximum RPM – No Load	3600 ± 100		
Oil Capacity	Refer to engine manual.		
Liquid or Air Cooled	Air		
Transmission			
Type	Hydrostatic Drive		
Oil	15W-50 Full-Synthetic Hydraulic Fluid (Gravely p/n 00057100) or equivalent		
Drive			
Forward Maximum – km/h (mph)	9.6 (6.0)		
Reverse Maximum – km/h (mph)	4.8 (3.0)		
Turning Radius	Zero		
Brakes	Parking		
Electrical			
Starter	Electric		
Battery	12 Volt 12A-190 CCA (U1 Replaceable)		
PTO (Power Take-off)	Electric PTO Clutch / Brake		
Fuel			
Fuel Tank Capacity – Liter (gal)	9.5 (2.5)		
Type	See Engine Manual		
Size and Weight			
Length – cm (in)	172.7 (68)		
Width – cm (in)	113.8 (44.8)	139.2 (54.8)	155.2 (61.1)
Height – cm (in)	102.9 (40.5)		
Weight – kg (lbs)	203.2 (448)	222.3 (490)	254.0 (560)
Tires			
Front Tire Size – in	11 x 4-5		
Rear Tire Size – in	18 x 6.5-8	18 x 8.5-8	18 x 9.5-8
Recommended Front Tire Pressure – kPa (psi)	262.0 – 317.2 (38 – 46)		
Recommended Rear Tire Pressure – kPa (psi)	62.1 – 75.8 (9 – 11)		
Mower Deck			
Cutting Height – cm (in)	3.8 – 11.4 (1.5 – 4.5)		
Cutting Width – cm (in)	86 (34)	106.7 (42)	132.1 (52)
Mower Deck Lift	Foot Operated		

Outdoor Power Equipment Limited Warranty

AriensCo warrants to the original purchaser that Gravely brand products purchased on or after 09/01/2022 will be free from defects in material and workmanship for the time period noted in the chart below.

If any product, EXCEPT AXIS skidsteer, 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
AA	Serialized Attachments	1 Year.**
AB	Serialized Attachments	2 Years.**
CH	Pro-Turn Z and Pro-Turn ZX Mowers	4 Years or 750 Hours.*
CJ	Pro-QXT	4 Years or 500 Hours.*
CK	Compact-Pro and Pro-Walk Hydro Mowers	4 Years or 750 Hours.* No Hour Limit for First 2 Years.
CL	Pro-Turn 100 and Pro-Stance Mowers	5 Years or 1000 Hours.* No Hour Limit for First 2 Years.
CM	Pro-Turn 200 and 300 Mowers	5 Years or 1250 Hours.* No Hour Limit for First 2 Years.
CN	Pro-Turn 500, 600 and Mach-One Mowers	5 Years or 1500 Hours.* No Hour Limit for First 2 Years.
CS	AXIS Skidsteer	1 Year or 1000 Hours.* Includes Rented or Leased Products.
CT	Ovis, Sherpa and Yak Mowers	2 Years or 250 Hours.*
HE	ZT Mowers	2 Years or 150 Hours.*
HF	ZT X Mowers	3 Years or 300 Hours.*
HG	ZT XL Mowers	4 Years or 400 Hours.*
HH	ZT HD and Z-Stance Mowers	4 Years or 500 Hours.*
UG	Atlas JSV	1 Year.

* Whichever comes first.

** AXIS Attachments see Limitations chart below.

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
CL, CM, CN	Mower Deck Shell and Main Frame	Lifetime Limited.	Warranty is for parts only after the initial warranty period. Components are covered for manufacturer's defect only, not wear.

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, halogen headlights, knives, halogen light bulbs, lubricants, mower blades, flail 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. Refer to www.gravely.com for warranty statement.

Warranty Term Limitations	Warranty Period
Cloth, Plastic and Rubber Components. Mufflers, Tires and Belts.	Components are covered for manufacturer's defect only, not wear.
AXIS Bucket and Fork Attachments	Warranty is administered by Erskine Attachments, LLC. Follow Erskine warranty statement in back of Attachment Operator's Manual.

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.**
- **Any tampering with the hour meter 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.

Battery Warranty

Battery warranty is one year. Units used for rental or lease have no exceptions to the 90-day warranty. Total battery claim reimbursement will not exceed 45.00 USD.

Transmissions

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

Transmission Manufacturer	Detail
Hydro-Gear Transaxle	See Hydro-Gear warranty. The warranty is administrated by AriensCo. Refer to www.gravely.com for warranty statement.
Parker Hannifin Drive & Valve Systems	Parker Transaxles, Pumps, Wheel Motors and Valves are warranted for the length of equipment warranty period. Refer to Warranty Code chart above. Warranty is administered by AriensCo.

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 V-Twin	Serial Number 0000400 and lower	4 Years or 500 Hours, whichever comes first. Refer to www.gravely.com for warranty statement.
	Serial Number 0000401 and higher	4 Years or 750 Hours, whichever comes first. Refer to www.gravely.com for warranty statement.
Yamaha	Yamaha-branded engines are warranted by the manufacturer and the warranty is administrated by AriensCo. Refer to www.gravely.com for warranty statement.	
Briggs & Stratton, Kawasaki, Kohler, Kubota	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. 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	Roy Gripske & Sons Pty Ltd 11 Sodium Street Narangba Queensland 4504 Australia Phone: (61130) 036 3004 www.rgs.com.au	Masport Ltd 320 Ti Rakau Drive East Tamaki Auckland 2013 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.

AriensCo shall not be held liable for damages, including premature wear and tear, or injuries caused by installation of unauthorized parts and accessories or for parts and accessories not installed by an authorized Gravely dealer.

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

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