Form No. 3389-362 Rev A

TORO®

Count on it.

Operator's Manual

60in, 62in, and 72in Rotary Mowers

Groundsmaster® 360 Series and 7200 Series Traction Unit

Model No. 30353—Serial No. 315000001 and Up
Model No. 30354—Serial No. 315000001 and Up
Model No. 30456—Serial No. 315000001 and Up
Model No. 30457—Serial No. 315000001 and Up
Model No. 30481—Serial No. 315000001 and Up

Register at www.Toro.com.
Original Instructions (EN)

CE

3389-362 A

Mowers with model numbers 30353, 30457 and 30354 comply with all relevant European directives, for details please see the separate product specific Declaration of Conformity (DOC) sheet.

Mower model number 30456 complies with all relevant European directives, when the CE Kit, Part No. 117-9248 is installed on the mower. Mower model number 30353 requires CE kit 30685, 30457 requires CE kit 30683, 30354 requires CE kit 30679, 30456 requires CE kit 30658. For details please see the separate product specific Declaration of Conformity (DOC) sheet.

Mower model number 30481 does not comply with all relevant European directives.

⚠ WARNING

CALIFORNIA
Proposition 65 Warning

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

Introduction

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

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

Whenever you need service, genuine Toro parts, or additional information, contact an Authorized Service Dealer or Toro Customer Service and have the model and serial numbers of your product ready. Write the numbers in the space provided.

Model No. _____

Serial No. _____

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



Figure 1

1. Safety alert symbol

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

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Safety

Safe Operating Practices

The following instructions are adapted from the CEN standard EN ISO 5395:2013 and ANSI B71.4-2012.

This product is capable of amputating hands and feet and throwing objects. Always follow all safety instructions to avoid serious injury or death.

Training

- Read the *Operator's Manual* and other training material carefully. Be familiar with the controls, safety signs, and the proper use of the equipment.
- Never allow children or people unfamiliar with these instructions to use this equipment. Local regulations can restrict the age of the operator.
- Never operate while people, especially children, or pets are nearby.
- Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.
- Do not carry passengers.
- All drivers should seek and obtain professional and practical instruction. Such instruction should emphasize:
  - the need for care and concentration when working with ride-on machines;
  - control of a ride-on machine sliding on a slope will not be regained by the application of the brake. The main reasons for loss of control are:
    - ◊ insufficient wheel grip, especially on wet grass;
    - ◊ being driven too fast;
    - ◊ inadequate braking;
    - ◊ the type of machine is unsuitable for its task;
    - ◊ lack of awareness of the effect of ground conditions, especially slopes;
    - ◊ incorrect load distribution.

Preparation

- While operating the machine, always wear substantial footwear and long trousers. Do not operate the equipment when barefoot or wearing open sandals.
- Thoroughly inspect the area where the equipment is to be used and remove all objects which may be thrown by the machine.
- Replace faulty silencers/mufflers.
- If a mower is installed on the machine, before using it, always visually inspect to see that the blades, blade bolts and cutter assembly are not worn or damaged. Replace worn or damaged blades and bolts in sets to preserve balance.

Safe Handling of Fuels

- To avoid personal injury or property damage, use extreme care in handling gasoline. Gasoline is extremely flammable and the vapors are explosive.
- Extinguish all cigarettes, cigars, pipes, and other sources of ignition.
- Use only an approved fuel container.
- Never remove fuel cap or add fuel with the engine running.
- Allow engine to cool before refueling.
- Never refuel the machine indoors.
- Never store the machine or fuel container where there is an open flame, spark, or pilot light such as on a water heater or on other appliances.
- Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground away from your vehicle before filling.
- Remove equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment with a portable container, rather than from a fuel dispenser nozzle.
- Keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete. Do not use a nozzle lock open device.
- If fuel is spilled on clothing, change clothing immediately.
- Never overfill fuel tank. Replace fuel cap and tighten securely.

Operation

- Be alert, slow down and use caution when making turns. Look behind and to the side before changing directions.
- Do not operate the engine in a confined space where dangerous carbon monoxide fumes can collect.
- Operate only in daylight or in good artificial light.
- Before attempting to start the engine, disengage all blade attachment clutches and shift into neutral.
- Remember there is no such thing as a safe slope. Travel on grass slopes requires particular care. To guard against overturning:
  - do not stop or start suddenly when on a slope;
  - use slow speeds on slopes and during tight turns;
  - stay alert for humps and hollows and other hidden hazards;
- Watch out for traffic when crossing or near roadways.
- When using any attachments, never direct discharge of material toward bystanders nor allow anyone near the machine while in operation.
- Never operate the machine with damaged guards, shields, or without safety protective devices in place.

- Do not change the engine governor settings or overspeed the engine. Operating the engine at excessive speed may increase the hazard of personal injury.
- Before leaving the operator's position:
  - disengage the power take-off and lower the attachments;
  - set the parking brake;
  - stop the engine and remove the key.
- Disengage drive to attachments, stop the engine, and remove the ignition key:
  - before checking, cleaning or working on the machine;
  - after striking a foreign object. Inspect the machine for damage and make repairs before restarting and operating the equipment;
  - if the machine starts to vibrate abnormally (check immediately).
- Do not operate the machine under the influence of alcohol or drugs.
- 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.
- Disengage drive to attachments when transporting or not in use.
- Stop the engine and disengage drive to attachment before refueling.

Maintenance and Storage

- Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition.
- Never store the equipment with fuel in the tank inside a building where fumes may reach an open flame or spark.
- Allow the engine to cool before storing in any enclosure.
- To reduce the fire hazard, keep the engine, silencer/muffler, battery compartment and fuel storage area free of grass, leaves, or excessive grease.
- Replace worn or damaged parts for safety.
- If the fuel tank has to be drained, do this outdoors.
- If a mower is installed on the machine, take care as manually rotating one blade can cause other blades to rotate.
- When machine is to be parked, stored or left unattended, lower the attachment.

Hauling

- Use care when loading or unloading the machine into a trailer or truck.
- Use full width ramps for loading machine into trailer or truck.
- Tie the machine down securely using straps, chains, cable, or ropes. Both front and rear straps should be directed down and outward from the machine

Toro Riding Mower Safety

The following list contains safety information specific to Toro products or other safety information that you must know that is not included in the CEN standard.

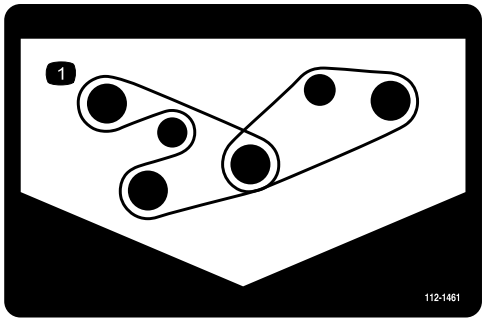
- Engine exhaust contains carbon monoxide, which is an odorless, deadly poison that can kill you. Do not run engine indoors or in an enclosed area.
- Keep hands, feet, hair and loose clothing away from attachment discharge area, underside of mower and any moving parts while engine is running.
- Do not touch equipment or attachment parts which may be hot from operation. Allow to cool before attempting to maintain, adjust, or service.
- Battery acid is poisonous and can cause burns. Avoid contact with skin, eyes and clothing. Protect your face, eyes, and clothing when working with a battery.
- This machine is not designed or equipped for on-road use and is a "slow-moving vehicle." If you must cross or travel on a public road, you should be aware of and comply with local regulations, such as required lights, slow moving vehicle signs, and reflectors.
- Battery gases can explode. Keep cigarettes, sparks and flames away from battery.
- Use only genuine Toro replacement parts to ensure that original standards are maintained.
- Use only Toro approved attachments. Warranty may be voided if used with unapproved attachments.

Slope Operation

- Do not operate near drop-offs, ditches, steep banks or water. Wheels dropping over edges can cause rollovers, which may result in serious injury, death, or drowning.
- Do not operate on slopes when grass is wet. Slippery conditions reduce traction and could cause sliding and loss of control.
- Do not make sudden turns or rapid speed changes.
- Reduce speed and use extreme caution on slopes.
- Remove or mark obstacles such as rocks, tree limbs, etc. from the operating area. Tall grass can hide obstacles.
- Watch for ditches, holes, rocks, dips, and rises that change the operating angle, as rough terrain could overturn the machine.
- Avoid sudden starts when operating uphill because the machine may tip backwards.
- Always avoid sudden starting or stopping on a slope. If tires lose traction, disengage the attachment and proceed slowly off the slope.
- Follow the manufacturer's recommendations for wheel weights or counterweights to improve stability.
- Use extreme care with all attachments. These can change the stability of the machine and cause loss of control.

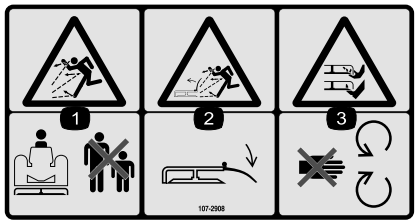
Safety and Instructional Decals

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



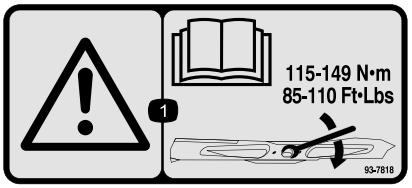
112-1461

1. Belt routing



107-2908

1. Thrown object hazard—keep bystanders a safe distance from the machine.
2. Thrown object hazard—do not operate the mower with the deflector up or removed, keep the deflector in place.
3. Cutting/dismemberment hazard of hand or foot, mower blade—stay away from moving parts.



93-7818

1. Warning—read the *Operator's Manual* for instructions on torquing the blade bolt/nut to 115-149 N-m (85-110 ft-lb).



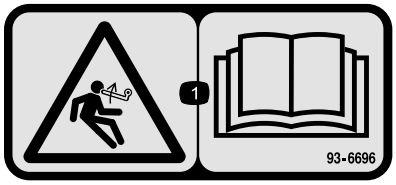
93-6687

1. Do not step here.



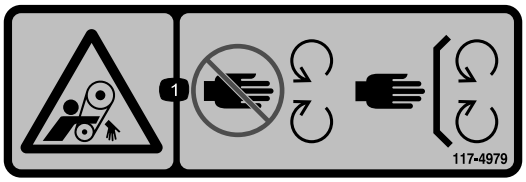
93-6697

1. Read the *Operator's Manual*.
2. Add SAE 80w-90 (API GL-5) oil every 50 hours.



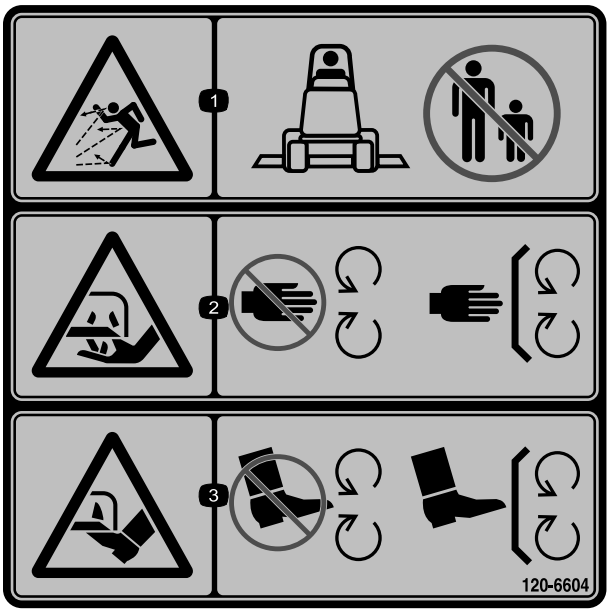
93–6696

1. Stored energy hazard—read the *Operator's Manual*.



117–4979

1. Entanglement hazard, belt—stay away from moving parts, keep all guards and shields in place.



120-6604

1. Thrown object hazard—keep bystanders away from the machine.
2. Cutting/dismemberment hazard of hand, mower blade—stay away from moving parts, keep all guards and shields in place.
3. Cutting/dismemberment hazard of foot, mower blade—stay away from moving parts, keep all guards and shields in place.

Setup

Media and Additional Parts

Description	Qty.	Use
Parts catalog Operator's Manual	1 1	Review the material and save in an appropriate place:

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

Removing the Existing Mower (if applicable)

1. Park the machine on a level surface with the mower in the **fully raised** position. Stop the engine, engage the parking brake and remove the key from the ignition switch.

   Note: When the mower is in the raised position, the pull link torsion spring tension (Figure 2) is reduced making it much easier to disconnect the pull links from the machine.

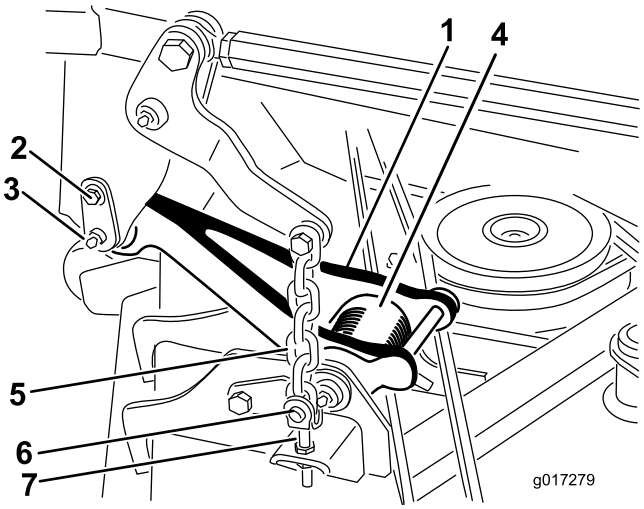


Figure 2

1. Pull link (mower raised)
2. Shoulder screw
3. Retainer pin
4. Torsion spring
5. Mower lift chain
6. Clevis pin
7. Adjustment clevis

2. Disconnect the pull link from each side of the machine (Figure 2).

⚠ CAUTION

Be careful when disconnecting the pull links. The pull link torsion springs may cause some rotation of the pull links during the removal process.

   A. Remove the shoulder screw that secures the retainer pin to the carrier frame (Figure 2).

   B. Carefully slide the retainer pin from the carrier frame and the pull link (Figure 2).

3. Note the location of the HOC pin in the HOC bracket for assembly purposes (Figure 3). Remove the HOC pin from the HOC bracket.

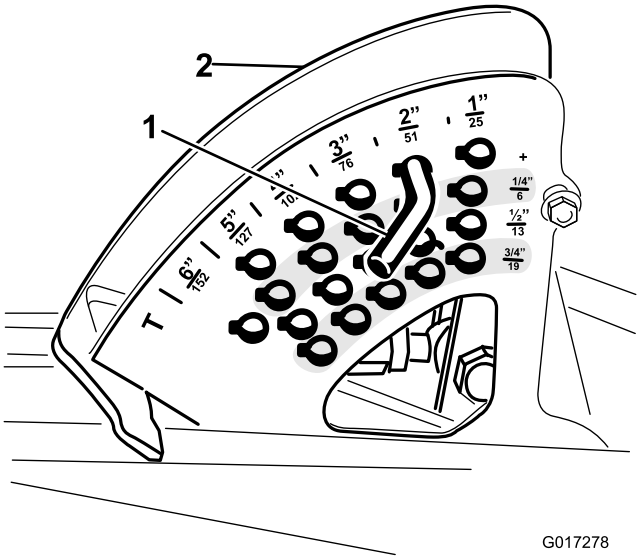


Figure 3

1. HOC pin
2. HOC bracket

4. Start the engine and fully lower the mower. Stop the engine and remove the key from the ignition switch.

   Note: Lowering the mower onto furniture dollies will ease the removal of the mower.

⚠ WARNING

Do not start the engine and engage the PTO switch when the PTO drive shaft is disconnected from the mower. If the engine is started and the PTO shaft is allowed to rotate, serious personal injury and machine damage could result. If the PTO drive shaft is disconnected from the mower, remove the fuse F1 (15 amp) from the fuse block to prevent unintentional engagement of the PTO clutch.

5. Disconnect the end yoke of the PTO drive shaft from the mower gearbox shaft:

A. Remove the roll pin from the end yoke and the gearbox shaft (Figure 4).

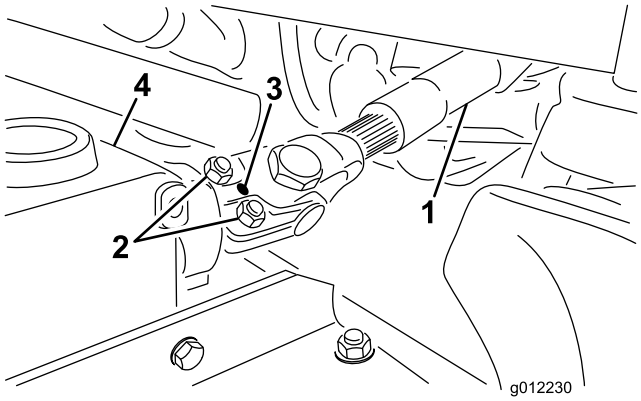


Figure 4

1. Drive shaft
2. Capscrews and locknuts
3. Roll pin
4. Gearbox

B. Loosen the (2) capscrews and locknuts (Figure 4).

C. Slide the drive shaft end yoke from the gearbox shaft.

Note: Raise and tie the drive shaft to the frame.

6. Remove the (4) ring pins and clevis pins that secure the lift chains to the adjustment clevises on the mower (Figure 2).
7. Slide the mower away from the machine.

Note: The front of the traction unit may have to elevated to move the mower away from the machine.

Installing the New Mower

1. Slide the new mower under the carrier frame of the machine.
2. Install the (4) clevis pins and ring pins to secure the mower lift chains to the adjustment clevises on the mower (Figure 2).
3. Connect the end yoke of the PTO drive shaft to the mower gearbox:

   A. Align the spline and roll pin holes of the drive shaft yoke with the gear box shaft.

   B. Slide the PTO drive shaft end yoke onto the gearbox shaft.

   C. Secure the end yoke of the PTO drive shaft to the gearbox shaft with the roll pin (Figure 4).

   D. Tighten the locknuts to secure the end yoke to the gearbox shaft (Figure 4). Torque the locknuts to 20 to 25 N-m (175 to 225 in-lb).
4. Start the engine and fully raise the mower. Stop the engine and remove the key from the ignition switch.

Note: Place a wood block or similar shim under each link to hold it in the raised position.

⚠ CAUTION

Be careful when connecting the pull links to the machine. The pull link torsion springs may cause some rotation of the pull links during installation.

5. Align the pull link to the carrier frame and attach the link with the retainer pin (Figure 2). Secure the retainer pin to the frame with the shoulder screw (Figure 2).
6. Install the HOC pin into the HOC bracket at the desired height of cut (Figure 3).
7. Lubricate the PTO drive shaft grease fittings.
8. Install the fuse F1 (15 amp) into the fuse block.

Leveling the Mower

Leveling Side to Side

1. Position the machine on a level surface on the shop floor.
2. Move the throttle lever to the Slow position, stop the engine, set the parking brake, and remove the ignition key.
3. Set the mower to the 127 mm (5 inch) height of cut setting.
4. Check and adjust front and rear traction unit tire pressure; refer to Operator's Manual for specifications.
5. Check for bent blades; Refer to Checking for Bent Blades.
6. Rotate the blade on each spindle until the ends face forward and backward.
7. Measure from the floor to the front tip of the cutting edge.
8. Adjust the jam nuts securing the mower yokes/chains to the mower until the mower is level (Figure 5).

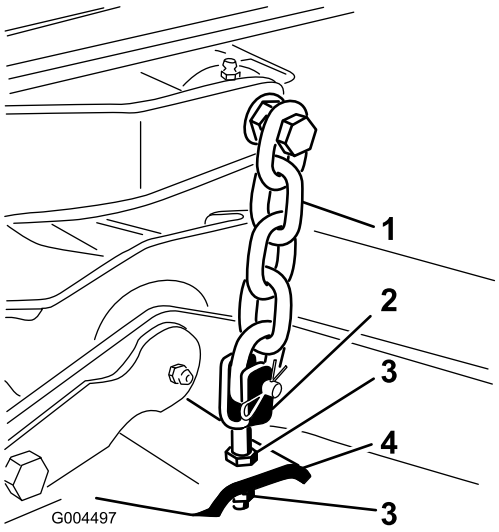


Figure 5

1. Chain
2. Yoke
3. Jam nut
4. Mower

Leveling Front to Back

Cutting unit pitch is the difference in height-of-cut from the front of the blade plane to the back of the blade plane. Toro recommends a blade pitch of approximately 8 to 11 mm (5/16 to 7/16 inch). That is the back of the blade plane is 8 to 11 mm (5/16 to 7/16 inch) higher than the front.

1. Position the machine on a level surface on the shop floor.
2. Set the mower to the desired height-of-cut, move the throttle lever to the Slow position, stop the engine, set the parking brake, and remove the ignition key.
3. Rotate the center blade so that it points straight forward.
4. Using a short ruler, measure from the floor to the front tip of the blade.
5. Rotate the same blade tip to the rear and measure from the floor to the tip of the blade at the rear of the mower.
6. Subtract the front dimension from the rear dimension to calculate the blade pitch.
7. Adjust the jam nuts securing the rear mower yokes/chains (Figure 5) to raise the rear of the mower so that the blade pitch is set to 8 to 11 mm (5/16 to 7/16 inch).

Operation

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

Adjustments

Adjusting the Height-of-Cut

The height-of-cut is adjusted from 2.5 to 15.8 cm (1 to 6 inches) in 6 mm (1/4 inch) increments by relocating the stop pin into different hole locations.

1. With the engine running, push back on the mower lift switch until the mower is fully raised and **release the switch immediately** (Figure 6).

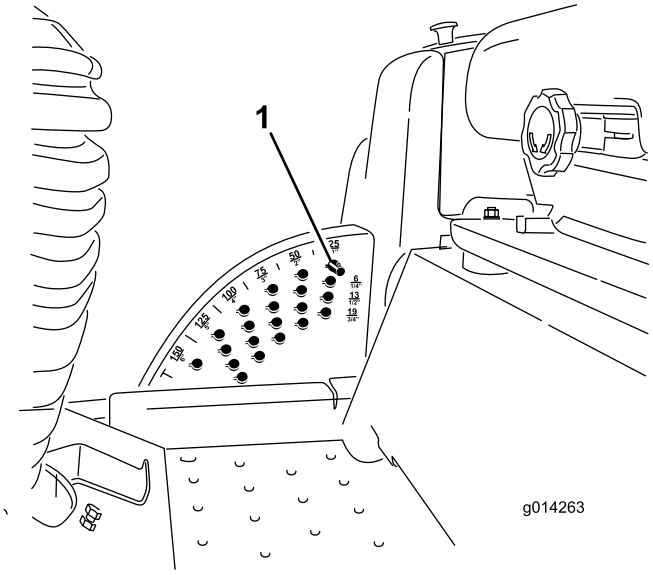


Figure 6

1. Stop pin

2. To adjust, rotate the stop pin until the nub on it lines up with the slots in the holes in the height-of-cut bracket and remove it (Figure 6).
3. Select a hole in the height-of-cut bracket corresponding to the height-of-cut desired, insert the pin, and rotate it down to lock it in place (Figure 6).

   Note: There are four rows of hole positions (Figure 6). The top row gives you the height of cut listed above the pin. The second row down gives you the height listed plus 6 mm (1/4 inch). The third row down gives you the height listed plus 12 mm (1/2 inch). The bottom row gives you the height listed plus 18 mm (3/4 inch). For the 15.8 cm (6 inch) position there is only one hole, located in the second row. This does not add 6 mm (1/4 inch) to the 15.8 cm (6 inch) position.
4. Adjust the anti-scalp rollers and skids as required.

Adjusting the Skid(s)

Mount the skids in the lower position when operating in height of cuts higher than 64 mm (2-1/2 inches) and in the higher position when operating in height of cuts lower than 64 mm (2-1/2 inches).

Note: On Guardian® mowers, when the skids become worn, you can switch the skid to the opposite sides of the mower, flipping them over. This will allow you to use the skids longer before replacing them.

1. Disengage the PTO and set the parking brake.
2. Move the throttle lever to the Slow position, stop the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. Loosen the screw at the front of each skid. There are 2 skids on Guardian mowers and 1 skid on side-discharge mowers (Figure 7).

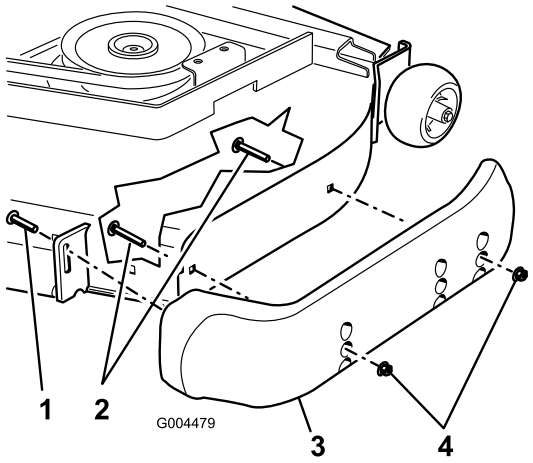


Figure 7

1. Screw
2. Flange-head bolt
3. Skid
4. Nut

4. Remove the flange-head bolts and nuts from each skid.
5. Move each skid to the desired position and secure them with the flange-head bolts and nuts.

   Note: Only use the top or center sets of holes to adjust the skids. The bottom holes are used when switching sides on a Guardian mower, at which time they become the top holes on the other side of the mower.
6. Torque the screw at the front of each skid to 9 to 11 N-m (80 to 100 in-lb).

Adjusting the Rear Anti-Scalp Rollers

Whenever you change the height-of-cut, adjust the height of the rear anti-scalp rollers.

1. Disengage the PTO, release the traction pedal, and set the parking brake.
2. Move the throttle lever to the Slow position, stop the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. After adjusting the height-of-cut, adjust the rollers by removing the flange nut, bushing, spacer, and bolt (Figure 8).

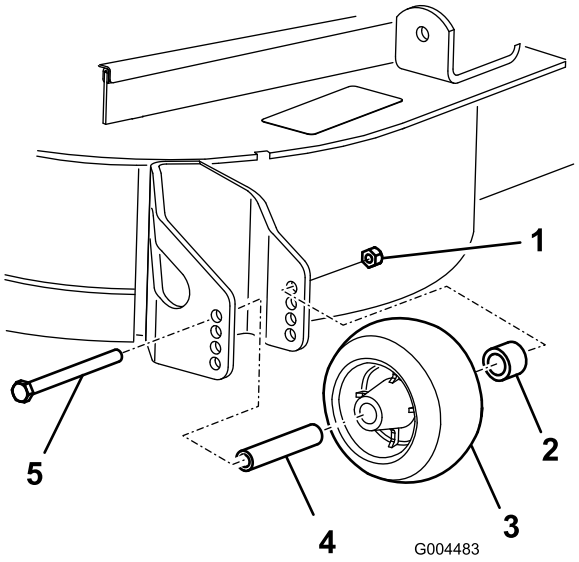


Figure 8

1. Flange nut
2. Bushing
3. Anti-scalp roller
4. Spacer
5. Bolt

4. Select a hole so the anti-scalp roller is positioned to the nearest corresponding height-of-cut desired (Figure 9).

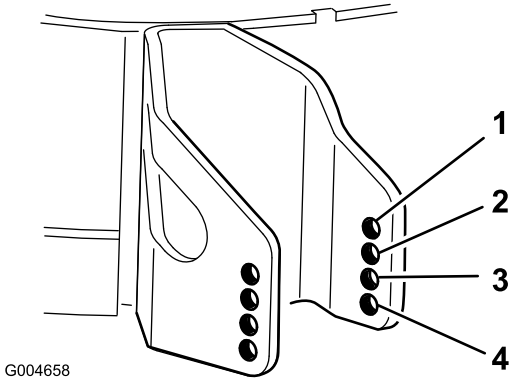


Figure 9

1. 38 mm (1-1/2 inches)
2. 51 mm (2 inches)
3. 63 mm (2-1/2 inches)
4. 76 mm (3 inches) and higher

5. Install the flange nut bushing, spacer, and bolt. Torque to 54-61 N-m (40-45 ft-lb) (Figure 8).

Adjusting the Rollers

Mount the rollers in the lower position when operating in height of cuts higher than 64 mm (2-1/2 inches) and in the higher position when operating in height of cuts lower than 64 mm (2-1/2 inches).

1. Disengage the PTO, release the traction pedal and set the parking brake.

2. Move the throttle lever to the Slow position, stop the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. Raise the front of the machine and support it on jack stands.
4. Remove the fasteners securing each roller on your mower and move the rollers up or down as desired; refer to Figure 10 through Figure 14 as applicable for your mower.

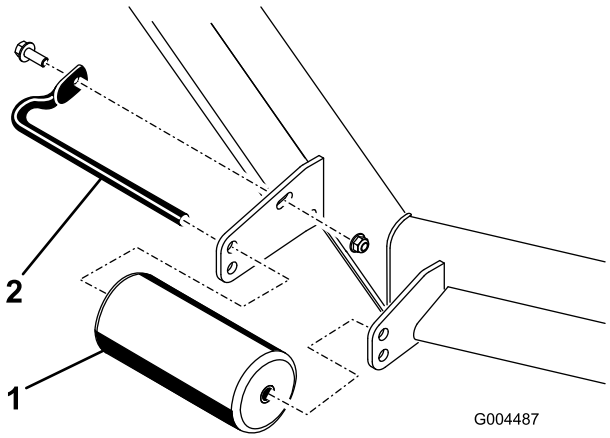


Figure 10
All Mowers

1. Front roller
2. Roller shaft

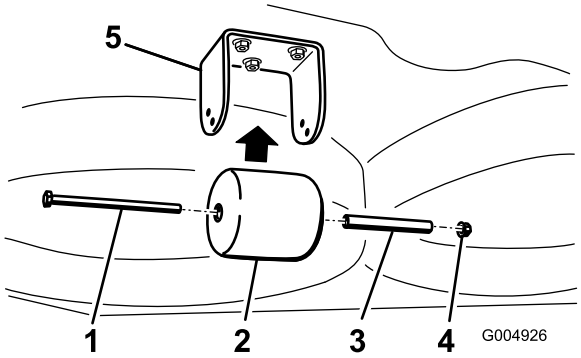


Figure 11
Guardian Mowers Only

1. Bolt
2. Rear under-mower roller
3. Spacer
4. Nut
5. Bracket

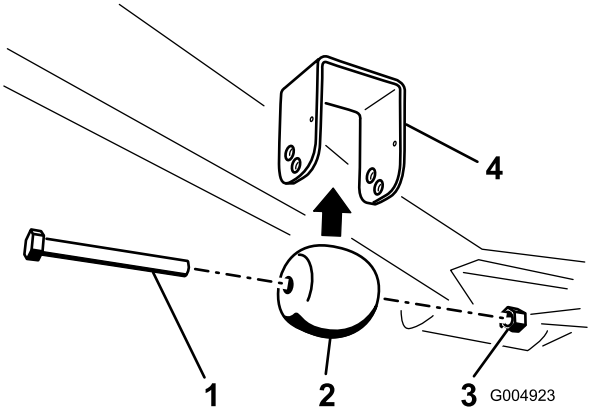


Figure 12
Guardian Mower Only

1. Bolt
2. Front under-mower roller
3. Nut
4. Bracket

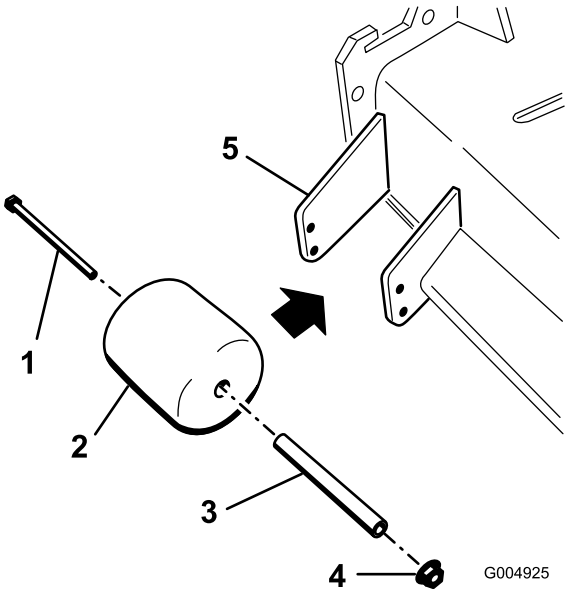


Figure 13
Side-discharge Mowers Only

1. Bolt
2. Chute-side roller
3. Spacer
4. Nut
5. Bracket

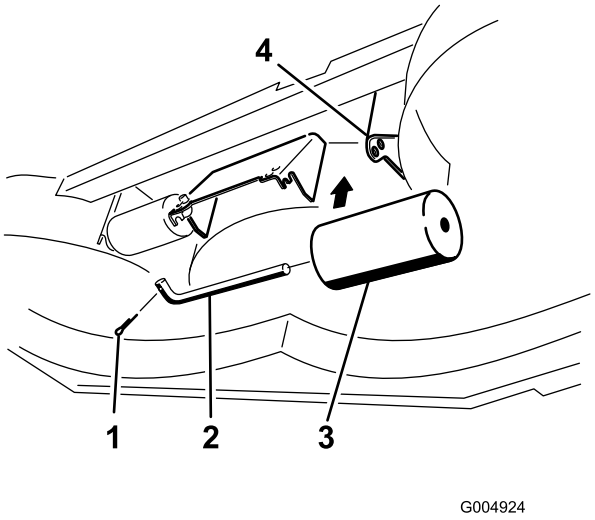


Figure 14
Side-discharge Mowers Only

1. Bolt
2. Roller shaft
3. Under-mower roller (2)
4. Bracket

5. Install the fasteners as illustrated.

Operating Tips

Fast Throttle Setting/Ground Speed

To maintain enough power for the machine and deck while mowing, operate the engine at the fast throttle position and adjust your ground speed for conditions. A good rule to follow is: decrease ground speed as the load on the cutting blades increases; and increase ground speed as load on the blades decreases.

Mowing Direction

Alternate mowing direction to avoid making ruts in the turf over time. This also helps disperse clippings which enhances decomposition and fertilization.

Cutting Speed

To improve cut quality, use a slower ground speed.

Avoid Cutting Too Low

If the cutting width of the mower is wider than the mower you previously used, raise the cutting height to ensure that uneven turf is not cut too short.

Select the Proper Height-of-Cut Setting to Suit Conditions

Remove approximately 1 inch (25 mm) or no more than 1/3 of the grass blade when cutting. In exceptionally lush and dense grass, you may have to slow down the forward speed and/or raise the height-of-cut to the next higher setting.

Important: If cutting more than 1/3 of the grass blade off, or in sparse long grass or dry conditions, the use of flat sail blades is recommended to reduce air-borne chaff, debris, and deck drive component strain.

Long Grass

If the grass is ever allowed to grow slightly longer than normal, or if it contains a high degree of moisture, raise the cutting height higher than usual and cut the grass at this setting. Then cut the grass again using the lower, normal setting.

Keep the Mower Clean

Clean clippings and dirt from the underside of the mower after each use. If grass and dirt build up inside the mower, cutting quality will eventually become unsatisfactory.

To reduce the risk of fire hazard, keep the engine, muffler, battery compartment, parking brake, cutting units, and fuel storage compartment free of grass, leaves, or excessive grease. Clean up any spilled oil or fuel.

Blade Maintenance

Maintain a sharp blade throughout the cutting season because a sharp blade cuts cleanly without tearing or shredding the grass blades. Tearing and shredding turns grass brown at the edges, which slows growth and increases the chance of disease. Check the blades daily for sharpness, and for any wear or damage. Sharpen the blades as necessary. If a blade is damaged or worn, replace it immediately with a genuine Toro replacement blade. Refer to Servicing the Cutting Blades.

Maintenance

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

⚠ WARNING

If you raise the machine using only a jack to support it while you work under the mower deck, the jack could tip, causing the mower deck to fall, crushing you or bystanders.

Always secure the machine with at least 2 jack stands when you have the mower deck raised.

⚠ CAUTION

On the top of the mower deck are two links that connect them to the frame. Connected to these links are torsion spring that are under tension (Figure 15). If you disconnect the link the stored energy in the torsion spring will be released and could cause the links to move, damaging your hands or fingers.

Be careful when removing the mower deck from the frame and secure the links before disconnecting them from the frame.

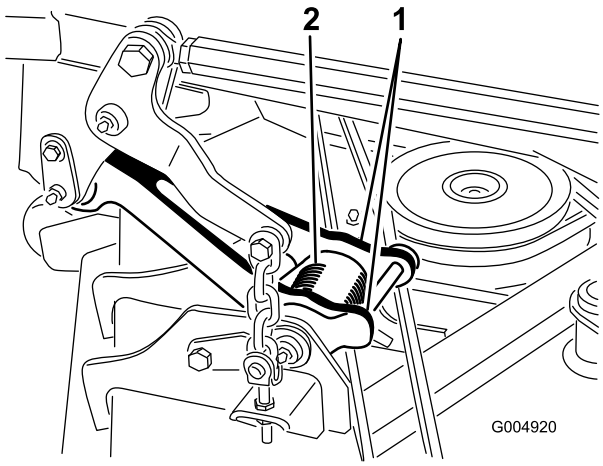


Figure 15

1. Link
2. Torsion spring

Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
After the first 50 hours	• Check the condition of the blade drive belts on the mower.
Before each use or daily	• Check the mower blades. • Clean the mower.
Every 50 hours	• Grease the bearing and bushing grease fittings.

Daily Maintenance Checklist

Duplicate this page for routine use.

Maintenance Check Item	For the week of:						
	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
Check Safety Interlock Operation							
Check Grass Deflector in Down Position (if applicable)							
Check Parking Brake Operation							
Check Fuel Level							
Check Tire Pressure							
Check Instrument Operation							
Check Condition of Blades							
Lubricate All Grease Fittings[1]							
Touch-up Damaged Paint							
1. Immediately after every washing, regardless of the interval listed.							

Notation for Areas of Concern		
Inspection performed by:		
Item	Date	Information

⚠ CAUTION

If you leave the key in the ignition switch, someone could accidently start the engine and seriously injure you or other bystanders.

Remove the key from the ignition before you do any maintenance.

Lubrication

Greasing the Bearings and Bushings

Service Interval: Every 50 hours

The machine has grease fittings that must be lubricated regularly with No. 2 General Purpose Lithium Base Grease. If the machine is operated under normal conditions, lubricate all bearings and bushings after every 50 hours of operation. Bearings and bushings must be lubricated daily when operating conditions are extremely dusty and dirty. Dusty and dirty operating conditions could cause dirt to get into the bearings and bushings, resulting in accelerated wear. Lubricate the grease fittings immediately after every washing, regardless of interval specified.

1. Wipe the grease fittings clean so foreign matter cannot be forced into the bearing or bushing.
2. Pump grease into the fittings.
3. Wipe off excess grease.

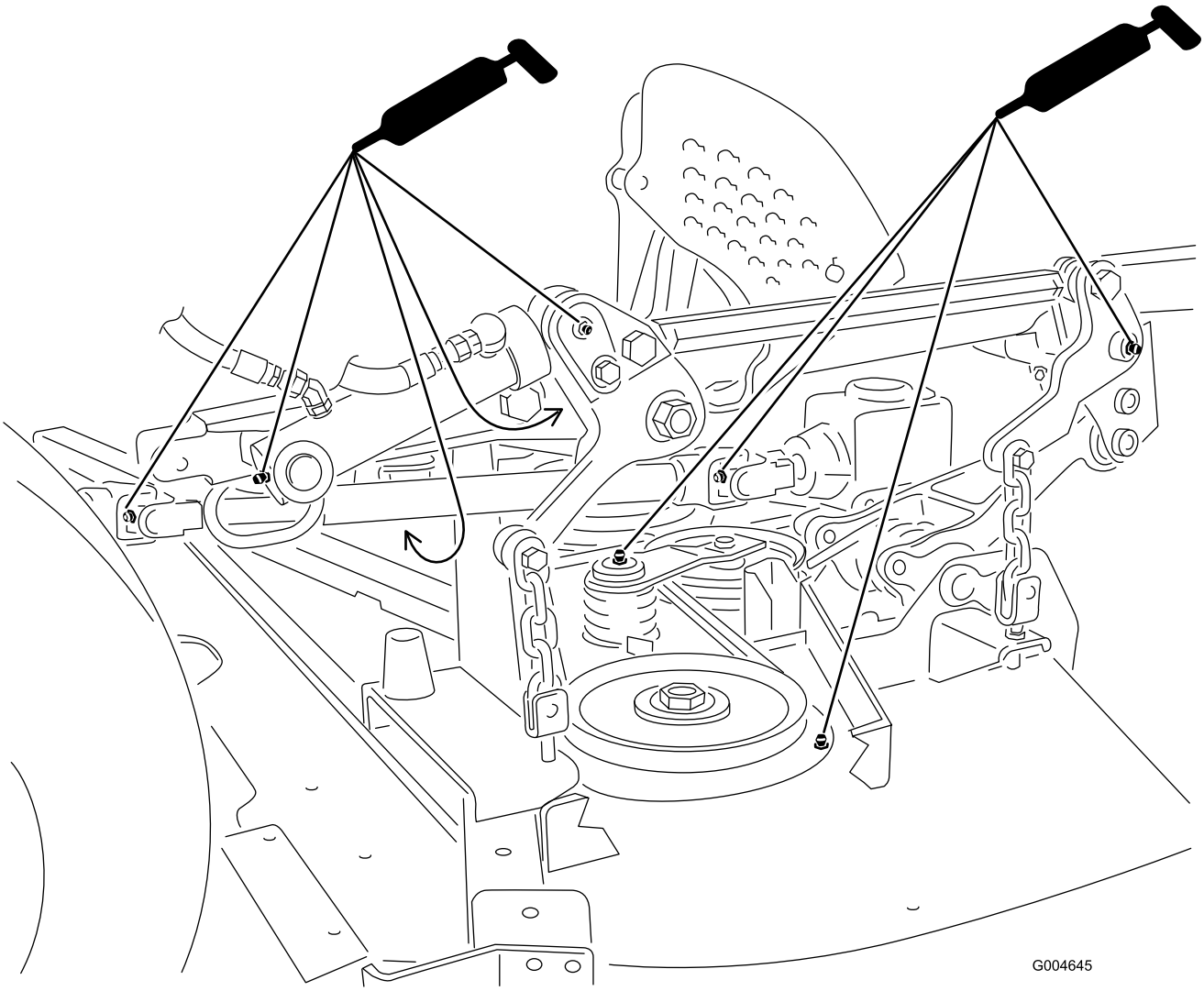


Figure 16

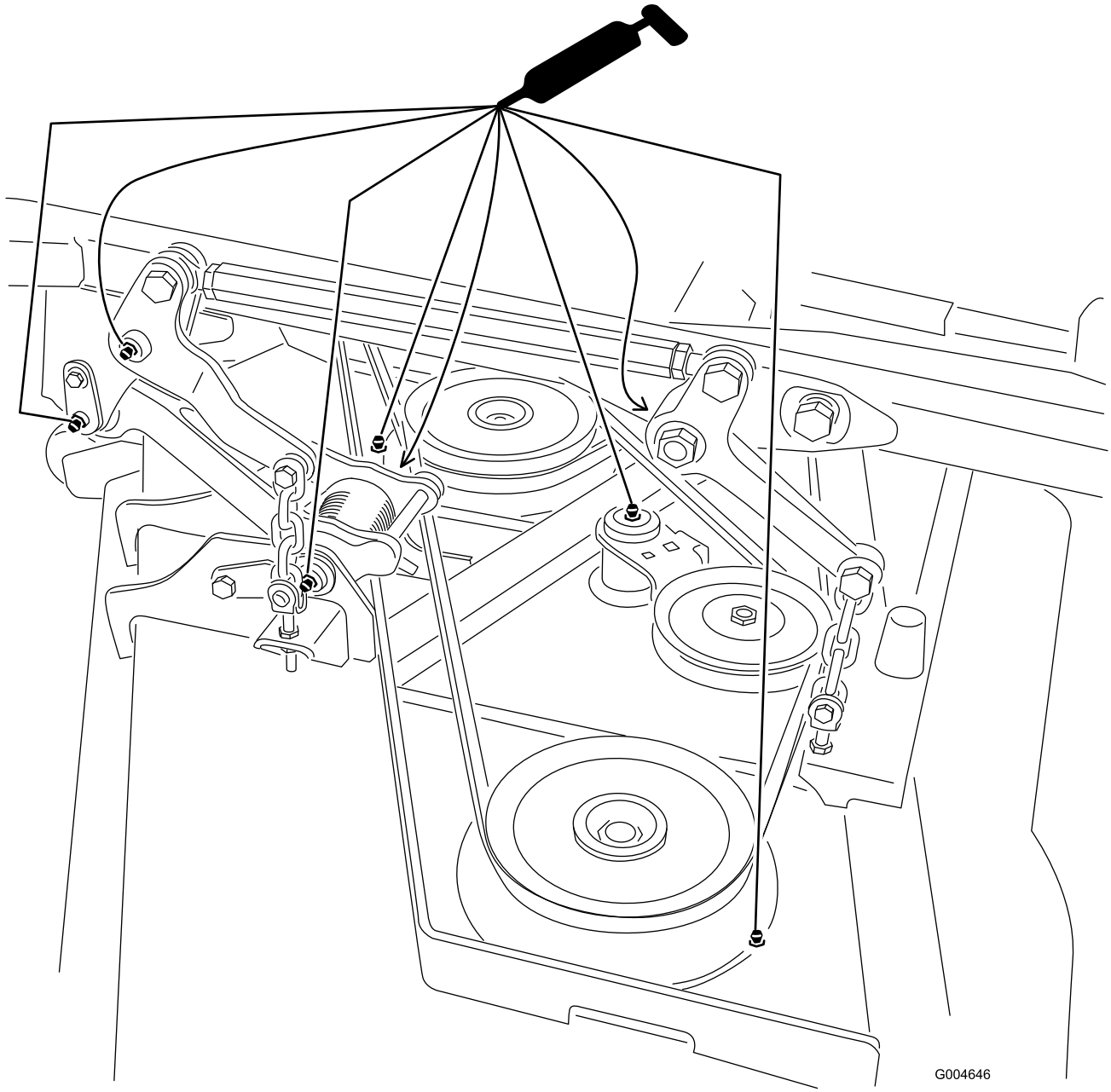


Figure 17

Note: Bearing life can be negatively affected by improper wash down procedures. Do not wash down the unit when it is still hot and avoid directing high-pressure or high volume spray at the bearings or seals.

Replacing the Blade Drive Belts

Service Interval: After the first 50 hours

The blade drive belts, tensioned by the spring loaded idler pulleys, are very durable. However, after many hours of use, the belts will show signs of wear. Signs of a worn belt are: squealing when belt is rotating, blades slipping when cutting grass, poor quality of cut, frayed edges, burn marks and cracks. Replace the belts if any of these conditions are evident.

1. Lower the cutting unit to the 1 inch height of cut setting, move the throttle lever to the Slow position, stop the engine, set the parking brake, and remove the ignition key.
2. Remove the belt covers from the top of the cutting unit and set the covers aside.
3. Using a breaker bar or similar tool, move the idler pulley for the top belt (Figure 18) away from the top drive belt to release the belt tension and allow the belt to be slipped off the pulleys.

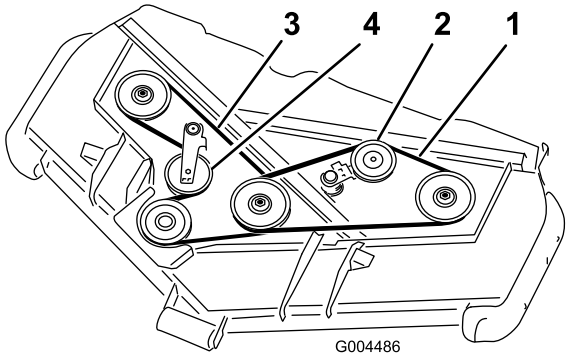


Figure 18

1. Top belt
2. Top idler pulley
3. Bottom belt
4. Bottom idler pulley

4. Route a new belt around the gearbox pulley, bottom spindle pulleys, and idler pulley assembly as shown in Figure 18.
5. Route a new belt around the top spindle pulleys and idler pulley assembly as shown in Figure 18.
6. Grease all mower and mower drive grease points.
7. Install the belt covers.

Servicing the Cutting Blades

Maintain sharp blades throughout the cutting season because sharp blades cut cleanly without tearing or shredding the grass blades. Tearing and shredding turns grass brown at the edges, which slows growth and increases the chance of disease.

Check the blades daily for sharpness, and for any wear or damage. Sharpen the blades as necessary. If a blade is damaged or worn, replace it immediately with a genuine Toro replacement blade.

⚠ DANGER

A worn or damaged blade can break, and a piece of the blade could be thrown into the operator's or bystander's area, resulting in serious personal injury or death.

- **Inspect the blade periodically for wear or damage.**
- **Replace a worn or damaged blade.**

Inspect and check the blades every 8 hours.

Before Inspecting or Servicing the Blades

1. Disengage the PTO, release the traction pedal and set the parking brake.
2. Move the throttle lever to the Slow position, stop the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.

Inspecting the Blades

Service Interval: Before each use or daily

1. Inspect the cutting edges (Figure 19). If the edges are not sharp or have nicks, remove and sharpen the blades. Refer to Sharpening the Blades.
2. Inspect the blades, especially the sail area (Figure 19). If you notice any damage, wear, or a slot forming in this area (Figure 19), immediately install a new blade.

⚠ DANGER

If you allow the blade to wear, a slot will form between the sail and flat part of the blade. Eventually a piece of the blade may break off and be thrown from under the housing, possibly resulting in serious injury to you or bystanders.

- **Inspect the blade periodically for wear or damage.**
- **Never try to straighten a blade that is bent or weld a broken or cracked blade.**
- **Replace a worn or damaged blade.**

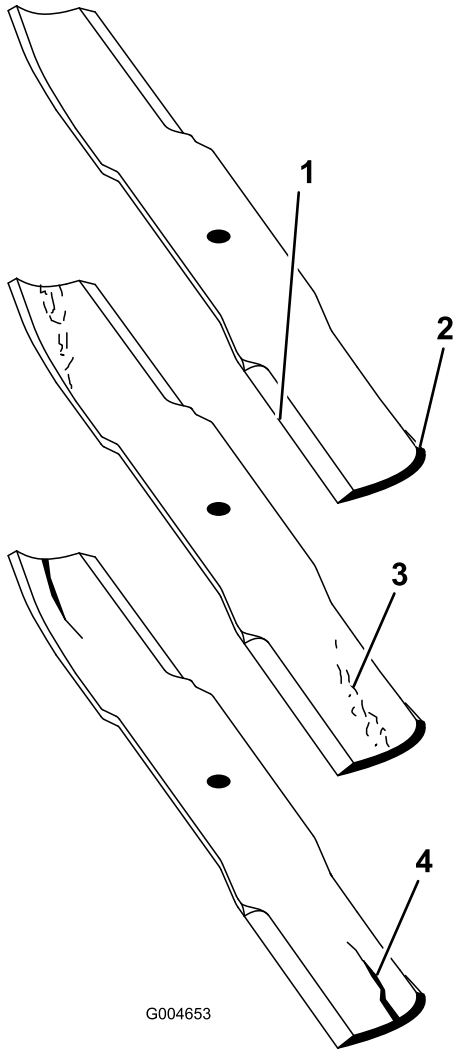


Figure 19

1. Cutting Edge
2. Sail Area
3. Wear/slot Forming
4. Crack

Checking for Bent Blades

1. Disengage the PTO, release the traction pedal and set the parking brake.
2. Move the throttle lever to the Slow position, stop the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. Rotate the blades until the ends face forward and backward (Figure 20). Measure from a level surface to the cutting edge, position **A**, of the blades (Figure 20). Note this dimension.

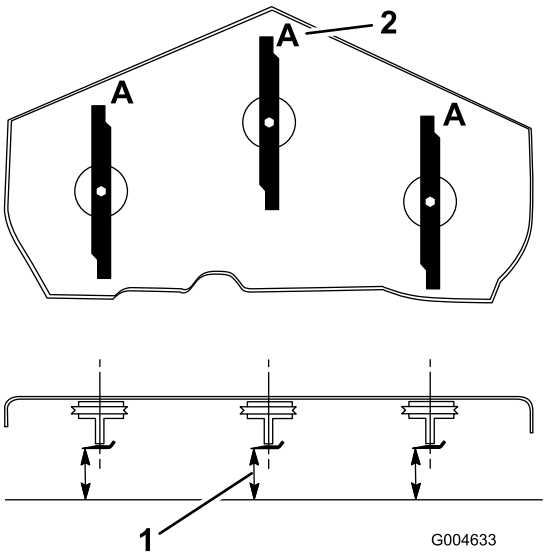


Figure 20

1. Measure here from blade to hard surface
2. Position A

4. Rotate the opposite ends of the blades forward.
5. Measure from a level surface to the cutting edge of the blades at the same position as in step 3 above. The difference between the dimensions obtained in steps 3 and 4 must not exceed 3 mm (1/8 inch). If this dimension exceeds 3 mm (1/8 inch), the blade is bent and must be replaced; refer to Removing the Blades and Installing the Blades.

⚠ WARNING

A blade that is bent or damaged could break apart and could seriously injure or kill you or bystanders.

- **Always replace bent or damaged blade with a new blade.**
- **Never file or create sharp notches in the edges or surfaces of blade.**

Removing the Blades

Blades must be replaced if a solid object is hit, if the blade is out of balance or is bent. To ensure optimum performance and continued safety conformance of the machine, use genuine Toro replacement blades. Replacement blades made by other manufacturers may result in non-conformance with safety standards.

⚠ WARNING

Contact with a sharp blade can cause serious injury.

Wear gloves or wrap sharp edges of the blade with a rag.

1. Hold the blade end using a rag or thickly-padded glove.

2. Remove the blade bolt, anti-scalp plate, and blade from the spindle shaft (Figure 23).

Sharpening the Blades

⚠ WARNING

When sharpening blade, pieces of blade could be thrown and cause serious injury.

Wear proper eye protection when sharpening blades.

1. Sharpen the cutting edge at both ends of the blade (Figure 21). Maintain the original angle. The blade retains its balance if the same amount of material is removed from both cutting edges.

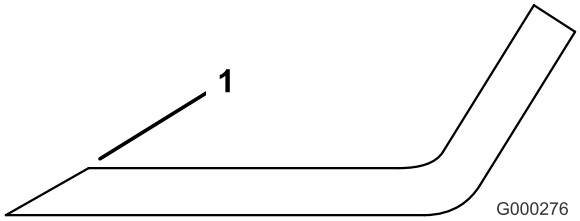


Figure 21

1. Sharpen at original angle

2. Check the balance of the blade by putting it on a blade balancer (Figure 22). If the blade stays in a horizontal position, the blade is balanced and can be used. If the blade is not balanced, file some metal off the end of the sail area only (Figure 23). Repeat this procedure until the blade is balanced.

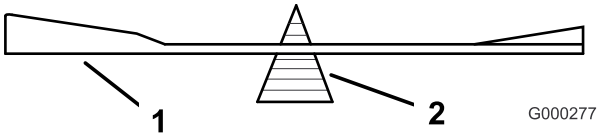


Figure 22

1. Blade
2. Balancer

Installing the Blades

1. Install the blade onto the spindle shaft (Figure 23).

   Important: The curved part of the blade must be pointing upward toward the inside of the mower to ensure proper cutting.

2. Install the anti-scalp plate and blade bolt (Figure 23).

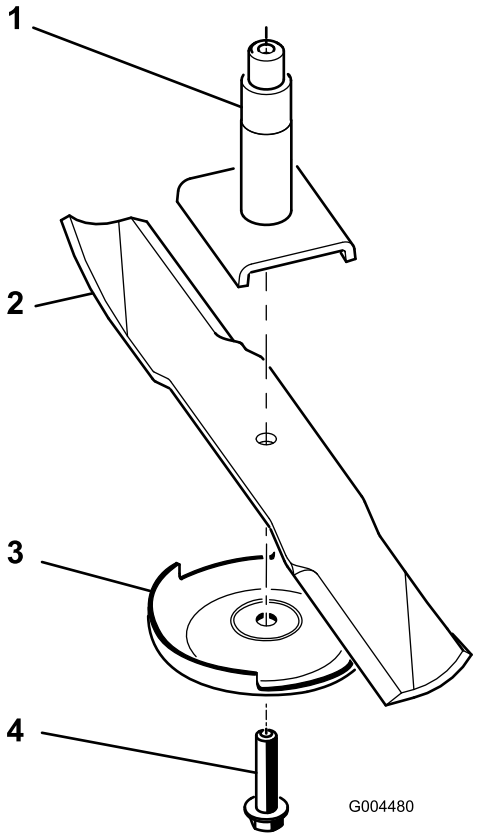


Figure 23

1. Spindle
2. Sail Area of Blade
3. Anti-scalp plate
4. Blade Bolt

3. Torque the blade bolt to 115-150 N·m (85-110 ft-lb).

Correcting Mower Mismatch

If the cut is uneven across the mower swath, correct it as follows:

1. Position the machine on a level surface on the shop floor.
2. Set the cutting unit to the desired height of cut, move the throttle lever to the Slow position, stop the engine, set the parking brake, and remove the ignition key.
3. Check and adjust front and rear tractor tire pressure; refer to Checking Tire Pressure.
4. Check for bent blades.
5. Remove the covers from the top of the cutting units.
6. Rotate the blade on each spindle until the ends face forward and backward.
7. Measure from the floor to the front tip of the cutting edge.
8. Adjust the jam nuts securing the mower yokes/chains to the mower until the mower is level (Figure 24).

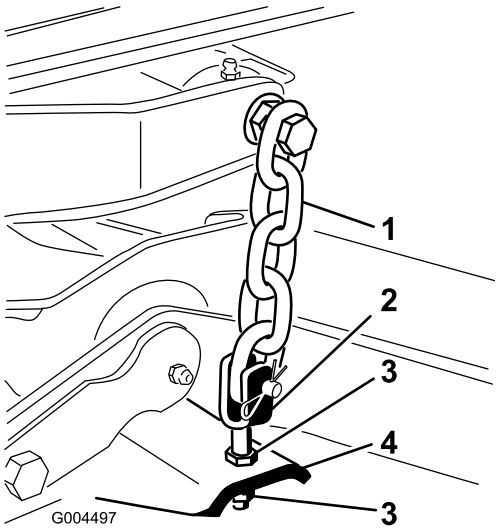


Figure 24

1. Front mower yoke chain
2. Rear mower yoke chain
3. Chain
4. Yoke
5. Jam nut
6. Mower

Adjusting the Mower Pitch

Cutting unit pitch is the difference in height-of-cut from the front of the blade plane to the back of the blade plane. Toro recommends a blade pitch of approximately 8 mm (5/16 inch). That is the back of the blade plane is 8 mm (5/16 inch) higher than the front.

1. Position the machine on a level surface on the shop floor.
2. Set the cutting unit to the desired height-of-cut, move the throttle lever to the Slow position, stop the engine, set the parking brake, and remove the ignition key.
3. Rotate the center blade so that it points straight forward.
4. Using a short ruler, measure from the floor to the front tip of the blade.
5. Rotate the same blade tip to the rear and measure from the floor to the tip of the blade at the rear of the mower.
6. Subtract the front dimension from the rear dimension to calculate the blade pitch.
7. Adjust the jam nuts securing the rear mower yokes/chains to raise the rear of the mower so that the blade pitch is set to 8 mm (5/16 inch) (Figure 24).

Replacing the Grass Deflector

⚠ WARNING

An uncovered discharge opening could allow the machine to throw objects in the operator's or bystander's direction and result in serious injury. Also, contact with the blade could occur.

- **Never operate the machine without a mulch kit or grass deflector installed.**
- **Make sure the grass deflector is in the down position.**

1. Lower the cutting unit to the shop floor, move the throttle lever to the Slow position, stop the engine, set the parking brake, and remove the ignition key.
2. Remove the locknut, bolt, spring and spacer holding the deflector to the pivot brackets (Figure 25). Remove damaged or worn grass deflector.

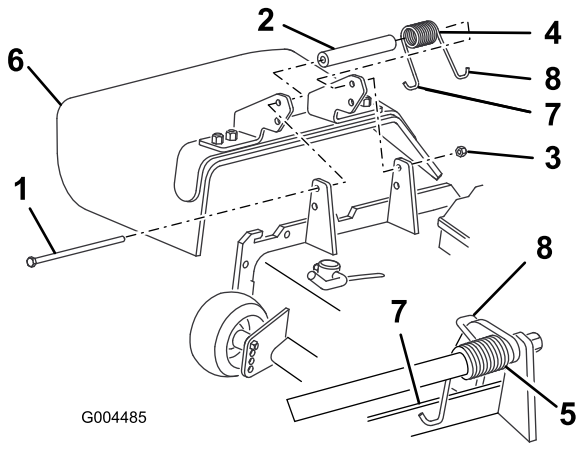


Figure 25

1. Bolt
2. Spacer
3. Locknut
4. Spring
5. Spring installed
6. Grass Deflector
7. Left hand hook end of spring, place behind mower edge before installing bolt
8. Right hand hook end of spring

3. Place the spacer and spring between the replacement grass deflector brackets (Figure 25). Place the left hand J hook end of the spring behind the mower edge.

   Note: Make sure the left hand J hook end of the spring is installed behind the mower edge before installing the bolt as shown in Figure 25.

4. Install the bolt and nut. Place the right hand J hook end of the spring around the grass deflector (Figure 25).

   Important: The grass deflector must be able to lower down into position. Lift the deflector up to test that it lowers into the full down position.

Cleaning Under the Mower

Service Interval: Before each use or daily

Remove the grass buildup under the mower daily.

1. Disengage the PTO, release the traction pedal to the neutral position and set the parking brake.
2. Move the throttle lever to the Slow position, stop the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. Raise the mower to the transport position.
4. Raise the front of the machine by using jack stands.
5. Thoroughly clean the underside of the mower with water.

Storage

1. Thoroughly clean the mower, paying special attention to these areas:
   - Underneath the mower
   - Under the mower belt covers
   - PTO shaft assembly
   - All grease fittings and pivot points
2. Check and adjust front and rear tire pressure; refer to Checking Tire Pressure.
3. Remove, sharpen, and balance the mower blades. Install the blades and torque the blade fasteners to 85-110 ft-lb (115-149 N-m).
4. Check all fasteners for looseness and tighten them as necessary.
5. Grease or oil all grease fittings and pivot points. Wipe off any excess lubricant.
6. Lightly sand and use touch up paint on painted areas that are scratched, chipped or rusted. Repair any dents.

Notes:

Declaration of Incorporation

The Toro Company, 8111 Lyndale Ave. South, Bloomington, MN, USA declares that the following unit(s) conform(s) to the directives listed, when installed in accordance with the accompanying instructions onto certain Toro models as indicated on the relevant Declarations of Conformity.

Model No.	Serial No.	Product Description	Invoice Description	General Description	Directive
30353	315000001 and Up	72in Rotary Mower	GM7200/GM360 72in BASE DECK	72in Rotary Mower	2006/42/EC, 2000/14/EC
30354	315000001 and Up	72in Side Discharge Mower	GM7200 72in SD DECK CE	72in Rotary Mower	2006/42/EC, 2000/14/EC
30456	315000001 and Up	60in Side Discharge Mower	GM7200 60in SD DECK	60in Rotary Mower	2006/42/EC, 2000/14/EC
30457	315000001 and Up	62in Rotary Mower	GM7200 62in BASE DECK	62in Rotary Mower	2006/42/EC, 2000/14/EC
30481	315000001 and Up	72in Side Discharge Mower	72in S.D. DECK (NON) C.E.	72in Rotary Mower	2006/42/EC, 2000/14/EC

Relevant technical documentation has been compiled as required per Part B of Annex VII of 2006/42/EC.

We will undertake to transmit, in response to requests by national authorities, relevant information on this partly completed machinery. The method of transmission shall be electronic transmittal.

This machinery shall not be put into service until incorporated into approved Toro models as indicated on the associated Declaration of Conformity and in accordance with all instructions, whereby it can be declared in conformity with all relevant Directives.

Certified:



David Klis
Sr. Engineering Manager
8111 Lyndale Ave. South
Bloomington, MN 55420, USA
September 26, 2013

EU Technical Contact:

Peter Tetteroo
Toro Europe NV
B-2260 Oevel-Westerloo
Belgium

Tel. 0032 14 562960
Fax 0032 14 581911

Toro General Commercial Product Warranty

A Two-Year Limited Warranty

Conditions and Products Covered

The Toro Company and its affiliate, Toro Warranty Company, pursuant to an agreement between them, jointly warrant your Toro Commercial product ("Product") to be free from defects in materials or workmanship for two years or 1500 operational hours*, whichever occurs first. This warranty is applicable to all products with the exception of Aerators (refer to separate warranty statements for these products). Where a warrantable condition exists, we will repair the Product at no cost to you including diagnostics, labor, parts, and transportation. This warranty begins on the date the Product is delivered to the original retail purchaser.
* Product equipped with an hour meter.

Instructions for Obtaining Warranty Service

You are responsible for notifying the Commercial Products Distributor or Authorized Commercial Products Dealer from whom you purchased the Product as soon as you believe a warrantable condition exists. If you need help locating a Commercial Products Distributor or Authorized Dealer, or if you have questions regarding your warranty rights or responsibilities, you may contact us at:

Toro Commercial Products Service Department
Toro Warranty Company
8111 Lyndale Avenue South
Bloomington, MN 55420-1196

952–888–8801 or 800–952–2740
E-mail: commercial.warranty@toro.com

Owner Responsibilities

As the Product owner, you are responsible for required maintenance and adjustments stated in your *Operator's Manual*. Failure to perform required maintenance and adjustments can be grounds for disallowing a warranty claim.

Items and Conditions Not Covered

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

- Product failures which result from the use of non-Toro replacement parts, or from installation and use of add-on, or modified non-Toro branded accessories and products. A separate warranty may be provided by the manufacturer of these items.
- Product failures which result from failure to perform recommended maintenance and/or adjustments. Failure to properly maintain your Toro product per the Recommended Maintenance listed in the *Operator's Manual* can result in claims for warranty being denied.
- Product failures which result from operating the Product in an abusive, negligent, or reckless manner.
- Parts subject to consumption through use unless found to be defective. Examples of parts which are consumed, or used up, during normal Product operation include, but are not limited to, brake pads and linings, clutch linings, blades, reels, rollers and bearings (sealed or greasable), bed knives, spark plugs, castor wheels and bearings, tires, filters, belts, and certain sprayer components such as diaphragms, nozzles, and check valves, etc.
- Failures caused by outside influence. Conditions considered to be outside influence include, but are not limited to, weather, storage practices, contamination, use of unapproved fuels, coolants, lubricants, additives, fertilizers, water, or chemicals, etc.
- Failure or performance issues due to the use of fuels (e.g. gasoline, diesel, or biodiesel) that do not conform to their respective industry standards.
- Normal noise, vibration, wear and tear, and deterioration.
- Normal "wear and tear" includes, but is not limited to, damage to seats due to wear or abrasion, worn painted surfaces, scratched decals or windows, etc.

Parts

Parts scheduled for replacement as required maintenance are warranted for the period of time up to the scheduled replacement time for that part. Parts replaced under this warranty are covered for the duration of the original product warranty and become the property of Toro. Toro will make the final decision whether to repair any existing part or assembly or replace it. Toro may use remanufactured parts for warranty repairs.

Deep Cycle and Lithium-Ion Battery Warranty:

Deep cycle and Lithium-Ion batteries have a specified total number of kilowatt-hours they can deliver during their lifetime. Operating, recharging, and maintenance techniques can extend or reduce total battery life. As the batteries in this product are consumed, the amount of useful work between charging intervals will slowly decrease until the battery is completely worn out. Replacement of worn out batteries, due to normal consumption, is the responsibility of the product owner. Battery replacement may be required during the normal product warranty period at owner's expense. Note: (Lithium-Ion battery only): A Lithium-Ion battery has a part only prorated warranty beginning year 3 through year 5 based on the time in service and kilowatt hours used. Refer to the *Operator's Manual* for additional information.

Maintenance is at Owner's Expense

Engine tune-up, lubrication, cleaning and polishing, replacement of filters, coolant, and completing recommended maintenance are some of the normal services Toro products require that are at the owner's expense.

General Conditions

Repair by an Authorized Toro Distributor or Dealer is your sole remedy under this warranty.

Neither The Toro Company nor Toro Warranty Company is liable for indirect, incidental or consequential damages in connection with the use of the Toro Products covered by this warranty, including any cost or expense of providing substitute equipment or service during reasonable periods of malfunction or non-use pending completion of repairs under this warranty. Except for the Emissions warranty referenced below, if applicable, there is no other express warranty. All implied warranties of merchantability and fitness for use are limited to the duration of this express warranty.

Some states do not allow exclusions of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions and limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Note regarding engine warranty:

The Emissions Control System on your Product may be covered by a separate warranty meeting requirements established by the U.S. Environmental Protection Agency (EPA) and/or the California Air Resources Board (CARB). The hour limitations set forth above do not apply to the Emissions Control System Warranty. Refer to the Engine Emission Control Warranty Statement supplied with your product or contained in the engine manufacturer's documentation for details

Countries Other than the United States or Canada

Customers who have purchased Toro products exported from the United States or Canada should contact their Toro Distributor (Dealer) to obtain guarantee policies for your country, province, or state. If for any reason you are dissatisfied with your Distributor's service or have difficulty obtaining guarantee information, contact the Toro importer.

374-0253 Rev C