Form No. 3326-575

TORO®

52″ Mower

Wheel Horse® 5xi Garden Tractor Attachment

Model No. 78370—Serial No. 220000001 and Up

Model No. 78375—Serial No. 220000001 and Up

Operator’s Manual

Domestic English (EN)

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Introduction

Read this manual carefully to learn how to operate and maintain your product properly. The information in this manual can help you and others avoid injury and product damage. Although Toro designs and produces safe products, you are responsible for operating the product properly and safely.

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. Figure 1 illustrates the location of the model and serial numbers on the product.

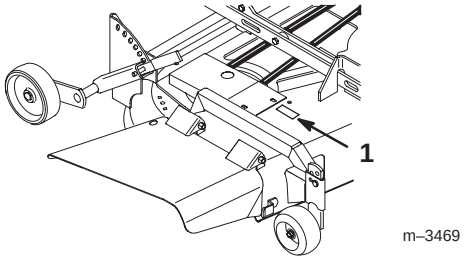


Figure 1

1. Location of the model and serial numbers

Write the product model and serial numbers in the space below:

Model No. _____

Serial No. _____

This manual identifies potential hazards and has special safety messages that help you and others avoid personal injury and even death. ***Danger***, ***Warning***, and ***Caution*** are signal words used to identify the level of hazard. However, regardless of the hazard, be extremely careful.

Danger signals an extreme hazard that *will* cause serious injury or death if you do not follow the recommended precautions.

Warning signals a hazard that *may* cause serious injury or death if you do not follow the recommended precautions.

Caution signals a hazard that may cause minor or moderate injury if you do not follow the recommended precautions.

This manual uses two 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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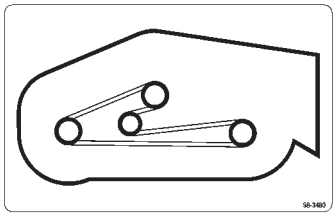
Safety and Instruction Decals

This machine meets or exceeds the B71.1-1998 specifications of the American National Standards Institute, in effect at the time of production. However, improper use or maintenance by the operator or owner can result in injury. To reduce the potential for injury, comply with these safety instructions and always pay attention to the safety alert ⚠ symbol, which means CAUTION, WARNING, or DANGER—"personal safety instruction." Failure to comply with the instruction may result in personal injury or death. Refer to your tractor *Operator's Manual* for additional safety instructions.

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.



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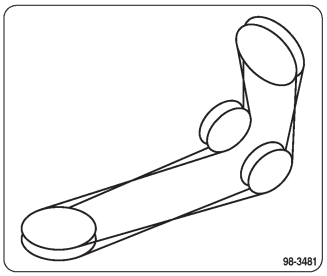
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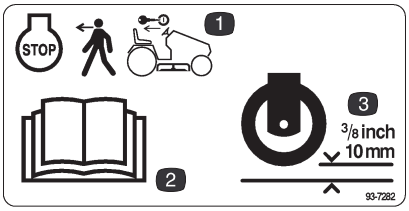
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93-7282

1. Stop the engine and remove the key before leaving the tractor
2. Read the Operator's Manual
3. Wheel height

Setup

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

Loose Parts

Note: Use the chart below to identify parts used for assembly.

Description	Qty.	Use
Discharge chute	1	Install the discharge chute
Spring	1	
Rubber bushing	1	
Bolt, 3/ in.	1	
Locknut, 3/8 in.	1	
Cotter pin, 3/4 in.	1	
Pulley box	1	Install the PTO drive belt
PTO drive belt	1	

Assembling the Mower

Installing the Discharge Chute

1. Place the springs into the brackets on the mower with the hooked ends over the raised back of the bracket (Fig. 2).

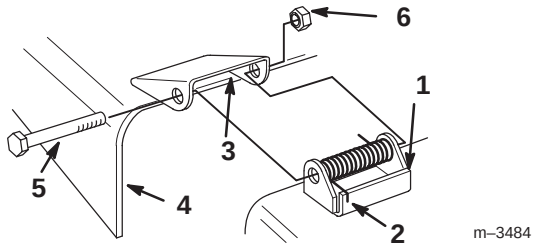


Figure 2

1. Bracket
2. Spring hook end
3. Space for spring
4. Discharge chute
5. Bolt
6. Lock nut

2. Align the discharge chute with the holes in the brackets and the spring straight ends in the space under the hinge and above the chute (Fig. 2).
3. Secure the chute to the bracket with bolts through the discharge chute, springs and brackets. Secure with lock nuts (Fig. 2).
4. Lift the discharge chute and check that it is spring loaded and pivots freely to the full down position.

Important **Discharge chute must be spring loaded in the down position. Lift the chute up to test that it snaps to the full down position.**

Danger

Without the grass deflector, discharge cover, or complete grass catcher assembly mounted in place, you and others are exposed to blade contact and thrown debris. Contact with the rotating mower blades and thrown debris will cause injury or death.

- **Never remove the grass deflector from the mower because the grass deflector routes material down toward the turf. If the grass deflector is ever damaged, replace it immediately.**
- **Never put your hands or feet under the mower.**
- **Never try to clear the discharge area or mower blades unless you move the power take off (PTO) to Off and rotate the ignition key to Off. Also remove the key and pull the wires off of the spark plugs.**

Mower Belt Routing

Route the mower belt as shown in Fig. 3. Ensure that you install the belt on the lower mower deck pulley.

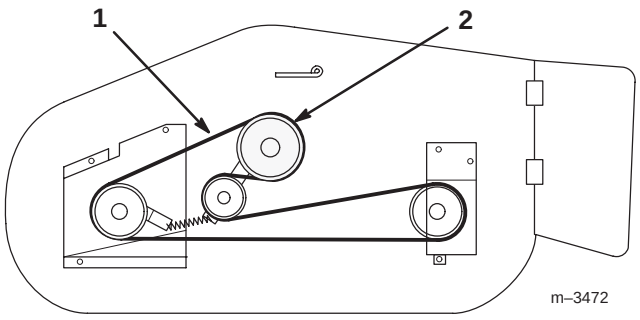


Figure 3

Top View

1. Mower belt
2. Mower deck pulley

Installing the Mower

Preparing the Tractor

Install the mower on a level concrete surface. Rougher dirt or lawn surfaces make installation more difficult.

1. Position the tractor and mower side by side, with the mower on the right side of the tractor.

2. Set the parking brake, raise the attachment lift, stop the engine, and remove the ignition key.

3. If you have previously had a snowthrower, blade, or tiller attached to the attachment lift, remove the two clevis pins on each side of the attachment lift (Fig. 4).

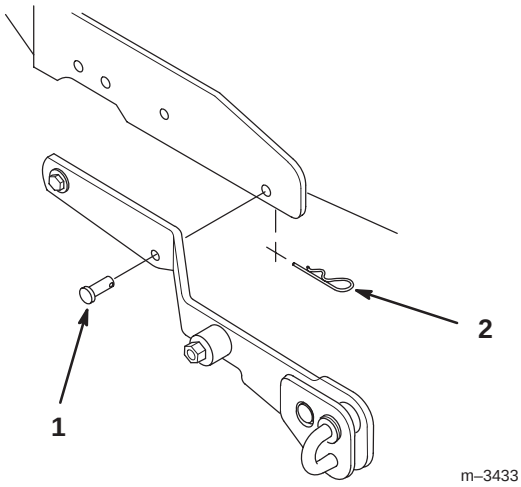


Figure 4

1. Clevis pin
2. Hairpin cotter

4. Attach the pulley box if it is not already on the tractor (Fig. 5).

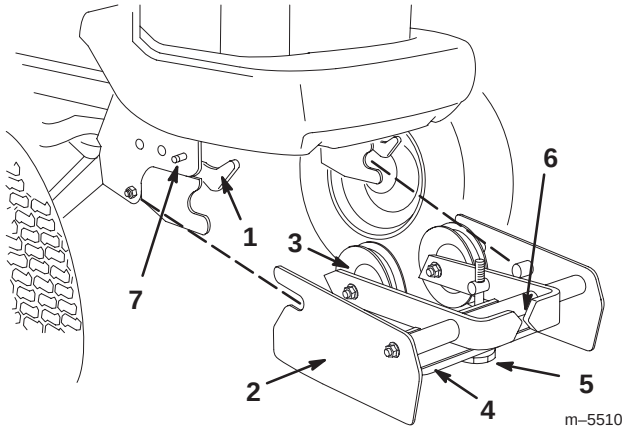


Figure 5

1. Attach-A-Matic™ latches
2. Pulley box
3. Idler pulley
4. Belt tension release arm
5. Belt tension adjustment knob
6. Belt tension indicators
7. Attach-A-Matic™ buttons (one on each side)

A. Ensure that the latches on the tractor's front Attach-A-Matic™ are open.

B. Slide the pulley box into the Attach-A-Matic™ latches and seat it.

C. Close the latches.

Attaching the Mower

1. Set the mower wheels for the lowest height of cut.

2. Move the attachment lift to the full up position.

3. From the right side of the tractor, slide the mower under the tractor.

4. Position the mower so that the slots in the side of each of the mower mounting brackets (Fig. 6) are aligned directly below the tractor attachment lift arm.

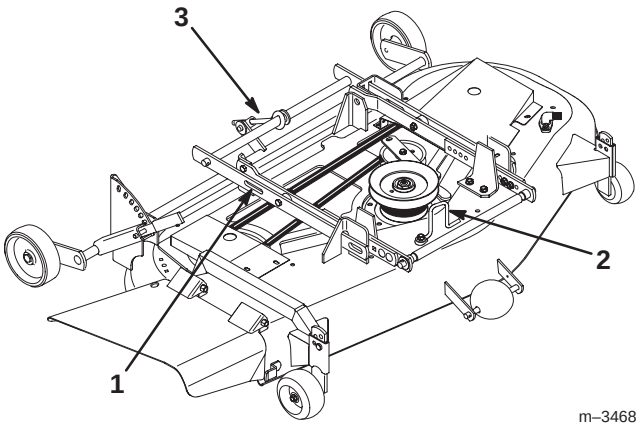


Figure 6

1. Slots in the side mounting brackets (2)
2. Belt guide
3. Front to rear adjustment rod

5. Start the tractor.

6. Lower the attachment lift arm fully and adjust the mower position until you can pull out on the J-pin of the lift arm and slide it into the slot in the mounting bracket of the mower (Fig. 7).

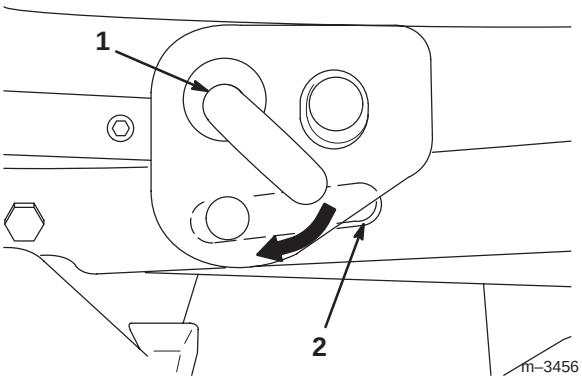


Figure 7

Left Side of Tractor Shown

1. J-pin
2. Mower slot in side mounting bracket.

7. On the left side, pull out the attachment lift J-pin and slide it into the slot on the other mower mounting bracket.

8. After the two J-pins are seated through the mower mounting brackets, using the attachment lift and your hand on the right front adjustable mower wheel bracket (Fig. 8), position the mower so its attachment bar fits into the mid Attach-A-Matic™ mount.

Caution

Movement of the attachment lift between the mower mounting brackets and the attachment lift arms can injure a person when aligning the deck with the lift arms.

- **Keep hands away from moving parts while operating the attachment lift.**
- **Always position the mower with your hand on the right front mower wheel bracket.**
- **Never try to position the mower with your hands on the mower mounting brackets or below the mower housing.**

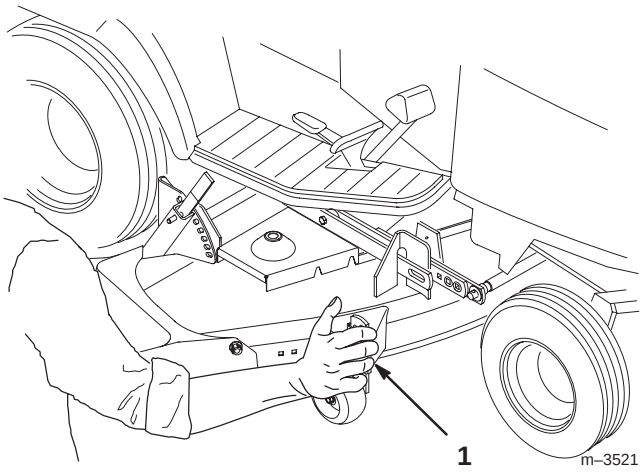


Figure 8

1. Place hand here

9. Turn the lever of the Attach-A-Matic™ counterclockwise to lock the mower to the tractor (Fig. 9).

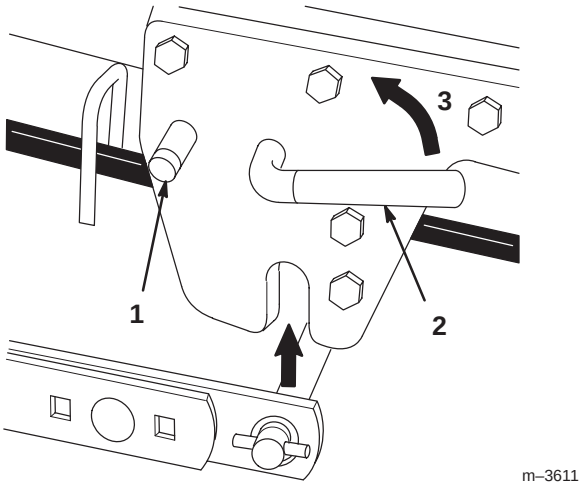


Figure 9

1. Attach-A-Matic ™ button
2. Attach-A-Matic ™ lever
3. Lock

10. Set the parking brake, lower the attachment lift, stop the engine, and remove the ignition key.

Attaching the PTO Drive Belt

1. Remove the tractor grill.

Caution

Components under the hood will be hot if the tractor has been running. If you touch hot components you may be burned.

Allow the tractor to cool before performing maintenance or touching components under the hood.

2. Release the belt tension release arm on the pulley box housing and swing it out toward you (Fig. 10).

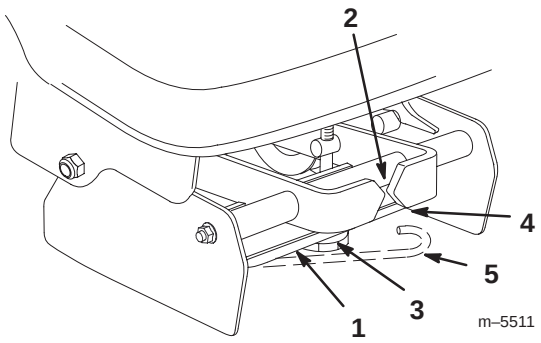


Figure 10

1. Belt tension release arm
2. Belt tension indicators
3. Belt tension adjustment knob
4. Seating position for tension arm
5. Belt tension released

3. Extend the belt through the center of the pulley box, between the two pulleys.

4. Position the belt into the groove of the PTO pulley (Fig. 11), making sure it is also under the pulleys in the pulley box.

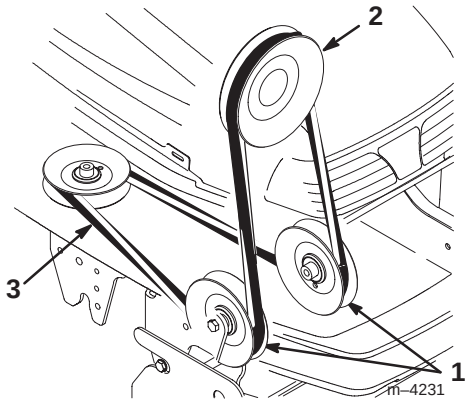


Figure 11

1. Pulley box pulley
2. PTO pulley
3. PTO drive belt

5. Hang the belt over the mower, then thread it forward through the belt guide (Fig. 12) on the mower.

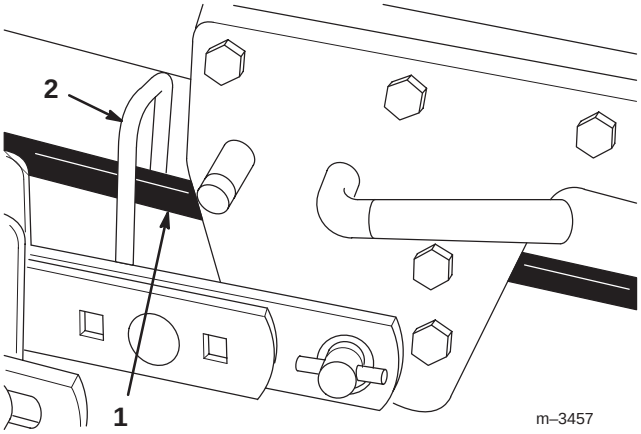


Figure 12

1. Belt
2. Belt guide

6. Loop the other end of the belt over the drive pulley of the mower. Additional belt slack can be obtained (if needed) by turning the belt tension adjustment knob (Fig. 10).

7. Make certain that the wide side of the PTO drive belt is toward the outside diameter of **all (four) pulleys (Fig. 13).**

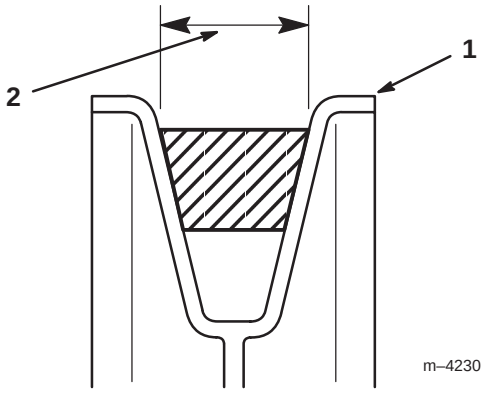


Figure 13

1. Pulley outside diameter
2. Wide side of belt

8. Adjust the belt tension.

   A. Push the belt tension release arm toward the pulley box to tension the belt.

   B. Check the tension indicators on front of the pulley box. The two arrow points on the indicators should line up (Fig. 10).

   C. If the tension indicators do not line up, release the belt tension, turn the adjustment knob and repeat steps A through C until the indicators line up (Fig. 10).

   When finished, swing the tension release arm into the pulley box and seat it by moving it into the position shown in Figure 10.

9. Loosen the belt guide bolt (Fig. 14).

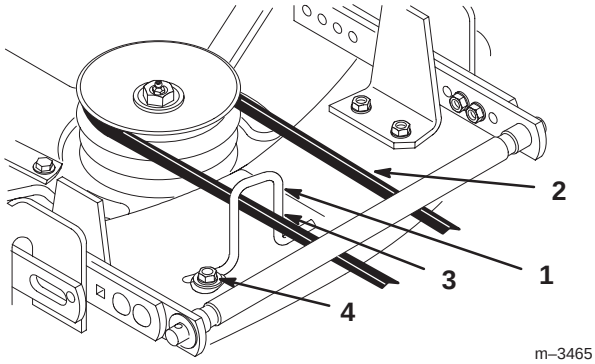


Figure 14

1. Belt guide
2. Belt
3. Belt touches here
4. Belt guide bolt

10. Adjust the belt guide so that it just touches the belt on the inside arm of the guide (toward the center of the mower) (Fig. 14).

11. Tighten the belt guide bolt.

12. Replace the front grill of the tractor.

Adjusting the Mower

Adjusting the Height of Cut

You can adjust the rear support wheels in different hole locations for 1-1/2 to 4-1/2 in. (4 to 11 cm) heights of cut.

1. Start the tractor, set the parking brake, and raise the mower. Get off the tractor.

2. Pull the height-of-cut lever out to disengage it from the quadrant (Fig. 15).

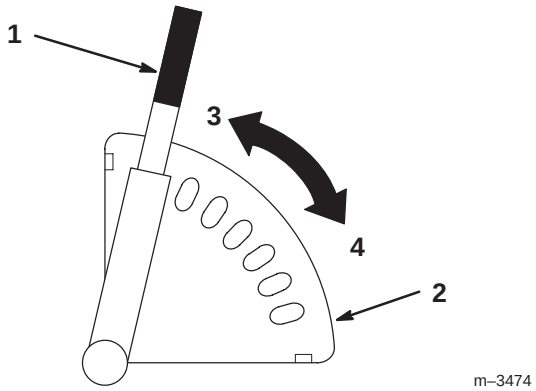


Figure 15

1. Height-of-cut lever
2. Quadrant
3. High
4. Low

3. Adjust the height-of-cut to the desired level (Fig. 15).

4. Release the lever inward to lock it into the quadrant (Fig. 15).

5. Adjust the front wheels in the proper hole location for the selected height-of-cut; refer to Adjusting the Two Front Wheels, page 14.

Checking the Mower Level

For optimum efficiency, check the level of the mower after installation and periodically, to ensure that the blades are 1/8 in. (3 mm) lower in the front than in the rear.

Check and adjust the mower on a flat, level surface, preferably concrete. Before checking the mower level, set the air pressure in the front and rear tires as specified in the tractor *Operator's Manual*. Place the mower height-of-cut lever to the middle cut position. Ensure that the two adjustable front wheels are off of the ground.

1. Disengage the PTO, set the parking brake, lower the attachment lift, stop the engine, and remove the ignition key.

2. Carefully rotate one of the blades so it is oriented front to rear (Fig. 16).

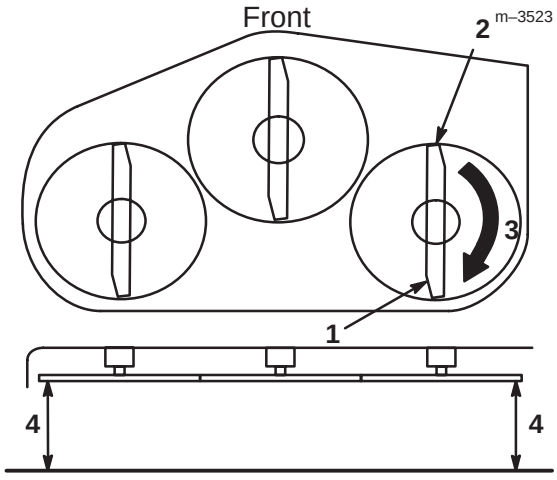


Figure 16

1. Blade oriented front to rear
2. Measure front blade tip
3. Rotate front tip to rear and measure
4. Measure here (side to side)

3. Measure the distance from the front tip of the blade (Fig. 16) to the flat surface.

4. Carefully rotate the blade tip until it is in the rear position and measure it in that position.

When the blade tip is in the front position, it should be 1/8 in. (3 mm) lower than when it is in the rear position.

5. If an adjustment is required, turn the adjusting nut (Fig. 17) on the back of the mower. To raise the front of the mower, turn the adjustment nut clockwise. To lower the front of the mower, turn the nut counterclockwise.

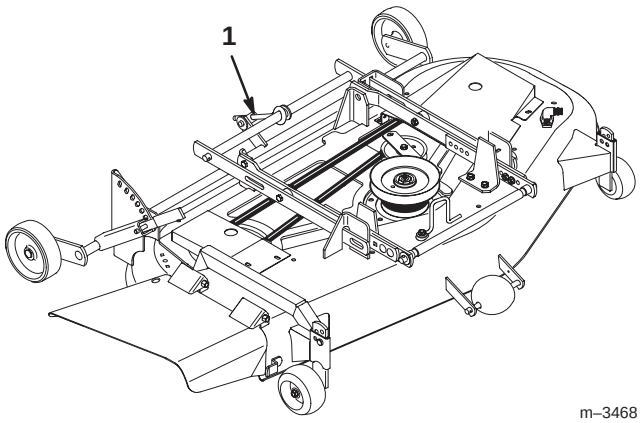


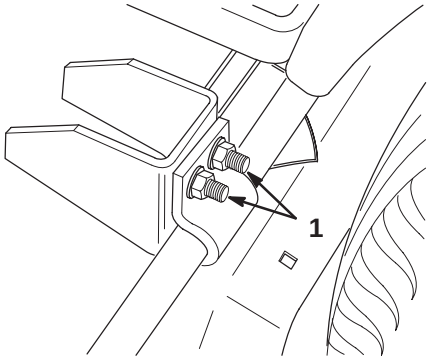
Figure 17

1. Front to rear adjustment rod

Adjusting the Side-to-Side Blade Cut

This optional adjustment is available if necessary to compensate for uneven side-to-side cut.

Equalize side-to-side cut by adjusting the two carriage bolts (Fig. 18) on the mower. Check the height of the blade at outside blade tips (Fig. 16).



m–3459

Figure 18

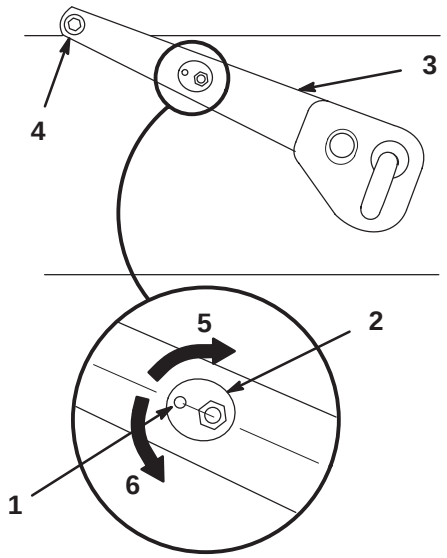
1. Side-to-side adjustment bolts

Adjusting the Blade Slope for Transport

Because the attachment lift is used when the PTO drive is engaged, you must adjust the transport blade slope to extend the PTO drive belt life. This adjustment also provides adequate transport height.

Important Failure to adjust for blade slope in transport can result in drive belt failure and/or insufficient transport height.

1. Check to see that both adjustment cams are oriented with the indicator toward the pivot point at the rear of the tractor (Fig. 19).



m–3518

Figure 19

Right Side of Tractor Shown

1. Indicator
2. Adjustment cam
3. Lift arm
4. Pivot point
5. Lowers front of deck
6. Raises front of deck

2. If they are not, park the machine on a level surface, set the parking brake, lower the attachment lift to take pressure off the cams, stop the engine, and remove the ignition key.

Caution

Movement of the attachment lift between the mower mounting brackets and the attachment lift arms can injure a person when aligning the deck with the lift arms.

- **Keep hands away from moving parts while operating the attachment lift.**
- **Set the parking brake, lower the attachment lift, stop the engine, and remove the ignition key before making any adjustments.**

3. Loosen the nuts on the cams, rotate the cams to the proper position, then tighten the cam nuts.

4. Start the tractor and raise the attachment lift.

5. Stop the engine and remove the ignition key.

6. Check the slope of one of the blades (Fig. 16).

A. Measure the distance from the front tip of the blade to the flat surface.

B. Carefully rotate the blade tip until it is in the rear position and measure it there.

When the blade tip is in the front position, it should be approximately 1/4 in. (7 mm) lower than when it is in the rear position.

7. To adjust the blade slope, start the tractor, lower the attachment lift to take pressure off the cams, stop the engine, and remove the ignition key.
8. Loosen the cam nuts and equally rotate the left and right cams down to raise the front of the mower, or up to lower it. Tighten the nuts.
9. Repeat steps 4 through 8 until the slope of the blade is approximately 1/4 in. (7 mm) lower in the front than it is in the rear.

Removing the Mower

Remove the mower on a level, concrete surface. Rougher dirt or lawn surfaces make removing the mower more difficult.

1. Set the parking brake, start the tractor, and raise the attachment lift.
2. Get off the tractor. Place the mower height-of-cut lever in the lowest cut position.
3. Lower the mower until its weight is completely on its wheels, not on the tractor.
4. Stop the engine and remove the ignition key.
5. Remove the grill.

Caution

Components under the hood will be hot if the tractor has been running. If you touch hot components you may be burned.

Allow the tractor to cool before performing maintenance or touching components under the hood.

6. Release the belt tension release arm on the pulley box to release the tension on the drive belt (Fig. 20).

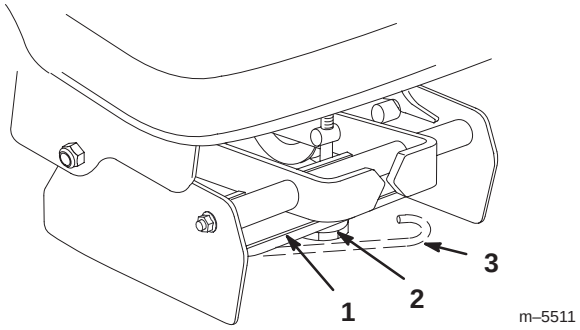


Figure 20

1. Belt tension release arm
2. Belt tension adjustment knob
3. Belt tension released

7. Remove the belt from around the PTO pulley (Fig. 21). Additional belt slack can be obtained (if needed) by turning the belt tension adjustment knob.

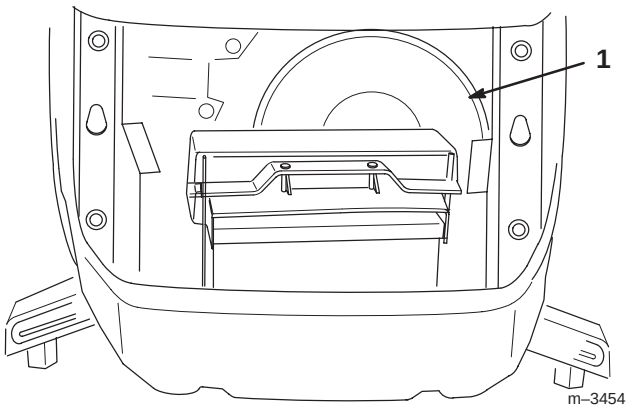


Figure 21

1. PTO pulley

8. Replace the grill.
9. Press the button of the mid Attach-A-Matic™ and twist the lever clockwise to release the mower (Fig. 22).

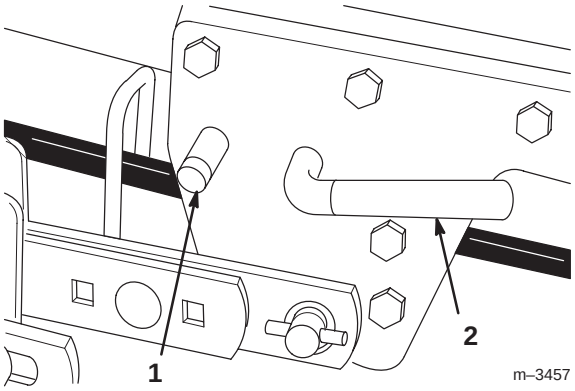


Figure 22

1. Mid Attach-A-Matic™ button
2. Mid Attach-A-Matic™ lever

10. Pull the two spring loaded J-pins from the deck lift arms and twist them slightly so that they stay disengaged (Fig. 23).

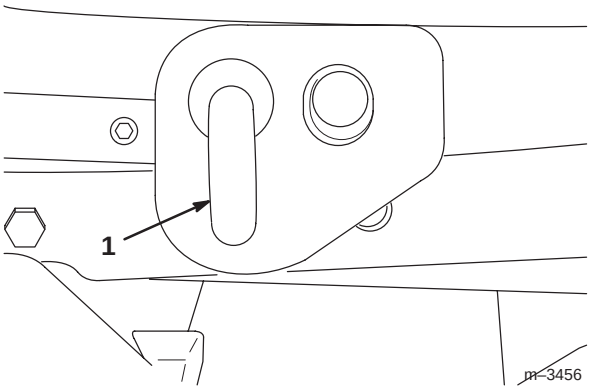


Figure 23

1. J-pin

11. If you wish to remove the pulley box, push the latch release buttons on the front Attach-A-Matic™ (Fig. 24) and raise the latch levers to open the latches holding the pulley box. Remove the pulley box.

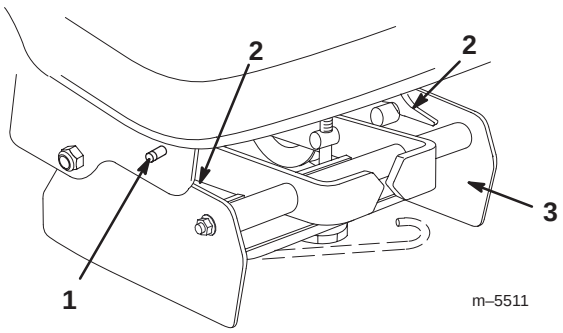


Figure 24

1. Front Attach–A–Matic™ button (one on each side)
2. Front Attach–A–Matic™ latches
3. Pulley box

12. Start the tractor and raise the attachment lift to provide ample clearance to slide out the mower.

13. Stop the engine and remove the ignition key.

14. Slide the mower out from the right side of the tractor.

Removing and Installing the Recycling Baffle (Model 78375)

Removing the Recycling Baffle

Complete the following procedure to convert your Recycler® mower (model 78375) into a side discharge mower:

1. Remove the locknuts and bolts from the right side baffle (Fig. 25).

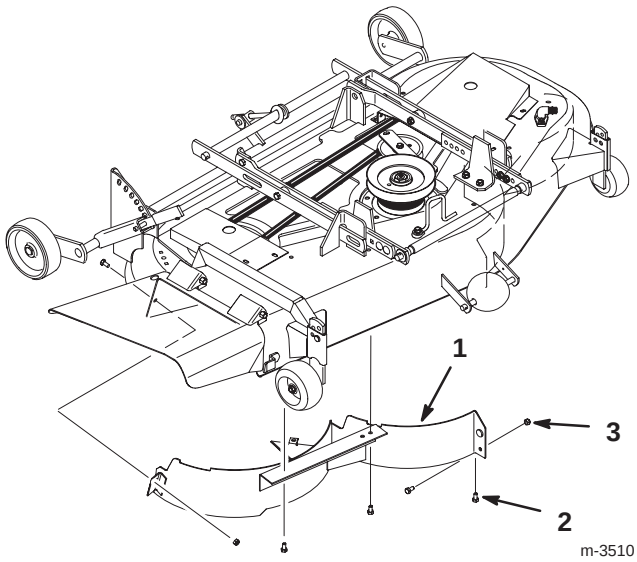


Figure 25

1. Baffle
2. Bolt
3. Locknut

2. Slide the baffle out the discharge opening (Fig. 25).

Note: Only the right side baffle needs be removed for side discharge mowing.

3. Install the bolts and locknuts you removed in step 1 in the open holes of the mower for safety (Fig. 25).

Warning

Open holes in the mower expose you and others to thrown debris which can cause severe injury.

- **Never operate the mower without hardware mounted in all holes in the mower housing.**
- **Install the hardware in the mounting holes when you remove the recycling baffle.**

Installing the Recycling Baffle

Complete the following procedure to convert back to a Recycler mower:

1. Thoroughly clean the mower.

2. Remove the locknuts and bolts from the recycling baffle mounting holes (Fig. 25).

3. Slide the baffle into the discharge opening and into the mower so the pin on the center flange goes through the baffle (Fig. 25).

4. Secure the baffle with the bolts and locknuts you removed in step 2 (Fig. 25).

Operation

Danger

Without the grass deflector, discharge cover, or complete grass catcher assembly mounted in place, you and others are exposed to blade contact and thrown debris. Contact with the rotating mower blades and thrown debris will cause injury or death.

- **Never remove the grass deflector from the mower because the grass deflector routes material down toward the turf. If the grass deflector is ever damaged, replace it immediately.**
- **Never put your hands or feet under the mower.**
- **Never try to clear the discharge area or mower blades unless you move the PTO to Off and rotate the ignition key to Off. Also remove the key and pull the wires off of the spark plugs.**

Operating the Mower

The power take off (PTO) engages and disengages power to the mower. The attachment lift lever raises and lowers the mower. For detailed information on operating your tractor's controls, refer to the tractor *Operator's Manual*.

Cutting Modes

Depending on what you install on your mower, you can use it to side discharge, mulch, or bag grass clippings.

Side Discharge Mode

All mower models have a hinged discharge chute that disperses clippings to the side and down toward the turf.

Recycling (Mulching) Mode

Mower model 78375 comes standard with recycling baffles installed to allow you to mulch the grass. For other models, you can purchase a recycling kit that converts your side discharge mower into a recycling mower. A recycling mower cuts each grass blade into many small pieces and then hides them down in the grass. This is very good for the grass because the clippings will decompose and provide your lawn with nutrients.

Bagging Mode

You can also purchase various grass baggers and catchers from your Authorized Toro Dealer that you can install on your mower and tractor. A grass bagger/catcher catches the grass clippings, allowing you to remove them completely from your lawn.

Adjusting the Front Wheels

The two front adjustable wheels must be adjusted in the proper hole location each time you change the height-of-cut.

1. After selecting a height of cut, make sure the front adjustable wheels are approximately 3/8 in. (9.5 mm) off the ground.
2. To adjust the wheel height, remove the hairpin cotter and pin to change hole location (Fig. 26).

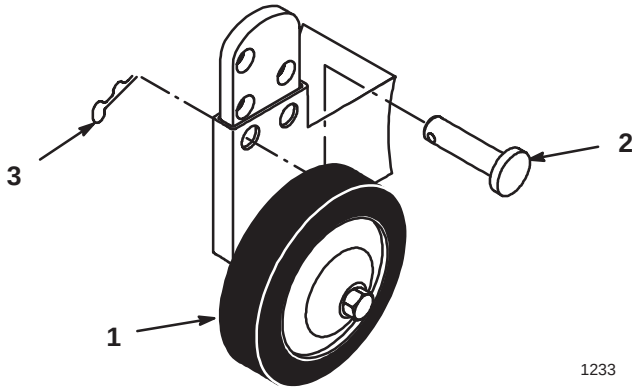


Figure 26

1. Wheel
2. Pin
3. Hairpin Cotter

3. Select a hole position so the wheel is approximately 3/8 in. (9.5 mm) off the ground for the height-of-cut position to be used (Fig. 26).
4. Insert the pin and secure it with a hairpin cotter.
5. Repeat this adjustment on the other wheel.

Checking for Debris

Each time you use the mower, be sure to check for debris build up on and inside the rear transaxle cover (Fig. 27). Remove any build up.

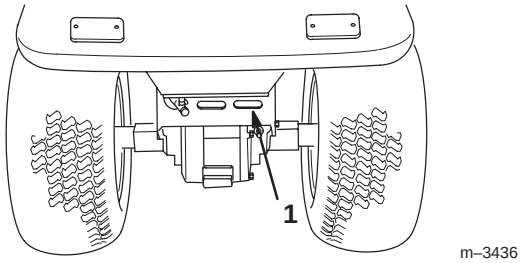


Figure 27

1. Rear transaxle cover

Tips for Mowing Grass

- For best mowing and maximum air circulation, operate the engine at the fastest throttle position.
- When using the mower for the first time, cut grass slightly longer than normal to ensure the cutting height of the mower does not scalp any uneven ground.
- Cut only about 1/3 of the grass blade. Cutting more than that is not recommended, unless grass is sparse or it is late fall when grass grows more slowly.
- Alternate mowing direction to keep the grass standing straight. This also helps disperse clippings which enhances decomposition and fertilization.
- Avoid mowing in reverse.
- To improve cut quality, use slower ground speed. For best results on average lawns, operate the engine at full throttle while controlling the ground speed with the transmission. Operate the tractor at 2 to 3.5 MPH (3.2 to 5.6 kms/hr) while mowing grass. Excessive ground speed may result in uneven cutting.
- Air is required to thoroughly cut grass clippings, so do not set the height-of-cut so low as to totally surround the mower by uncut grass.
- Always try to have one side of the mower free from uncut grass, which allows air to be drawn into the mower.
- If the cutting width of the mower is wider than the mower you previously used, raise the cutting height to ensure uneven turf is not cut too short. Average lawns are usually cut at a height between 2 and 3 inches (5 to 7.6 cm).
- To cut long or wet grass, raise the cutting height and cut the grass. Then, cut the grass again using the lower, normal setting.

- If you must stop while mowing, a clump of grass clippings may drop onto your lawn. To avoid this, move onto a previously mowed area with the blades engaged and then raise the attachment to disperse the clippings evenly.
- Use the washout port to 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.
- Keep the blade sharp. A sharp blade cuts cleanly without tearing or shredding the grass blades. Tearing and shredding slows growth and increases the chance of disease. Every 30 days, check the blades for sharpness and file down any nicks.

Maintenance

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

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
Each Use	• Wash the underside of the mower.
5 hours	• Inspect the blades. • Check the belt tension (initial check only).
25 hours	• Grease the mower spindles.
50 Hours	• Check the belt tension.
Storage Service	• Wash the underside of the mower. • Inspect the blades. • Grease the mower spindles. • Check the belt tension. • Check the belts for wear and cracks. • Paint chipped surfaces.

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 and disconnect the wires from the spark plugs before you do any maintenance. Set the wires aside so that they do not accidentally contact the spark plugs.

Servicing the Blades

To ensure a superior quality of cut, keep the blades sharp. For convenient sharpening and replacement, you may want to have extra blades.

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.**

1. Remove the mower; refer to Removing the Mower, page 11.
2. Carefully turn the mower over to expose the blades

Inspecting the Blades

1. Inspect the cutting edges (Fig. 28).
2. If the edges are not sharp or have nicks, remove the blades and sharpen them.
3. Inspect the blades, especially the curved area (Fig. 28).
4. If you notice any damage, wear, or a slot forming in this area (Fig. 28), immediately install a new blade.

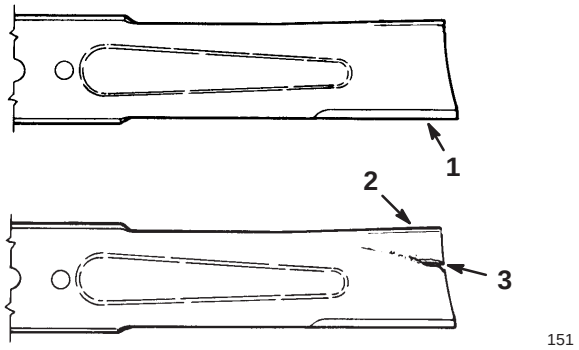


Figure 28

1. Cutting edge
2. Curved area
3. Wear/slot forming

Removing a Blade

1. Hold the blade end using a rag or thickly padded glove.
2. Remove the bolt, stiffener, and blade (Fig. 29).

   Note: A block of wood may be wedged between the blade and the mower to lock the blade when you are removing the nut.

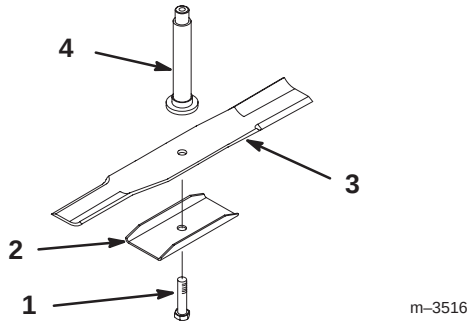


Figure 29

1. Bolt
2. Stiffener
3. Blade
4. Spindle

3. Inspect all parts. If damage is noticed, install new parts.

Sharpening a Blade

1. Use a file to sharpen the cutting edge at both ends of the blade (Fig. 30).

   Maintain the original angle. The blade retains its balance if the same amount of material is removed from both cutting edges.

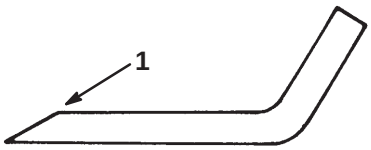


Figure 30

1. Sharpen at original angle

2. Check the balance of the blade by putting it on a blade balancer (Fig. 31).

   If the blade stays in a horizontal position, the blade is balanced and can be used.

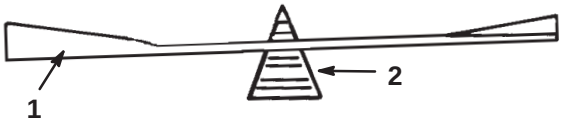


Figure 31

1. Blade
2. Balancer

3. If the blade is not balanced, file some metal off the back side of the blade.

4. Repeat steps 2 and 3 until the blade is balanced.

Installing the Blades

1. Hold the blade end using a rag or thickly padded glove.
2. Install the blade, stiffener, and the blade bolt (Fig. 29).

Important The sail (curved part of the blade) must be pointing up toward the inside of the mower to ensure proper cutting.

3. Tighten the nut to 80 to 100 ft.-lb. (109 to 136 N·m).

Greasing the Blade Spindles

Grease the mower after every 25 operating hours or once a year, whichever occurs first. Grease more frequently when operating conditions are extremely dusty or sandy.

Grease Type: General-purpose grease.

How to Grease

1. Disengage the PTO, set the parking brake, lower the attachment lift, stop the engine, and remove the ignition key.
2. Clean the grease fittings (Fig. 32) with a rag.

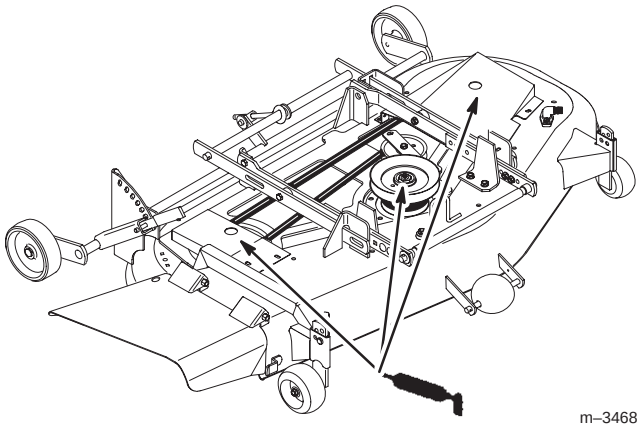


Figure 32

3. Scrape any paint off the end of the fittings.
4. Connect a grease gun to each fitting (Fig. 32).
5. Pump grease into the fittings.
6. Wipe up any excess grease.

Checking PTO Drive Belt Tension

Check the PTO drive belt tension after 5 hours of operating with a new belt, then every 50 hours or once a year, whichever occurs first.

1. Check the tension indicators on the front of the pulley box. If the tension indicators do not line up, release the belt tension and turn the adjustment knob. Push the belt tension release arm back toward the pulley box to tension the belt (Fig. 33).

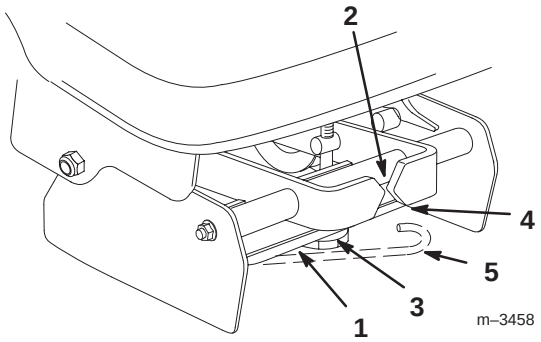


Figure 33

1. Belt tension release arm
2. Belt tension indicators
3. Belt tension adjustment knob
4. Seating position for tension arm
5. Belt tension released

2. Repeat step 1 until the indicators move to the same position.
3. Swing the tension release arm into the pulley box by moving it into the position shown in Figure 33.

Extending PTO Drive Belt Life

The PTO drive belt will provide a long service life if properly installed and operated. Check the following to help extend belt life.

- Maintain correct belt tension.
- Maintain correct mower level.
- Maintain correct blade slope in transport.
- Adjust the position of the mower belt guide.
- Replace damaged pulleys.
- Always operate engine-powered attachments at full throttle.
- Avoid engaging the PTO when the mower is in tall uncut grass or weeds.
- Cut tall grass and weeds with the mower in its highest position, making a second pass cutting at desired height.

- Regularly clean the mower of any buildup of grass clippings.
- Use low range or reduce ground speed when mowing in heavy conditions or when mulching or bagging.

Replacing the Blade Drive Belt

Removing the Blade Drive Belt

1. Remove the mower; refer to Removing the Mower, page 11.
2. Remove the pulley cover mounting screws and pulley covers from the blade pulleys (Fig. 34).

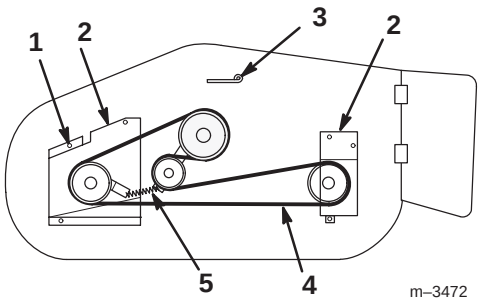


Figure 34

Top View

1. Pulley cover screw
2. Pulley cover
3. Belt guide
4. Mower belt
5. Spring

3. Release the spring (Fig. 34).
4. Remove the belt from the pulleys (Fig. 34).

Installing the Blade Drive Belt

1. Install the new belt around the blade pulleys and the idler pulleys.
2. Attach the spring (Fig. 34).
3. Install the left and right pulley covers with the mounting screws (Fig. 34).
4. Install the mower; refer to Installing the Mower, page 5.

Washing the Mower

After each use, wash the underside of the mower to prevent grass build-up and improve performance.

1. Park the tractor on a hard level surface.
2. Apply the parking brake, start the tractor, and raise the attachment lift.
3. Get off the tractor. Place the mower height-of-cut lever in the lowest cut position.
4. Lower the attachment lift, stop the engine, and remove the ignition key.
5. Attach a hose coupling to the end of the washout fitting and turn water on high (Fig. 35).

Note: Spread petroleum jelly on the washout fitting o-ring to help the coupling slide on easier and protect the o-ring.

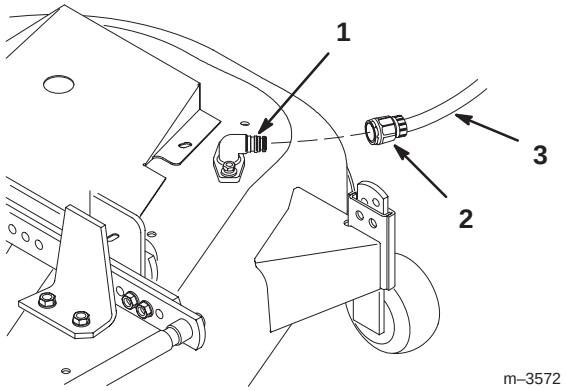


Figure 35

1. Washout fitting
2. Coupling
3. Hose

6. Sit on the seat and start the engine.
7. Engage the PTO and let the mower run for one to three minutes.
8. Disengage the PTO, stop the engine, and remove the ignition key. Wait for all moving parts to stop.
9. Turn the water off and remove the hose coupling from the washout fitting.

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

10. Run the mower again for one to three minutes to remove excess water.

Warning

A broken or missing washout fitting could expose you and others to thrown objects or blade contact. Contact with the blade or thrown debris will cause injury or death.

- **Replace a broken or missing washout fitting immediately, before using the mower again.**
- **Plug any hole(s) in the mower with bolts and locknuts.**
- **Never put your hands or feet under the mower or through openings in the mower.**

Storage

1. Clean dirt and chaff from the top of the mower.
2. Scrape heavy buildup of grass and dirt from the underside of the mower.
3. Use the wash out port to wash the underside of the mower; refer to Washing the Mower, page 18.
4. Wash the top side of the mower with a garden hose.
5. Check the condition of the blades.
6. Check the condition of the blade drive belt.
7. Check and tighten all bolts, nuts, and screws. Repair or replace any part that is damaged.
8. Paint all scratched or bare metal surfaces. Paint is available from you Authorized Service Dealer.
9. Store the mower in a clean, dry garage or storage area. Cover the mower to protect it and keep it clean.

Troubleshooting

Problem	Possible Causes	Corrective Action
Abnormal vibration.	1. A blade is bent or unbalanced. 2. A blade mounting bolt is loose. 3. The engine mounting bolts are loose. 4. A loose engine pulley, idler pulley, or blade pulley. 5. The engine pulley is damaged.	1. Install new blades. 2. Tighten the blade mounting bolts. 3. Tighten the engine mounting bolts. 4. Tighten the appropriate pulley. 5. Contact your Authorized Service Dealer.
Blades do not rotate.	1. The blade drive belt is worn, loose, or broken. 2. The blade drive belt is off the pulley. 3. The PTO belt is worn, loose, or broken.	1. Install a new blade drive belt. 2. Install the blade drive belt and check idler pulley and belt guides for correct position. 3. Install a new PTO belt.
Uneven cutting height.	1. The tire pressure is incorrect. 2. The mower is not level. 3. The underside of the mower is dirty.	1. Set tire pressure. 2. Level the mower from side-to-side and front-to-rear. 3. Clean the underside of the mower.
Insufficient transport height.	1. The lift arm cams are improperly adjusted.	1. Adjust lift arm cams.

Problem	Possible Causes	Corrective Action
PTO drive belt comes off of pulleys,slips or fails.	1. The belt tension is incorrect.	1. Adjust the belt tension.
	2. The mower level is incorrect.	2. Adjust the mower level.
	3. The blade slope in transport is incorrect.	3. Adjust the blade slope in transport.
	4. The mower belt guide is loose or incorrectly adjusted.	4. Adjust and tighten the belt guide.
	5. The belt is worn or damaged.	5. Install a new belt.
	6. The Pulley is damaged.	6. Contact your Authorized Service Dealer.
	7. The engine is not at full throttle.	7. Always operate engine-powered attachments at full throttle.
	8. The PTO is being engaged when the mower is in tall uncut grass or weeds.	8. Engage the PTO only in shorter or previously cut grass.
	9. The mower is overloaded because mulching or bagging requires more power.	9. Reduce the ground speed when mulching or bagging.
	10. The mower is overloaded because too much grass is being cut at a time.	10. Cut tall grass and weeds with the mower in its highest position, making a second pass cutting at height desired.
	11. The mower is overloaded because deck is clogged with grass clippings.	11. Clean the mower.
	12. The mower is overloaded because tractor is mowing too fast for conditions.	12. Reduce ground speed.