



42in Single-Stage Snowthrower

XT Series Garden Tractor Attachment

Model No. 79483—Serial No. 230000001 and Up

PROTOTYPE

Operator's Manual

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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.

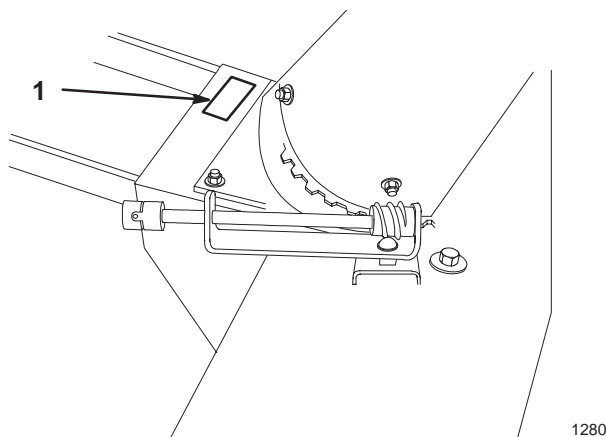


Figure 1

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.



Safety

Improper use or maintenance by the operator or owner can result in injury. To reduce the potential for injury, comply with the safety instructions in the traction unit operator's manual 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.

 **Danger** 

When the snowthrower is in operation, the impeller and auger can be rotating and cut off or injure hands and feet.

- Before adjusting, cleaning, repairing and inspecting the snowthrower, and before unlogging the discharge chute, *stop the engine and wait for all moving parts to stop*. Remove the key.
- Use a stick, *not your hands*, to remove an obstruction from the discharge chute.
- Stay behind the handles and away from the discharge opening while operating the snowthrower.
- Keep face, hands, feet, and any other part of your body or clothing away from concealed, moving, or rotating parts.

 **Warning** 

The auger/impeller may pick up and throw stones, toys, and other foreign objects, causing serious personal injury to the operator or to bystanders.

- Keep the area to be cleared free of all objects that could be picked up and thrown by the auger/impeller.
- Keep all children and pets away from area of operation.

General Snowthrower Safety

The following instructions have been adapted from the ANSI/OPEI and ISO standards.

Preparation

- Thoroughly inspect the area where the equipment is to be used and remove all doormats, sleds, boards, wires, and other foreign objects.

- Do not operate the equipment without wearing adequate winter outer garments. Wear footwear that will improve footing on slippery surfaces.
- Adjust the auger housing height to clear gravel or crushed rock surface.
- Never attempt to make any adjustments while the engine is running, except when specifically recommended by Toro.
- Let engine and machine adjust to outdoor temperatures before starting to clear snow.
- The operation of any powered machine can result in foreign objects being thrown into the eyes. Always wear safety glasses or eye shields during operation or while performing an adjustment or repair.

Operation

- Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.
- Exercise extreme caution when operating on or crossing gravel drives, walks, or roads. Stay alert for hidden hazards or traffic. Do not carry passengers.
- After striking a foreign object, stop the engine, remove the wire(s) from the spark plug(s), thoroughly inspect the snowthrower for any damage, and repair the damage before restarting and operating the snowthrower.
- If the unit should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
- Stop the engine whenever you leave the operating position, before unlogging the auger/impeller housing or discharge chute, and when making any repairs, adjustments, or inspections.
- When cleaning, repairing, or inspecting, make certain the auger/impeller and all moving parts have stopped. Disconnect the spark plug wire(s) and keep the wire away from the plug to prevent someone from accidentally starting the engine.
- Do not clear snow across the face of slopes. Exercise extreme caution when changing direction on slopes. Do not attempt to clear steep slopes.
- Never operate the snowthrower without proper guards, plates, or other safety protective devices in place.
- Never operate the snow thrower near glass enclosures, automobiles, window wells, drop-offs, and the like without proper adjustment of the snow discharge angle. Keep children and pets away.
- Do not overload the machine capacity by attempting to clear snow at too fast a rate.

- Never operate the machine at high transport speeds on slippery surfaces. Look behind and use care when moving in reverse.
- Never direct discharge at bystanders or allow anyone in front of the unit.
- Disengage power to the auger/impeller when the snowthrower is transported or not in use.
- Never operate the snowthrower without good visibility or light.
- Perform only those maintenance instructions described in this manual. Before performing any maintenance, service, or adjustment, stop the engine, remove the key and pull the wire(s) from the spark plug(s), keeping it away from the plug(s) to prevent someone from accidentally starting the engine. If major repairs are ever needed, contact your Authorized Toro Service Dealer.
- To ensure the best performance and safety, purchase only genuine Toro replacement parts and accessories to keep the Toro all Toro. **Do not use “Will Fit” replacement parts and accessories as they could cause a safety hazard.**

Maintenance and Storage

- Check fasteners at frequent intervals for proper tightness to be sure the equipment is in safe working condition.
- Always refer to the operator’s manual for important details if the snowthrower is to be stored for an extended period.
- Maintain or replace safety and instruction labels, as necessary.
- Run the machine a few minutes after throwing snow to prevent freeze-up of the auger/impeller.

Toro Snowthrower 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 ANSI or ISO standards.

- **The rotating auger/impeller or rotor blades can cut off or injure fingers or hands.** Stay in the operator’s position and away from the discharge opening while operating the snowthrower. **Keep your face, hands, feet, and any other part of your body or clothing away from concealed, moving, or rotating parts.**
- Before adjusting, cleaning, repairing, and inspecting the snowthrower, and before unclogging the discharge chute, **stop the engine, remove the key, and wait for all moving parts to stop.** Also, pull the wire(s) off of the spark plug(s) and keep it away from the plug(s) to prevent someone from accidentally starting the engine.
- Use a stick, **not your hands** to remove obstructions from the discharge chute.
- **Before** leaving the operator’s position, stop the engine, remove the key, and wait for all moving parts to stop.
- Do not wear loose fitting clothing that could possibly get caught in moving parts.
- If a shield, safety device, or decal is damaged, illegible, or lost, repair or replace it before beginning operation. Also, tighten any loose fasteners.
- **Do not** use the snowthrower on a roof.

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Safety and Instruction 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.



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PROTOTYPE

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 |
|-----------------------------------|------|---|
| Pulley assembly | 1 | Installing the pulley assembly |
| Cotter pin, 3/32 x 1 inch | 1 | |
| Washer, 17/32 inch | 2 | |
| Housing | 1 | Installing the frame |
| Frame | 1 | |
| Bolt, 3/8 x 1 inch | 4 | |
| Locknut, 3/8 inch | 4 | |
| Pulley | 1 | Installing the snowthrower drive pulley |
| Key | 1 | |
| Square head bolt, 5/16 x 1/2 inch | 2 | |
| Top plate | 1 | Installing the top and side plates |
| Side plate | 2 | |
| Long shoulder bolt, 3/8 x 1 inch | 9 | |
| Washer, 3/8 inch | 9 | |
| Locknut, 3/8 inch | 9 | |
| Discharge chute, upper | 1 | Installing the discharge chute and worm gear assembly |
| Discharge chute, lower | 1 | |
| Deflector shield | 1 | |
| Carriage bolt, 5/16 x 3/4 inch | 3 | |
| Bolt, 5/16 x 5/8 inch | 3 | |
| Washer, 5/16 inch | 6 | |
| Locknut, 5/16 inch | 7 | |
| Worm gear assembly | 1 | |
| Carriage bolt, 5/16 x 1 inch | 1 | |
| Lock washer, 5/16 inch | 1 | |
| Lift bracket | 1 | Installing the lift bracket |
| Support rod | 1 | |
| Cotter pin | 2 | |
| Washer, 17/32 inch | 2 | |
| Washer, 21/32 inch | 1 | |
| Hairpin cotter pin | 1 | |

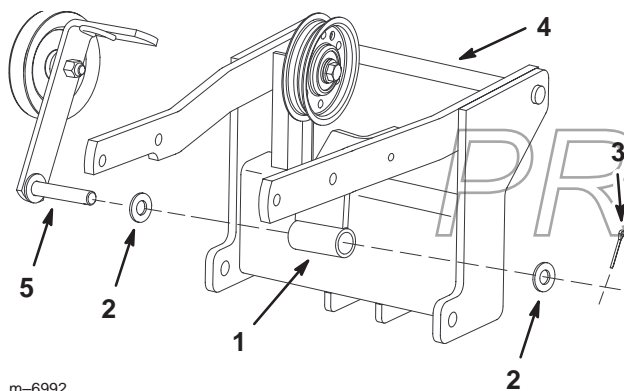
PROTOTYPE

| Description | Qty. | Use |
|--------------------------------|------|---|
| Lift tube | 1 | Installing the lift tube to the snowthrower |
| Clevis pin | 1 | |
| Pin clip | 1 | |
| Eyebolt | 1 | |
| Locknut, 3/8 inch | 1 | |
| Hairpin cotter pin | 1 | |
| Washer, 5/8 inch | 11 | |
| Snowthrower assembly | 1 | Installing the snowthrower to the tractor |
| Stop rod | 1 | |
| Chute control rod support | 1 | |
| Hairpin cotter pin, 1-7/8 inch | 1 | |
| Lift spring | 1 | |
| Belt | 1 | Installing the belt and belt spring |
| Belt spring | 1 | |
| Chute control rod | 1 | Installing the chute control rod |
| Hairpin cotter pin | 1 | |

Note: It is recommended to install wheel weights and chains while using this snowthrower. Please contact an Authorized Service Dealer to acquire a wheel weight kit and chains.

Installing the Pulley Assembly

1. Install the pulley assembly into the pivot tube with bushings and secure it with a washer and cotter pin (Fig. 2).



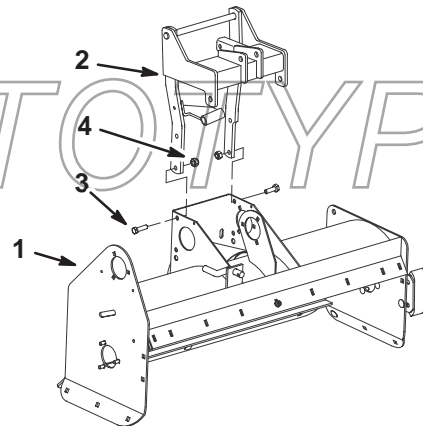
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Figure 2

- | | |
|-----------------------|--------------------|
| 1. Pivot tube | 4. Frame |
| 2. Washer, 17/32 inch | 5. Pulley assembly |
| 3. Cotter pin | |

Installing the Frame

1. Tip the housing onto its front.
2. Place the frame onto the snowthrower housing and align the holes (fig. 3).
3. Secure the frame to the housing with 4 bolts (3/8 x 1 inch), with the bolt heads to the outside, and 4 lock nuts (3/8 inch) (Fig. 3).
4. Rotate the housing down into the normal operating position.



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Figure 3

- | | |
|------------|-----------------------|
| 1. Housing | 3. Bolt, 3/8 x 1 inch |
| 2. Frame | 4. Locknut, 3/8 inch |

Installing the Snowthrower Drive Pulley

1. Install the key into the slot in the shaft (Fig. 4). The key may need to be lightly tapped in with a hammer.
2. Align the pulley with the key and slide the pulley onto the shaft (Fig. 4). The long hub needs to be facing towards the outside of the snowthrower.
3. Install the 2 square head bolts (5/16 x 1/2 inch) into the long hub (Fig. 4). Do not tighten the bolts, the pulley will need to be adjusted when installing the belt.
4. Rotate the housing down into the normal operating position.

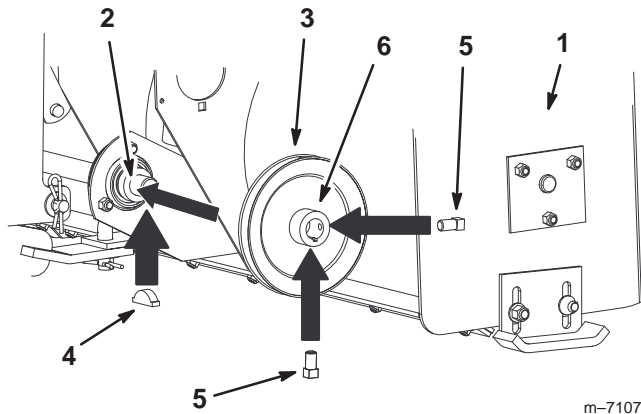


Figure 4

- | | |
|------------|--------------------------------------|
| 1. Housing | 5. Square head bolt, 5/16 x 1/2 inch |
| 2. Shaft | 6. Long hub |
| 3. Pulley | |
| 4. Key | |

Installing the Side and Top Plates

1. Position the top plate on top of the top housing flange and secure it with 3 carriage bolts (3/8 x 1 inch) (heads on the inside), 3 washers (3/8 inch), and 3 locknuts (3/8 inch) (Fig. 5).
2. Position the side plates on the outside of the housing side flanges and secure them with 6 carriage bolts (3/8 x 1 inch) (heads on the inside), 6 washers (3/8 inch), and 6 locknuts (3/8 inch) (Fig. 5).

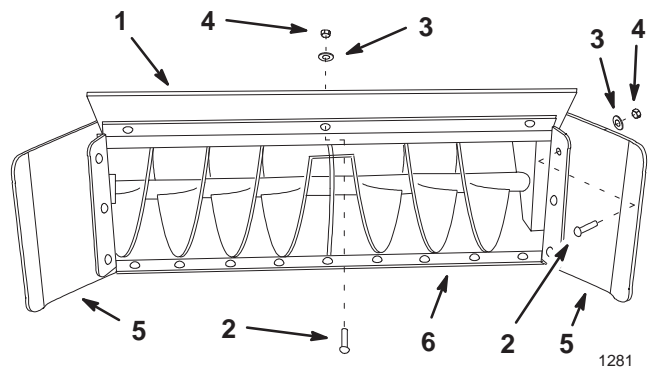


Figure 5

- | | |
|--------------------------------|----------------------|
| 1. Top plate | 4. Locknut, 3/8 inch |
| 2. Carriage bolt, 3/8 x 1 inch | 5. Side plate |
| 3. Washer, 3/8 inch | 6. Housing |

Installing the Discharge Chute and Worm Gear Assembly

1. Install the lower discharge chute and deflector shield onto the housing with 3 carriage bolts (5/16 x 3/4 inch) (heads to the inside), 3 washers (5/16 inch), and 3 locknuts (5/16 inch) (fig. 6).

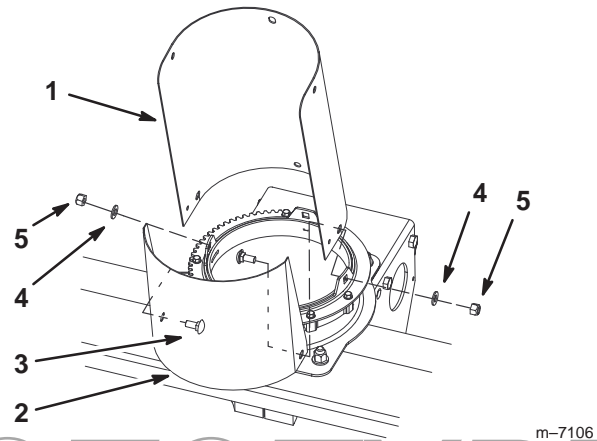


Figure 6

- | | |
|-----------------------------------|-----------------------|
| 1. Discharge chute | 4. Washer, 5/16 inch |
| 2. Deflector shield | 5. Locknut, 5/16 inch |
| 3. Carriage bolt, 5/16 x 3/4 inch | |

2. Assemble the upper discharge chute on top and outside of the lower section with 3 bolts (5/16 x 5/8 inch) (heads on the inside), 3 washers (5/16 inch), and 3 locknuts (5/16 inch) (fig. 7).

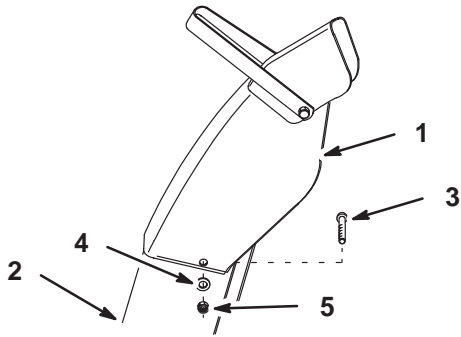


Figure 7

- | | |
|-------------------------|-----------------------|
| 1. Upper section | 4. Washer, 5/16 inch |
| 2. Lower section | 5. Locknut, 5/16 inch |
| 3. Bolt, 5/16 x 5/8 in. | |

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3. Install the discharge chute worm gear assembly into the slot on the rightside of the housing with a carriage bolt (5/16 x 1 inch) (head to the top), lock washer (5/16 inch), and locknut (5/16 inch) (fig. 8).
4. Adjust the rotator assembly so that the worm gear is at a right angle with the chute, the chute teeth mesh fully, and the chute turns freely (fig. 8).
5. Tighten the locknut securely (fig. 8).

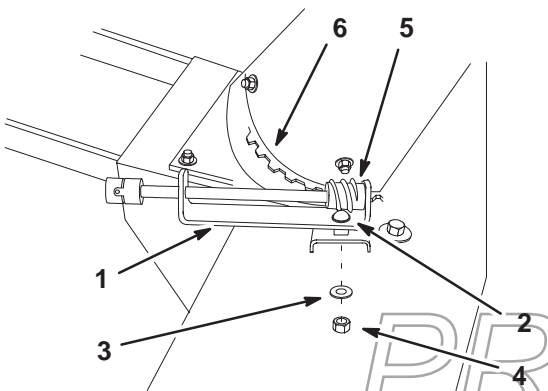


Figure 8

- | | |
|--------------------------------|-----------------------|
| 1. Worm gear assembly | 4. Locknut, 5/16 inch |
| 2. Carriage bolt, 5/16 x 1 in. | 5. Worm gear |
| 3. Lock washer, 5/16 in. | 6. Chute teeth |

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Installing the Lift Bracket

1. Install the lift bracket to the snowthrower with a flat washer (5/8 inch) and a hairpin cotter (fig. 9).

2. Install the lift bracket to the snowthrower frame with a support rod, 2 washers (17/32 inch) and 2 cotter pins (Fig. 9).

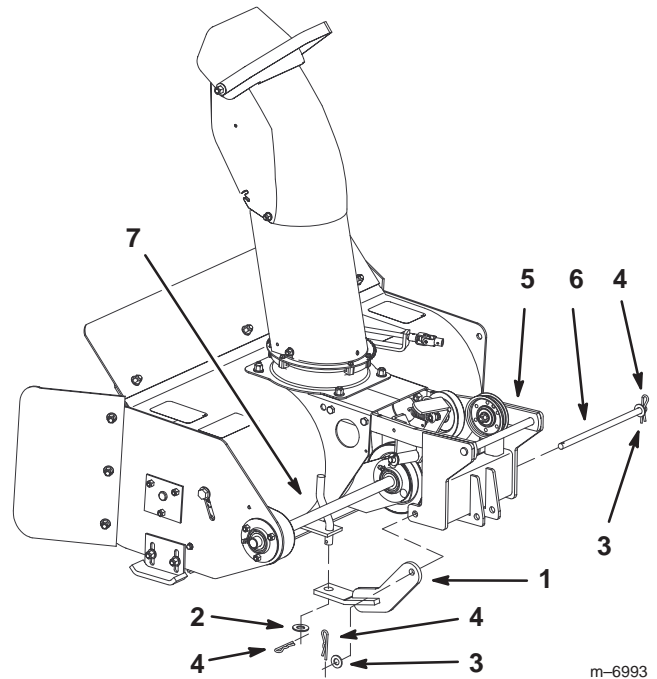


Figure 9

- | | |
|-----------------------|----------------------|
| 1. Lift bracket | 5. Snowthrower frame |
| 2. Washer, 5/8 inch | 6. Support rod |
| 3. Washer, 17/32 inch | 7. Snowthrower |
| 4. Hairpin cotter pin | |

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Installing the Lift Tube to the Snowthrower

1. Install the lift tube to the snowthrower frame with a clevis pin and a pin clip (Fig. 10).

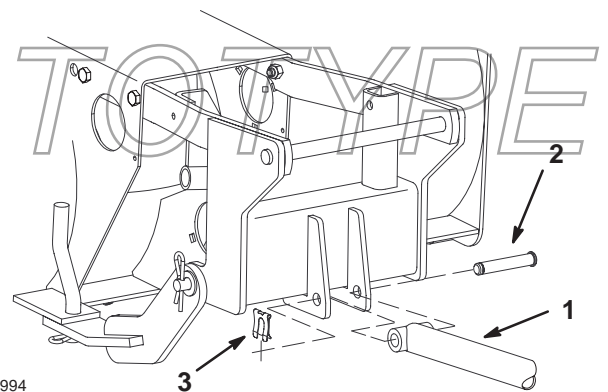


Figure 10

- | | |
|---------------|-------------|
| 1. Lift tube | 3. Pin clip |
| 2. Clevis pin | |

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2. Install the eyebolt and locknut (3/8 inch) to the end of the lift tube (Fig. 11). Install the eyebolt so it is flush with the locknut.
3. Install 11 washers (5/8 inch) onto the lift rod and then install the lift rod into the lift tube (Fig. 11 and 21).

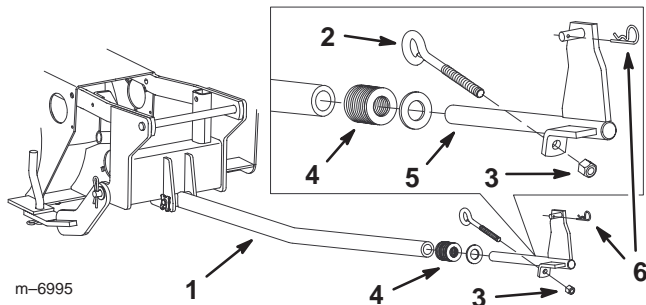


Figure 11

- | | |
|----------------------|-----------------------|
| 1. Lift tube | 4. Washers, 5/8 inch |
| 2. Eyebolt | 5. Lift Rod |
| 3. Locknut, 3/8 inch | 6. Hairpin cotter pin |

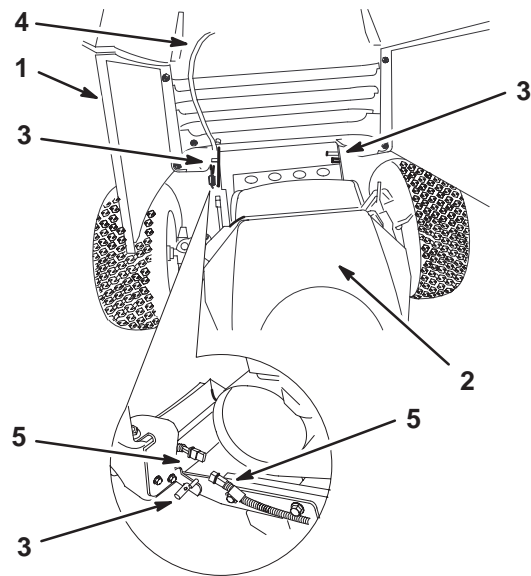


Figure 12

- | | |
|-----------------------|----------------------|
| 1. Hood—open position | 4. Wire harness |
| 2. Engine | 5. Harness connector |
| 3. Pivot peg | |

Installing the Snowthrower to the Tractor

Removing the Hood

If desired, remove the hood for better access to the upper pulleys in the pulley box.

1. Rotate the hood fully forward (Fig. 12).
2. Disconnect the wire harness at the front left of the machine. The harness leads up to the head lights (Fig. 12).
3. Slide the hood to the left side of the machine and off of the pivot pegs (fig. 12).

Installing the Snowthrower

Caution

The snowthrower adds a lot of weight to the front of the tractor, causing poor traction and an unstable condition which could result in a loss of control.

Install the 100lb rear wheel weights (sold separately).

1. Position the snowthrower on a flat surface with the frame and lift tube extending rearward (Fig. 13).

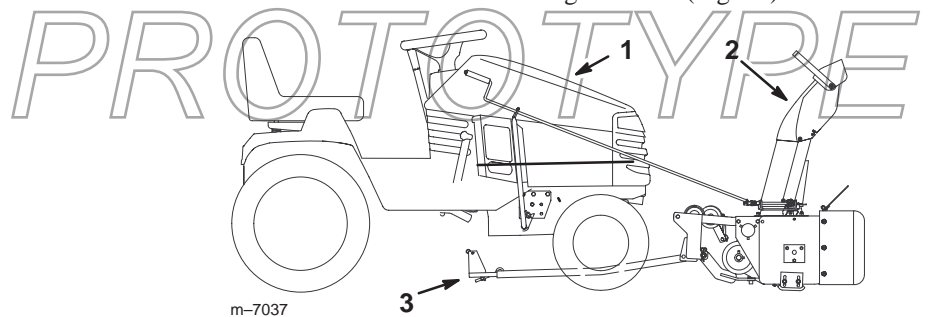


Figure 13

- | | |
|----------------|--------------|
| 1. Tractor | 3. Lift tube |
| 2. Snowthrower | |

2. Park the tractor behind the snowthrower, with the lift tube between the front wheels (Fig. 13 and 14).

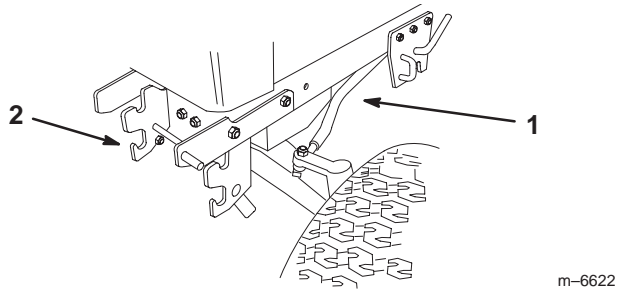


Figure 14

1. Tractor
2. Front hitch

3. Disengage the power take off (PTO), set the parking brake, stop the engine and remove the key.
4. Slide the snowthrower mounting frame into the top front hitch slot. Close and lock the front hitch (Fig. 15).

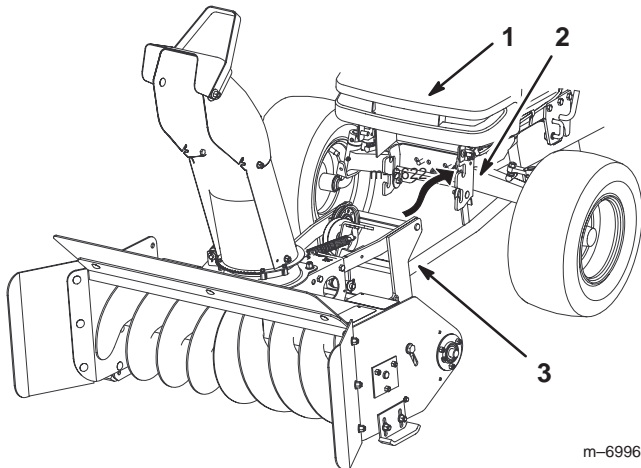


Figure 15

1. Tractor
2. Front hitch
3. Snowthrower mounting frame

5. Install the stop rod into the front hitch and secure it with a hairpin cotter pin (Fig. 16).

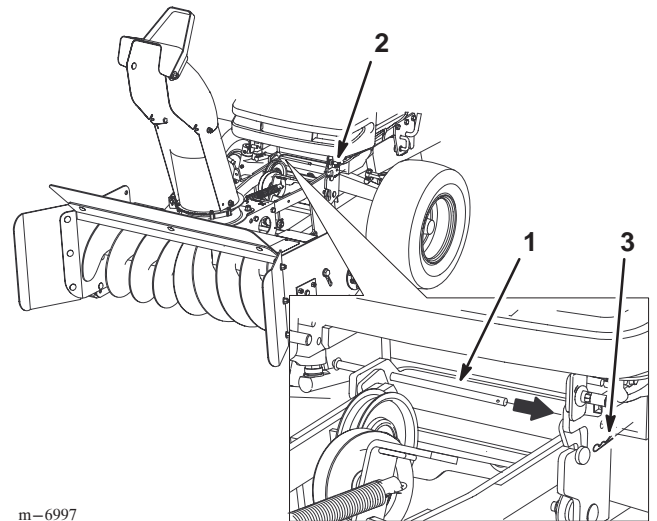


Figure 16

1. Stop rod
2. Front hitch
3. Cotter pin

6. Install the lift tube to the attachment lift with a hairpin cotter pin (Fig. 17).

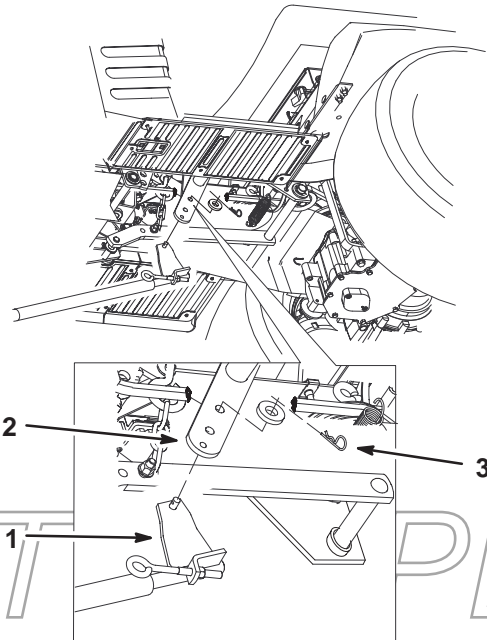


Figure 17

1. Lift rod
2. Tractor attachment lift
3. Hairpin cotter pin

7. Open the mid-mount hitch by pulling out the J-pin and moving the lock handle rearward (Fig. 18).

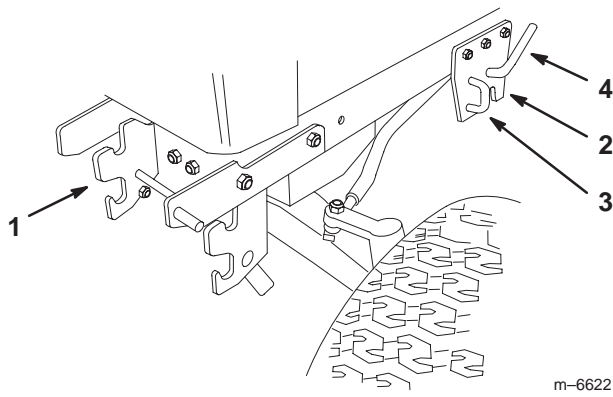


Figure 18

- 1. Front hitch
- 2. Mid-mount hitch
- 3. J-pin
- 4. Lock handle

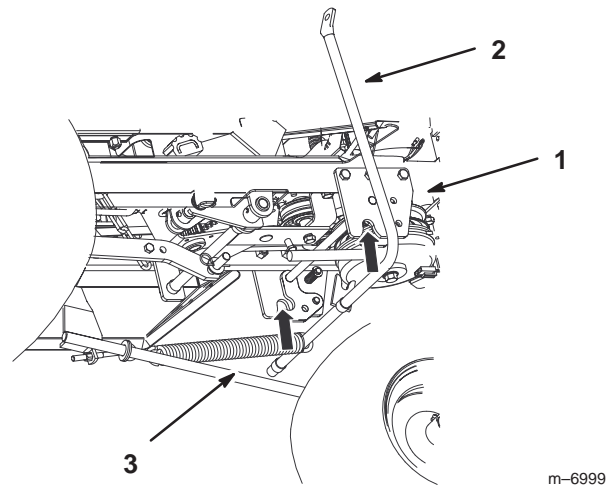


Figure 20

- 1. Mid-mount hitch
- 2. Control rod support
- 3. Lift spring

8. Install the closed loop end of the spring onto the chute control rod support (Fig. 19).

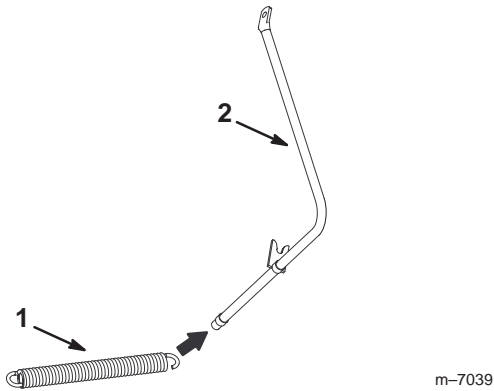


Figure 19

- 1. Lift spring
- 2. Chute control rod support

9. Install the chute control rod support into the mid-mount hitch (fig. 20).

10. Close the mid-mount hitch by moving the lock handle forward and by pulling out the J-pin and locking it into place (Fig. 18).

11. Install the lift spring into the lifttube eyebolt (fig. 21).

12. Adjust the eye bolt until there is 1 inch (26 mm) of the threads past the nut (fig. 21).

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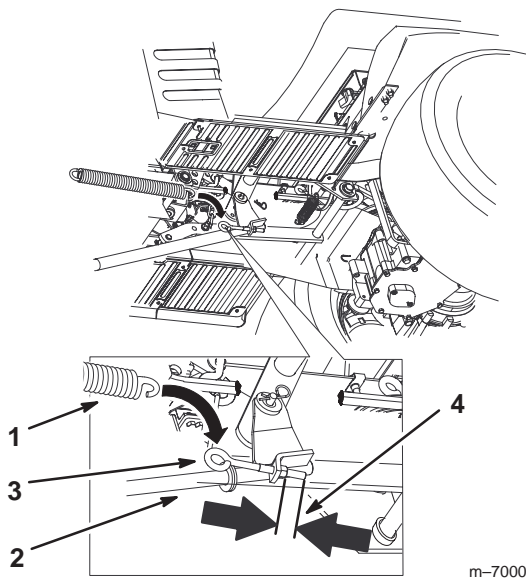


Figure 21

- | | |
|----------------|-------------------|
| 1. Lift spring | 3. Eyebolt |
| 2. Lift tube | 4. 1 inch (26 mm) |

Installing the Belt and Belt Spring

- Hook one end of the belt spring onto the snowthrower spring peg (Fig. 22).

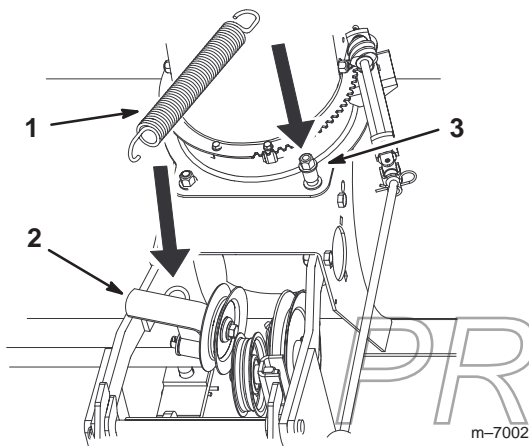


Figure 22

- | | |
|----------------|---------------------------|
| 1. Belt spring | 3. Snowthrower spring peg |
| 2. Idler arm | |

- Route the belt around the clutch pulley and the snowthrower pulleys (fig. 23).
- Adjust the snowthrower drive pulley to align the belt and tighten the 2 square head bolts (5/16 x 1/2 inch) into the long hub (Fig. 4).

- Hook the other end of the spring into the belt idler arm (fig. 22).

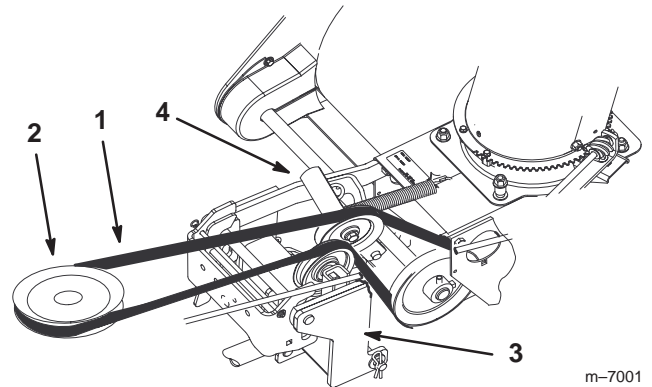


Figure 23

- | | |
|-------------------|----------------------|
| 1. Belt | 3. Snowthrower frame |
| 2. Tractor clutch | 4. Belt idler arm |

- Align the hood onto the pivot pegs and slide the hood to the right side of the machine (fig. 24).

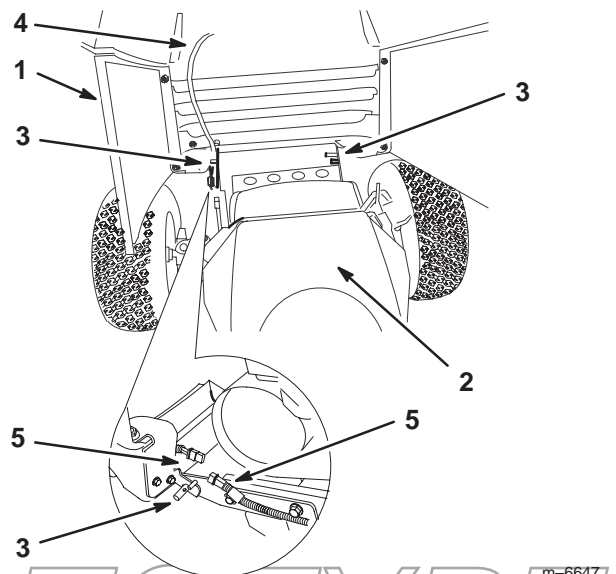


Figure 24

- | | |
|-----------------------|----------------------|
| 1. Hood—open position | 4. Wire harness |
| 2. Engine | 5. Harness connector |
| 3. Pivot peg | |

- Connect the harness and close the hood (Fig. 24).

Installing the Chute Control Rod

- Slide the crank handle through the hole in the rod support and secure the handle to the U-joint with a hairpin cotter (1-7/8 inch) (fig. 25).

Note: Adjust the worm gear assembly if necessary so the handle clears the tractor hood, the teeth mesh fully, and the chute turns freely.

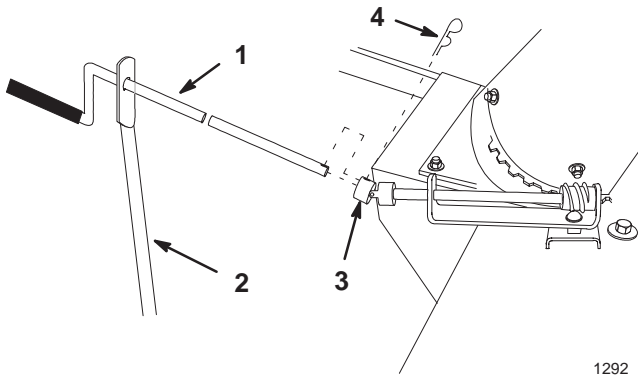


Figure 25

- | | |
|-----------------|-------------------------------|
| 1. Crank handle | 3. U-joint |
| 2. Support | 4. Hairpin cotter, 1-7/8 inch |

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Operation

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

Operating the Power Take Off (PTO)

The power take off (PTO) switch engages and disengages power to the electric clutch.

The PTO light, in the Indicator Module, will be on when the ignition key is in run or the lights position and the power take off (PTO) is engaged. When this light is on, it is a reminder the starter will not crank and to turn the off PTO before getting off the tractor.

Engaging the Power Take Off (PTO)

1. Move the throttle to the fast position.
2. Pull the power take off (PTO) to the **on** position (Fig. 26).

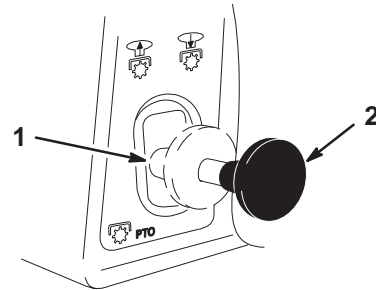


Figure 26

- | | |
|------------|-----------|
| 1. PTO—Off | 2. PTO—On |
|------------|-----------|

m-6524

Disengaging the Power Take Off (PTO)

1. Push the power take off (PTO) to the **off** position (Fig. 26).

PROTOTYPE

Using the Attachment Power Lift

The attachment power lift (Fig. 27) is used to raise and lower attachments.

Raising Attachments

1. Turn key to the **on** or **run** position (Fig. 27).
2. Push the lift switch in the **up** direction to raise the attachment lift (Fig. 27). This will lift and hold the attachment in the up, or raised position.

Lowering Attachments

1. Turn key to the **on** or **run** position (Fig. 27).
2. Push the lift switch in the down direction to lower the attachment lift (Fig. 27). This will lower the attachment lift.

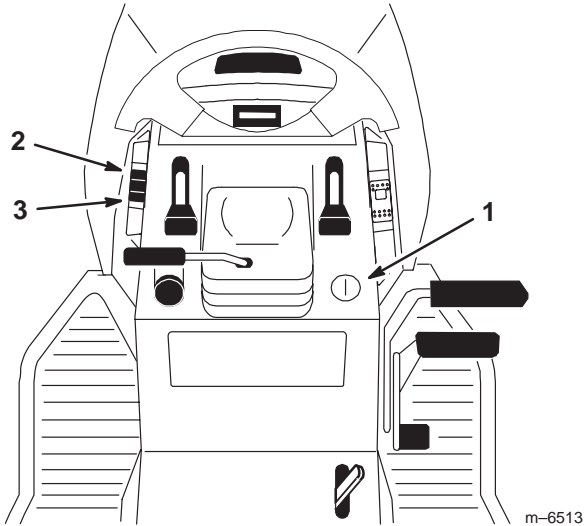


Figure 27

1. Key
2. Lift switch —up
3. Lift switch —down

Operating the Attachment Lift Lever

The attachment lift lever (Fig. 28) is used to raise and lower various attachments.

Raising an Attachment

1. Depress the brake pedal to stop the machine.
2. Pull the attachment lift lever rearward until the latch locks. In this position the lift will hold the attachment in the up, or raised position.

Lowering an Attachment

1. Depress the brake pedal to stop the machine.

2. Pull the attachment lift lever rearward, to release the lift pressure, and push the button on top to release the latch. Move the lift lever forward to lower the attachment.

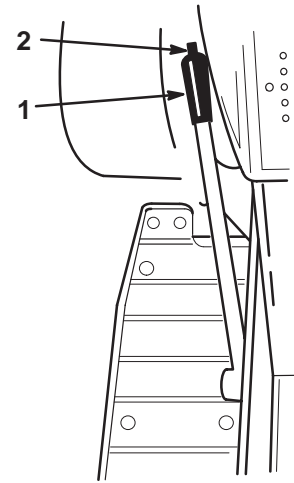


Figure 28

1. Lift lever
2. Button

Adjusting the Discharge Chute



Danger



When the snowthrower is in operation, the impeller and auger can be rotating and cut off or injure hands and feet.

- Before adjusting, cleaning, repairing and inspecting the snowthrower, and before unclogging the discharge chute, *disengage the PTO, stop the engine, remove the key, and wait for all moving parts to stop.*
- Use a stick, *not your hands*, to remove an obstruction from the discharge chute.
- Stay away from the discharge and auger openings while operating the snowthrower.
- Keep face, hands, feet, and any other part of your body or clothing away from concealed, moving, or rotating parts.

You can rotate the discharge chute 180 degrees side to side by turning the crank handle (fig. 29).

You can adjust the height and distance snow is thrown by moving the chute deflector, on top of the discharge chute, up and down (fig. 29).

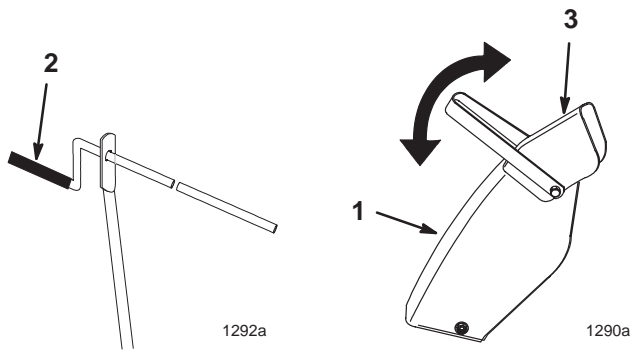


Figure 29

- 1. Discharge chute
- 2. Crank handle
- 3. Chute deflector

Tips for Throwing Snow

Remove snow as soon as possible after it falls. This produces the best snow removal results.

Adjust the skids to match the type of surface being cleaned; refer to Adjusting Skids.

The snowthrower is designed to clean snow down to the contact surface, but there are times when the front of the snowthrower may tend to ride up. If this happens, reduce forward speed.

Discharge snow downwind whenever possible, and overlap each pass to ensure complete snow removal.

If the wheels slip, shift into a lower gear to reduce forward speed.

Run the snowthrower for a few minutes after clearing snow so moving parts do not freeze. Engage the PTO to clear any remaining snow from inside the housing.

Do not overload the snowthrower by clearing snow at too fast a rate. If the engine slows down, reduce forward speed.

Always use full throttle (maximum engine speed) when throwing snow.

In wet or slushy conditions, reduce clogging of the discharge chute by maintaining maximum engine speed and by not overloading the engine.

In some snow and cold weather conditions, some controls and moving parts may freeze. Therefore, when any control becomes hard to operate, stop the machine and wait for all moving parts to stop; then check all parts for freeze up. **Do not use excessive force trying to operate frozen controls.** Free all controls and moving parts before operating.

PROTOTYPE

Maintenance

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

Recommended Maintenance Schedule

| Maintenance Service Interval | Maintenance Procedure |
|------------------------------|--|
| 25 hours | <ul style="list-style-type: none"> • Grease the drive shaft bearings • Oil the drive chain |
| Pre-storage service | <ul style="list-style-type: none"> • Grease the drive shaft bearings • Oil the drive chain • Check the belt for wear and cracks • Check the scraper for wear • Paint chipped surfaces |
| Fall service | <ul style="list-style-type: none"> • Grease the drive shaft bearings • Oil the drive chain • Check the belt for wear and cracks • Check the scraper for wear |

! **Caution** !

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

Remove the key from the ignition and disconnect the wire from the spark plug before you do any maintenance. Set the wire aside so that it does not accidentally contact the spark plug.

Greasing and Lubrication

Grease and oil the machine after every 25 operating hours or once a year, whichever occurs first.

Grease Type: General-purpose grease.

Oil Type: SAE 10W or 10W30.

Greasing the Snowthrower

1. Disengage the PTO and set the parking brake.
2. Stop the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. Clean the grease fittings with a rag. Make sure to scrape any paint off the front of the fittings.
4. Connect a grease gun to each fitting and pump grease into them (fig. 30).

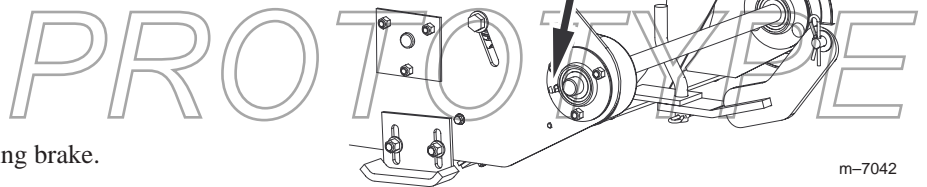


Figure 30

5. Wipe up any excess grease.

Oiling the Drive Chain

1. Disengage the PTO, set the parking brake, stop the engine, and remove the key.

- Coat the entire chain with oil and allow it to penetrate each roller (fig. 31).

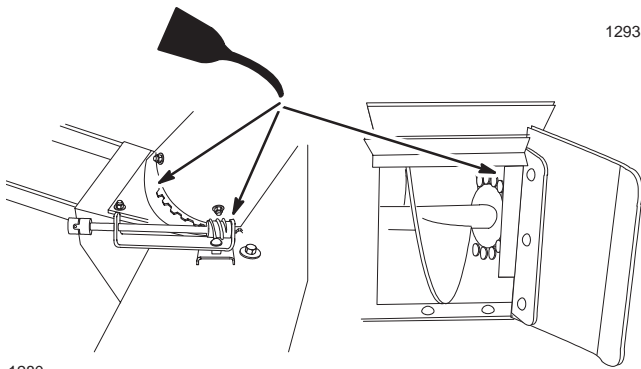


Figure 31

- Drive chain
- Rotator assembly
- Discharge chute mounting

- Place a few drops of oil on the discharge chute rotator shaft and discharge chute mounting (fig. 31).
- Wipe off excess oil.

Adjusting the Skids

The distance between the scraper blade and the ground is controlled by skids on each side of the housing. The height can be adjusted so the scraper blade will not catch on uneven surfaces

- Move the snowthrower to a level surface.
- Disengage the PTO and set the parking brake.
- Stop the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
- Loosen the nuts securing skids to the housing until the skids slide up and down easily (fig. 32).

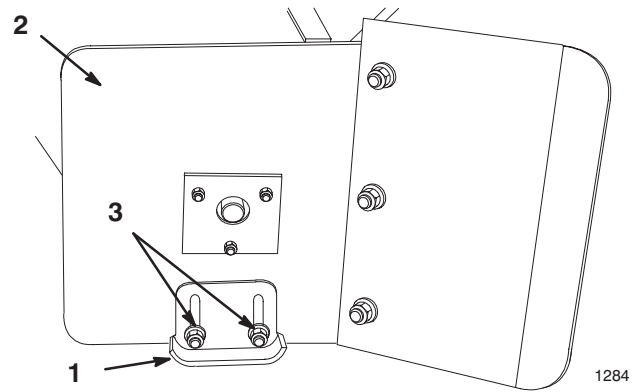


Figure 32

- Skid
- Housing
- Nut

- Raise or lower the skids equally on both sides, to obtain level scraping action, then tighten the nuts (fig. 32).

Note: On smooth, paved surfaces, the scraper blade can be close to the surface. On uneven, gravel or crushed rock surfaces, adjust the skids to raise the scraper, to prevent catching or picking up rocks.

Important The scraper should be higher above the pavement if the pavement surfaces on which the snowthrower will be used are cracked, rough or uneven.

Reversing the Scraper Blade

The scraper blade contacts the ground preventing damage to the snowthrower housing. Periodically inspect the scraper blade for wear. When the scraper becomes worn, before the working surface contacts the housing, reverse the scraper blade.

- Disengage the PTO and set the parking brake.
- Stop the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
- Raise the attachment lift lever and support the housing off the ground; refer to Raising Attachments.
- Remove the nuts, washers, carriage bolts, and scraper blade (fig. 33).

PROTOTYPE

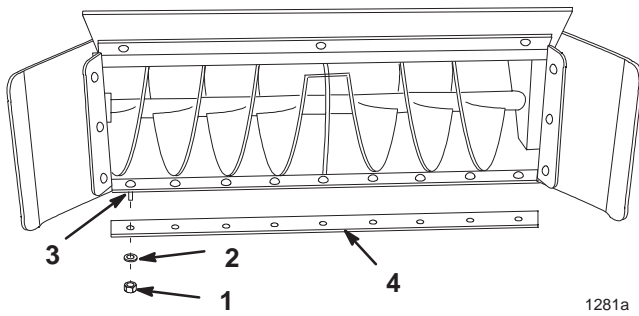


Figure 33

- | | |
|-----------|------------------|
| 1. Nut | 3. Carriage bolt |
| 2. Washer | 4. Scraper blade |

- Reverse the scraper blade and install it with previously removed hardware (fig. 33).

Adjusting the Drive Chain Tension

Check the drive chain tension after every 25 operating hours or once a year, whichever occurs first. Adjustment as necessary to maintain proper tension.

- Disengage the PTO and set the parking brake.
- Stop the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
- Loosen the bolt that secures the idler sprocket to the left side of the housing. (fig. 34).

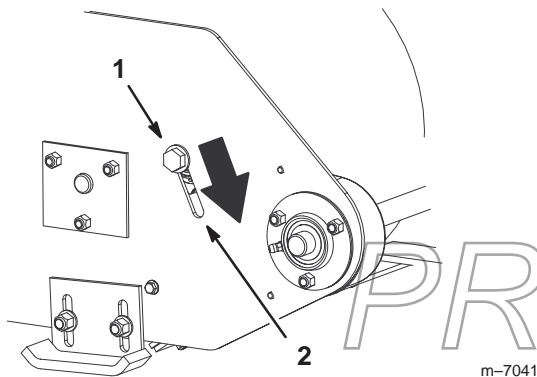


Figure 34

- | | |
|------------------------|--------------------|
| 1. Idler sprocket bolt | 2. Adjustment slot |
|------------------------|--------------------|

- Slide the idler sprocket in the adjustment slot until the chain is snug, but not tight (Fig. 34).
- Tighten the idler sprocket securely.

Important Do not overtighten the chain or excessive wear will occur.

Removing the Snowthrower

Note: Save all hardware use when removing the snowthrower.

- Disengage the PTO and set the parking brake.
- Stop the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
- Raise the attachment to the transport position.
- Remove the hairpin cotter at the U-joint and slide the crank handle out of the support (fig. 35).

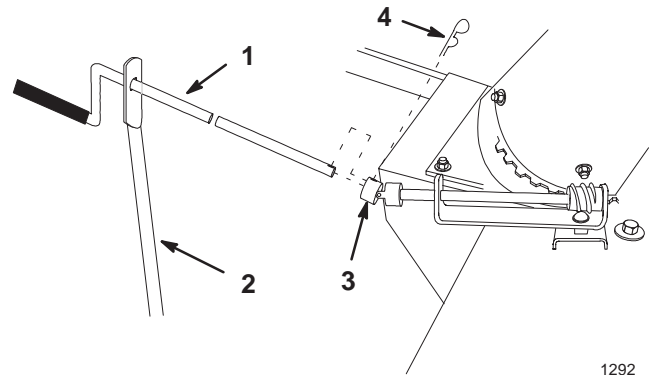


Figure 35

- | | |
|-----------------|-------------------|
| 1. Crank handle | 3. U-joint |
| 2. Support | 4. Hairpin cotter |

- Pull on the drive belt idler pulley to relax the belt tension and remove the drive belt from the tractor clutch (fig. 36).

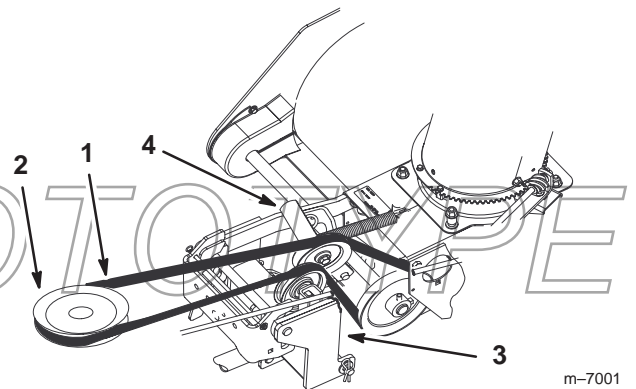


Figure 36

- | | |
|-------------------|----------------------|
| 1. Belt | 3. Snowthrower frame |
| 2. Tractor clutch | 4. Belt idler arm |

- Loosen the eye bolt attached to the lift tube (fig. 37).

7. Remove the lift spring from the lifttube eyebolt (Fig. 37).

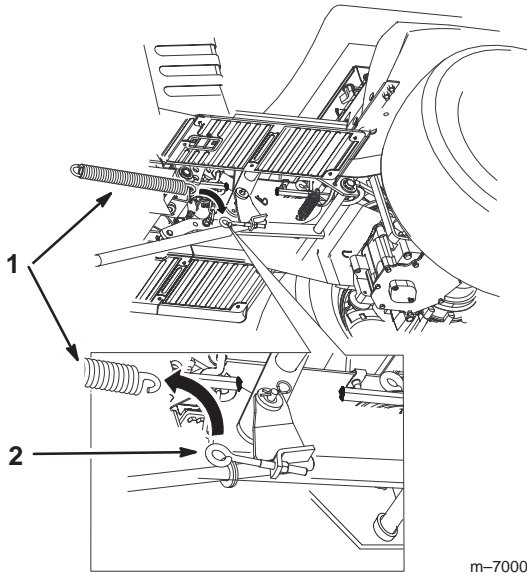


Figure 37

1. Lift spring
2. Lift tube eyebolt

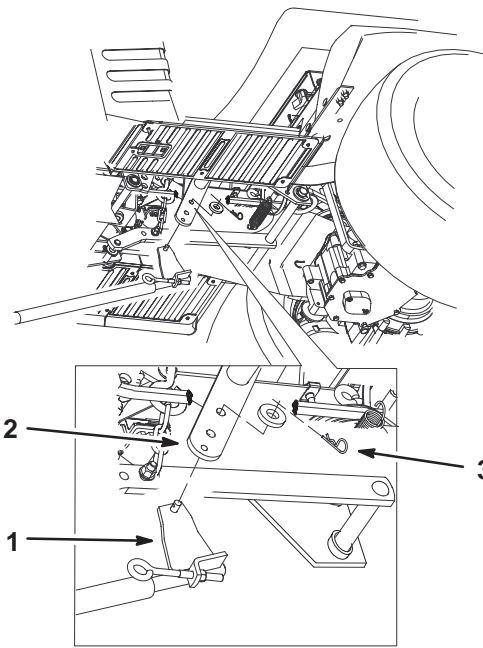


Figure 38

1. Lift tube
2. Tractor attachment lift
3. Hairpin cotter pin

8. Remove the lift tube from the attachment lift by removing hairpin cotter pin (Fig. 38).

9. Open the mid-mount hitch by pulling out the J-pin and moving the lock handle rearward (Fig. 39).

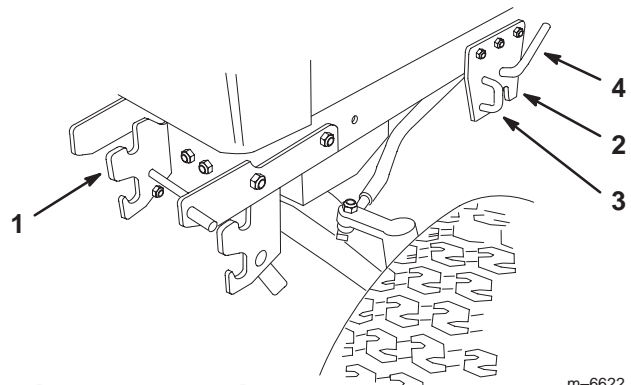
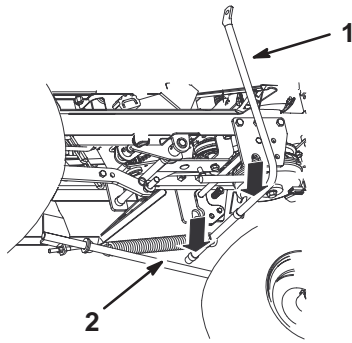


Figure 39

1. Front hitch
2. Mid-mount hitch
3. J-pin
4. Lock handle

10. Remove the the chute control rod support from the mid-mount hitch (fig. 40).

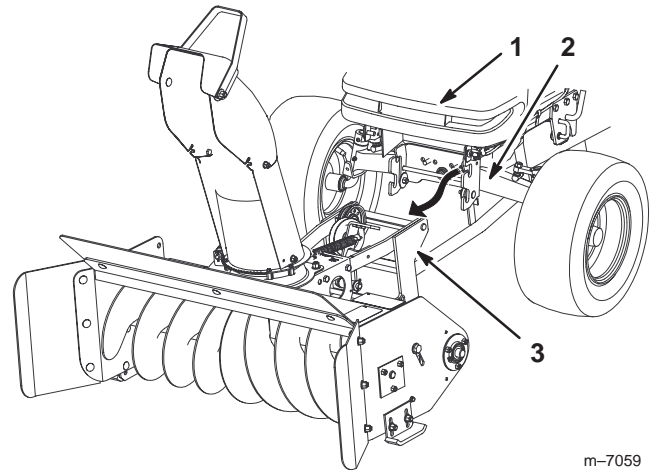
PROTOTYPE



m-7057

Figure 40

- 1. Mid-mount hitch
- 2. Control rod support
- 3. Lift spring

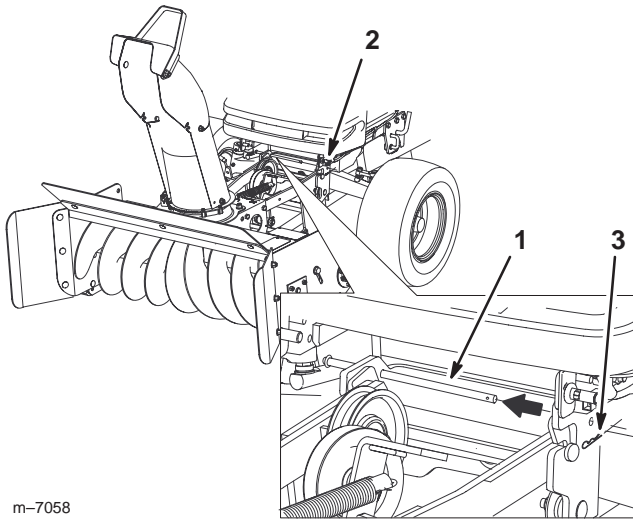


m-7059

Figure 43

- 1. Tractor
- 2. Front hitch
- 3. Snowthrower mounting frame

11. Remove the stop rod from the front hitch by removing the hairpin cotter pin (fig. 41).

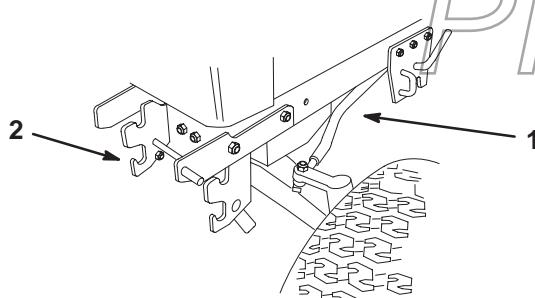


m-7058

Figure 41

- 1. Stop rod
- 2. Front hitch
- 3. Cotter pin

12. Open the front hitch on the tractor (fig. 42)



m-6622

Figure 42

- 1. Tractor
- 2. Front hitch

13. Slide the snowthrower out from the front hitch (Fig. 43).

Storage

1. Before long term storage, wash the machine with mild detergent and water to remove dirt and grime from the entire machine.
2. Check the condition of the scraper blade; refer to Reversing the Scraper Blade, page 18.
3. Check the condition of the snowthrower belt and drive chain.
4. Grease and oil the snowthrower; refer to Greasing and Lubrication, page 17.
5. Check and tighten all bolts, nuts, and screws. Repair or replace any part that is damaged or defective.
6. Paint all scratched or bare metal surfaces. Paint is available from your Authorized Service Dealer.
7. Coat the inside of the auger housing and discharge chute with automotive wax to prevent rust and reduce the sticking of snow to these surfaces.
8. Store the machine in a clean, dry garage or storage area. Cover the machine to protect it and keep it clean.

Troubleshooting

| Problem | Possible Causes | Corrective Action |
|-------------------------|---|---|
| Snow does not discharge | <ol style="list-style-type: none"> 1. The discharge chute is plugged. 2. The auger does not rotate. 3. Auger speed too low. 4. Forward speed too slow. | <ol style="list-style-type: none"> 1. Clean the chute with a stick. 2. Refer to Auger does not rotate. 3. Move the throttle to Fast. 4. Increase ground speed. |
| Auger does not rotate. | <ol style="list-style-type: none"> 1. Snow is frozen to the auger or housing. 2. The drive belt tension is low. 3. The drive belt is worn, loose or broken. 4. The drive belt is off the pulley. 5. The drive chain is broken. | <ol style="list-style-type: none"> 1. Scrape snow off with a stick. 2. Adjust the belt tension. 3. Install a new drive belt. 4. Install the drive belt and check the idler pulley for correct position. 5. Replace or repair the chain. |
| Abnormal vibration. | <ol style="list-style-type: none"> 1. Snow is frozen to the auger. 2. The drive belt is off a pulley. 3. The engine mounting bolts are loose. 4. Loose engine pulley, idler, or snowthrower pulley. 5. The engine pulley is damaged. | <ol style="list-style-type: none"> 1. Scrape snow off with stick. 2. Install the drive belt and check the idler pulley for correct position. 3. Tighten the engine mounting bolts. 4. Tighten the appropriate pulley. 5. Contact your Authorized Service Dealer. |

PROTOTYPE

PROTOTYPE



Consumer
Riding
Products

The Toro Total Coverage Guarantee

A Two-Year Full Warranty (Limited Warranty for Commercial Use)

Conditions and Products Covered

The Toro Company and its affiliate, Toro Warranty Company, pursuant to an agreement between them, jointly promise to repair any Toro Product used for normal residential purposes* if defective in materials or workmanship. The following time periods apply from the date of purchase:

| <u>Products</u> | <u>Warranty Period</u> |
|--------------------------------------|------------------------|
| • All Products and Attachments | 2 year full warranty |
| • 300, 400, and 5xi Series Tractors: | |
| Frame | 5 year full warranty |
| Front Axle | 5 year full warranty |
| Drive Shaft (5xi Series Only) | 5 year full warranty |
| • All Batteries | 1 year full warranty |

This warranty covers both the cost of parts and labor, and transportation within a fifteen mile radius of the servicing dealer.

This warranty applies to all consumer riding products and their attachments.

* Normal residential purposes means use of the product on the same lot as your home. Use at more than one location is considered commercial use, and the commercial use warranty would apply.

Limited Warranty for Commercial Use

Toro Consumer Products and attachments used for commercial, institutional, or rental use are warranted against defects in materials or workmanship for the following time periods from the date of purchase:

| <u>Products</u> | <u>Warranty Period</u> |
|--------------------------------------|-------------------------|
| • 300, 400, and 5xi Series Tractors: | |
| Liquid Cooled Gas Engines | 1 year limited warranty |
| Air Cooled Gas and Diesel Engines | 2 year limited warranty |
| All other items | 1 year limited warranty |
| • TimeCutter Models | 30 day limited warranty |
| • All other Riding Products | 90 day limited warranty |

Instructions for Obtaining Warranty Service

If you think that your Toro Product contains a defect in materials or workmanship, follow this procedure:

1. Contact any Toro Authorized or Master Service Dealer to arrange service at their dealership. To locate a dealer convenient to you, refer to the Yellow Pages of your telephone directory (look under "Lawn Mowers") or access our website at www.Toro.com. U.S. Customers may also call 800-421-9684 to use our 24-hour Toro dealer locator system.
2. Bring the product and your proof of purchase (sales receipt) to the Service Dealer.

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. If all other remedies fail, you may contact us at Toro Warranty Company.

If for any reason you are dissatisfied with the Service Dealer's analysis or with the assistance provided, contact us at:

Customer Care Department, Consumer Division
Toro Warranty Company
8111 Lyndale Avenue South
Bloomington, MN 55420-1196
800-348-2424 (U.S. customers)
877-484-9255 (Canada customers)

Owner Responsibilities

You must maintain your Toro Product by following the maintenance procedures described in the operator's manual. Such routine maintenance, whether performed by a dealer or by you, is at your expense.

Items and Conditions Not Covered

There is no other express warranty except for special emission system coverage on some products. This express warranty does not cover:

- Cost of regular maintenance service or parts, such as filters, fuel, lubricants, tune-up parts, blade sharpening, brake and clutch adjustments.
- Any product or part which has been altered or misused or required replacement or repair due to normal wear, accidents, or lack of proper maintenance.
- Repairs necessary due to improper fuel, contaminants in the fuel system, or failure to properly prepare the fuel system prior to any period of non-use over three months.
- Pickup and delivery charges for distances beyond a fifteen mile radius from an Authorized Toro Service Dealer.

All repairs covered by this warranty must be performed by an Authorized Toro Service Dealer using Toro approved replacement parts.

General Conditions

Repair by an Authorized Toro Service 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.

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.