



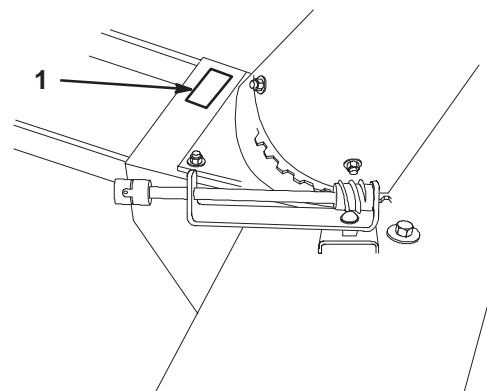
**42in Snowthrower**  
**Wheel Horse<sup>®</sup> Classic Garden Tractor**  
**Attachment**

79362—220000001 & Up

**Operator's Manual**

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1280

**Figure 1**

1. Location of the model and serial numbers

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

<b>Model No.</b> _____
<b>Serial No.</b> _____

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.

## 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 NO TAG illustrates the location of the model and serial numbers on the product.

## 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



Contact with the rotating impeller/auger can cause severe injury or death.

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



## Warning



Stones and other foreign objects can be picked up and thrown. This can cause serious personal injury to operator or bystanders.

- Keep the work area free of all objects that could be thrown by the rotor blades.
- 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 unclogging 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.

## 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.
- 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.**

## 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.
- 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.

# 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.

**⚠ WARNING**

LOSS OF TRACTION AND STABILITY MAY RESULT IN SERIOUS INJURY WHEN SNOWTHROWER IS IN A RAISED POSITION WITHOUT ADDITIONAL COUNTER WEIGHT.

 SEE OPERATOR'S MANUAL FOR COMPLETE INSTRUCTIONS.

TRACTORS MUST BE EQUIPPED WITH 100 LBS. REAR WHEEL WEIGHT WITH THIS ATTACHMENT INSTALLED. 86-5100

86-5100

**⚠ DANGER**



AVOID INJURY FROM ROTATING AUGER. KEEP HANDS, FEET AND CLOTHING AWAY. 63-2380

63-2380

**⚠ WARNING**



- ROTATING AUGER AND IMPELLER CAN CUT OR REMOVE BODY PARTS AND THROW OBJECTS.
- SHUT OFF ENGINE TO ADJUST, SERVICE, UNCLOG OR REMOVE DEBRIS.
- NEVER DISCHARGE AT OTHERS.
- READ OPERATOR'S MANUAL FOR OPERATING AND SAFETY INSTRUCTIONS.
- KEEP SAFETY DEVICES (SUCH AS GUARDS AND SWITCHES) IN PLACE AND WORKING. 92-8652

92-8652

**⚠ DANGER**



- CONTACT WITH MOVING PARTS INSIDE CHUTE WILL CAUSE SERIOUS INJURY.
- SHUT OFF ENGINE BEFORE UNCLOGGING DISCHARGE CHUTE.
- NEVER PUT HAND IN CHUTE. 94-8079

94-8079

**⚠ WARNING**

LOSS OF TRACTION AND STABILITY MAY RESULT IN SERIOUS INJURY WHEN SNOWTHROWER IS IN A RAISED POSITION WITHOUT ADDITIONAL COUNTER WEIGHT.

 SEE OPERATOR'S MANUAL FOR COMPLETE INSTRUCTIONS.

TRACTORS MUST BE EQUIPPED WITH 100 LBS. REAR WHEEL WEIGHT WITH THIS ATTACHMENT INSTALLED. 86-5100

86-5100

# Installation

## Loose Parts

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

DESCRIPTION	QTY.	USE
Housing	1	Assembling the housing
Frame with idlers	1	
Bolt, 3/8 x 1 in.	4	
Locknut, 3/8 in.	4	
Pulley	1	
Set screw, 5/16 x 1/2 in.	2	
Square key	1	
Tension spring	1	
Top plate	1	Installing the top and side plates
Side plate	2	
Carriage bolt, 3/8 x 1 in.	9	
Washer, 3/8 in.	9	
Locknut, 3/8 in.	9	
Discharge chute-Upper	1	Installing the discharge chute and rotator assembly
Discharge chute-Lower	1	
Deflector shield	1	
Carriage bolt, 5/16 x 3/4 in.	3	
Carriage bolt, 5/16 x 5/8 in.	3	
Washer, 5/16 in.	7	
Locknut, 5/16 in.	7	
Rotator assembly	1	
Carriage bolt, 5/16 x 1 in.	1	
Pyramidal washer, 5/16 in.	1	

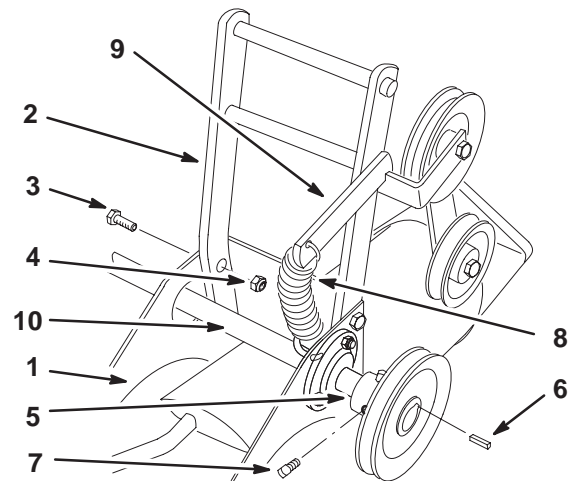
DESCRIPTION	QTY.	USE
Snowthrower assembly	1	Installing the snowthrower to tractor
Lift tube	1	
Lift rod	1	
Spacer washer, 13/16 in.	2	
Washer, 5/8 in.	1	
Hairpin cotter-large	1	
Lift assist spring	1	
Eyebolt	1	
Locknut, 3/8 in.	1	
Crank handle	1	
Handle support	1	
Hairpin cotter-small	2	
Belt	1	Installing the snowthrower belt

## Assembling the Housing

1. Tip the housing onto it's front and insert frame into snowthrower with angle bend up. Fasten frame with 4 bolts (3/8 x 1 in.) (heads to the outside) and 4 locknuts (3/8 in.) (Fig. 2).
2. Install pulley so the hub is towards the inside of snowthrower and secure it with a square key and 2 set screws (5/16 x 1/2 inch) (Fig. 2).

**Important** Key must be located under a set screw to be retained.

3. Install tension spring between frame and idler arm (Fig. 2).



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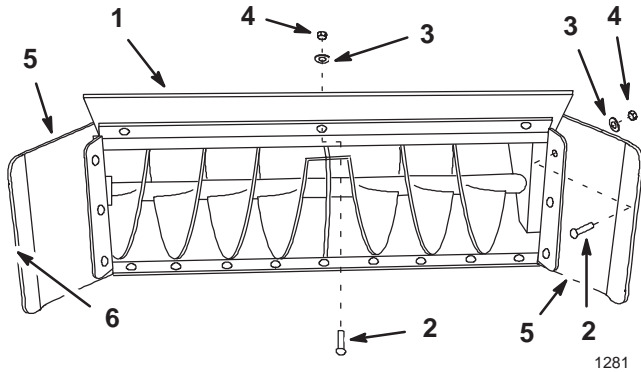
Figure 2

- |                      |                              |
|----------------------|------------------------------|
| 1. Housing           | 6. Square key                |
| 2. Frame             | 7. Set screw, 5/16 x 1/2 in. |
| 3. Bolt, 3/8 x 1 in. | 8. Spring                    |
| 4. Locknut, 3/8 in.  | 9. Idler arm                 |
| 5. Pulley hub        | 10. Drive shaft              |

## Installing the Top and Side Plates

1. Rotate the housing down and position top plate outside top flange of housing. Secure with 3 carriage bolts (3/8 x 1 in.) (heads to the inside), 3 washers (3/8 in.) washers, and 3 locknuts (3/8 in.) (Fig. 3).

- Position side plates outside housing side flanges, with cutting edges parallel to side of housing, and secure with 6 carriage bolts (3/8 x 1 in.) (heads to the inside), 6 washers (3/8 in.) and 6 locknuts (3/8 in.) (Fig. 3).

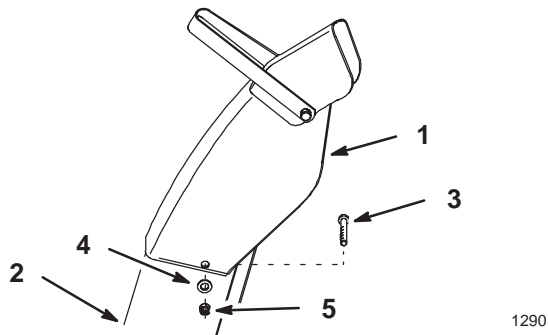


**Figure 3**

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

## Installing the Discharge Chute and Rotator Assembly

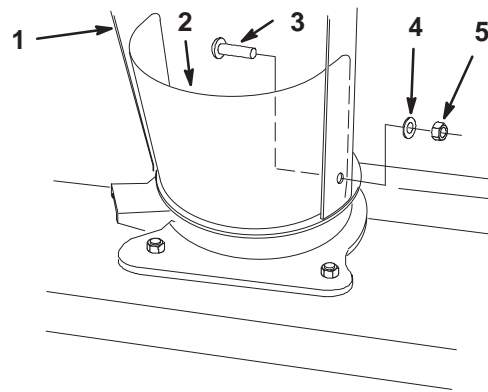
- Assemble upper discharge chute outside and on top of lower discharge chute with 2 bolts (5/16 x 5/8 in.) (heads on the inside), 2 washers (5/16 in.) and 2 locknuts (5/16 in.) (Fig. 4).



**Figure 4**

- |                                  |                      |
|----------------------------------|----------------------|
| 1. Upper discharge chute         | 4. Washer, 5/16 in.  |
| 2. Lower discharge chute         | 5. Locknut, 5/16 in. |
| 3. Carriage bolt, 5/16 x 5/8 in. |                      |

- Install discharge chute and deflector shield onto housing with 3 carriage bolts (5/16 x 3/4 in.) (heads to the inside), 3 washers (5/16 in.) and 3 locknuts (5/16 in.) (Fig. 5).

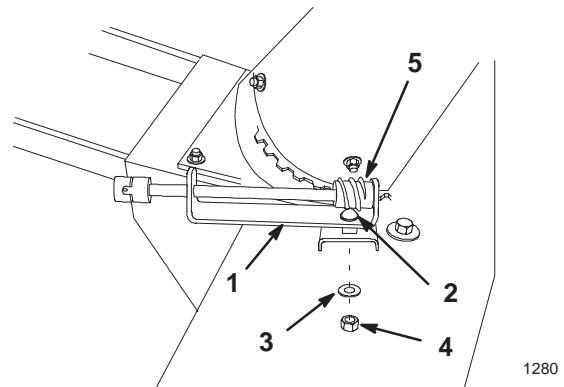


**Figure 5**

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

- Install discharge chute rotator assembly into slot in housing with 3 carriage bolts (5/16 x 1) (head to the top), 3 pyramidal washers (5/16 in.) and 3 locknuts (5/16 in.) (Fig. 6).

- Adjust rotator assembly so that worm gear is at right angle with chute, the teeth mesh fully and the chute turns freely. Tighten locknut securely.



**Figure 6**

- |                                |                      |
|--------------------------------|----------------------|
| 1. Rotator assembly            | 4. Locknut, 5/16 in. |
| 2. Carriage bolt, 5/16 x 1 in. | 5. Worm gear         |
| 3. Pyramidal washer, 5/16 in.  |                      |

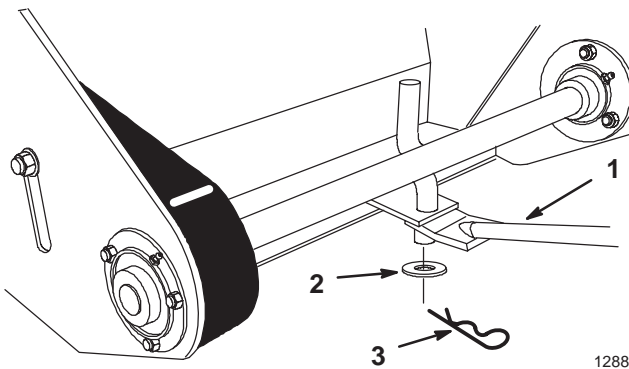
# Installing the Snowthrower to Tractor

⚠
Danger
⚠

When snowthrower is attached to the tractor, without additional weight, the tractor may become unstable.

- **NEVER** operate tractor, equipped with snowthrower, unless 100lb rear wheel weights are installed.

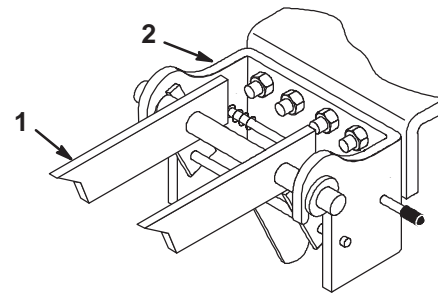
1. Install lift tube to housing with a flat washer (5/8 in.) and hairpin cotter (large) (Fig. 7).



**Figure 7**

1. Lift tube
2. Washer, 5/8 in.
3. Hairpin cotter—large

2. Position snowthrower on a level surface with lift tube extending rearward.
3. Open front hitch on tractor and park the tractor behind snowthrower. Make sure the lift tube is between the front wheels.
4. Disengage the power take off (PTO), set the parking brake, and turn the ignition key to off. Remove the key.
5. Slide snowthrower mounting frame into front hitch. Close and lock front hitch (Fig. 8).



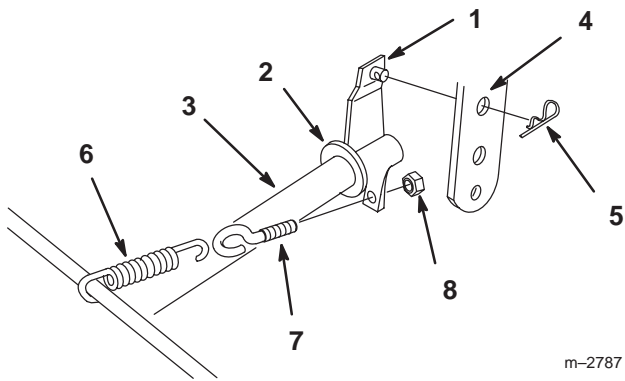
**Figure 8**

1. Mounting frame
2. Front hitch

6. Set the Dial-A-Height to the mounting position and lower attachment lift all the way down. Refer to Adjusting Dial-A-Height on page 12.
7. Slide lift rod into lift tube (Fig. 9). Optional spacer washers (3/4 in.) can be placed onto shaft of lift rod to increase lift height (Fig. 9).
8. Connect lift rod to top hole in attachment lift with hairpin cotter (Fig. 9).
9. Raise attachment lift lever to the transport position and place a block under snowthrower housing.

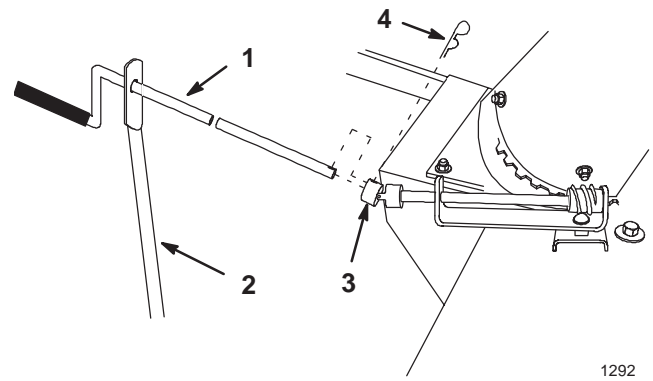
**Important** Make sure the lift tube does not contact front axle. If contact is noted, remove one or both flat spacer washers from lift rod.

10. Hook lift assist spring between frame cross rod and eyebolt (Fig. 9). Insert eyebolt through bracket on lift rod and secure with locknut (3/8 in.). Tighten locknut until spring is under slight tension.



**Figure 9**

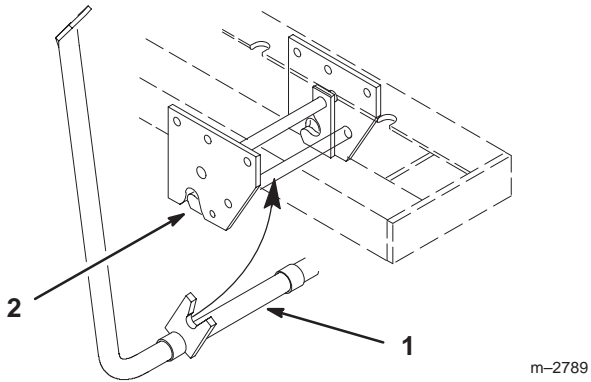
- |                            |                         |
|----------------------------|-------------------------|
| 1. Lift rod                | 5. Hairpin cotter—small |
| 2. Spacer washers, 3/4 in. | 6. Spring               |
| 3. Lift tube               | 7. Eyebolt              |
| 4. Attachment lift         | 8. Locknut, 3/8 in.     |



**Figure 11**

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

11. Open mid hitch and install handle support (Fig. 10). Align notch on handle with hitch rod so it does not rotate.



**Figure 10**

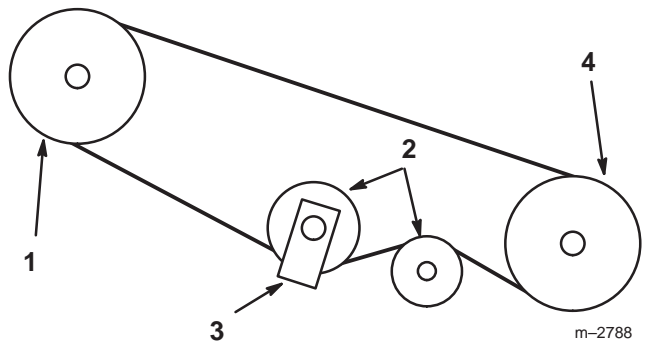
- |                   |              |
|-------------------|--------------|
| 1. Handle support | 2. Mid hitch |
|-------------------|--------------|

12. Slide crank handle through hole in support and secure handle to U-Joint with hairpin cotter (Fig. 11).

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

## Installing the Snowthrower Belt

1. Remove the belt cover. Refer to figure 27.
2. Install the belt onto the clutch. Refer to Replacing the PTO Belt on page 17.
3. Route belt between belt guide and around idler pulleys (Fig. 12).
4. Rotate idler bracket to stretch spring and slip belt over snowthrower pulley (Fig. 12).



**Figure 12**

- |   |                       |
|---|-----------------------|
| 1. Outer groove of (PTO) power take off | 3. Belt guide         |
| 2. Idler pulley                         | 4. Snowthrower pulley |

# Operation

**Danger**

When snowthrower is attached to the tractor, without additional weight, the tractor may become unstable.

- NEVER operate tractor, equipped with snowthrower, unless 100 lb. rear wheel weights are installed.

**Danger**

Contact with rotating auger and thrown debris can cause severe injury or death.

- Stay away from the discharge and auger openings while operating the snowthrower.
- Keep your hands, feet, and any other part of your body or clothing away from concealed, moving or rotating parts.
- Use a stick, not your hand, to remove obstructions from discharge chute or auger housing.
- Before adjusting, cleaning, repairing and inspecting the snowthrower and before unclogging the discharge chute, shut off the engine and wait for all moving parts to stop. Move the power take off (PTO) to off and rotate the ignition key to off. Remove the key.

## Operating the Power Take Off (PTO)

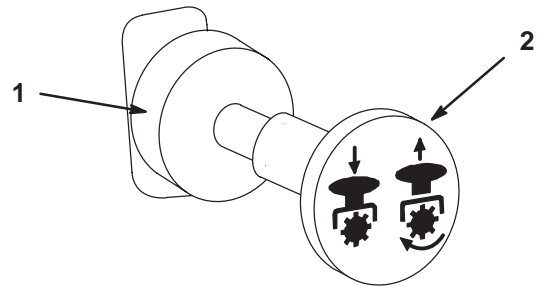
The power take off (PTO) engages and disengages power to the electric clutch.

The PTO light, in the Indicator Module, will be on when the ignition key is in run or 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. Depress the clutch and brake pedals to stop the machine.

2. Pull the power take off (PTO) to on (Fig. 13).



m-4201

**Figure 13**

1. PTO—Off
2. PTO—On

## Disengaging the Power Take Off (PTO)

1. Depress the clutch and brake pedals to stop the machine.
2. Push the power take off (PTO) to off (Fig. 13).

## Operating the Attachment Lift Lever

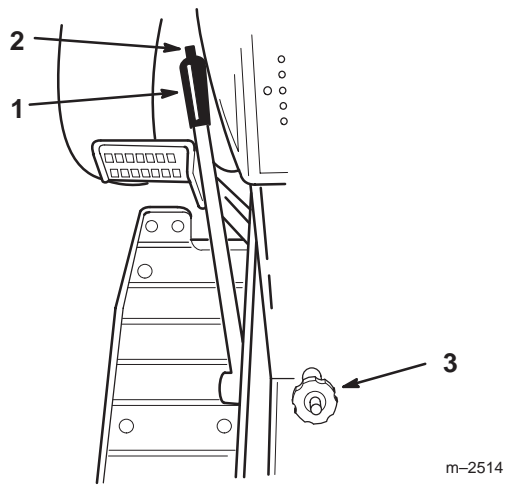
The attachment lift lever (Fig. 14) is used to raise and lower various attachments.

### Raising the Snowthrower

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

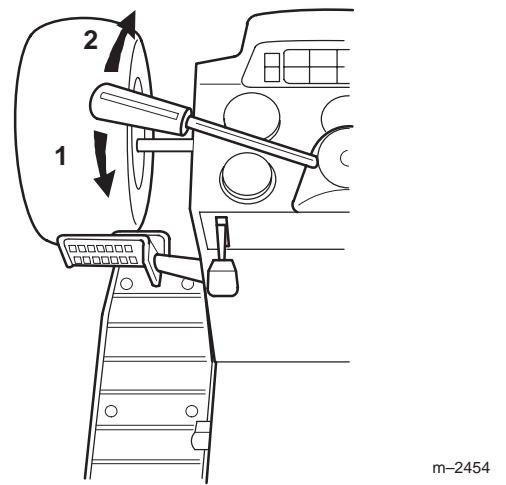
### Lowering the Snowthrower

1. Depress the clutch and brake pedals to stop the machine.
2. Pull attachment lift lever rearward, to release lift pressure, and push the button on top to release the latch. Move lift lever forward to lower the snowthrower.



**Figure 14**

1. Lift lever
2. Button
3. Dial-A-Height



**Figure 15**

1. Lift lever UP
2. Lift lever DOWN

## Operating the Attachment Power Lift

The attachment power lift (Fig. 15) is used to raise and lower attachments.

### Raising the Snowthrower

1. Start the engine, refer to; Starting and Stopping the Engine; in tractor Operator's Manual.
2. Pull the lift lever in the up direction to raise the attachment lift (Fig. 15). This will lift and hold the snowthrower in the up, or raised position.

### Lowering the Snowthrower

1. Start the engine, refer to; Starting and Stopping the Engine; in tractor Operator's Manual.
2. Push the lift lever in the down direction to lower the attachment lift (Fig. 15). This will lower the snowthrower.

## Adjusting the Dial-A-Height

The Dial-A-Height control (Fig. 14) is used to limit the downward travel of the attachment. The Dial-A-Height knob is rotated to change the location of this stop, up or down.

1. Raise the attachment lift: Refer to Raising Attachments. In the raised position the Dial-A-Height knob (Fig. 14) can be rotated to change the stop location. Turn clockwise to raise and counterclockwise to lower the height of the attachment.
2. The Dial-A-Height indicator (Fig. 14) will show the change, high to low, in attachment lift height as adjustment is made.

## Adjusting Discharge Chute

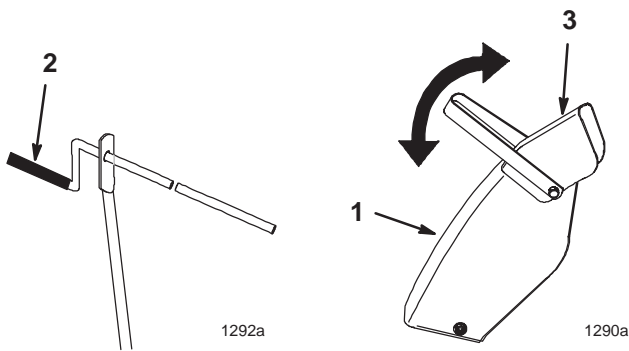
! **Danger** !

**Contact with rotating auger and thrown debris can cause severe injury or death.**

- Stay away from the discharge and auger openings while operating the snowthrower.
- Keep your hands, feet, and any other part of your body or clothing away from concealed, moving or rotating parts.
- Use a stick, not your hand, to remove obstructions from discharge chute or auger housing.
- Before adjusting, cleaning, repairing and inspecting the snowthrower and before unclogging the discharge chute, shut off the engine and wait for all moving parts to stop. Move the power take off (PTO) to off and rotate the ignition key to off. Remove the key.

The discharge chute can be rotated 180 degrees side to side. The direction is controlled by turning the crank handle (Fig. 16).

The chute deflector, on top of the discharge chute, can be moved up and down to control the height and distance snow is thrown (Fig. 16).



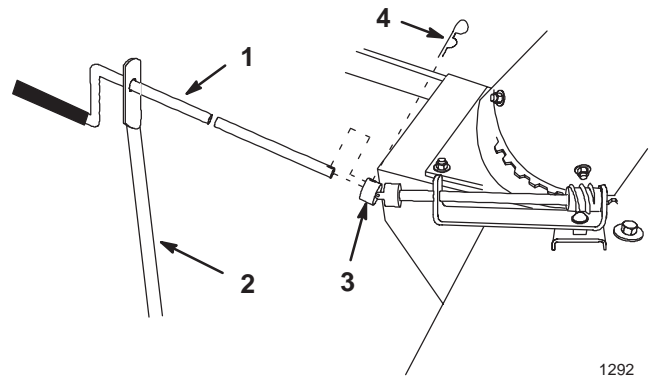
**Figure 16**

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

## Removing the Snowthrower

**Important** Save all hardware, washers and hairpin cotters for reuse when installing snowthrower.

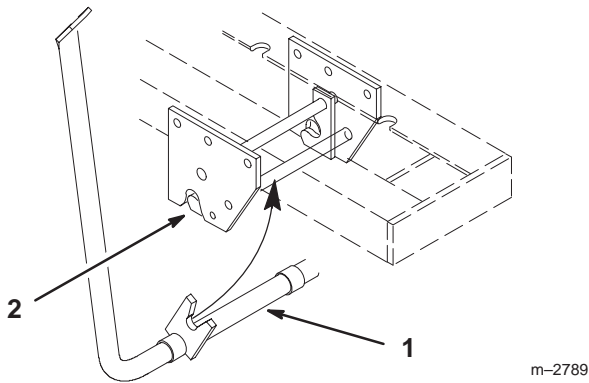
1. Park the machine on a level surface, disengage the power take off (PTO), set the parking brake, and turn the ignition key to off. Remove the key.
2. Raise attachment lift to the transport position and place a block under snowthrower housing. Turn the Dial-A-Height knob counterclockwise, all the way, and lower the attachment to the mounting position. Refer to Lowering the Snowthrower in the Operation section.
3. Remove hairpin cotter at U-joint and slide crank handle out of support (Fig. 17).



**Figure 17**

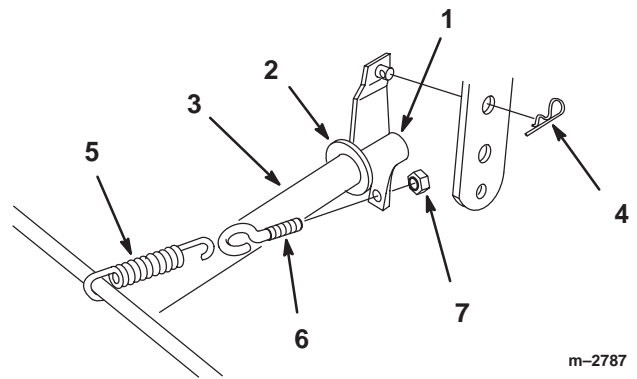
- |                 |                         |
|-----------------|-------------------------|
| 1. Crank handle | 3. U-joint              |
| 2. Support      | 4. Hairpin cotter—small |

4. Open mid hitch and remove handle support (Fig. 18).



**Figure 18**

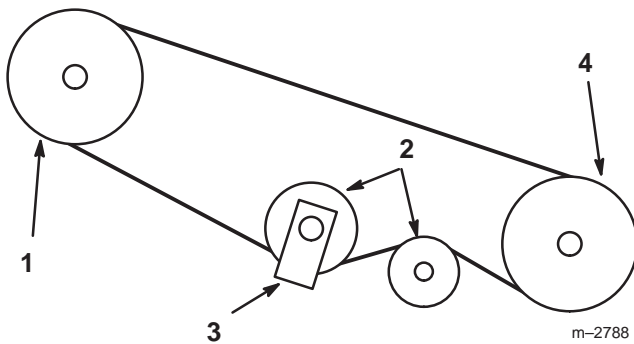
- 1. Handle support
- 2. Mid hitch



**Figure 20**

- 1. Lift rod
- 2. Optional spacer washer
- 3. Lift tube
- 4. Hairpin cotter—small
- 5. Spring
- 6. Eyebolt
- 7. Locknut

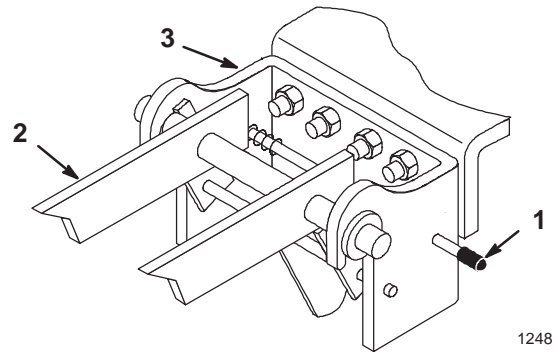
- 5. Rotate idler bracket to relax belt tension and slip belt off snowthrower pulley (Fig. 19),



**Figure 19**

- 1. Outer groove of (PTO) power take off
- 2. Idler pulley
- 3. Belt guide
- 4. Snowthrower pulley

- 11. Open front hitch lock (Fig. 21) and remove snowthrower mounting frame from front hitch.

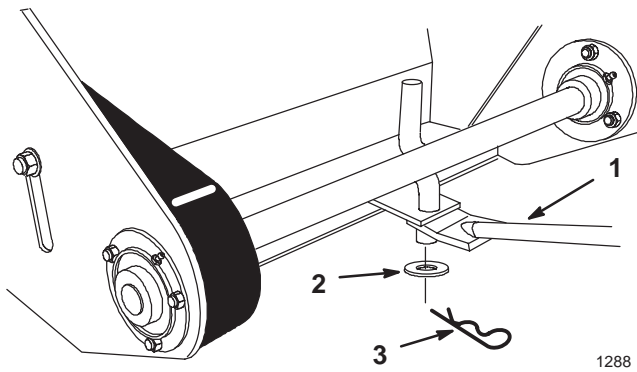


**Figure 21**

- 1. Lock
- 2. Mounting frame
- 3. Front hitch

- 6. Remove the belt from the outside pulley. Refer to Replacing the Snowthrower Belt on page 17.
- 7. Lower attachment lift all the way.
- 8. Loosen locknut on eyebolt to relax spring tension (Fig. 20). Unhook lift assist spring from frame cross rod.
- 9. Remove hairpin cotter to disconnect lift rod from attachment lift (Fig. 20).
- 10. Remove lift rod (and optional spacer washers) from lift tube (Fig. 20).

- 12. Remove hairpin cotter and washer to disconnect lift tube from housing.



**Figure 22**

1. Lift tube  
 2. Washer  
 3. Hairpin cotter—large

**Note:** Save all hardware, washers and hairpin cotters for reuse when installing snowthrower.

## Snowthrower Operating Tips

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

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

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

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

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

In wet or slushy conditions, clogging of the discharge chute will be reduced 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 and try to operate the controls when frozen.** Free all controls and moving parts before operating.

# Maintenance

## Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
25 Hours	<ul style="list-style-type: none"> <li>Grease—drive shaft bearings</li> <li>Oil—drive chain</li> </ul>
Storage	<ul style="list-style-type: none"> <li>Grease—drive shaft bearings</li> <li>Oil—drive chain</li> <li>Belt—check for wear/cracks</li> <li>Chipped Surfaces—paint</li> <li>Scraper—check for wear</li> </ul>
Fall Service	<ul style="list-style-type: none"> <li>Grease—drive shaft bearings</li> <li>Oil—drive chain</li> <li>Belt—check for wear/cracks</li> <li>Scraper—check for wear</li> </ul>



## 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(s) before you do any maintenance. Set the wire aside so that it does not accidentally contact the spark plug.

## Greasing and Lubrication

### Service Interval/Specification

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.

### How to Grease

1. Disengage the power take off (PTO), set the parking brake, and turn the ignition key to off. Remove the key.
2. Clean the grease fittings with a rag. Make sure to scrape any paint off the front of the fitting(s).
3. Connect a grease gun to the fitting. Pump grease into the fittings.
4. Wipe up any excess grease.

### Where to Add Grease

1. Lubricate the drive shaft bearings (Fig. 23).

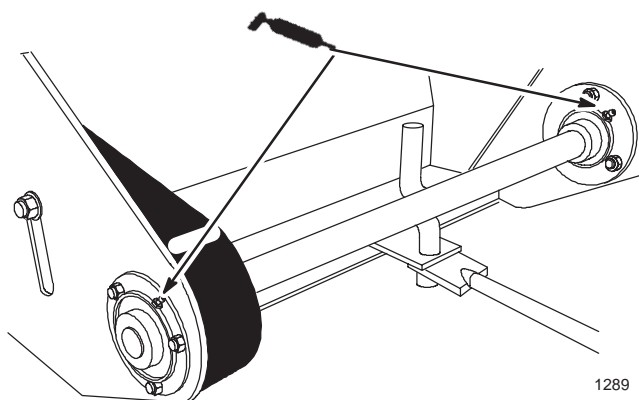
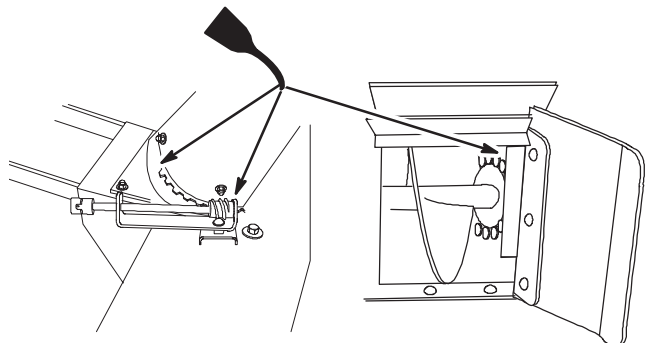


Figure 23

### Oiling the Drive Chain

1. Disengage the power take off (PTO), set the parking brake, and turn the ignition key to off. Remove the key.
2. Coat the entire chain with oil and allow to penetrate each roller (Fig. 24).
3. Place a few drops of oil on discharge chute rotator shaft and discharge chute mounting (Fig. 24).
4. Wipe off excess oil.



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Figure 24

1. Drive chain
2. Rotator assembly
3. Discharge chute mounting

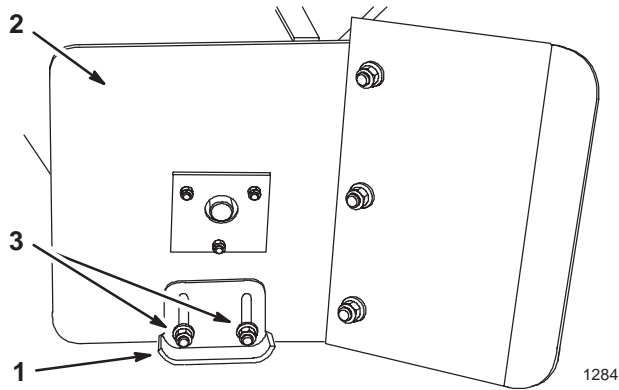
## Adjusting the Skids

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

1. Disengage the power take off (PTO), set the parking brake, and turn the ignition key to off. Remove the key.
2. Move snowthrower to a level surface.
3. Loosen nuts securing skids to the housing until the skids slide up and down easily (Fig. 25).

4. Raise or lower skids equally on both sides, to obtain level scraping action, and tighten nuts (Fig. 25).

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



**Figure 25**

- |            |        |
|------------|--------|
| 1. Skid    | 3. Nut |
| 2. Housing |        |

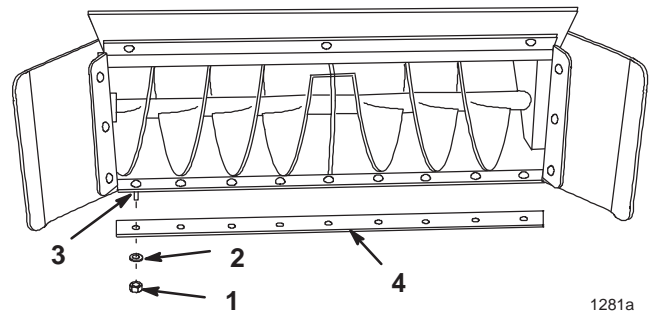
**Important**

The scraper should be 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 prevents damage to the snowthrower housing, from the ground. Periodically inspect the scraper blade for wear. When scraper becomes worn, before the ground contacts the housing, reverse the scraper blade.

1. Disengage the power take off (PTO), set the parking brake, and turn the ignition key to off. Remove the key.
2. Raise the attachment lift lever; refer to Raising Attachments, and support the housing off the ground.
3. Remove the nuts, washers, carriage bolts and scraper blade (Fig. 26).
4. Reverse scraper blade and install with previously removed hardware (Fig. 26).



**Figure 26**

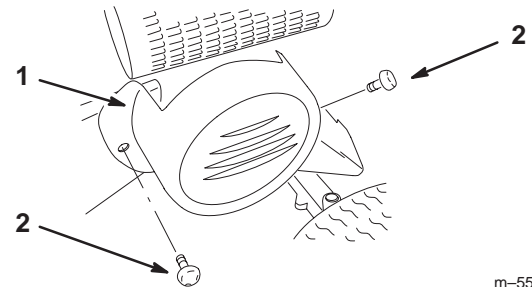
- |           |                  |
|-----------|------------------|
| 1. Nut    | 3. Carriage bolt |
| 2. Washer | 4. Scraper blade |

## Replacing the Snowthrower Belt

### Replacing the Snowthrower Belt on 2001 and Newer Models

The following instructions are for 2001 and newer models only.

1. Remove the belt cover. Refer to figure 27.



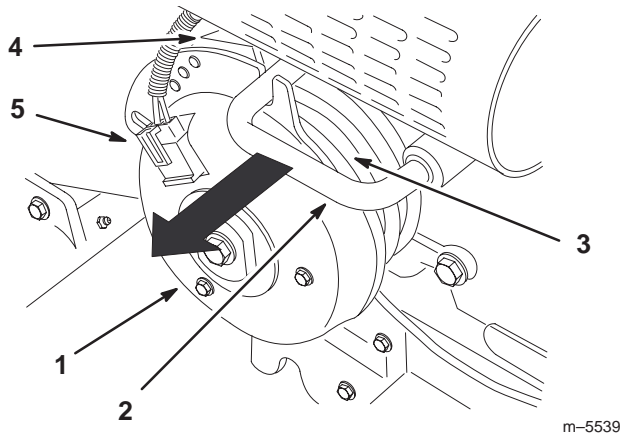
**Figure 27**

- |               |         |
|---------------|---------|
| 1. Belt cover | 2. Knob |
|---------------|---------|

2. Unplug the clutch connector (Fig. 28).
3. Pull the PTO stop out of the clutch (Fig. 28).
4. Rotate the clutch to allow space between the belt guide and the clutch. This will allow the belt to be installed onto the pulley (Fig. 28).
5. Replace the belt and install new belt into the outside pulley (Fig. 28).

**Note:** Install belt in the outside pulley groove for the snowthrower.

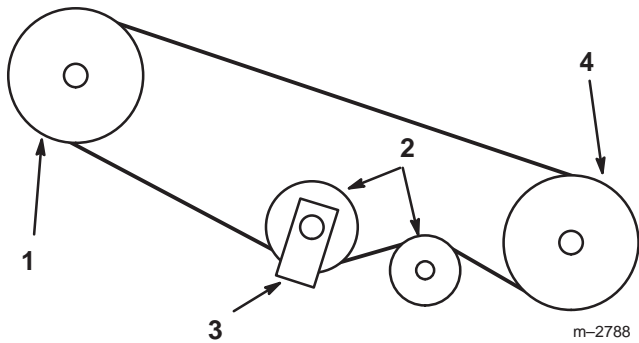
6. Install the PTO stop back into the clutch (Fig. 28).
7. Install the clutch connector (Fig. 28).



**Figure 28**

- |                            |                     |
|----------------------------|---------------------|
| 1. PTO clutch              | 4. Belt guide       |
| 2. PTO stop                | 5. Clutch connector |
| 3. Snowthrower belt groove |                     |

8. Route belt between belt guide and around idler pulleys (Fig. 12).
9. Rotate idler bracket to stretch spring and slip belt over snowthrower pulley (Fig. 12),



**Figure 29**

- |   |                       |
|---|-----------------------|
| 1. Outer groove of (PTO) power take off | 3. Belt guide         |
| 2. Idler pulley                         | 4. Snowthrower pulley |

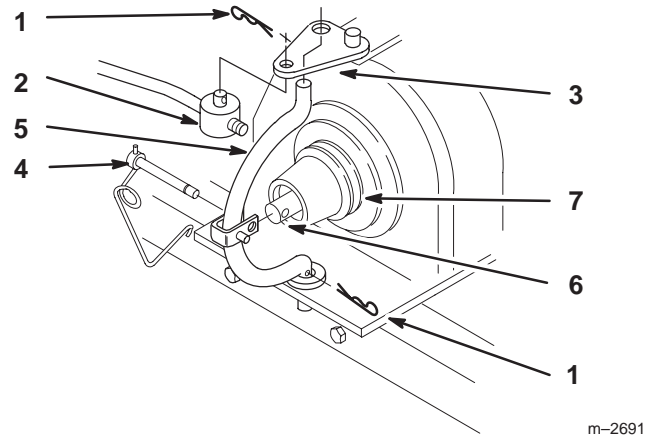
## Replacing the Snowthrower Belt on 2000 and Older Models

The following instructions are for 2000 and Older Models only.

1. Remove the belt cover. Refer to figure 27.

2. Remove hairpin cotters from trunnion and bottom of yoke (Fig. 30).
3. Unlatch and remove clevis pin that secures yoke assembly to clutch shaft. Pivot yoke out and forward to remove from clutch shaft and engagement plate (Fig. 30).

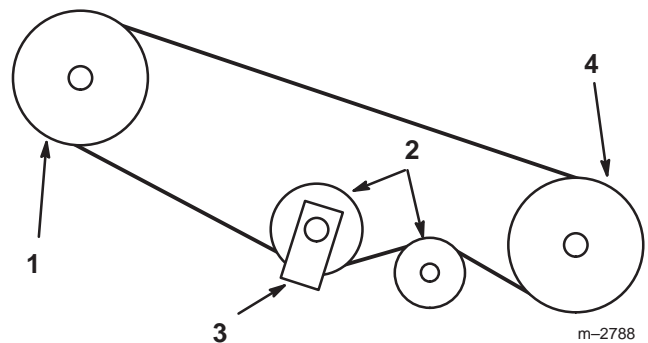
4. Place belt in outer pulley (Fig. 30).
5. Assemble yoke and engagement plate and attach clevis pin, trunnion and hairpin cotters to secure (Fig. 30).



**Figure 30**

- |                     |                 |
|---------------------|-----------------|
| 1. Hairpin cotter   | 5. Yoke         |
| 2. Trunnion         | 6. Clutch shaft |
| 3. Engagement plate | 7. Outer groove |
| 4. Clevis pin       |                 |

6. Route belt between belt guide and around idler pulleys (Fig. 12).
7. Rotate idler bracket to stretch spring and slip belt over snowthrower pulley (Fig. 12),



**Figure 31**

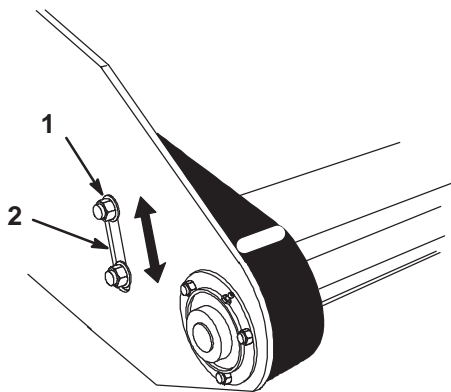
- |   |                       |
|---|-----------------------|
| 1. Outer groove of (PTO) power take off | 3. Belt guide         |
| 2. Idler pulley                         | 4. Snowthrower pulley |

# Adjusting the Drive Chain Tension

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

1. Disengage the power take off (PTO), set the parking brake, and turn the ignition key to off. Remove the key.
2. To adjust, loosen the bolt that secures the idler sprocket to left side of the housing (Fig. 32).
3. Slide idler sprocket in adjustment slot until chain is snug, but not tight (Fig. 32).
4. Tighten idler sprocket securely.

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



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**Figure 32**

1. Idler sprocket
2. Adjustment slot

## 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 Scraper Blade, page 17.
3. Check the condition of the drive belt and chain.
4. Grease and oil the snowthrower; refer to Greasing and Lubrication, page 16.
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 inside 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"> <li>1. Discharge chute plugged.</li> <li>2. Auger does not rotate.</li> <li>3. Auger speed to low.</li> <li>4. Forward speed to slow.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean chute with a stick.</li> <li>2. See auger does not rotate.</li> <li>3. Move throttle to fast.</li> <li>4. Increase ground speed.</li> </ol>
Auger does not rotate.	<ol style="list-style-type: none"> <li>1. Snow frozen to auger or housing.</li> <li>2. Drive belt tension low.</li> <li>3. Drive belt is worn, loose or broken.</li> <li>4. Drive belt is off pulley.</li> <li>5. Drive chain broken.</li> </ol>	<ol style="list-style-type: none"> <li>1. Scrape snow off with a stick.</li> <li>2. Adjust belt tension.</li> <li>3. Install new drive belt.</li> <li>4. Install blade drive belt and check idler pulley and belt guides for correct position.</li> <li>5. Replace or repair chain.</li> </ol>
Abnormal vibration.	<ol style="list-style-type: none"> <li>1. Snow frozen to auger.</li> <li>2. Drive belt off pulley.</li> <li>3. Engine mounting bolts are loose.</li> <li>4. Loose engine pulley, idler or snowthrower pulley.</li> <li>5. Engine pulley is damaged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Scrape snow off with stick.</li> <li>2. Install drive belt and check idler pulley for correct position.</li> <li>3. Tighten engine mounting bolts.</li> <li>4. Tighten the appropriate pulley.</li> <li>5. Contact Authorized Service Dealer.</li> </ol>