Form No. 3326-276 Rev A

TORO®

42″ Snowthrower

Wheel Horse® Lawn and Garden Tractor Attachment

Model No. 79263—200000001 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.

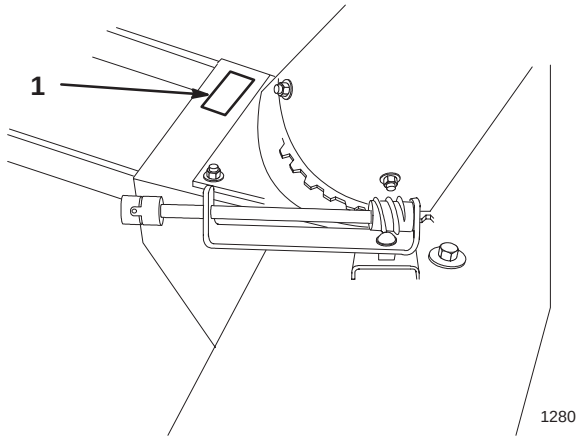


Figure 1

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.

PROTOTYPE

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.

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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, *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 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.

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- 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.

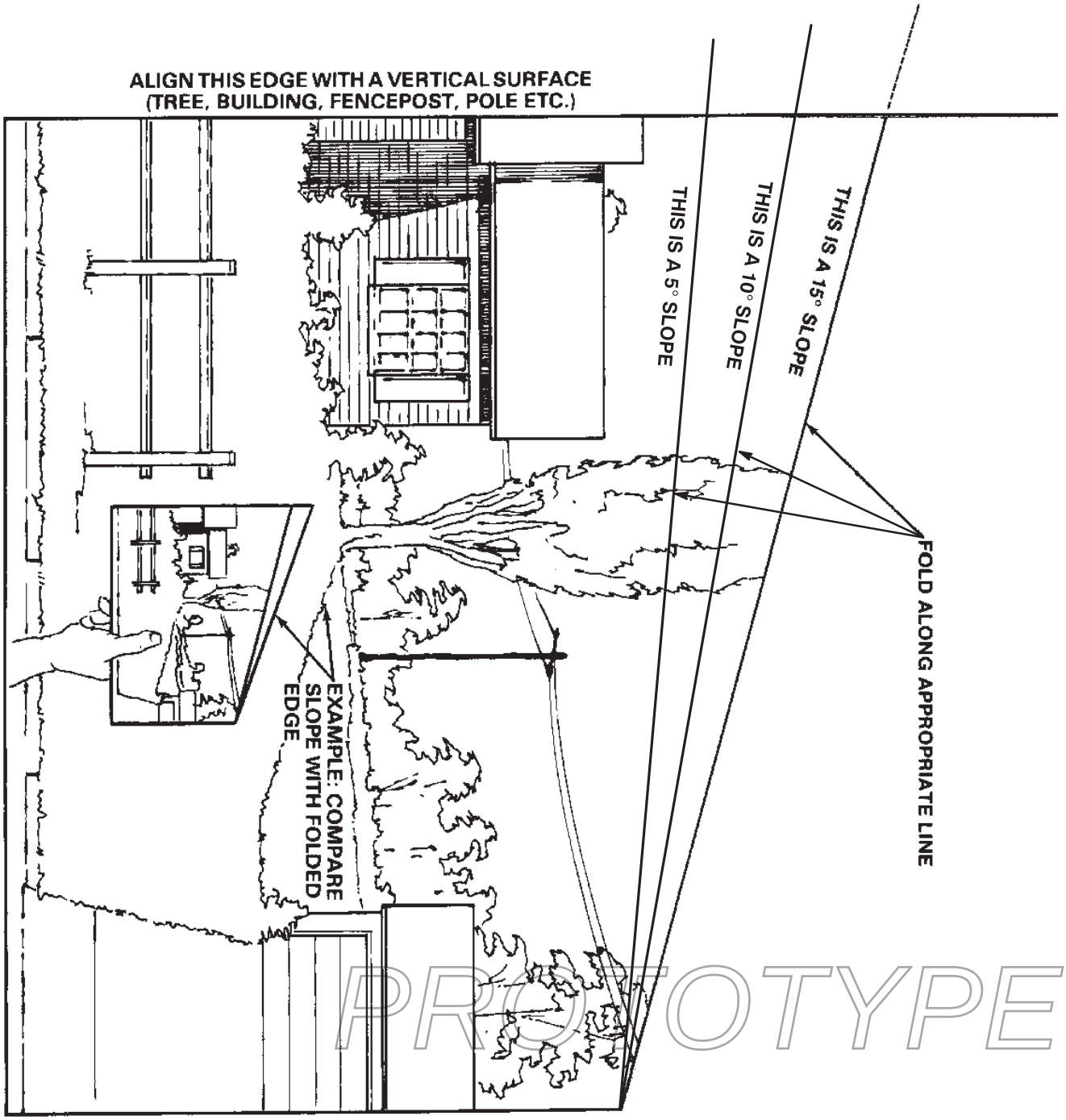
Toro Snowthrower Safety

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, safely 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 form 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.**

PROTOTYPE

Slope Chart



PROTOTYPE

PROTOTYPE

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.



86-5100



85-7490



92-8652



94-8078



63-2380

PROTOTYPE

Setup

Loose Parts

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

Description	Qty.	Use
Housing	1	Installing the frame and pulley
Frame	1	
Bolt, 3/8 x 1 in.	4	
Locknut, 3/8 in.	4	
Pulley	1	
Set screw	2	
Key	1	
Top plate	1	Installing the top and side plates
Side plate	2	
Long shoulder 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	
Bolt, 5/16 x 5/8 in.	3	
Washer, 5/16 in.	6	
Locknut, 5/16 in.	7	
Rotator assembly	1	
Carriage bolt, 5/16 x 1 in.	1	
Pyramidal washer, 5/16 in.	1	
Front hitch	1	Setting up the tractor
Short shoulder bolt, 3/8 x 1 in.	4	
Carriage bolt, 3/8 x 1-1/4 in.	2	
Locknut, 3/8 in.	4	
Handle bracket	1	
Spring bracket	1	
Decal	2	

PROTOTYPE

DESCRIPTION	QTY.	USE
Snowthrower assembly	1	Installing the snowthrower to the tractor
Lift tube	1	
Lift rod	1	
Spacer washer, 3/4 in.	2	
Retainer	1	
Washer, 5/8 in.	1	
Hairpin cotter, 2-1/2 in.	2	
Rod handle	1	
Lift assist spring	1	
Belt	1	
Idler assembly	1	
Clevis pin	2	
Crank handle	1	
Handle support	1	
Hairpin cotter, 1-7/8 in.	3	
Hairpin cotter, 1-7/16 in.	2	

Installing the Frame and Pulley

1. Tip the housing onto its front and insert the frame into the snowthrower with angle bend up (Fig. 2).

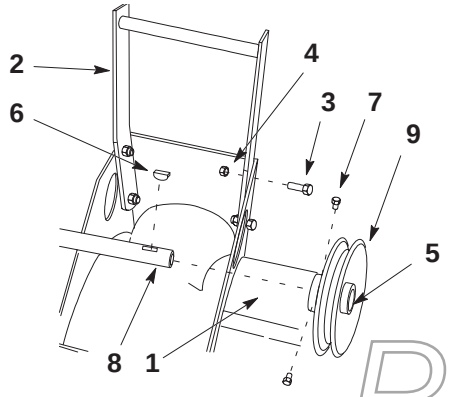


Figure 2

1. Housing
2. Frame
3. Bolt, 3/8 x 1 in.
4. Locknut, 3/8 in.
5. Pulley hub without set screws (install flush to shaft end)
6. Key
7. Set screw
8. Shaft
9. Pulley

2. Fasten the frame with 4 bolts (3/8 x 1 in.) (heads to the outside) and 4 locknuts (3/8 in.).

3. Install the key into the shaft (Fig. 2)..

4. Install the pulley so the hub **without** the set screws is flush to end of the shaft (Fig. 2).

Important The set screws must be on the inside.

5. Secure pulley to shaft with both set screws (Fig. 2).

Installing the Side and Top Plates

1. Rotate the housing down and position the top plate outside the top flange of the housing, securing it with 3 long shoulder bolts (3/8 x 1 in.) (heads on the inside), 3 washers (3/8 in.), and 3 locknuts (3/8 in.) (Fig. 3).

PROTOTYPE

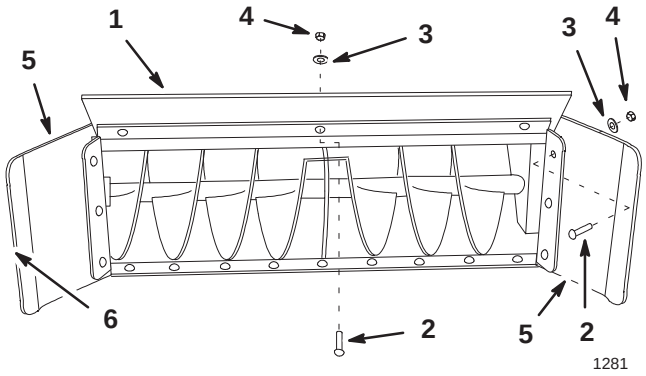


Figure 3

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

2. Position the side plates outside the housing side flanges, with the cutting edges parallel to side of the housing, securing them with 6 long shoulder bolts (3/8 x 1 in.) (heads on the inside), 6 washers (3/8 in.), and 6 locknuts (3/8 in.) (Fig. 3).

Installing the Discharge Chute and Rotar Assembly

1. Install the lower discharge chute and deflector shield onto the 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. 4).

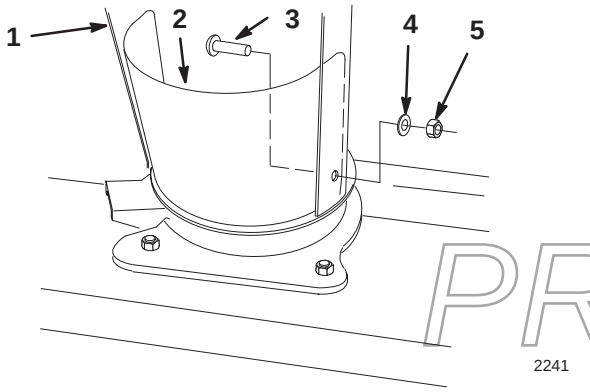


Figure 4

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

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

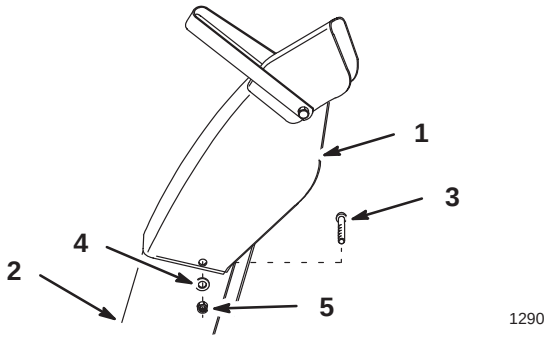


Figure 5

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

3. Install the discharge chute rotator assembly into the slot in the housing with a carriage bolt (5/16 x 1 in.) (head to the top), pyramidal washer (5/16 in.), and locknut (5/16 in.) (Fig. 6).

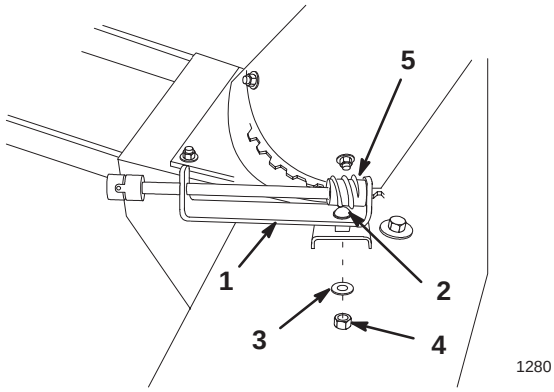


Figure 6

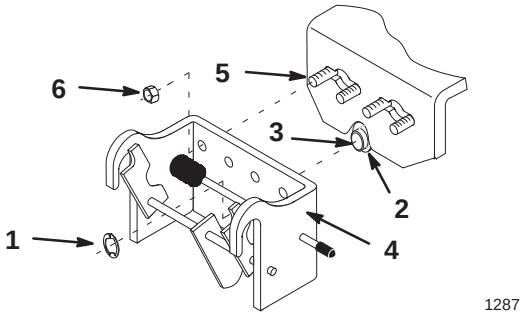
1. Rotator assembly
2. Carriage bolt, 5/16 x 1 in.
3. Pyramidal washer, 5/16 in.
4. Locknut, 5/16 in.
5. Worm gear

PROTOTYPE

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

Setting Up the Tractor

1. Remove the E-ring and all except one thick washer from the front axle, pivot pin (Fig. 7). Discard unused washers.



1287

Figure 7

1. E-ring
2. Thick Washer
3. Axle pivot
4. Front hitch
5. Short shoulder bolt, 3/8 x 1 in.
6. Locknut, 3/8 in.

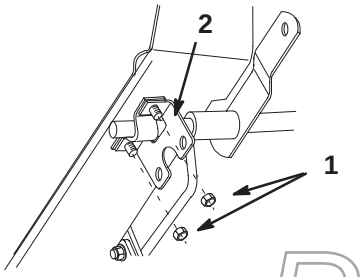
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2. Remove the muffler shield.

3. Install 4 short shoulder bolts (3/8 x 1 in.) into the keyhole slots in the axle bracket (Fig. 7).

4. Install the muffler shield and place the front hitch onto the tractor, securing it with 4 locknuts (3/8 in.) and the previously removed E-ring (Fig. 7).

5. Remove the nuts from the right side footrest cross–shaft (Fig. 8). Do not remove the cross–shaft bracket.



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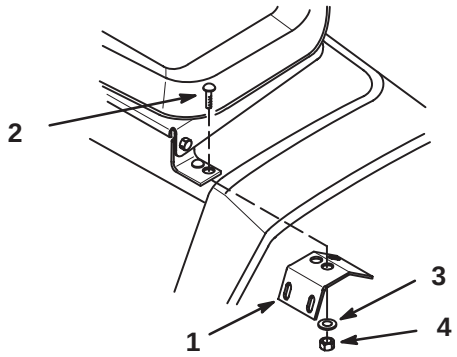
Figure 8

1. Locknut
2. Handle bracket

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6. Install the crank handle bracket under the right side footrest with a 90 degree bend toward the inside (Fig. 8), securing it with the previously removed locknuts.

7. Remove the nuts from the left, seat bracket (Fig. 9).



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Figure 9

1. Spring bracket (Long angle forward)
2. Carriage bolt, 5/16 x 1-1/4 in.
3. Washer
4. Nut

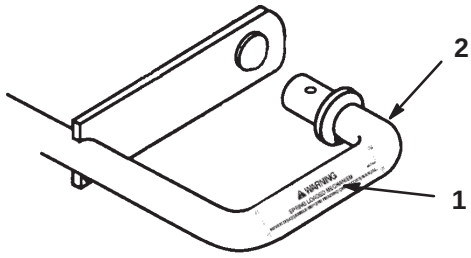
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8. Remove the bolts and replace them with 2 carriage bolts (5/16 x 1-1/4 in.).

9. Install the lift assist spring bracket on the under side of the left rear fender with the long angle of the bracket forward (Fig. 9). Secure it with the previously removed washers and nuts.

Important The long angle of the lift assist bracket must be forward or the lift assist spring may contact the tire.

10. Install warning decals to the left and right side of the lift arms (Fig. 10).



1567

Figure 10

1. Decal
2. Lift arm

PROTOTYPE

Installing the Snowthrower to the Tractor

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. Install the lift tube to the housing with a flat washer (5/8 in.) and a hairpin cotter (2-1/2 in.) (Fig. 11).

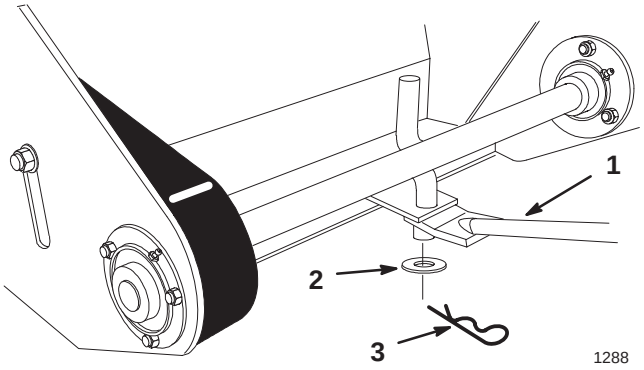


Figure 11

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

2. Position the snowthrower on a flat surface with the lift tube extending rearward.

3. Open the front hitch on the tractor and park it behind the snowthrower, with the lift tube between the front wheels.

4. Disengage the power take off (PTO), set the parking brake, stop the engine and remove the key.

5. Slide the snowthrower mounting frame into the front hitch. Close and lock the front hitch (Fig. 12).

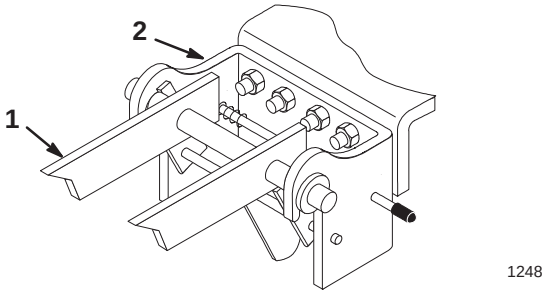


Figure 12

1. Mounting frame
2. Front hitch

6. Set Dial-a-Height to the Mounting Position, and lower the attachment lift all the way; refer to Operation.

7. Slide the lift rod into the lift tube (Fig. 13).

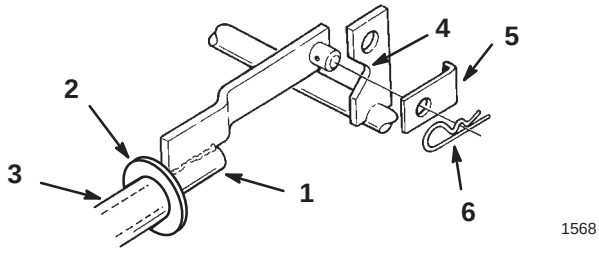


Figure 13

1. Lift rod
2. Spacer washer(s), 3/4 in.
3. Lift tube
4. V-notch
5. Retainer
6. Hairpin cotter, 2-1/2 in.

8. Place spacer washers (3/4 in.) onto the shaft of the lift rod to increase lift height, if desired (Fig. 13).

9. Connect the lift rod to the V-notch in the attachment lift with a retainer and a hairpin cotter (2-1/2 in.) (Fig. 13).

10. Raise the attachment lift lever to the transport position and place a block under the snowthrower housing.

11. Slide the rod handle through the hole in the tractor lift arm and rotate it so the bend with welded washers angles up (Fig. 14).

PROTOTYPE

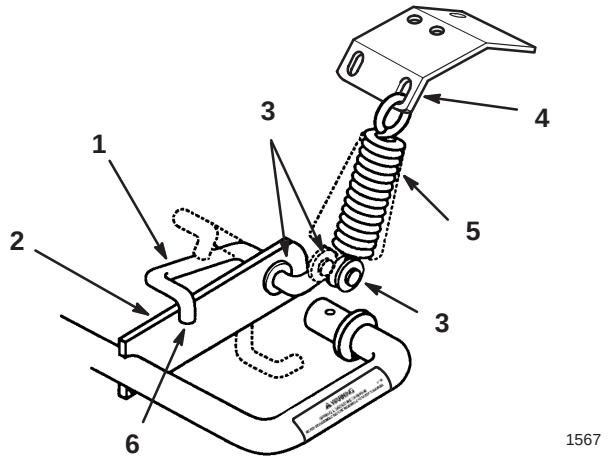


Figure 14

1. Rod handle
2. Lift arm
3. Welded washers
4. Bracket (outer slot)
5. Lift assist spring
6. Rod hook

12. Hook one end of the lift assist spring into the outer slot in the forward angle of the mounting bracket under the left fender (Fig. 14).

13. Hook the lift assist spring between the welded washers on the rod. Rotate the rod handle up and hook it over the tractor lift arm (Fig. 14).

14. Raise the attachment to the transport position, remove the block under the housing, and lower the snowthrower.

15. Hook the idler pulley assembly, rear hook onto the tractor lift shaft (Fig. 15).

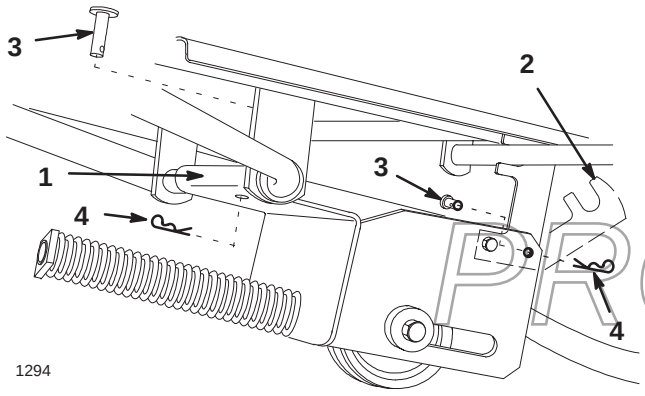


Figure 15

1. Rear hook
2. Front hook
3. Clevis pin
4. Hairpin cotter, 1-7/16 in.

16. Rotate the front latch hook up to engage the cross shaft (Fig. 15).

17. Secure it with 2 clevis pins and 2 hairpin cotters (1-7/16 in.) at the rear hook and the front latch hook (Fig. 15).

18. Route the belt around the snowthrower pulley, idler pulleys, and the upper groove of the electric clutch (Fig. 16).

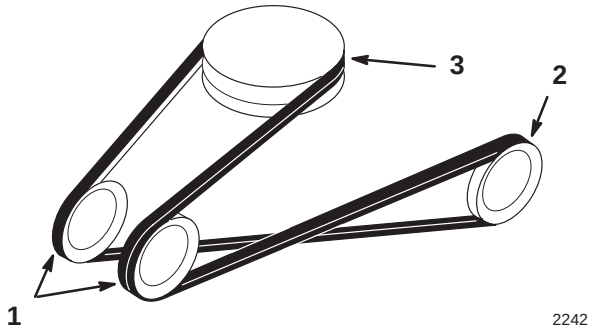


Figure 16

1. Idler pulley
2. Snowthrower pulley
3. Upper groove of the electric clutch

19. Hook the end of the crank handle support over the cross shaft (Fig. 17).

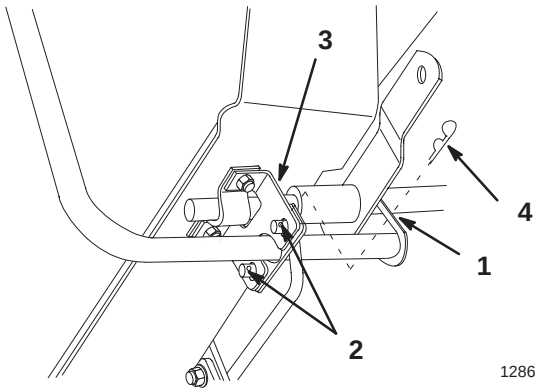


Figure 17

1. Hook
2. Pin
3. Bracket
4. Hairpin cotters, 1-7/8 in.

PROTOTYPE

20. Rotate it to align the pins with the holes in the handle bracket and secure it with 2 hairpin cotters (1-7/8 in.) (Fig. 17).

21. Slide the crank handle through the hole in the support and secure the handle to the U-joint with a hairpin cotter (1-7/8 in.) (Fig. 18).

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

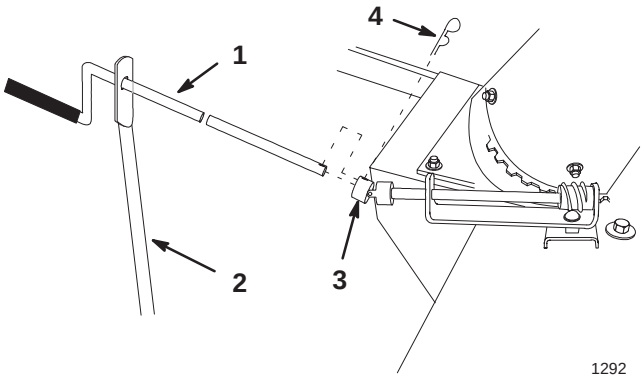


Figure 18

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

Removing the Snowthrower

Note: Save all hardware use when installing the snowthrower.

1. Park the tractor on a flat surface, disengage the PTO, set the parking brake, stop the engine, and remove the key.

2. Raise the attachment lift to the transport position and place a block under the snowthrower housing.

3. Turn the Dial-a-Height knob all the way counterclockwise and lower the attachment to the mounting position; refer to Operation.

4. Remove the hairpin cotter at the U-joint and slide the crank handle out of the support (Fig. 19).

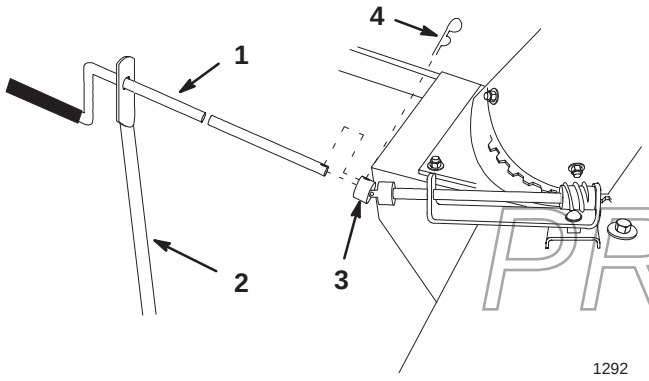


Figure 19

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

5. Remove the hairpin cotters and unhook the rod of the crank handle support from the cross shaft (Fig. 20).

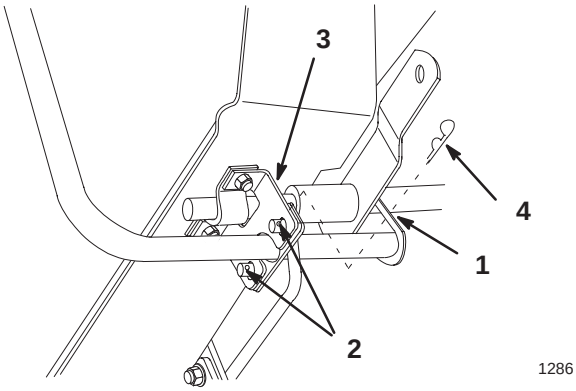


Figure 20

1. Hook
2. Pin
3. Bracket
4. Hairpin cotter

6. Pull on the idler pulley (Fig. 21) to relax belt tension and remove the drive belt from the snowthrower pulley. Remove the drive belt.

7. Remove the hairpin cotters and clevis pins from the front latch lever and rear hook. Unhook and remove the idler pulley assembly (Fig. 21).

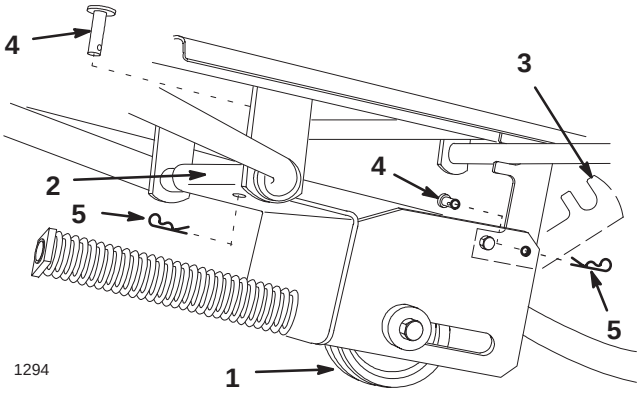


Figure 21

1. Idler pulley
2. Drive belt idler assembly
3. Front latch lever
4. Clevis pin
5. Hairpin cotter

PROTOTYPE

8. Raise the attachment to the transport position and place a block under the snowthrower housing.

9. Unhook the rod handle from the lift arm and rotate it down to relieve spring tension (Fig. 22).

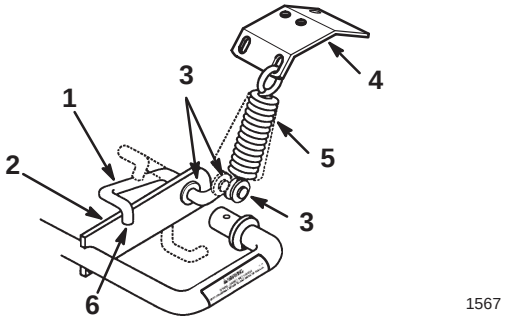


Figure 22

1. Rod handle
2. Lift arm
3. Welded washers
4. Bracket
5. Lift assist spring
6. Rod hook

10. Unhook the lift assist spring from between the welded washers on the rod (Fig. 22).

11. Slide the rod handle out of hole in the tractor lift arm (Fig. 22).

12. Unhook the lift assist spring from the slot in the mounting bracket under the left fender (Fig. 22).

13. Remove the hairpin cotter, clevis pin, and retainer to disconnect the lift rod from the V-notch in the attachment lift (Fig. 23).

14. Remove the lift rod (and any optional spacer washers) from the lift tube (Fig. 23).

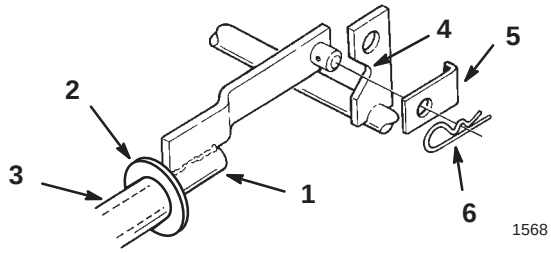


Figure 23

1. Lift rod
2. Optional spacer washer
3. Lift tube
4. V- notch
5. Retainer
6. Hairpin cotter

15. Open the front hitch lock (Fig. 24) and remove the snowthrower mounting frame from the front hitch.

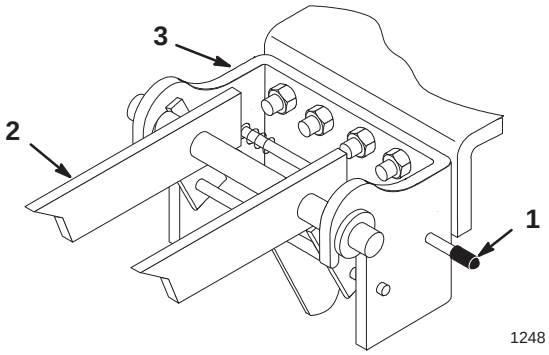


Figure 24

1. Lock
2. Mounting frame
3. Front hitch

16. Remove the hairpin cotter and washer to disconnect the lift tube from the housing.

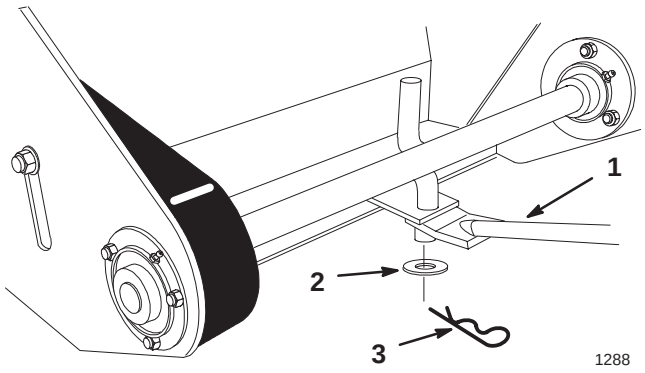


Figure 25

1. Lift tube
2. Washer
3. Hairpin cotter

Note: Save all hardware for use when installing the snowthrower.

PROTOTYPE

Operation

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

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.**

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).

Operating the Power Take Off (PTO)

The PTO engages and disengages power to the electric clutch.

While the ignition key is in the Run or Lights positions and the PTO is engaged (On), the PTO light will be lit. When this light is on, the starter will not crank. Turn off the PTO before starting the engine or getting off of the tractor.

Engaging the PTO

1. Stop the machine.
2. Pull the PTO knob out (Fig. 26).

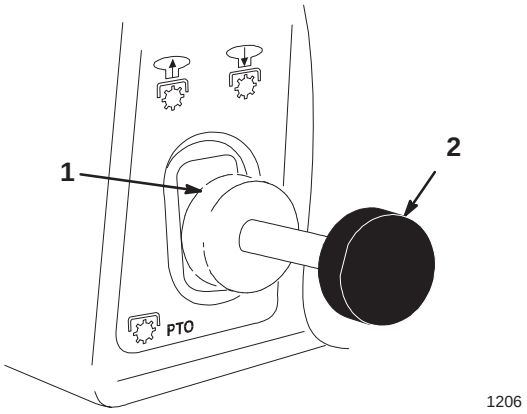


Figure 26

1. Off—Disengaged
2. On—Engaged

Disengaging the PTO

1. Stop the machine.
2. Push the PTO knob in (Fig.26).

Attachment Lift Lever

The attachment lift lever (on some models) (Fig. 27) is used to manually raise and lower attachments.

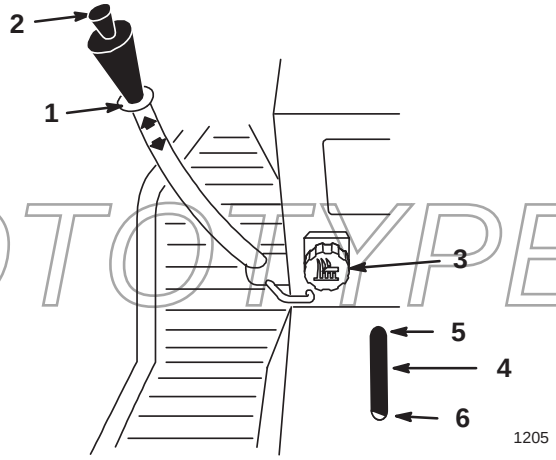


Figure 27

1. Lift lever
2. Button
3. Dial-A-Height
4. Indicator
5. High
6. Mounting position

PROTOTYPE

Raising Attachments

1. Stop the machine.
2. Pull attachment lift lever rearward until the latch locks. In this position the lift will hold the attachment in the raised position.

Lowering Attachments

1. Stop the machine.
2. Pull attachment lift lever rearward to release lift pressure then push the button on top to release the latch.
3. Move the lift lever forward to lower the attachment.

Attachment Power Lift

The attachment power lift (on some models) (Fig. 28) is used to raise and lower attachments.

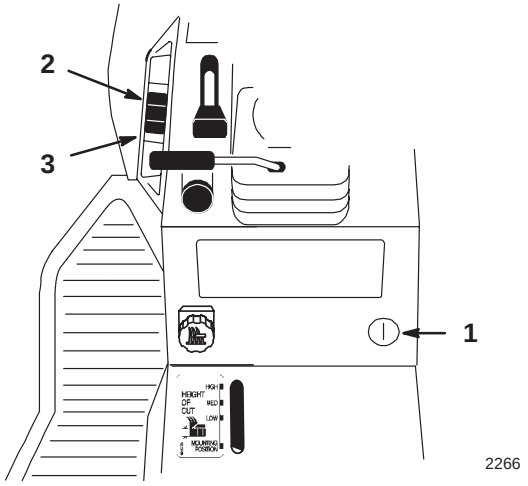


Figure 28

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

Raising Attachments

1. Turn key to the On or Run position (Fig. 28).
2. Push the lift switch up to raise the attachment (Fig. 28). This will lift and hold the attachment in the raised position.

Lowering Attachments

1. Turn the key to the On or Run position (Fig. 28).
2. Push the lift switch down to lower the attachment (Fig. 28).

Adjusting Dial-A-Height

The Dial-A-Height control (Fig. 27) 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.
2. Rotate the Dial-A-Height knob (Fig. 27) to change the stop location. Turn it clockwise to raise and counterclockwise to lower the height of the attachment.

   The Dial-A-Height indicator (Fig. 27) will show the change, high to low, in attachment lift height as an adjustment is made.

Adjusting 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.**

PROTOTYPE

You can rotate the discharge chute 180° 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).

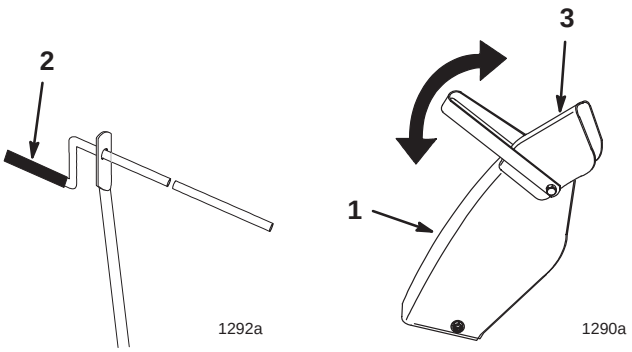


Figure 29

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.

PROTOTYPE

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.

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	• Grease the drive shaft bearings • Oil the drive chain
Pre-storage service	• 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	• 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 accidently 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.

PROTOTYPE

Greaseing the Snowthrower

1. Disengage the PTO, set the parking brake, stop the engine, and remove the key.
2. Clean the grease fittings with a rag. Make sure to scrape any paint off the front of the fittings.
3. Connect a grease gun to each fitting and pump grease into them (Fig. 30).

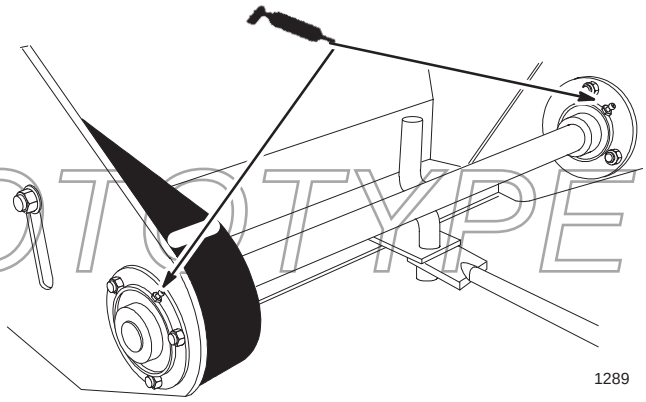


Figure 30

4. Wipe up any excess grease.

Oiling the Drive Chain

1. Disengage the PTO, set the parking brake, stop the engine, and remove the key.
2. Coat the entire chain with oil and allow it to penetrate each roller (Fig. 31).

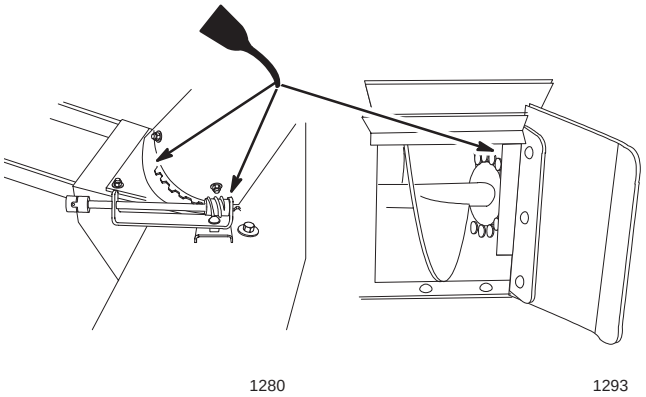


Figure 31

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

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

Adjusting the Drive Belt Tension

The drive belt is spring loaded and needs only periodic adjustment, to maintain proper spring tension.

Checking the Drive Belt Tension

1. Disengage the PTO, set the parking brake, stop the engine, and remove the key.
2. Raise and lower the snowthrower and ensure that the spring loaded idler is not hitting either end of the slot (Fig. 32). If it contacts either end of the slot, adjust the drive belt tension.

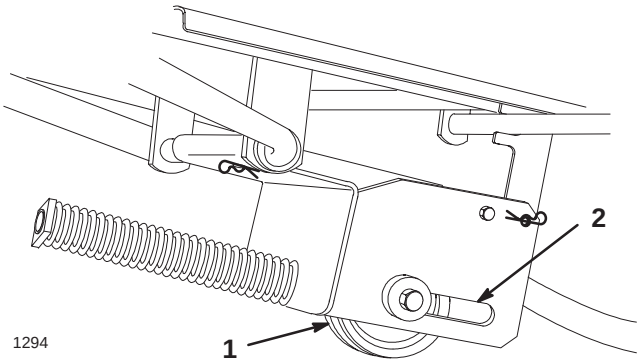


Figure 32

1. Spring loaded idler pulley
2. Slot

Adjusting the Drive Belt Tension

1. Disengage the PTO, set the parking brake, stop the engine, and remove the key.
2. Pull on the spring loaded idler pulley and remove the belt from the snowthrower pulley to release tension on the belt (Fig. 32).
3. Remove the nut, washer, and fixed idler from the idler assembly and relocate them in the next hole position to change the belt tension as required. (Fig. 33).

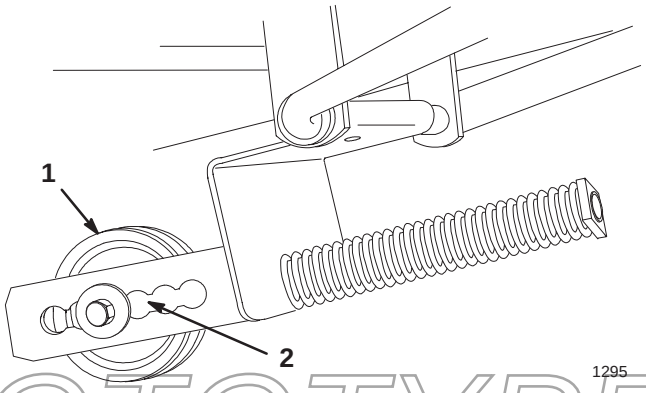


Figure 33

1. Fixed idler
2. Adjustment hole

4. Tighten the nut securely and install the belt onto the snowthrower pulley.
5. Raise and lower the snowthrower and ensure that the spring loaded idler is within the slot.

PROTOTYPE

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. Move the snowthrower to a level surface.
2. Disengage the PTO, set the parking brake, stop the engine, and remove the key.
3. Loosen the nuts securing skids to the housing until the skids slide up and down easily (Fig. 34).

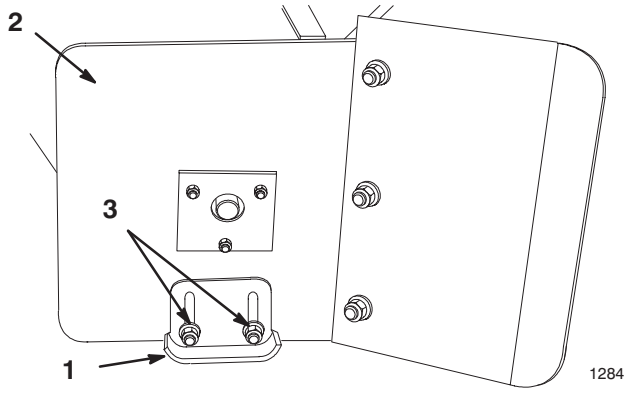


Figure 34

1. Skid
2. Housing
3. Nut

4. Raise or lower the skids equally on both sides, to obtain level scraping action, then tighten the nuts (Fig. 34).

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.

1. Disengage the PTO, set the parking brake, stop the engine, and remove the key.
2. Raise the attachment lift lever and support the housing off the ground; refer to Raising Attachments.
3. Remove the nuts, washers, carriage bolts, and scraper blade (Fig. 35).

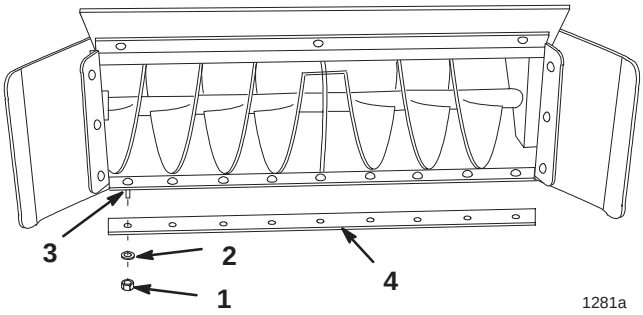


Figure 35

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

4. Reverse the scraper blade and install it with previously removed hardware (Fig. 35).

Adjusting 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.

1. Disengage the PTO, set the parking brake, stop the engine, and remove the key.
2. Loosen the bolt that secures the idler sprocket to the left side of the housing. (Fig. 36).

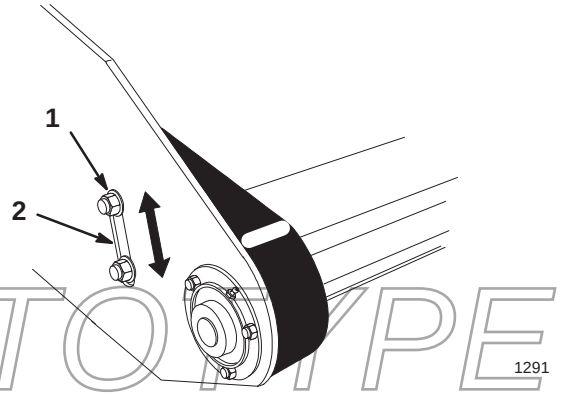


Figure 36

1. Idler sprocket
2. Adjustment slot

3. Slide the idler sprocket in the adjustment slot until the chain is snug, but not tight (Fig. 36).
4. Tighten the idler sprocket securely.

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

PROTOTYPE

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 21.
3. Check the condition of the drive belt and chain.
4. Grease and oil the snowthrower; refer to Greasing and Lubrication, page 19.
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	1. The discharge chute is plugged.	1. Clean the chute with a stick.
	2. The auger does not rotate.	2. Refer to Auger does not rotate.
	3. Auger speed too low.	3. Move the throttle to Fast.
	4. Forward speed too slow.	4. Increase ground speed.
Auger does not rotate.	1. Snow is frozen to the auger or housing.	1. Scrape snow off with a stick.
	2. The drive belt tension is low.	2. Adjust the belt tension.
	3. The drive belt is worn, loose or broken.	3. Install a new drive belt.
	4. The drive belt is off the pulley.	4. Install the drive belt and check the idler pulley for correct position.
	5. The drive chain is broken.	5. Replace or repair the chain.
Abnormal vibration.	1. Snow is frozen to the auger.	1. Scrape snow off with stick.
	2. The drive belt is off a pulley.	2. Install the drive belt and check the idler pulley for correct position.
	3. The engine mounting bolts are loose.	3. Tighten the engine mounting bolts.
	4. Loose engine pulley, idler, or snowthrower pulley.	4. Tighten the appropriate pulley.
	5. The engine pulley is damaged.	5. Contact your Authorized Service Dealer.

PROTOTYPE

PROTOTYPE



PROTOTYPE