FORM NO. 3319–293

TORO®

44” Snowthrower

for

PL118/120 and GM120

Model No. 30761 – 890001 & Up

Operator’s Manual

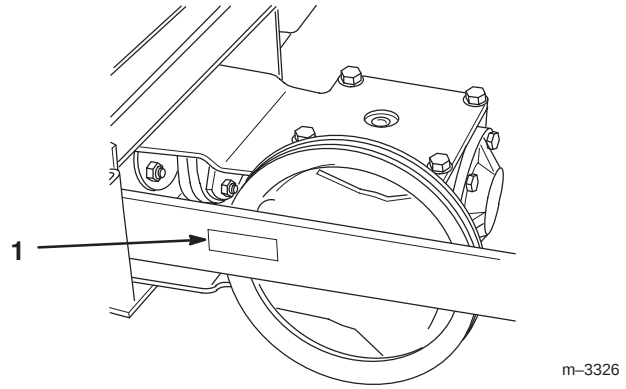
IMPORTANT: Read this manual carefully. It contains information about your safety and the safety of others. Also become familiar with the controls and their proper use before you operate the product.

Introduction

Thank you for purchasing a Toro product.

All of us at Toro want you to be completely satisfied with your new product, so feel free to contact your local Authorized Service Dealer for help with service, genuine replacement parts, or other information you may require.

Whenever you contact your Authorized Service Dealer or the factory, always know the model and serial numbers of your product. These numbers will help the Service Dealer or Service Representative provide exact information about your specific product. You will find the model and serial number plate located in a unique place on the product as shown below.



1. Model and Serial Number Plate

For your convenience, write the product model and serial numbers in the space below.

Model No: _____

Serial No. _____

Read this manual carefully to learn how to operate and maintain your product correctly. Reading this manual will help you and others avoid personal injury and damage to the product. Although we design, produce and market safe, state-of-the-art products, you are responsible for using the product properly and safely. You are also responsible for training persons, who you allow to use the product, about safe operation.

The warning system in this manual identifies potential hazards and has special safety messages that help you and others avoid personal injury, 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 the recommended precautions are not followed.

WARNING signals a hazard that may cause serious injury or death if the recommended precautions are not followed.

CAUTION signals a hazard that may cause minor or moderate injury if the recommended precautions are not followed.

Two other words are also used to highlight information. “Important” calls attention to special mechanical information and “Note” emphasizes general information worthy of special attention.

The left and right side of the machine is determined by sitting on the seat in the normal operator’s position.

Contents

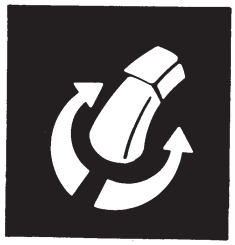
Safety and Instruction Decals

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.

ON SIDES OF DISCHARGE CHUTE
(Part No. 63–3740)

ON AUGER HOUSING
(Part No. 92–8652)

ON TOP BRACKET
(Part No. 63–3510)



ON AUGER HOUSING
(Part No. 92–8019)

ON AUGER HOUSING
(Part No. 63–2380)

Assembly

Loose Parts

Description	Qty	Use
Mounting bracket	1	Install weight box and reflectors
Weight box	1	
Weight box cover	1	
Bolt 1/2–13 x 1-1/4” (32 mm)	4	
Lock washer 1/2” (13 mm)	2	
Locknut 1/2–13	2	
Wing nut	2	
Reflector	2	
Valve assembly	1	Install in hydraulic system
Carriage bolt 5/16–18 x 5/8” (16 mm)	3	Install discharge chute to snowthrower
Flat washer 5/16” (8 mm)	3	
Locknut 5/16–18	3	
Spring strap	1	Install spring to gearbox
Spring	1	
Top bracket	1	Install chute crank to steering tower
Bolt 1/4–20 x 3/4” (19 mm)	2	
Bottom bracket	1	
Crank assembly	1	
Cotter pin 1/8–3/4” (19 mm)	2	
Washer 3/8” (9 mm)	2	
Coupler	1	
Locknut 1-1/16–12	1	
Roll pin 1/8 x 3/4” (19 mm)	1	
Bolt 3/8–16 x 2-1/2” (64 mm)	4	Install snowthrower to traction unit frame
Locknut 3/8–16	4	
Belt	1	
Operators Manual	1	Read before operating
Parts Manual	1	For ordering parts

Install Rear Weight Box

⚠ WARNING

POTENTIAL HAZARD

- **When snowthrower is attached to the traction unit, without additional weight, the traction unit becomes unstable.**

WHAT CAN HAPPEN

- **Loss of traction and stability may cause loss of control.**

HOW TO AVOID THE HAZARD

- **To ensure proper handling and safety characteristics, rear weight box filled with sand or gravel or (4) rear weights must be attached to rear of traction unit.**
- **NEVER operate traction unit, equipped with snowthrower, unless rear weight is installed.**

1. On traction units with a weight mounted to rear of machine, remove weight to expose rear weight box mounting holes.
2. On traction units without a weight, locate mounting holes under TORO decal in rear frame. Cut away material to expose mounting holes.

   Note: Insert box mounting screws through bracket before mounting bracket to frame.
3. Secure mounting bracket to rear frame with (2) 1/2-13 x 1-1/4” (32 mm) bolts and 1/2” (13 mm) lock washers (Fig. 1).
4. Secure weight box to mounting bracket with (2) 1/2-13 x 1-1/4” bolts (previously inserted into bracket) and locknuts (Fig. 1).
5. Fill weight box with approximately 90–100 lbs. of sand or gravel and install cover. Secure cover with (2) wing nuts (Fig. 1).
6. Torque fasteners to 75 ft. lbs. (102 N•m).

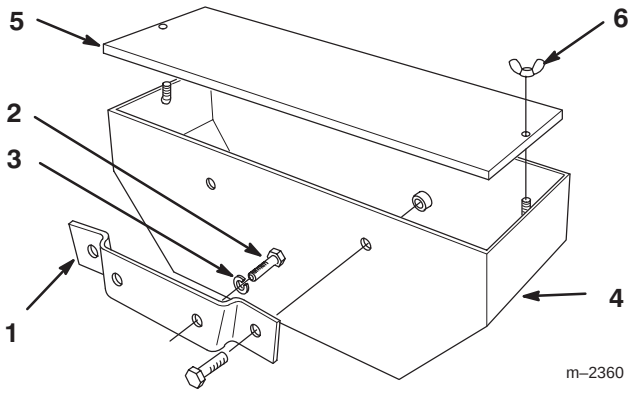


Figure 1

1. Mounting bracket
2. 1/2–13 x 1-1/4” (32 mm)
3. Lock washer 1/2” (13 mm)
4. Weight box
5. Cover
6. Wing nut

Install Reflectors

Remove backing from reflectors and stick them on back of the weight box.

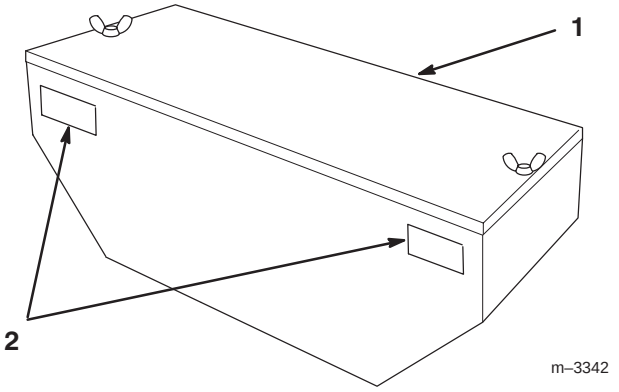


Figure 2

1. Weight box
2. Reflector

Install Valve Assembly

⚠ WARNING

POTENTIAL HAZARD
- **Hydraulic fluid escaping under high pressure can penetrate skin.**

WHAT CAN HAPPEN
- **Fluid accidently injected under skin can cause serious injury requiring physicians immediate attention.**

HOW TO AVOID THE HAZARD
- **Keep body and hands away from pin hole leaks or nozzles that eject high pressure hydraulic fluid.**
- **Use cardboard or paper to find hydraulic leaks.**

1. Lower lift to the full down position to relieve hydraulic pressure. Locate hydraulic hose between valve body and cylinder rod end.
2. Remove hose at valve body (Fig. 3).

   Note: Use care not to remove o-ring and adaptor fitting from the valve body, only remove the hose fitting.

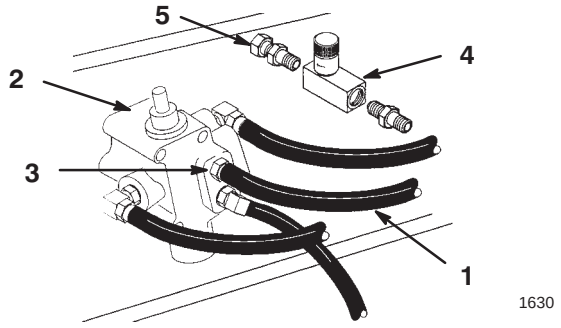


Figure 3

1. Hydraulic hose to cylinder rod end
2. Valve body
3. Adaptor fitting
4. Flow control valve
5. Swivel fitting

3. Thread valve assembly swivel fitting onto the adaptor fitting in valve body (Fig. 4).
4. Torque swivel fitting to 126 in.-lb. (14 N•m) or 1 flat after fitting is finger tight.
5. Thread hose fitting, previously removed, onto the end fitting of the flow control valve assembly (F0g. 4).
6. Torque swivel fitting to 126 in.-lb. (14 N•m) or 1 flat after fitting is finger tight.

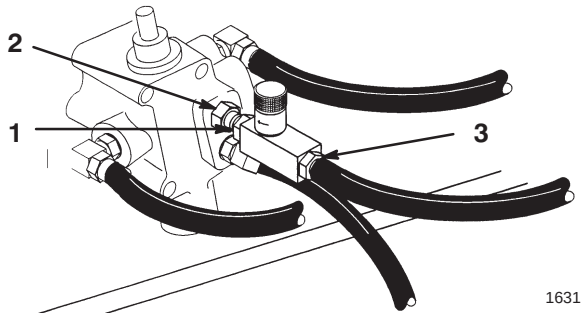


Figure 4

1. Swivel fitting
2. Adaptor fitting
3. Hydraulic hose to cylinder rod end

IMPORTANT: Make sure all hydraulic line connectors are tight and all hydraulic hoses and lines are in good condition before applying pressure to the system.

Install Discharge Chute

1. Rotate retain ring so teeth and mounting tabs are in correct position (Fig. 5).
2. Set discharge chute on retain ring (Fig. 5). Secure back of chute to center tab with 5/16–18 x 5/8” (16 mm) carriage bolt, 5/16” (8 mm) flat washer, and 5/13–18 locknut (Fig. 5); but do not tighten locknut.
3. Secure chute to other tabs with (2) 5/16–18 x 5/8” (16 mm) carriage bolts, 5/16” (8 mm) flat washers, and 5/13–18 locknuts (Fig. 5).
4. Torque nuts to 200 in. lbs. (22 N•m).

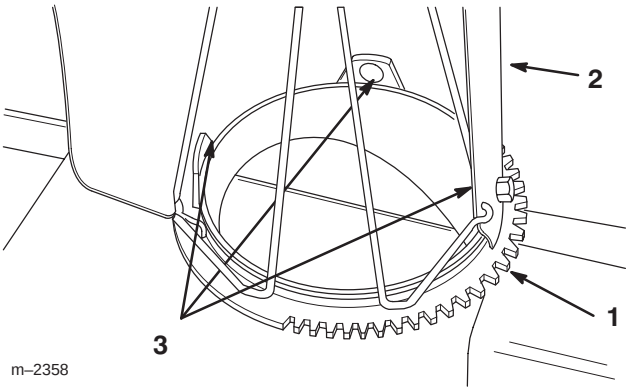


Figure 5

1. Retaining ring
2. Chute
3. Three tabs

Install Spring Strap

1. Remove bolt and washer from gearbox right rear hole (Fig. 6).
2. Install spring strap to gearbox and secure with previously removed bolt and washer (Fig. 6).
3. Torque bolt to 30 ft. lbs. (41 N•m).
4. Hook spring into end of spring strap (Fig. 6).

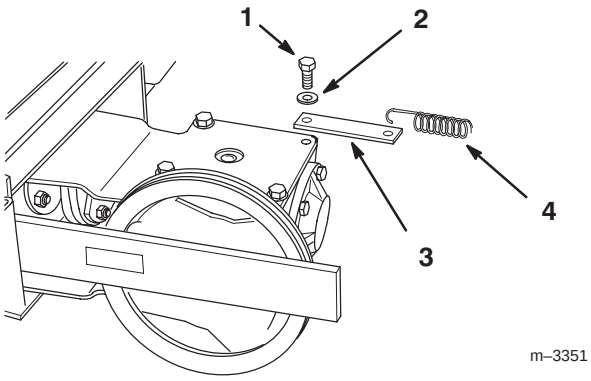


Figure 6

1. Bolt
2. Washer
3. Spring strap
4. Spring

Install the Snowthrower

1. Align snowthrower frame mounting holes with traction unit lift arms. Secure each side with (2) 3/8-16 x 2-1/2” (64 mm) bolts and 3/8–16 locknuts (Fig. 7).

2. Torque fasteners to 240-320 in lb. (27–36 N•m)

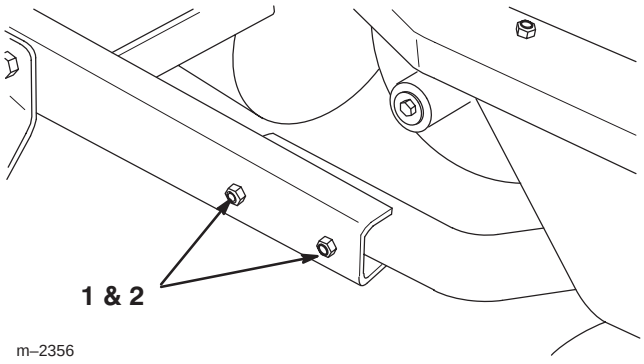


Figure 7

1. Bolt 3/8–16 x 2-1/2” (64 mm)
2. Locknut 3/8–16

1. Route V-belt around jackshaft pulley and gear box pulley (Fig. 8).

2. Raise idler pulley and position over upper portion of belt (Fig 8).

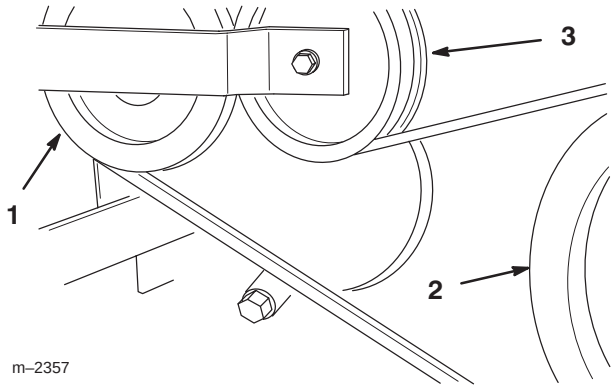


Figure 8

1. Jack shaft pulley
2. Gear box pulley
3. Idler pulley
4. Spring

3. Hook spring into plate on gearbox and stretch to idler mounting bolt, placing tension on belt (Fig. 9).

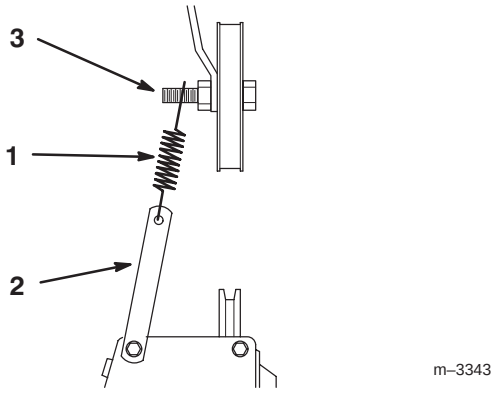


Figure 9

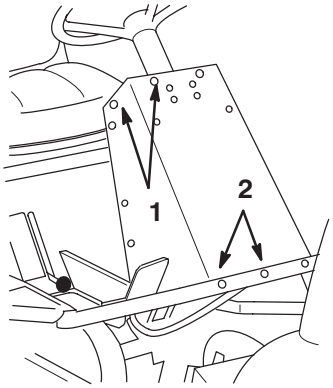
1. Spring
2. Plate
3. Idler mounting bolt

Install Chute Crank

1. Remove (2) screws (front and right side) securing front of steering tower to dash (Fig. 10). Retain screws for reassembly of deck.

2. Remove (2) screws (center and right) securing bottom of tower to frame channel (Fig. 10). Retain screws for reassembly.

3. Aligning top bracket with holes and secure to tower with (2) 1/4-20 x 3/4” (19 mm) bolts (Fig. 11).

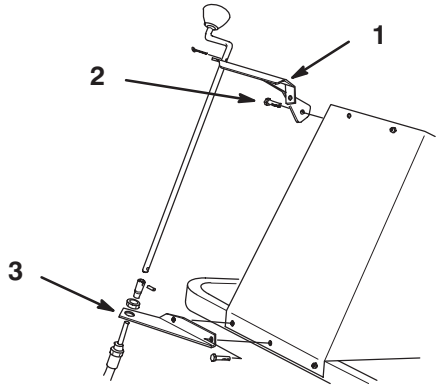


m–2354

Figure 10

1. Top mounting holes
2. Bottom mounting holes

4. Aligning bottom bracket with holes and secure bracket to tower and frame channel with (2) screws previously remove (Fig 11).



m–2355

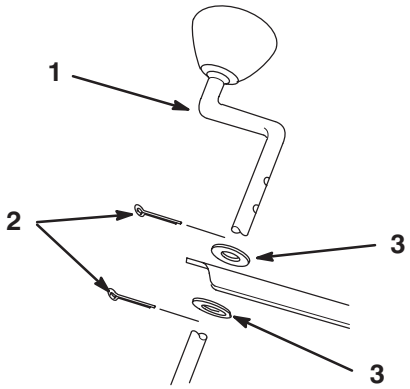
Figure 11

1. Top bracket
2. 1/4–20 x 3/4’ (19 mm)
3. Bottom bracket

5. Install a 1/8 x 3/4” (19 mm) cotter pin into top hole in chute crank shaft (Fig. 12).

6. Slide a 3/8” (10 mm) washer onto crank shaft and insert crank shaft thru mounting hole in top bracket (Fig. 12).

7. Slide a second 3/8” (10 mm) washer onto crank shaft and secure with 1/8 x 3/4” (19 mm) cotter pin (Fig. 12).



m–3327

Figure 12

1. Chute crank
2. Cotter pin 1/8 x 3/4” (19 mm)
3. Washer 3/8” (10 mm)

8. Mount coupler to end of crank shaft with a roll pin (Fig. 13).

9. Slide the 1–13 locknut (Fig. 13) onto crank shaft while inserting flexible shaft up through mounting hole in bottom bracket and into crank shaft coupler. Thread 1-1/16–12 locknut onto flexible shaft and tighten.

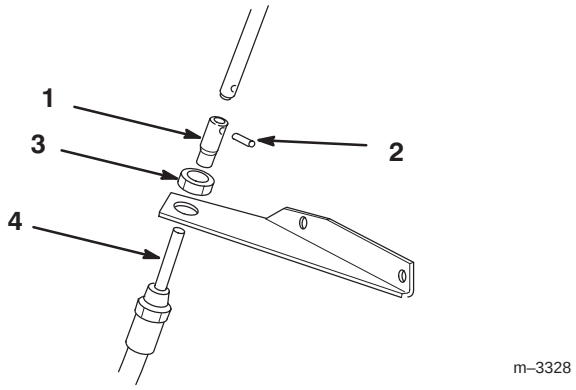


Figure 13

1. Coupler
2. Roll pin 1/8 x 3/4” (19 mm)
3. Locknut 1-1/16–12
4. Flexible shaft

Operation

Operating the Power Take Off (PTO)

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

Engaging the PTO

1. Release the parking brake.

2. Release pressure on the traction pedal to stop movement (Fig. 14).

3. To engage lift cover and move the PTO switch to the “ON” position (Fig. 14).

Disengaging the PTO

1. Closing the cover moves the PTO switch to the “OFF”position (Fig. 14).

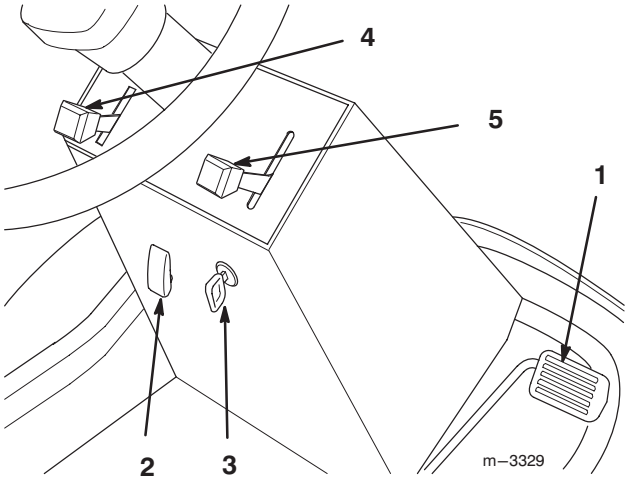


Figure 14

1. Traction pedal
2. PTO switch
3. Ignition switch
4. Choke
5. Throttle

Implement Lift Lever

The implement lift lever (Fig. 15) is used to raise and lower various attachments.

Raising Attachments

1. Remove pressure from traction pedal to stop the machine.

2. Pull implement lift lever (Fig. 15) rearward to raise attachment to the desired height.

Lowering Attachments

1. Remove pressure from traction pedal to stop the machine.

2. Push implement lift lever (Fig. 15) forward to lower attachment.

Note: Hold lift lever in down position 1–2 seconds after attachment in down to extend lift cylinder allowing attachment to float with changes in ground contour.

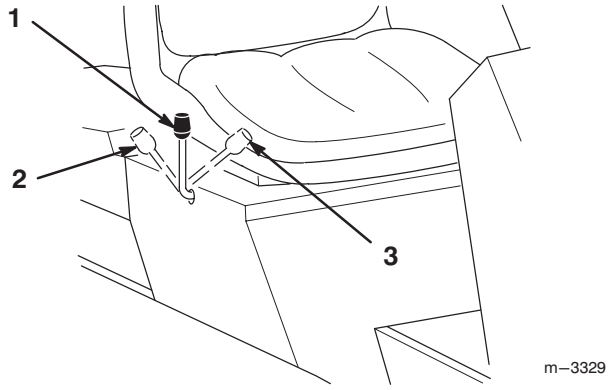


Figure 15

1. Lift lever
2. Lift–raise
3. Lift–lower

Adjust Flow Control Valve

1. Loosen set screw and gently turn adjustment knob all the way to the right to close, then open 1–2 turns (Fig. 16).

2. After snowthrower is installed, start engine and cycle hydraulic lift several times to remove air from the lines and warm fluid.

3. Cycle raising and lowering snowthrower several times. Rotate knob on flow control valve so a decent rate of approximately 3 seconds is obtained (Fig. 16).

Note: When hydraulic fluid is cold decent rate may be slower.

4. Tighten set screw to lock knob in adjusted position. (Fig. 16).

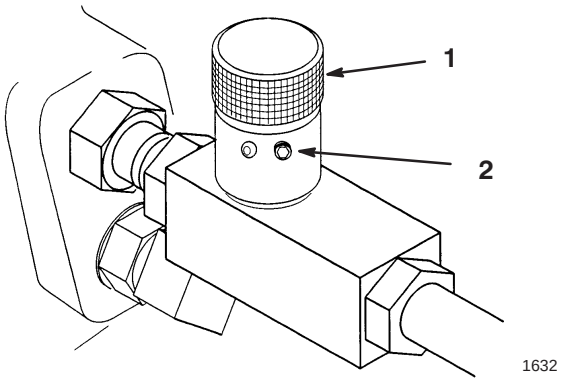


Figure 16

1. Adjustment knob
2. Set screw

Note: To obtain faster rate of decent with mower installed flow control valve adjustment may need to be changed.

Maintenance

Service Interval Chart

Service Operation	5 Hours	25 Hours	50 Hours	100 Hours	200 Hours	Storage Service
Gearbox–change oil	Initial		X			X
Auger gearbox–check oil			X			X
Flexible shaft–grease			X			X
Skids–adjust		X				X
Scraper blade–check\replace				X		X

⚠ CAUTION

POTENTIAL HAZARD

- **If you leave the key in the ignition switch, someone could start the engine.**

WHAT CAN HAPPEN

- **Accidental starting of the engine could seriously injure you or other bystanders.**

HOW TO AVOID THE HAZARD

- **Remove the key from the ignition switch and pull the wire(s) off the spark plug(s) before you do any maintenance. Also push the wire(s) aside so it does not accidentally contact the spark plug(s).**

Grease and Lubrication

Changing Gear Case Oil

Change gear case oil initially after 5 hours of operation. Thereafter change oil after every 50 hours of operation.

1. Make sure snowthrower is lowered and positioned on a level surface.
2. Place a drain pan under gear case (Fig. 17).
3. Remove drain plug on bottom of gear case, allowing oil to drain into pan (Fig. 17). Reinstall plug after all oil has drained.
4. Clean area around gear box filler plug on top of gear box (Fig. 17) to prevent contaminants from entering gear box.
5. Remove plug from elbow fitting on side of gear box.
6. Add SAE EP 90 wt. oil until oil level is up to elbow fitting on side of gear case (approx. 16 oz.).
7. Reinstall top and side plugs.

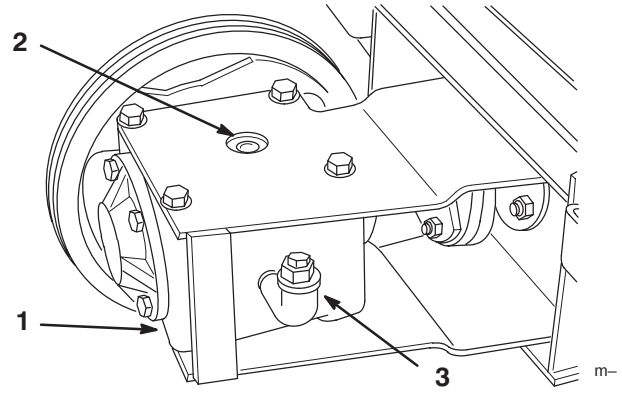


Figure 17

1. Drain plug (not shown under gear case)
2. Fill plug
3. Elbow fitting and plug

Check Auger Gear Box Oil

Check level of oil in auger gear box every 50 hours.

1. With snowthrower lowered and on a level surface, remove pipe plug from auger gear box (Fig. 18) by placing the open end of a 3/8” drive socket extension over plug and using a 3/8” open end wrench on the square end of the extension.
2. Check level of oil in gear box. Oil must be at point of overflowing in filler opening.
3. If oil level is low, add SAE 90 EP GL-4 transmission oil to the gear box to the point of overflowing.
4. Install pipe plug in gear box.

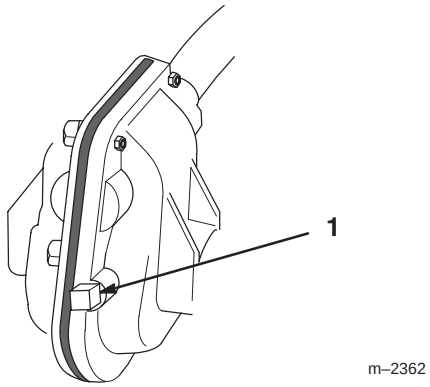


Figure 18

1. Pipe plug

Grease Flexible Shaft and Worm Gear

Grease flexible shaft every 50 hours.

1. Grease flexible shaft (Fig. 19) with No. 2 lithium base grease until grease appears at each end of flexible shaft.

2. Check operation of chute crank and discharge chute. Adjust worm gear, if necessary, by loosening worm bracket mounting screws (Fig. 19), firmly pushing worm gear against teeth in retaining ring, and re-tightening locknuts.

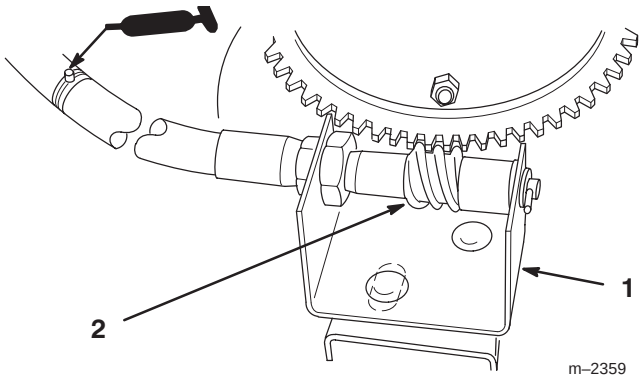


Figure 19

1. Worm bracket
2. Worm gear

Adjusting 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" to stop the engine. 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. 20).
4. Raise or lower skids equally on both sides, to obtain level scraping action, and tighten nuts (Fig. 20).

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

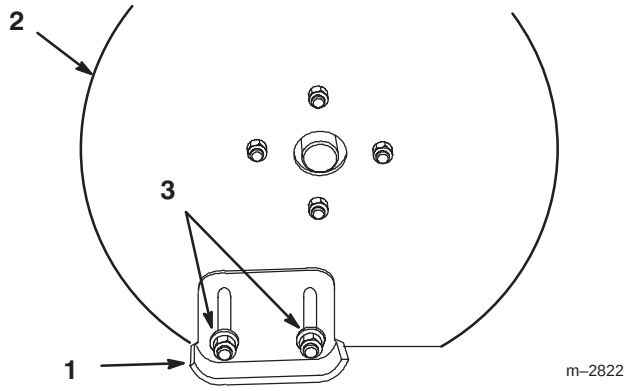


Figure 20

1. Skid
2. Housing
3. Nut

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.

Replacing Scraper Blade

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

1. Disengage the power take off (PTO), set the parking brake, and turn the ignition key to “OFF” to stop the engine. Remove the key.
2. Raise the attachment lift lever: Refer to Raising Attachments, and support the housing off the ground.
3. Remove nuts,washers, carriage bolts and scraper blade (Fig. 21).
4. Replace scraper blade and install with previously removed hardware (Fig. 21).

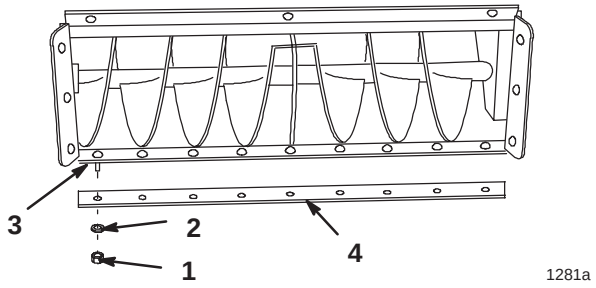


Figure 21

1. Nut 1/4–20
2. Washer 1/4” (6 mm)
3. Carriage bolt 1/4–20 x 3/4” (19 mm)
4. Scraper blade

Storage

1. Before long term storage wash the snowthrower with mild detergent and water to remove dirt and grime from the entire attachment.
2. Check the condition of the scraper blade; refer to Replacing Scraper Blade, page 17.
3. Grease and oil the snowthrower; refer to Greasing and Lubrication, page 15.
4. Check and tighten all bolts, nuts, and screws. Repair or replace any part that is damaged or defective.
5. Paint all scratched or bare metal surfaces. Paint is available from your Authorized Service Dealer.
6. Store the snowthrower in a clean, dry garage or storage area. Cover the machine to protect it and keep it clean.