



MODEL NO. 30761-70001 & UP

**INSTALLATION
INSTRUCTIONS****44" SNOWTHROWER**

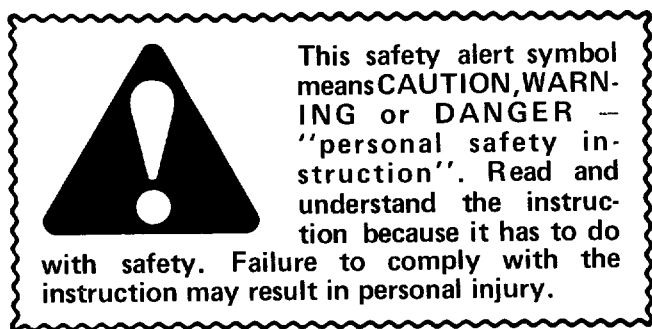
(GROUNDMASTER 117)

Since this instruction sheet covers only a minimal amount of information necessary to maintain and operate your snowthrower, we suggest that you keep this material with your Operator's Manual for

the traction unit so that both may be referred to for instructions concerning safe operation and proper maintenance procedures.

**PRICE \$1.00**

SAFETY INSTRUCTIONS



The 44" Snowthrower is designed and tested to offer reasonably safe service. Failure to operate the machine in accordance with these Safety Instructions MAY RESULT IN PERSONAL INJURY.

BEFORE OPERATING

1. Read and understand the contents of these Installation Instructions and the Operator's Manual for the Groundsmaster 117 before starting and operating the machine. Become familiar with all controls and know how to stop quickly. A replacement manual is available by sending complete Model and Serial Number to:

The Toro Company
8111 Lyndale Avenue South
Minneapolis, Minnesota 55420

2. Filled rear weight box or 4 optional rear weights must be installed to rear of traction unit as forward stability and steering control will be seriously degraded when the snowthrower is in the raised position during operation.

3. Never allow children or adults unfamiliar with its operation to operate the machine, and keep everyone, especially children and pets, away from the area of operation.

4. Keep all shields and safety devices in place. If a shield, safety device or decal is defective or damaged, repair or replace it before operation is commenced. Also tighten any loose nuts, bolts and screws to assure machine is in safe operating condition.

5. Do not wear loose fitting clothing which could get caught in moving parts. Wearing safety glasses, safety shoes and a helmet is advisable and required by some local ordinances and insurance regulations.

6. Assure interlock switches are adjusted correctly so engine cannot be started unless traction pedal is released — neutral position — and PTO switch is in DISENGAGE position.

7. Fill fuel tank with gasoline before starting the engine. Avoid spilling any gasoline. Since gasoline

is highly flammable, handle it carefully — DO NOT SMOKE.

- A. Use an approved gasoline container.
- B. Fill fuel tank outdoors and only when engine is not running. Engine must be cool to prevent a potential fire hazard.
- C. Wipe up any gasoline that spilled, and install gasoline container cap and machine fuel tank cap securely before starting the engine.

WHILE OPERATING

8. Do not operate without filled rear weight box or 4 optional rear weights installed. Forward stability and steering control will be seriously degraded without the weight box installed.

9. Do not run the engine in a confined area without adequate ventilation. Exhaust fumes are hazardous and could possibly be deadly.

10. Maximum seating capacity is one person. Never carry passengers.

11. Sit on the seat when starting the engine and operating the machine.

12. When starting the engine:

- A. Engage parking brake.
- B. Assure traction pedal is in neutral and PTO is in disengage position.
- C. After engine is started, release parking brake and keep foot off traction pedal. Machine must not move. If movement is evident, the neutral return mechanism is adjusted incorrectly; therefore, shut engine off and adjust until machine does not move when traction pedal is released.

13. Using the machine demands attention, and to prevent loss of control:

- A. Operate only in daylight or when there is good artificial light.
- B. Watch for holes or other hidden hazards.
- C. Do not drive close to a ditch, creek or other hazard. Use caution when operating on slippery surfaces.

SAFETY INSTRUCTIONS

- D. Reduce speed when making sharp turns and when turning on hillsides.
- E. Avoid sudden stops and starts.
- F. Before backing up, look to the rear and assure no one is behind the machine.
- G. Watch out for traffic when near or crossing roads. Always yield the right-of-way.

14. Never direct discharge of snow or operate snowthrower near bystanders, glass enclosures, automobiles and trucks, window wells or a drop-off without proper adjustment of the snow discharge angle.

15. If the snowthrower strikes a solid object or the machine vibrates abnormally, disengage PTO, move throttle to slow, set parking brake and shut engine off. Remove key from ignition switch and pull high tension wire off spark plug to prevent possibility of accidental starting. Check snowthrower and traction unit for damage and defective parts. Make all repairs before restarting the engine and operating the unit.

16. Clear snow from slopes by going up and down; never across the face, and use caution when changing directions. Never clear snow from steep slopes.

17. Do not touch engine, muffler or its adjacent shroud while engine is running or soon after it is stopped. These areas could be hot enough to cause a burn.

18. Before getting off the seat:

- A. Move traction pedal to neutral position and remove foot from pedal.
- B. Disengage the PTO and set the parking brake.
- C. Shut the engine off and remove key from ignition switch. Wait for all movement to stop before getting off the seat.

19. Lower the snowthrower to the ground and remove key from ignition switch whenever machine is left unattended.

MAINTENANCE

20. Remove key from ignition switch and pull high tension wire off spark plug to prevent accidental starting of the engine when servicing, adjusting or storing the machine.

1. KEEP ALL SHIELDS IN PLACE.
2. BEFORE LEAVING OPERATOR'S POSITION:
 - A. MOVE TRANSMISSION TO NEUTRAL AND LOWER SNOWTHROWER.
 - B. DISENGAGE ATTACHMENT CLUTCH.
 - C. SET PARKING BRAKE.
 - D. SHUT OFF ENGINE.
 - E. REMOVE IGNITION KEY.
3. WAIT FOR ALL MOVEMENT TO STOP BEFORE SERVICING MACHINE.
4. KEEP BYSTANDERS FROM AREAS BEING CLEARED.

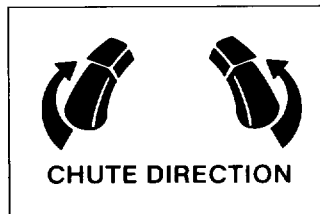
SAFETY DECALS



ON DISCHARGE CHUTE
(Part No. 55-9650)



ON TOP BRACKET
(Part No. 61-8500)



CHUTE DIRECTION



ON AUGER HOUSING
(Part No. 53-7670)

ON AUGER HOUSING
(Part No. 61-8490)



ON AUGER HOUSING
(Part No. 61-8510)

WARNING

LOSS OF STEERING CONTROL AND FORWARD STABILITY MAY RESULT IN SERIOUS INJURY WHEN SNOWTHROWER IS IN RAISED POSITION WITHOUT ADDITIONAL WEIGHT.



SEE OPERATOR'S MANUAL FOR COMPLETE INSTRUCTIONS.

GROUNDMASTER TRACTION UNITS MUST BE EQUIPPED WITH REAR COUNTER WEIGHT WITH THIS ATTACHMENT INSTALLED.

61 8490

LOOSE PARTS

Description	Qty.	Use
Top Bracket	1	Secure to Steering Tower
Capscrew — 1/4-20 x 3/4" lg.	2	
Bottom Bracket	1	Secure to Steering Tower
Capscrew — 3/8-16 x 2-1/2" lg.	4	Mount snowthrower frame to Traction Unit Frame
Locknut — 3/8-16	4	
Belt	1	Mount snowthrower to Traction Unit
Carriage Bolt	3	Mount discharge chute to snowthrower
Flat Washer	3	
Locknut	3	
Crank	1	Mount chute crank to top bracket
Cotter Pin	2	
Washer	2	
Coupler	1	
Roll Pin — 1/8" x 3/4" lg.	1	
Mounting Bracket	1	Mount weight box to Traction Unit
Weight Box	1	
Weight Box Cover	1	
Capscrew — 1/2-13 x 1-1/4" lg.	4	
Lockwasher	2	
Locknut — 1/2-13	2	
Wing Nut	2	
Reflectors	2	Mount to rear of traction unit
Operators Manual		
Parts Manual		

SET UP INSTRUCTIONS

INSTALL CHUTE CRANK BRACKETS

1. Remove (2) screws (1-front & 1-right side) securing front of steering tower to top of steering tower (Fig. 1). Retain screws for reassembly of deck.



Figure 1

1. Top mounting holes
2. Bottom mounting holes

2. Aligning top bracket mounting holes with exposed holes (Fig. 2), secure bracket to tower parts with (2) 1/4-20 x 3/4" lg. capscrews.

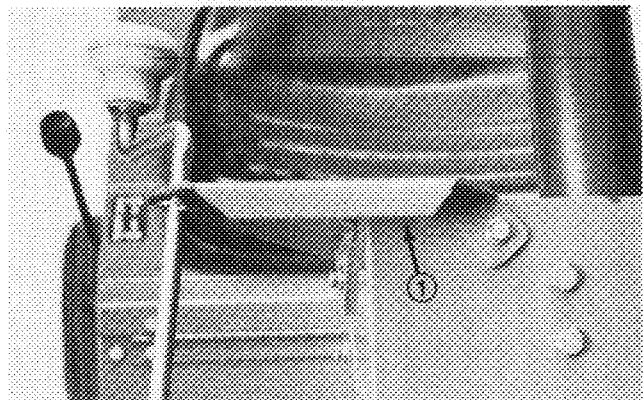


Figure 2

1. Top bracket

3. Remove (2) screws (center and right) securing bottom of tower to frame channel (Fig. 1). Retain screws for reassembly.

SET UP INSTRUCTIONS

4. Aligning bottom bracket mounting holes with exposed holes (Fig. 3), secure bracket to tower and frame channel with (2) screws previously removed.

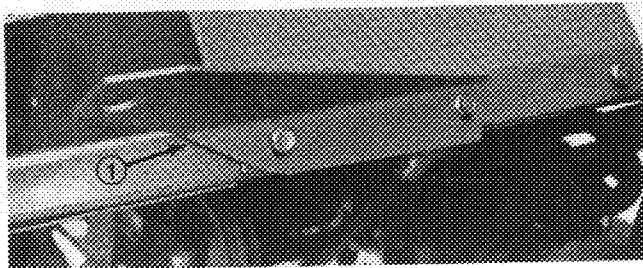


Figure 3
1. Bottom bracket

MOUNT SNOWTHROWER FRAME TO TRACTION UNIT

1. Align snowthrower frame mounting holes with mounting holes in traction frame. Secure each side with (2) 3/8-16 x 2-1/2" lg. capscrews and locknuts (Fig. 4). Torque fasteners to 240-320 in. lb.

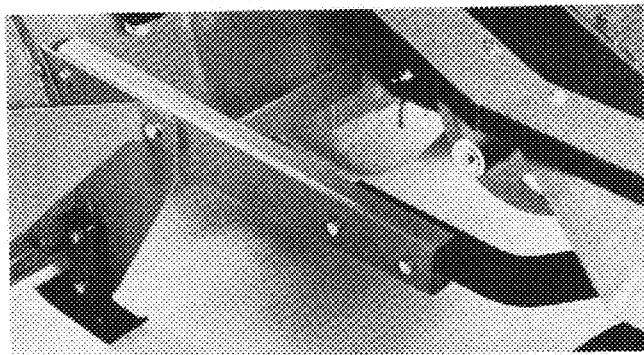


Figure 4

INSTALL DRIVE BELT

1. Route V-belt around jackshaft pulley and gear box pulley (Fig. 5).

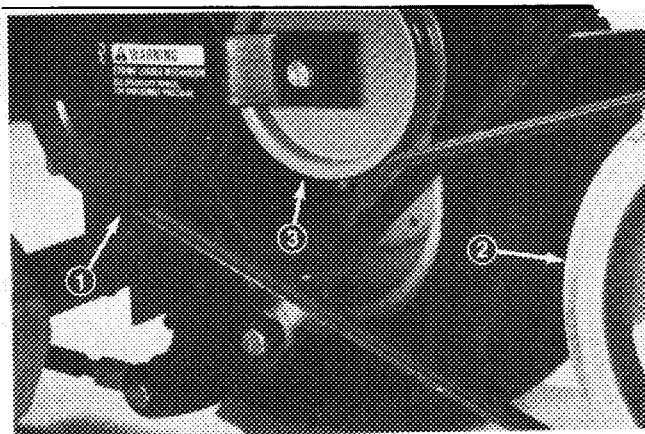


Figure 5
1. Jack shaft pulley
2. Gear box pulley
3. Idler pulley

2. Raise idler pulley and position over upper portion of belt (Fig. 5).

INSTALL DISCHARGE CHUTE

1. Rotate retaining ring so teeth and mounting tabs are in correct position (Fig. 6).

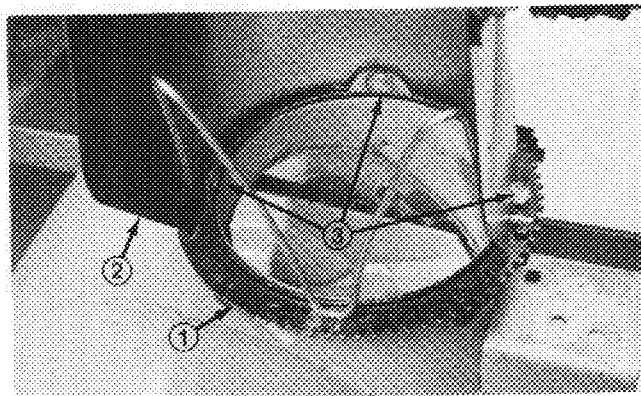


Figure 6
1. Retaining ring
2. Chute
3. Three tabs

2. Set discharge chute on retaining ring (Fig. 6). Secure back of chute to center tab with carriage bolt, flat washer and locknut (Fig. 6); but do not tighten locknut.

3. Secure chute to other tabs with two carriage bolts, flat washers and locknuts (Fig. 6).

Note: When all carriage bolts are installed, tighten the three locknuts.

MOUNT CHUTE CRANK

1. Install a cotter pin into top hole in chute crank shaft (Fig. 7).

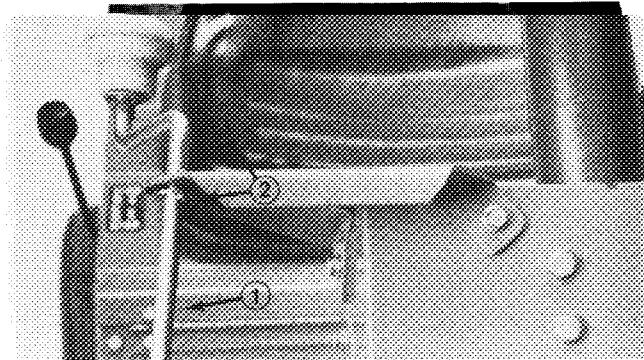


Figure 7
1. Chute crank
2. Cotter pin and washer

2. Slide a washer onto crank shaft and insert crank shaft thru mounting hole in top bracket (Fig. 7).

SET UP INSTRUCTIONS

3. Slide another washer onto crank shaft and secure with cotter pin (Fig. 7).

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

5. Slide the large nut (Fig. 8) onto crank shaft while inserting flexible shaft up thru mounting hole in bottom bracket and into crank shaft coupler. Thread nut onto flexible shaft and tighten.

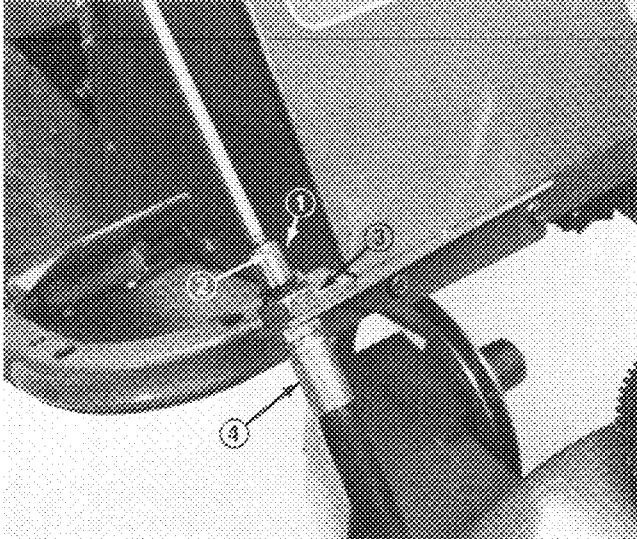


Figure 8

1. Coupler
2. Roll pin
3. Large nut
4. Flexible shaft

6. Grease flexible shaft (Fig. 9) with No. 2 lithium base grease until grease appears at each end of flexible shaft.

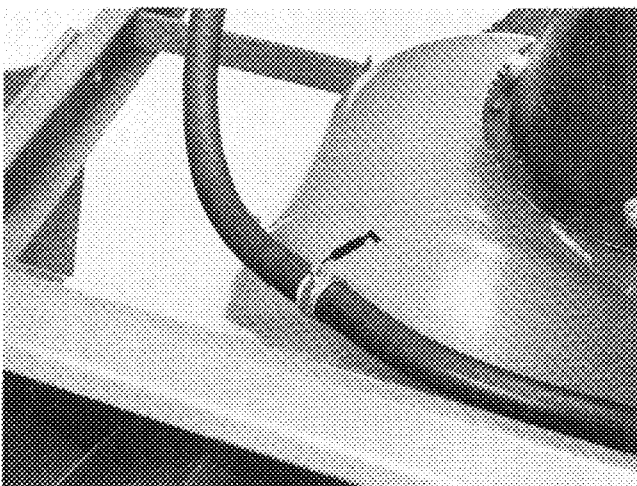


Figure 9

7. Check operation of chute crank and discharge chute. Readjust worm gear, if necessary, by loosening worm bracket mounting screws (Fig. 10), firmly pushing worm gear against teeth in retaining ring and retightening locknuts.

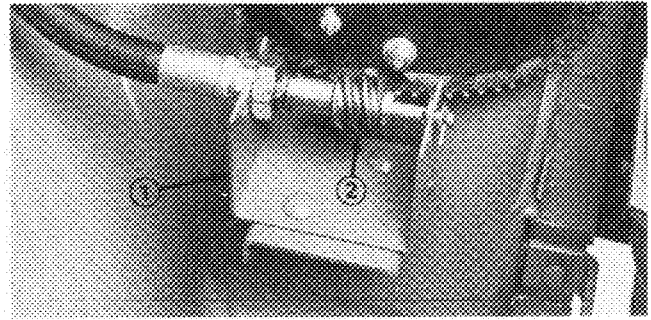


Figure 10

1. Worm bracket
2. Worm gear

INSTALL REAR WEIGHT BOX



CAUTION

To insure proper handling and safety characteristics, rear weight box filled with sand or gravel or rear weights must be attached to rear of traction unit.

1. Locate mounting holes under Toro decal in rear frame.
2. Cut away decal material to expose holes.
3. Secure mounting bracket to rear frame with two 1/2-13x1-1/4" lg. capscrews and lockwashers (Fig. 11).

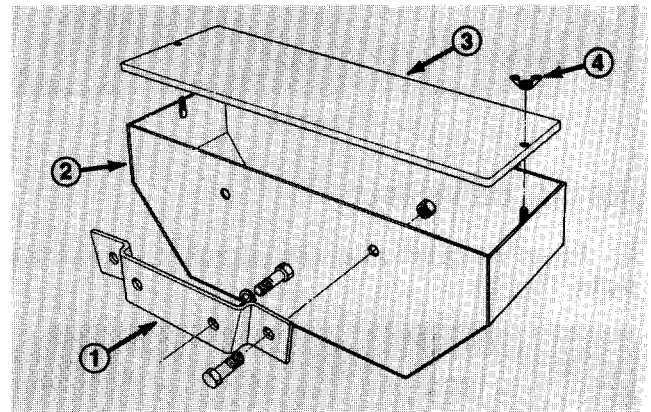


Figure 11

1. Mounting bracket
2. Weight box
3. Cover
4. Wing nut

Note: Insert box mounting screws thru bracket before mounting bracket to frame.

4. Secure weight box to mounting bracket with (2) 1/2-13x1-1/4" lg. capscrews (previously inserted into bracket) and locknuts (Fig. 11).

5. Fill weight box with approximately 90-100 lbs. of sand or gravel and install cover. Secure cover with two wing nuts (Fig. 11).

6. Remove backing from reflectors and stick them on back of traction unit hood.

MAINTENANCE

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 positioned on a level surface.
2. Place a drain pan under gear case (Fig. 12).

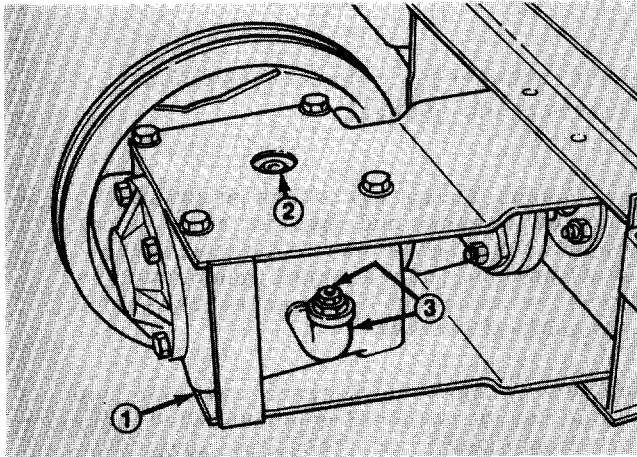


Figure 12

1. Drain plug (under gear case)
2. Fill plug
3. Elbow fitting & plug

3. Remove drain plug on bottom of gear case, allowing oil to drain into pan (Fig. 12). Reinstall plug after all oil has drained.

4. Clean area around gear box filler plug on top of gear box (Fig. 12) to prevent contaminants from entering gear box.

5. Remove plug from elbow fitting on side of gear box.

6. Add S.A.E. E.P. 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.

CHECK AUGER GEAR BOX OIL

1. With snowthrower lowered and on a level surface, remove pipe plug from auger gear box (Fig. 13) 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.

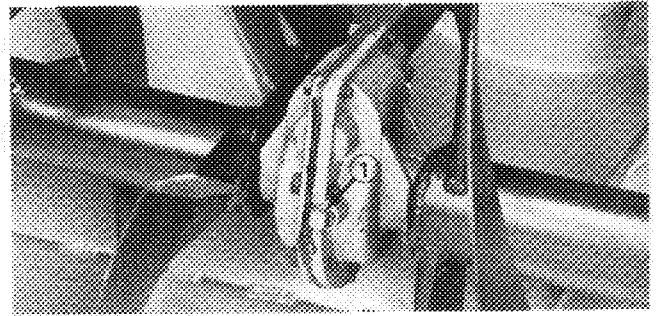


Figure 13

1. Pipe plug

SKID ADJUSTMENT

Adjust the skids so that the bottoms are slightly below the scraper blade (Fig. 14).

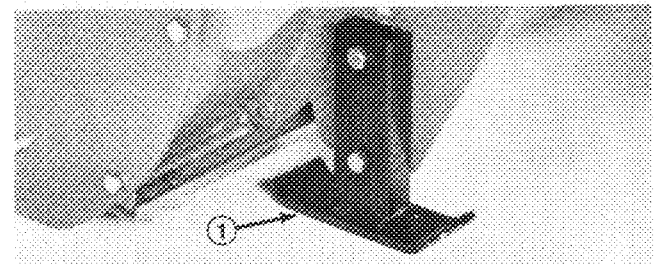


Figure 14

1. Skid

Proper adjustment prevents excessive scraper blade wear caused from riding on the ground and allows it to clear cracks in concrete, paving, etc. (Fig. 14).



CAUTION

Always adjust skids to allow snowthrower to clear gravel or crushed rock surfaces.

SCRAPER BLADE

Check the scraper blade periodically for wear (Fig. 15). Replace the scraper blade before it is excessively worn to prevent damage to the auger housing.

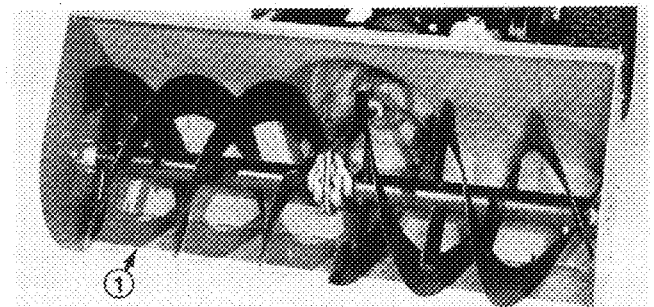


Figure 15

1. Scraper blade

The Toro Promise

A ONE YEAR LIMITED WARRANTY

The Toro Company promises to repair your TORO Product if defective in materials or workmanship. The following time periods from the date of purchase apply:

Commercial Products 1 Year

The costs of parts and labor are included, but the customer pays the transportation costs on walk rotary mowers with cutting unit widths of less than 25".

If you feel your TORO product is defective and wish to rely on The Toro Promise, the following procedure is recommended:

1. Contact your Authorized TORO Distributor or Commercial Dealer (the Yellow Pages of your telephone directory is a good reference source).
2. The TORO Distributor or Commercial Dealer will advise you on the arrangements that can be made to inspect and repair your product.
3. The TORO Distributor or Commercial Dealer will inspect the product and advise you whether the product is defective and, if so, make all repairs necessary to correct the defect without an extra charge to you.

If for any reason you are dissatisfied with the distributor's analysis of the defect or the service performed, you may contact us.

Write:

TORO Commercial Products Service Department
8111 Lyndale Avenue South
Minneapolis, Minnesota 55420

The above remedy of product defects through repair by an Authorized TORO Distributor or Commercial Dealer is the purchaser's sole remedy for any defect.

THERE IS NO OTHER EXPRESS WARRANTY. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE ARE LIMITED TO THE DURATION OF THE EXPRESS WARRANTY.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

This Warranty applies only to parts or components which are defective and does not cover repairs necessary due to normal wear, misuse, accidents, or lack of proper maintenance. Regular, routine maintenance of the unit to keep it in proper condition is the responsibility of the owner.

All warranty repairs reimbursable under the Toro Promise must be performed by an Authorized TORO Commercial Dealer or Distributor using Toro approved replacement parts.

Repairs or attempted repairs by anyone other than an Authorized TORO Distributor or Commercial Dealer are not reimbursable under the Toro Promise. In addition, these unauthorized repair attempts may result in additional malfunctions, the correction of which is not covered by warranty.

THE TORO COMPANY IS NOT LIABLE FOR INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH THE USE OF THE PRODUCT INCLUDING ANY COST OR EXPENSE OF PROVIDING SUBSTITUTE EQUIPMENT OR SERVICE DURING PERIODS OF MALFUNCTION OR NON-USE.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

COUNTRIES OTHER THAN THE UNITED STATES OR CANADA

Customers who have purchased TORO products exported from the United States or Canada should contact their TORO Distributor (Dealer) to obtain guarantee policies for your country, province or state. If for any reason

you are dissatisfied with your Distributor's service or have difficulty obtaining guarantee information, contact the TORO importer. If all other remedies fail, you may contact us at The Toro Company.