

MODEL NO. 30751-70001 Thru 10001 & UP

INSTALLATION INSTRUCTIONS

44" GRASS COLLECTION SYSTEM

ProLine 117, 118 & 120

SAFETY INSTRUCTIONS

BEFORE OPERATING

1. Read, understand and follow the instructions in the Operator's Manual and on the machine before starting. 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 Bloomington, Minnesota 55420-1196

- 2. Never allow children to operate the machine. Do not allow adults to operate machine without proper instruction. Only trained operators who have read this manual should operate this machine.
- 3. Never operate the machine when under the influence of drugs or alcohol.
- 4. Remove all debris or other objects that might be picked up and thrown by the cutter blades. Keep all bystanders away from the mowing area.
- 5. Do not operate machine unless all shields, guards, covers and safety devices in place. If a shield, guard, safety device or decal is illegible or damaged, repair or replace it before operating machine.
- 6. Do not operate machine while wearing sandals, tennis shoes, sneakers or shorts. Also, do not wear loose fitting clothing which could get caught in moving parts. Always wear long pants and substantial shoes. Wearing safety glasses, safety shoes and a helmet is advisable and required by some local ordinances and insurance regulations.
- 7. Check interlock switches daily for proper operation Do not rely entirely on safety switches -shut off engine before getting off seat. If a switch fails, replace it before operating the machine. The interlock system is for your protection, so do not bypass it. Replace all interlock switches every two years. Interlock switches should be adjusted so:
 - A. Engine cannot be started unless traction pedal is released (neutral position)-and PTO lever is DISENGAGED (off position).

- B. Engine stops if operator gets off seat when traction pedal is depressed.
- C. Engine stops if operator gets off seat when PTO lever is ENGAGED (on position).
- 8. Grass deflectors must be installed in lowest position on side discharge units.
 - A. Use an approved container.
 - B. Never remove fuel cap or add fuel when the engine is running. Allow the engine to cool before refueling. Do not smoke.
 - C. Never refuel the machine indoors.
 - D. Keep hood closed when refueling.
 - E. Fill fuel tank outdoors and only to within an inch from the top of the tank, not the filler neck. Do not overfill.

WHILE OPERATING

- Never carry passengers.
- **10.** Traverse slopes carefully. Do not start or stop suddenly when traveling uphill or downhill.
- 11. Operator must be skilled and trained in how to drive on hillsides. Failure to use caution on slopes or hills may cause loss of control and vehicle to tip or roll possibly resulting in personal injury or death.
- **12.** Using the machine demands attention, and to prevent loss of control:
 - A. Mow 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 sand trap, ditch, creek or other hazard.
 - D. Reduce speed when making sharp turns.
 - E. Avoid sudden starts and stops.

SAFETY INSTRUCTIONS

- F. Cut slopes carefully. Do not start, stop, or turn suddenly on hillsides.
- G. Before backing up, look to the rear and assure no one is behind the machine.
- H. Watch out for traffic when near or crossing roads. Always yield the right-of -way.
- 13. If engine stalls or loses headway and cannot make it to the top of a slope, do not turn machine around. Always back slowly straight down the slope.
- 14. Do not operate unless grass deflector, Recycler® cover or entire grass collector is installed. The grass deflector must always be installed and in lowest position on the side discharge cutting unit. This product is designed to drive objects into the ground where they lose energy quickly in grassy areas. However, don't take an injury risk!! When a person or pet appears unexpectedly in or near the mowing area, STOP MOWING. Careless operation, combined with terrain angles, ricochets, or improperly positioned guards, can lead to thrown object injuries. Do not resume mowing until area is cleared.
- **15.** Never raise the cutting unit or change height-of-cut while the blade(s) are rotating.
- 16. If the cutting blade(s) strike a solid object or the machine vibrates abnormally, shut the engine off. Remove spark plug wire(s) to prevent accidental starting. Check cutting unit and traction unit for damage and malfunctioning parts. Repair any damage before restarting the engine and operating the cutting unit. Be sure blade(s) are in good condition and blade bolts are tightened to specification.
- 17. Do not touch engine or muffler while engine is running or soon after it is stopped. These areas could be hot enough to cause a burn.

MAINTENANCE

- 18. Remove key from ignition switch and disconnect spark plug wire(s) to prevent accidental starting of the engine when servicing, adjusting or storing the machine.
- **19.** Be sure machine is in safe operating condition by keeping nuts, bolts and screws tight. Check the blade mounting bolts and nuts frequently to be sure they are tightened to specification.

- 20. To reduce potential fire hazard, keep the engine free of excessive grease, grass, leaves and accumulations of dirt.
- **21.** Make sure all hydraulic line connectors are tight, and all hydraulic hoses and lines are in good condition before applying pressure to the system.
- 22. Keep body and hands away from pin hole leaks in hydraulic lines that eject high pressure hydraulic fluid. Use cardboard or paper to find hydraulic leaks. Hydraulic fluid escaping under pressure can penetrate skin and cause injury. Fluid accidentally injected into the skin must be surgically removed within a few hours by a doctor familiar with this form of injury or gangrene may result.
- 23. Before disconnecting or performing any work on the hydraulic system, all pressure in system must be relieved by stopping engine, lowering implement to the ground and placing hydrostatic traction control in neutral.
- 24. If the engine must be running to perform a maintenance adjustment, keep hands, feet, clothing and other parts of the body away from the cutting unit blades and other moving parts.
- **25.** Do not overspeed the engine by changing governor setting. To assure safety and accuracy, have an Authorized Toro Distributor check maximum engine speed.
- 26. Allow engine to cool before storing mower in any enclosure such as a garage or storage shed. Make sure the mower fuel tank is empty if machine is to be stored in excess of 30 days. Do not store mower near any open flame or where gasoline fumes may be ignited by a spark. Always store gasoline in a safety-approved, red metal container.
- 27. At the time of manufacture, the machine conformed to the safety standards in effect. To ensure optimum performance and continued safety conformance of the machine, use genuine TORO replacement parts and accessories. Replacement parts and accessories made by other manufacturers may result in non-conformance with safety standards and could void the warranty.

SAFETY AND INSTRUCTION DECALS

The following safety and instruction decals are affixed to the unit. If any decal becomes illegible or damaged, install a new decal. Part numbers are listed below and in your Parts Catalog. Replacement decal can be ordered from your local Authorized Toro, Proline Service Dealer.

AWARNING

DO NOT RUN BLOWER WITHOUT DISCHARGE CHUTE ATTACHED AND HOPPER IN LOWERED POSITION. 25510

ON FRONT OF BLOWER HOUSING (Part No. 82-5510)



LOOSE PARTS CHART

Note: Use this chart as a checklist to make sure all parts have been received. Without these parts, total set-up cannot be completed.

DESCRIPTION	QTY.	USE			
Valve Stem Extension	1	Install Wheel Weight			
Capscrew-5/16-18x4	2				
Flat Washer-5/16	2				
Carriage Bolt-5/16-18x5/8	2				
Keps Lock Nut-5/16-18	5	Install Front Blower Mounting Bracket			
Carriage Bolt-5/16-18x7/8	3				
Carriage Bolt-5/16-18x5/8	2	lantall Bass Baffla			
Keps Lock Nut-5/16-18	2	Install Rear Baffle			
Self-Tapping Screw-1/4-20x7/8	2				
Washer-1/4	2	Install Center Bing Boffle			
Capscrew-1/4-20x3/4	4	Install Center Ring Baffle			
Lock Nut-1/4-20	4				
Carriage Bolt-5/16-18x5/8	2				
Keps Lock Nut-5/16-18	2	Install Right Ring Baffle			
Capscrew-1/4-20x3/4	2				
Lock Nut-1/4-20	2				
Capscrew-1/4-20x3/4	3	Install Left Ring Baffle			
Keps Lock Nut-1/4-20	3				

DESCRIPTION		USE		
Carriage Bolt-1/4-20x5/8	1			
Keps Lock Nut-1/4-20	1	Install Front Baffle		
Carriage Bolt-5/16-18x5/8	1	Install Front Ballle		
Keps Lock Nut-5/16-18	1			
Carriage Bolt-5/16-18x5/8	2			
Flat Washer-5/16	2	Install Idler Assembly		
Keps Lock Nut-5/16-18	2	100		
Capscrew-5/16-18x1	6			
Lock Nut-5/16-18	6	Install Hopper Brackets		
Reinforcing Plate	1			
Capscrew-5/16-18x2	5	Install Hopper Frame		
Lock Nut-5/16-18	5			
Knob	2	Mount Grass Deflector		
Washer	2			

INSTALL WHEEL WEIGHT (Left Front Wheel Only)

Note: If unit is equipped with Optional Brake Kit, refer to Brake Kit Instructions for additional information on mounting wheel weight.

- 1. Remove cap from valve stem and install valve stem extension.
- 2. Slide wheel weight into mounting position over valve stem, aligning weight with (2) mounting holes in wheel.
- 3. Secure weight to wheel with (2) 5/16-18x4 capscrews and flat washers.

INSTALL NEW SPINDLE PULLEY

- 1. Remove right belt cover from deck.
- 2. Remove nut securing spring anchor to capscrew on deck. Lift anchor off capscrew and allow belt to relax (Fig. 1).

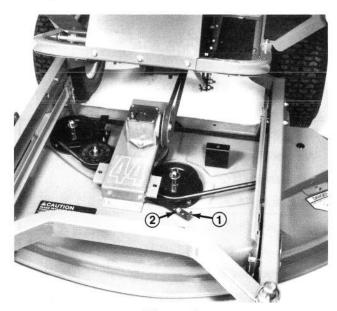


Figure 1

1 Spring anchor

2 Nut

- 3. Remove belt from right spindle pulley.
- 4. Remove nut retaining pulley on spindle shaft. Pull pulley off shaft.

Note: Hold spindle assembly together or support it from bottom of deck before removing nut and pulley. Spindle shaft may slide through spindle housing.

- 5. Two double-groove pulleys are supplied with the kit. Install the Double "D", double-groove pulley and original mounting nut on cutting units with serial numbers below 90001. On cutting units with serial numbers 90001 and above, install the splined, double-grooved pulley and a new nut. Torque nut to 50-60 ft. lb. (Fig. 2).
- 6. Install deck belt around large pulley (Fig. 2).

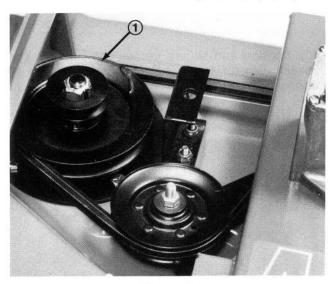


Figure 2

- 1 Double spindle pulley
- Adjust belt tension by pulling spring anchor until 30-40 lb. of force is applied to spring.
- 8. Install spring anchor on capscrew in appropriate mounting hole and install nut.

MOUNT BLOWER AND DECK BAFFLES

- 1. Remove capscrews, lock nuts and springs securing deflector mounts to pivot bracket. Remove deflector (Fig. 3).
- 2. Remove carriage bolts, lock washers and nuts securing pivot bracket to housing (Fig. 3).

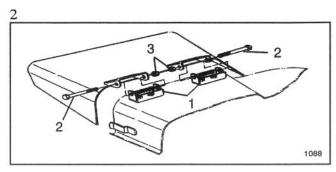


Figure 3

- Pivot bracket
- 2 Capscrew
- 3 Lock nut
- **3.** Position front baffle on underside of cutting unit, align (2) outside mounting hoes with front deflector mounting holes (Fig. 4).
- 4. Using baffle as a template, mark and drill (2) 3/8 in. diameter holes and a 5/16 in. diameter hole in deck (Fig. 4).
- 5. Using appropriate mounting holes and fasteners, secure baffle to front wall of deck with a 1/4-20x5/8 carriage bolt and nut, and 5/16-18x5/8 carriage bolt and nut. Leave the remaining mounting holes (3) open at this time.

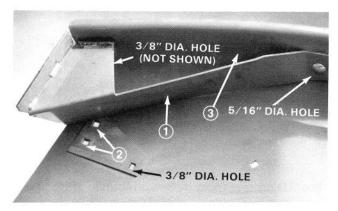


Figure 4

- f Front bracket
- 3 Front wall of deck
- 2 Outside mounting holes

6. Position blower assembly onto cutting unit. Align front bracket with(3) mounting holes in deck and rear bracket with rear most deflector hole (Fig. 5 &6). Make sure blower is flush with deck opening.

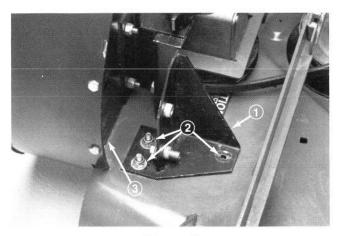


Figure 5

- 1 Front bracket
- 2 Mounting holes
- 3 Blower flush with deck opening
- 7. Using rear blower bracket as a template, mark and drill remaining 3/8 in. diameter mounting hole in deck (Fig. 6). To allow the 5/16-18x5/8 bolt to be assembled through the rear bracket from the top, remove the blower from the brackets (Fig. 6).

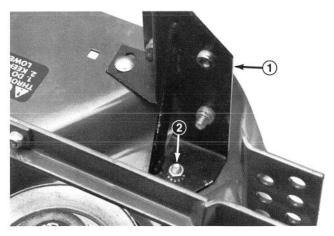


Figure 6

- Rear bracket
- 2 Remaining mounting hole
- 8. Using rear most deflector mounting hole in deck, loosely mount outside end of rear baffle to deck with a 5/16-18x5/8 carriage bolt and lock nut. (Fig. 7).
- 9. Align edge of baffle with formed edge on deck. Using baffle as a template, mark and drill a 3/8 in. diameter hole in deck. Secure baffle to deck with a 5/16-18x5/8 carriage bolt and lock nut.

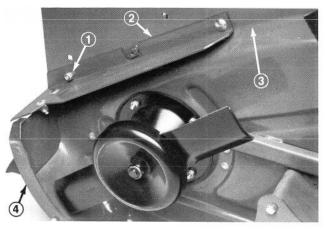


Figure 7

- Rear deflector mounting hole
- 3 Formed edge
- Rear baffle
- 4 Right ring baffle
- 10. Position and secure center ring baffle to deck bosses with (2) 1/4-20x3/4 self-tapping screws and washers (Fig. 8).
- 11. Using center ring baffle as a template, mark and drill (4) 9/32 in. diameter holes thru center of curved edge of deck (Fig. 8).

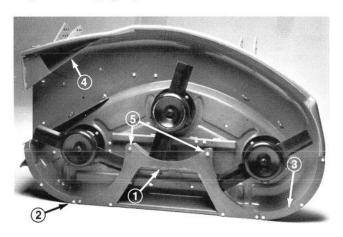


Figure 8

- 1 Center ring baffle
- 4 Front baffle
- 2 Right ring baffle
- 5 Deck bosses
- 3 Left ring baffle
- **12.** Secure center ring baffle to deck with (4) 1/4-20x3/4 capscrews and nuts.
- 13. Loosely mount right ring baffle to rear baffle with (2) 5/16-18x5/8 carriage bolts and lock nuts (Fig. 7).
- **14.** Align right ring baffle with end of center baffle and edge of deck. Mark and drill (2) 9/32 in. diameter holes in curved edge of deck (Fig. 7).

- 15. Secure right baffle to deck with (2) 1/4-20x3/4 capscrews and nuts. Remove carriage bolt securing right baffle to deflector mounting hole. Tighten all previously installed fasteners.
- **16.** Align left ring baffle with end of center baffle and edge of deck. Mark and drill (3) 9/32 in. diameter holes thru center of curved edge of deck. Secure with (3) 1/4-20x3/4 capscrews and nuts (Fig. 8).
- 17. Carefully rotate blades by hand to make sure they clear baffles.
- 18. Reposition blower and mounting brackets onto deck alining mounting holes. Route belt around blower pulley before securing to deck. Secure rear bracket and rear baffle to deck with (2) 5/16-18x5/8 carriage bolts and lock nuts (Fig. 9). Secure front bracket and front baffle to deck with (3) 5/16-18x7/8 carriage bolts and lock nuts (Fig. 10)

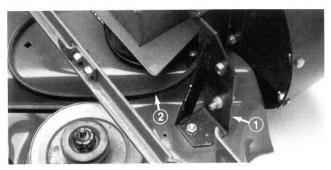


Figure 9

- 1 Rear mounting bracket
- 2 Blower belt around pulley

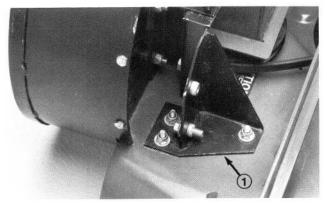


Figure 10

- 1 Front bracket
- **19.** Route blower belt around small spindle pulley (Fig. 11).

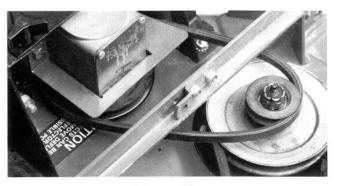


Figure 11

20. Install new deck cover (Fig. 12).

Note: For older cutting units with knob type cover fasteners, the 1/4 turn fastener holes on the new deck cover must be punched out (Fig. 12).

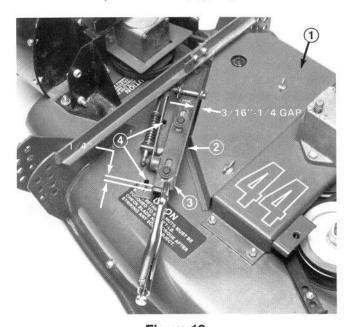


Figure 12

- New belt cover
- 2 Idler assembly
- 3 Idler slide

- 4 Mounting slots
- 5 1/4 turn wing head studs

INSTALL IDLER ASSEMBLY

- 1. Adjust idler slide so there is 1/4 in. from end of slide to end of mounting bracket. Clamp slide to retain this position while mounting to deck (Fig. 12).
- 2. Position idler assembly on deck so edge is parallel with belt cover and there is a 3/16-1/4 in. gap (Fig. 12).
- 3. With idler assembly clamped, slide idler pulley firmly into blower belt (Fig. 12).

4. With idler assembly pushed into belt, mark slot location on deck. Drill a 11/32 in. diameter hole near pulley end of each slot. File holes square to accommodate carriage bolts (Fig. 13).

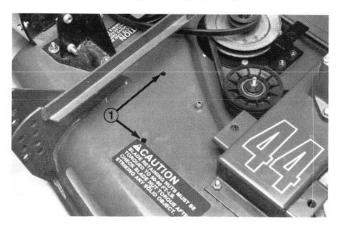


Figure 13

- 1 Square holes
- 5. Remove clamp and mount idler assembly to deck with (2) 5/16-18x5/8 carriage bolts, flat washers and nuts. Position washer between nut and idler assembly (Fig. 14).

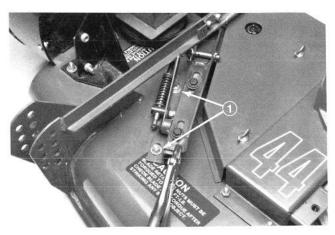


Figure 14

- 1 Carriage bolts, flat washers and nuts
- **6.** Engage idler lever and check belt tension. Adjust if necessary.

INSTALL HOPPER ASSEMBLY

IMPORTANT: Remove fuel tank mounting straps and raise right side of fuel tank when drilling mounting holes and installing rear bracket. Use caution when drilling holes in rear frame members, so drill does not contact fuel tank or hydraulic reservoir.

- 1. Align bracket with (4) drilled mounting holes. Secure rear bracket to machine with (4) 5/16-18x1 capscrews, nuts and (1) reinforcing plate. Plate is to be positioned between nut and inside of frame channel on top capscrew (Fig. 15 & 16).
- 2. Secure front bracket to machine with (2) 5/16-18x1 capscrews, nuts and (1) reinforcing plate. Plate is to be positioned between nut and inside of frame channel on top capscrew (Fig. 15).



Figure 15

- 1 Rear bracket
- 2 Front bracket
- 3 Reinforcing plate on this screw (inside frame)

3. Slide hopper frame into mounting brackets, align mounting holes and secure with (5) 5/16-18x2 capscrews and nuts (Fig. 16).



Figure 16

- 1 Rear mounting holes
- 2 Hopper frame

Note: When lowering hopper top, make sure bag link pivots upward and tip fits over chute (Fig. 17).

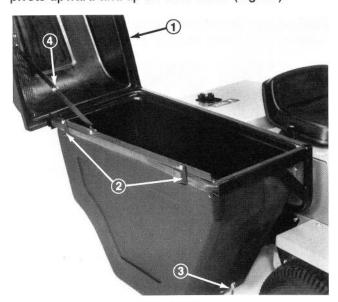


Figure 17

- Hopper top
- 3 Hopper handle
- 2 Locking clips
- 4 Bag link

4. Mount cutting unit grass deflector (included in kit) to front of hopper frame with (2) knobs and washers when using grass catcher (Fig. 18).

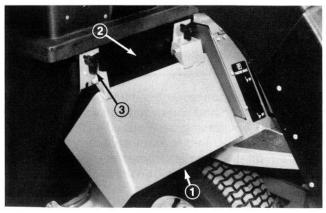


Figure 18

- 1 Grass deflector
- 3 Knob and washer
- 2 Hopper frame

MOUNT BLOWER HOUSING CHUTE

- Set deck into desired height-of-cut.
- 2. Slide chute over blower opening and into mounting studs (Fig. 19).
- 3. Lower hopper hood and align chute with hood snout. Secure chute in position with lock nuts and brackets. Wide end of brackets to be positioned toward rear (Fig. 19).

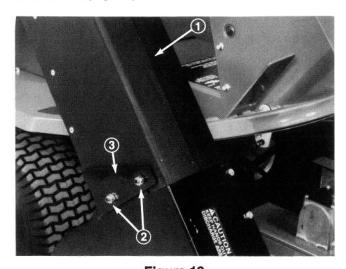


Figure 19

1 Chute

- 3 Mounting bracket
- 2 Mounting studs

OPERATING INSTRUCTIONS

OPERATING CHARACTERISTICS



WARNING

When grass collector is removed, NEVER operate without deflector in place.

For best performance, regulate traction pedal to keep engine rpm high and somewhat constant. A good rule to follow is: decrease ground speed as the load on the cutting blade increases; and increase ground speed as load on the blade decreases. This allows the engine, working with the transmission, to sense the proper ground speed while maintaining high blade tip speed, necessary for good quality-of-cut, vacuuming action and to throw grass into the hopper. If blower speed drops too low, plugging may result. Refer to Cutting Unit and Traction Unit Operator's Manual for operation of each.



CAUTION

Use care to avoid collision between grass bag and any stationary objects. Always trim with left side of cutting unit.

- 1. Stop engine when emptying hopper to prevent engine air intake from being clogged with clippings.
- 2. This grass collector is designed for use in wet or dry conditions. Do not collect extremely long grass as the bag will fill too quickly.
- 3. The grass collector hood is designed to exhaust air. This allows the hopper to fill completely without decreasing performance. Grass will fall through the opening in the front of the hood when the hopper is full. Immediately disengage the power take off (PTO), set the parking brake and shut off the ignition. Empty hopper. Failure to empty hopper will plug the chute. After emptying hopper, check that grass clippings have not fallen into chute.
- 4. When bagging wet, heavy grass, some clippings may not be thrown completely through the chute. The hole in the bottom of the chute allows these clippings to drop out without plugging the chute. When this happens, reduce ground speed.
- **5.** Optional hi-lift blades (Toro part no. 55-4940) will give improved performance in wet grass.

6. While operating, check frequently for excessive clippings left on turf or uncut grass. If those conditions occur, the blower or cutting unit may be plugged. Stop unit, disengage PTO, set parking brake and shut of ignition. Check for obstructions in the chute, blower or cutting unit. Clear any obstructions using a stick or similar tool. Check that screen in hood is clear of obstructions. Check blower belt. If slipping, readjust.



DANGER

Never place hands or feet in chute, blower or cutting unit.

7. Cut grass often, especially when turf growth is rapid. If shorter turf is desired, cut the grass again. Overlap swaths to produce an even cutting pattern.

IMPORTANT: When transporting unit, tie down grass collector hood or back unit onto truck or trailer to avoid wind throwing hood open and damaging it.

8. To remove blower assembly, disengage idler assembly, remove belt cover and lift belt off spindle pulley. Remove (2) knobs and washers securing blower to mounting brackets and remove blower and chute. Slide cutting unit grass deflector onto alignment bolts and secure to mounting brackets with knobs and washers. Install belt cover (Fig. 20).

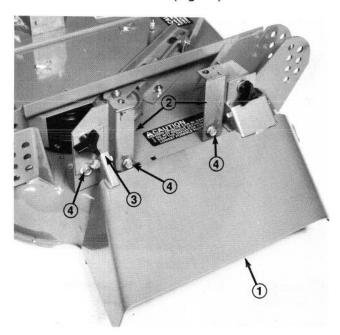


Figure 20

- Grass deflector
- 2 Mounting bracket
- 3 Knob and washer
- 4 Alignment bolts

MAINTENANCE

- 1. Keep unit clean, checking that engine cooling fins are free of dirt and chaff. Make sure all fasteners are tight. Check baffles and shields for wear and replace as needed.
- 2. Check gearbox impeller for tightness every 50 hours. Torque impeller shaft bolt to 220-230 in.-lb.
- 3. Clean grass clippings from hood chute, blower and cutting unit after each use. Wash underside of cutting unit daily with hose. An excessive build-up of clippings will impair bagging performance.
- 4. Check belt tension and wear every 50 hours. To adjust belt tension, loosen idler mounting screws, engage idler lever and push pulley firmly into blower belt. Tighten mounting screws.
- **5.** The blower gear box should need little maintenance. Check for leakage every 50 hours. If leakage should occur, replace seals and refill with two ounces of No. 2 molybdenum base grease. Repack bearings with same before assembling.
- **6.** Refer to Cutting Unit and Traction Unit Operator's Manuals for service requirements of each.

MAINTENANCE CHART

Date	Hours Used	Lubrication			



THE TORO TOTAL COVERAGE GUARANTEE

A One Year Limited Warranty (A Full Two-Year Warranty for Residential Use)

What Is Covered By This Express Warranty?

The Toro Company promises to repair any TORO Pro-Line product used for commercial, institutional, or rental purposes if defective in materials or workmanship for a period of one year from the date of purchase. The cost of parts and labor are included as well as transportation within a 15 mile radius of a TORO ProLine Service Dealer.

What Products Are Covered By This Warranty?

ProLine products covered by this warranty include the ProLine 118, 120, 220, 616, 620, 724 riding products and wide area walk behind mowers and their cutting decks and accessories.

How About Residential Use?

TORO ProLine products used for residential use are covered by a full two—year warranty.

How Do You Get Warranty Service?

Should you feel your TORO ProLine product contains a defect in materials or workmanship, contact the dealer who sold you the product or any TORO ProLine Service Dealer. The Yellow Pages of your telephone directory is a good reference source; look under TORO Commercial Service Dealers. The Service Dealer will either arrange service at his/her dealership or recommend another authorized Service Dealer who may be more convenient. You may need proof of purchase (copy of registration card, sales receipt, etc.) for warranty validation.

If for any reason you are dissatisfied with a Service Dealer's analysis of the defect in materials or workmanship or if you need a referral to a TORO ProLine Service Dealer, please feel free to contact us at the following address:

Toro Customer Service Department 8111 Lyndale Avenue South Bloomington, MN 55420-1196 612-888-8801

What Must You Do To Keep The Warranty In Effect?

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

What Does This Warranty Not Cover? and How Does Your State Law Relate To This Warranty?

There is no other express warranty except as described above. This express warranty does not cover:

- Cost of regular maintenance service or parts, such as filters, fuel, lubricants, tune—up parts, blade sharpening, brake and clutch adjustments.
- Any product or part which has been altered or misused or required replacement or repair due to normal wear, accidents, or lack of proper maintenance.
- Repairs necessary due to improper fuel, contaminants in the fuel system, or failure to properly prepare the fuel system prior to any period of non—use over three months.
- Pickup and delivery charges for distances beyond a 15 mile radius from a TORO ProLine Service Dealer.

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

Repair by a TORO Service Dealer is your sole remedy under this warranty.

The Toro Company is not liable for indirect, incidental or consequential damages in connection with the use of the TORO Products covered by this warranty, including any cost or expense of providing substitute equipment or service during reasonable periods of malfunction or non—use pending completion of repairs under this warranty. Some states do not allow exclusions of incidental or consequential damages, so the above 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.