FORM NO. 3313-435 Rev. A

TORO®

MODEL NO. 30133 — 80001
THRU 90001 & UP

OPERATOR'S MANUAL

32" CUTTING DECK

FOR COMMERCIAL WALK MOWER



TORO
THIS UNIT CONFORMS TO ANSI B71.4 - 1984

To assure maximum safety, optimum performance, and to gain knowledge of the product, it is essential that you or any other operator of the mower read and understand the contents of this manual before the engine is ever started. Pay particular attention to the SAFETY INSTRUCTIONS highlighted by this symbol —

The safety alert symbol means CAUTION, WARNING or DANGER — personal safety instruction. Failure to comply with the instruction may result in personal injury.

FOREWORD

The 32" cutting deck has advanced concepts in engineering, design and safety; and if maintained properly, will give excellent service.

Since it is a high-quality product, Toro is concerned about the future use of the machine and safety of the user. Therefore, read this manual to familiarize yourself with proper set-up, operation and maintenance instructions. The major sections of the manual are:

1. Safety Instructions
2. Set-up Instructions
3. Before Operating
4. Lubrication
5. Maintenance

Certain information in this manual is emphasized. DANGER, WARNING and CAUTION identify personal safety-related information. IMPORTANT identifies mechanical information demanding special attention. Be sure to read this directive because it deals with the possibility of damaging a part or parts of the machine. NOTE identifies general information worthy of special attention.

TABLE OF CONTENTS

	Page
SAFETY INSTRUCTIONS	2-4
SAFETY AND INSTRUCTION DECALS	4
SPECIFICATIONS	4
LOOSE PARTS	5
SET-UP INSTRUCTIONS	5-6
Install Castor Wheels	5
Mount Carrier Frame to Traction Frame	5
Install Drive Belt	5
BEFORE OPERATING	7
Adjusting Height-of-Cut	7
OPERATING INSTRUCTIONS	7
Grass Deflector	7
LUBRICATION MAINTENANCE	7
CUTTING UNIT MAINTENANCE	8-15
Troubleshooting	8
Servicing Bushings in Castor Arms	8
Servicing Castor Wheel and Bearing	9
Checking for Bent Blade	9
Removing Cutter Blade	9
Checking Sail and Sharpening Cutter Blade	10
Correcting Uneven Cutting	10
Replacing Drive Belt	11
Replacing Spindle Pulley	12
Removing Spindle and Bearings from Spindle Housing	12
Installing Spindle and Bearings Into Spindle Housing	13
IDENTIFICATION AND ORDERING	13
THE TORO PROMISE	16

SAFETY INSTRUCTIONS



This safety alert symbol means CAUTION, WARNING or DANGER — "personal safety instruction". Read and understand the instruction because it has to do with safety. Failure to comply with the instruction may result in personal injury.

Improper use or maintenance of the machine can result in injury. To reduce the potential for injury, comply with the following safety instructions.

BEFORE OPERATING

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

The Toro Company
8111 Lyndale Avenue South
Minneapolis, Minnesota 55420

©The Toro Company — 1988

SAFETY INSTRUCTIONS

2. Do not allow children to operate the machine. Do not allow adults to operate the machine without proper instruction.

3. Before attempting to start engine, shift into neutral, move deck engagement switch into DISENGAGE position and lock parking brake.

4. Remove all debris or other objects that might be picked up and thrown by the cutter blade. Keep all bystanders away from the mowing area.

5. Keep all shields and safety devices in place. If a shield, safety device or decal is illegible, malfunctioning 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.

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. Fill fuel tank with gasoline before starting the engine. Avoid spilling gasoline. Since gasoline is flammable, handle it carefully.

A. Use an approved gasoline container.

B. Do not fill tank while engine is hot or running.

C. Do not smoke while handling gasoline.

D. Fill fuel tank outdoors and up to about one inch (25 mm) from top of the tank, not the filler neck.

E. Wipe up any spilled gasoline.

8. Start engine when parking brake is set, blade is disengaged, and transmission is in neutral.

WHILE OPERATING

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

10. 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 and when turning on hillsides.

11. The grass deflector must always be installed and in down position on the side discharge cutting unit, except when using optional grass catcher. If the cutting unit discharge area ever plugs, shut engine off before removing the obstruction.

12. Never raise the cutting unit while the blade is rotating.

13. If the cutting blades strike a solid object or the machine vibrates abnormally, shut the engine off. Remove wire from spark plug to prevent possibility of 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 blades are in good condition and blade bolt is tight.

14. Cut grass slopes carefully. Do not start, stop, or turn suddenly.

15. 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.

16. Before leaving the operator's position — behind handle, or leaving mower unattended, shift transmission into NEUTRAL, apply parking brake, move deck engagement switch to OFF, and shut OFF engine.

MAINTENANCE

17. Disconnect wire from spark plug to prevent accidental starting of the engine when servicing, adjusting or storing the machine.

18. If tractor and mower must be tipped to perform maintenance or an adjustment, drain gasoline from fuel tank and oil from crankcase.

19. When driving unit forward, always use upper "Forward" traction drive handle. When backing up, always use lower "Reverse" traction drive handle.

20. Perform only those maintenance instructions described in this manual. If major repairs are ever needed or assistance is desired, contact an Authorized Toro Distributor.

21. To reduce potential fire hazard, keep the engine free of excessive grease, grass, leaves and accumulations of dirt.

22. Be sure machine is in safe operating condition by keeping nuts, bolts and screws tight. Check the blade mounting bolt and nut frequently to be sure they are tightened to specification.

SAFETY INSTRUCTIONS

23. 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.

24. Do not overspeed the engine by changing governor settings. To be sure of safety and accuracy, have an Authorized TORO Distributor check maximum engine speed with a tachometer.

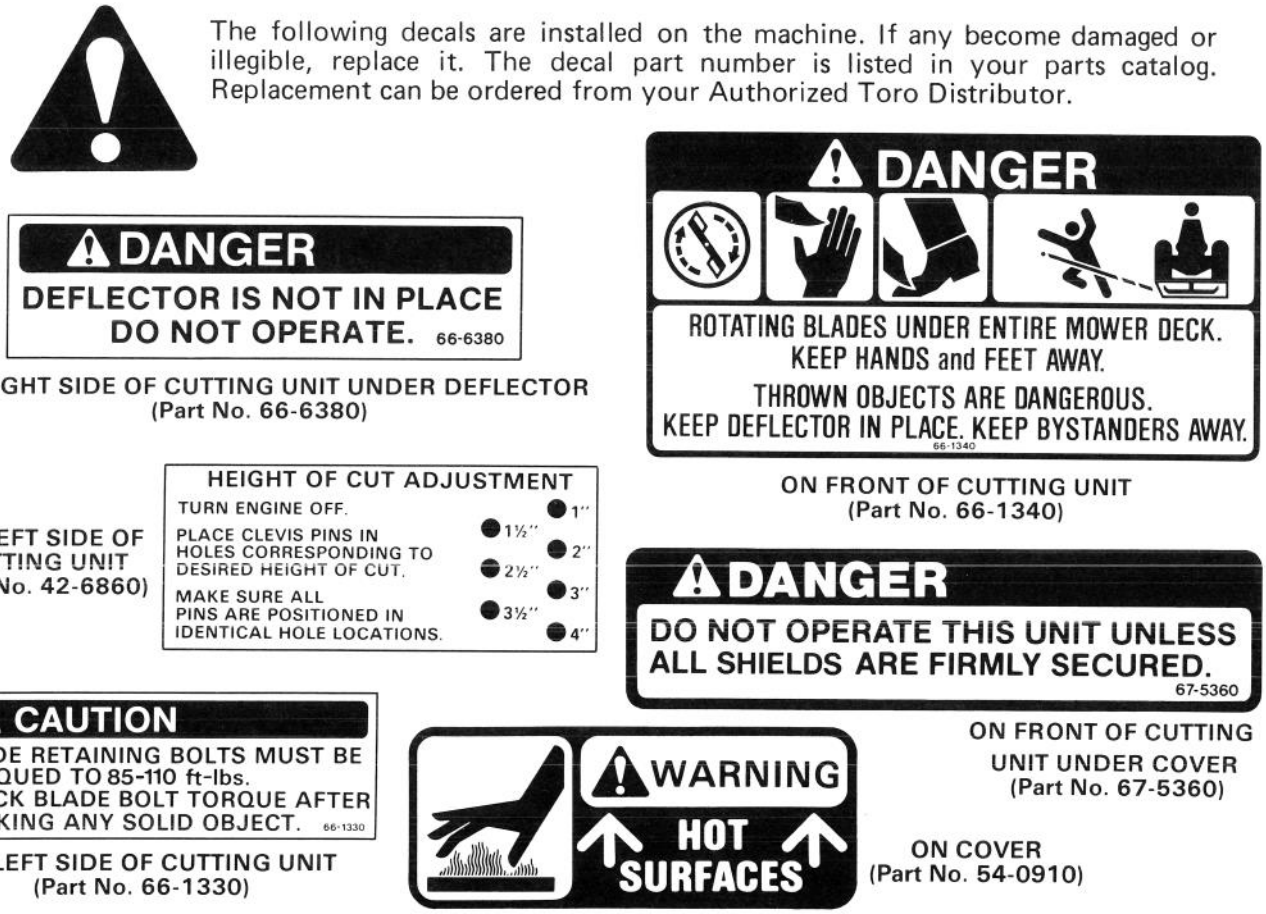
25. Engine must be shut off before checking oil or adding oil to the crankcase.

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. To ensure optimum performance and safety, always purchase genuine TORO replacement parts and accessories to keep the Toro all TORO. NEVER USE "WILL-FIT" REPLACEMENT PARTS AND ACCESSORIES MADE BY OTHER MANUFACTURERS. Look for the TORO logo to assure genuineness. Using unapproved replacement parts and accessories could void the warranty of The Toro Company.

SAFETY AND INSTRUCTION DECALS

The following decals are installed on the machine. If any become damaged or illegible, replace it. The decal part number is listed in your parts catalog. Replacement can be ordered from your Authorized Toro Distributor.



ON RIGHT SIDE OF CUTTING UNIT UNDER DEFLECTOR
(Part No. 66-6380)

ON FRONT OF CUTTING UNIT
(Part No. 66-1340)

ON LEFT SIDE OF CUTTING UNIT
(Part No. 42-6860)

ON FRONT OF CUTTING UNIT UNDER COVER
(Part No. 67-5360)

ON LEFT SIDE OF CUTTING UNIT
(Part No. 66-1330)

ON COVER
(Part No. 54-0910)

SPECIFICATIONS

CUTTING UNIT

Width of Cut: 32 in.

Height-of-Cut: Adjustable from 1" to 4" in 1/2" increments.

Cutter Blade: Heat treated steel blade is 31-3/4 in. long.

Pneumatic Wheels: 6 in. dia. with greaseable roller bearings. (Inflation 24 P.S.I.)

Weight: 130 lb.

LOOSE PARTS

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

DESCRIPTION	QTY.	USE
Flange Screws Flange Locknuts	6 6	Mount carrier frame to traction frame.
Castor Wheel Assembly Thrust Washer Lynch Pin Frame	2 6 2 1	Install in frame. Install on castor fork shafts Install in top hole of castor shafts. Install on traction unit.
Operator's Manual Registration Card	1 1	

Specifications and design subject to change without notice.

SET-UP INSTRUCTIONS

INSTALL CASTOR WHEELS

1. Place two thrust washers on each castor wheel shaft (Fig. 1).

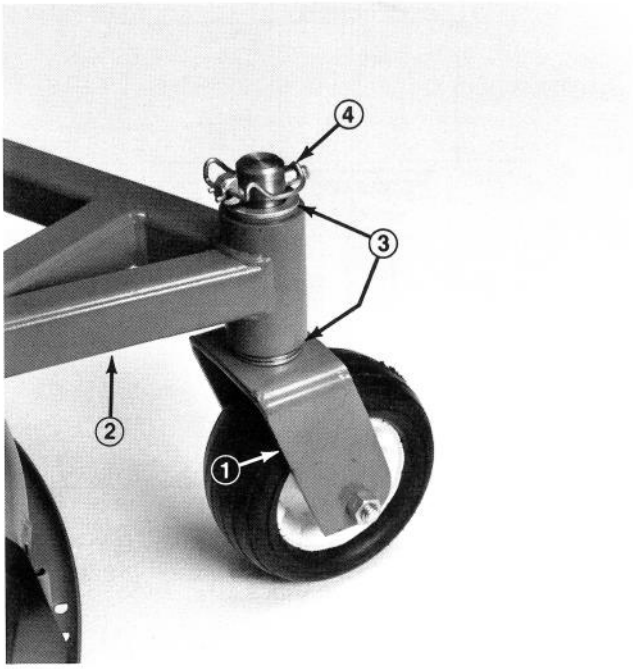


Figure 1

1. Castor wheel assembly
2. Frame
3. Thrust washers
4. Lynch pin

2. Insert shafts into carrier frame. Install one more thrust washer and secure with lynch pins (Fig. 1).

MOUNT CARRIER FRAME TO TRACTION FRAME

1. Remove capscrew located to the rear of (3) carrier frame mounting holes on each side of traction frame.

2. Align carrier frame mounting holes with mounting holes in traction frame. Secure each side with three flange screws and locknuts. Also, reinstall capscrews removed in Step 1 (Fig. 2). Torque fasteners to 60-80 ft-lb. (81-109 N·m).

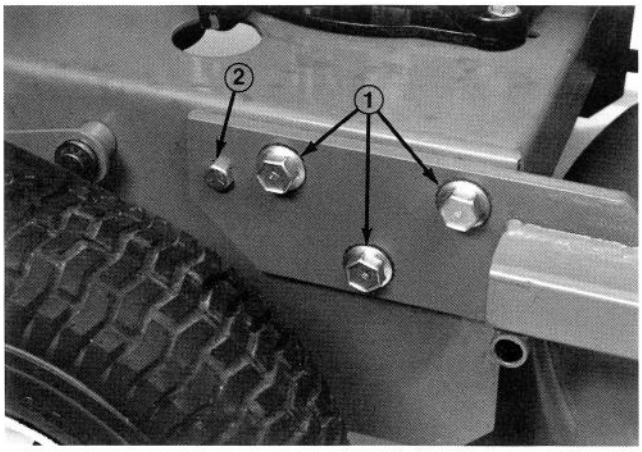


Figure 2

1. Flange screws and nuts 2. Capscrew

INSTALL DRIVE BELT

1. Loosen knob securing cover to cutting unit (Fig. 3). Remove cover.

SET-UP INSTRUCTIONS

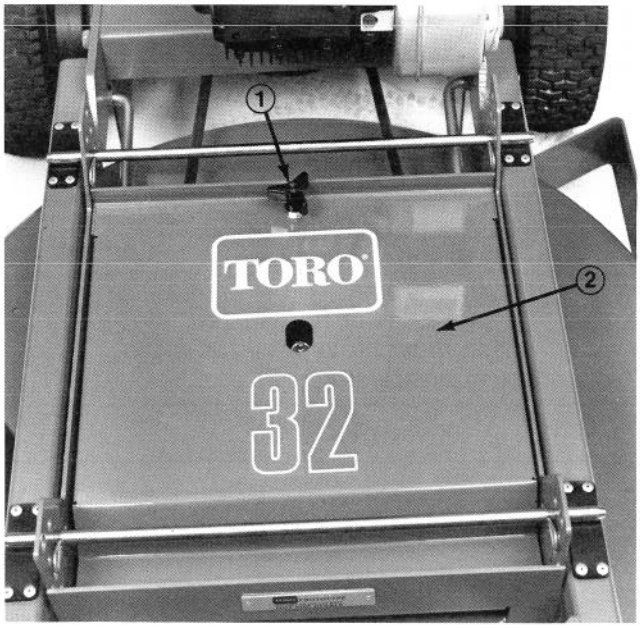


Figure 3

1. Knob & washer
2. Cover

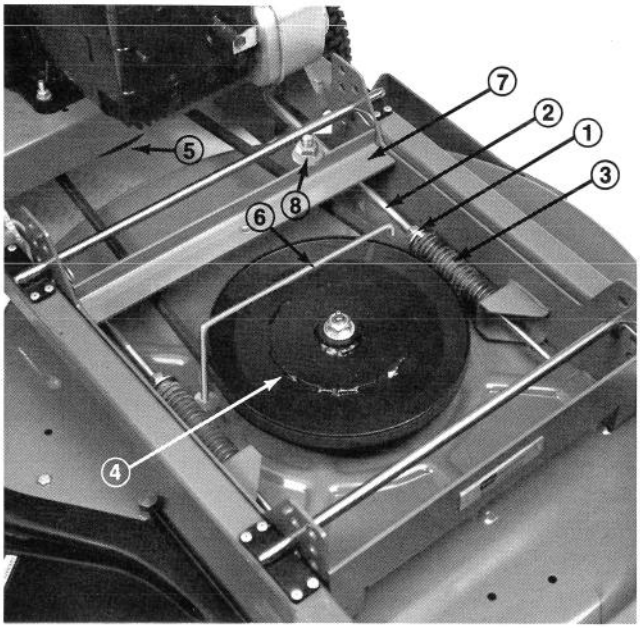


Figure 4A

1. Jam nuts
2. Adjusting shaft
3. Spring and spacer
4. Drive pulley
5. Clutch pulley
6. Pulley belt guide
7. Cross channel
8. J-belt guide

2. Loosen jam nuts, springs and spacers on adjusting rods (Fig. 4A), allowing deck to be moved rearward for belt installation.

3. Remove (2) locknuts securing belt guide (over pulley) to mower housing (Fig. 4A). Remove belt guide.

4. Route belt around deck drive pulley and engine clutch pulley (Fig. 4A). Make sure belt is positioned inside C-shaped guides at rear of mower housing.

5. To tension belt, tighten front jam nut on each adjusting shaft until springs are compressed to a length 1/8" longer than spacers inside of springs (Fig. 4). Secure rear jam nuts.

6. Reinstall pulley belt guide.

7. Loosen flange nuts and adjust J-belt guide so there is 1/16" - 1/8" clearance between guide and bottom and sides of belt when deck is in highest height-of-cut (Fig. 4B). Tighten flange nuts and recheck adjustment.

8. Reinstall cover.

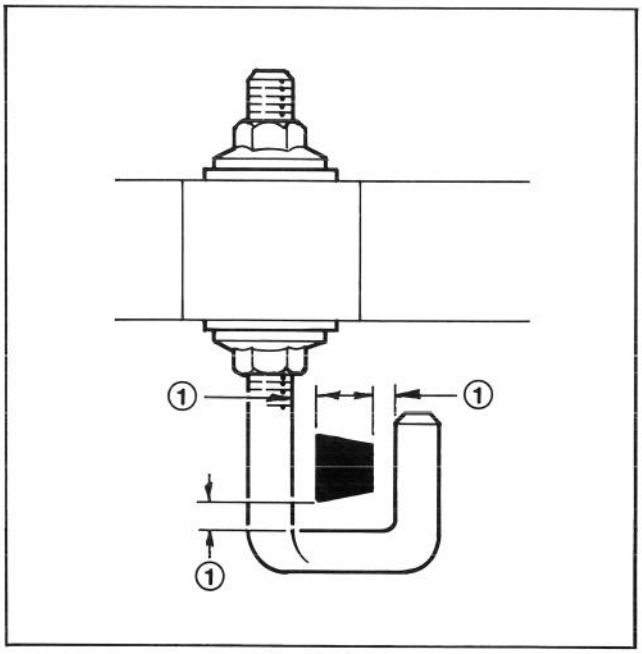


Figure 4B

1. 1/16" - 1/8" clearance when deck is in highest height of cut.

BEFORE OPERATING

ADJUSTING HEIGHT-OF-CUT

The height-of-cut is adjustable from 1 to 4 inches (25 to 102 mm) in 1/2 inch (13 mm) increments by relocating support rods in different hole locations in brackets at each corner of the cutting unit (Fig. 5).

1. Remove (4) hair pin cotters securing support rods in brackets (Fig. 5).

2. Remove support rods, one at a time, and re-position into desired hole locations.

Note: Both rods should be in identical hole locations to prevent any operating and cutting difficulties.

3. Reinstall hair pin cotters.

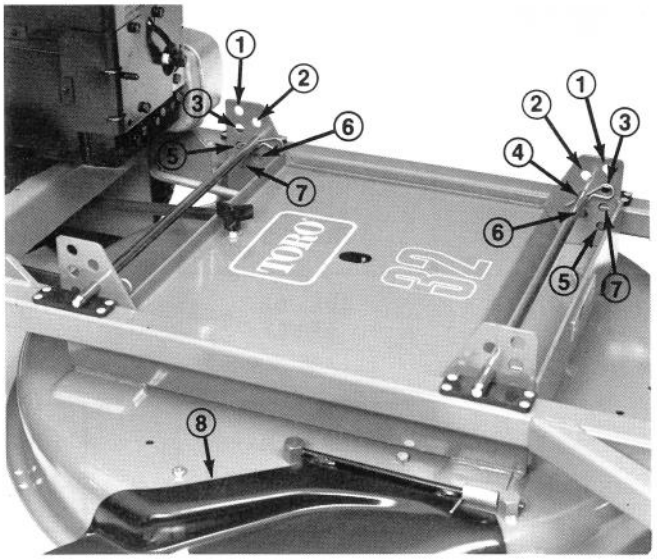


Figure 5

1. *1 in. (25 mm)*
2. *1-1/2 in. (38 mm)*
3. *2 in. (51 mm)*
4. *2-1/2 in. (64 mm)*
5. *3 in. (76 mm)*
6. *3-1/2 in. (89 mm)*
7. *4 in. (102 mm)*
8. *Grass deflector*

OPERATING INSTRUCTIONS

GRASS DEFLECTOR

WARNING

The grass deflector (Fig. 5) is a safety device that diverts grass and other foreign objects being discharged downwardly. WE STRONGLY RECOMMEND THAT THE DEFLECTOR BE IN THE LOWEST POSITION WHENEVER THE MACHINE IS USED NEAR BUILDINGS OR WHEN THERE ARE PEOPLE OR ANIMALS IN THE AREA. THE BLADE CAN THROW DEBRIS A CONSIDERABLE DISTANCE WITH SUFFICIENT FORCE TO CAUSE PERSONAL INJURY OR DAMAGE TO PROPERTY. THE ONLY TIME THE DEFLECTOR SHOULD BE IN THE UPPER POSITION IS WHEN THERE IS NO POSSIBILITY OF INJURY OR DAMAGE. NEVER OPERATE CUTTING UNIT WITH DEFLECTOR REMOVED FROM CUTTING UNIT OR MOVED TO MORE OPEN POSITION. NEVER CHANGE DEFLECTOR HEIGHT WHEN THE BLADE IS TURNING. If the grass deflector is damaged, repair or replace the affected part(s).

LUBRICATION MAINTENANCE

GREASE BEARINGS AND BUSHINGS

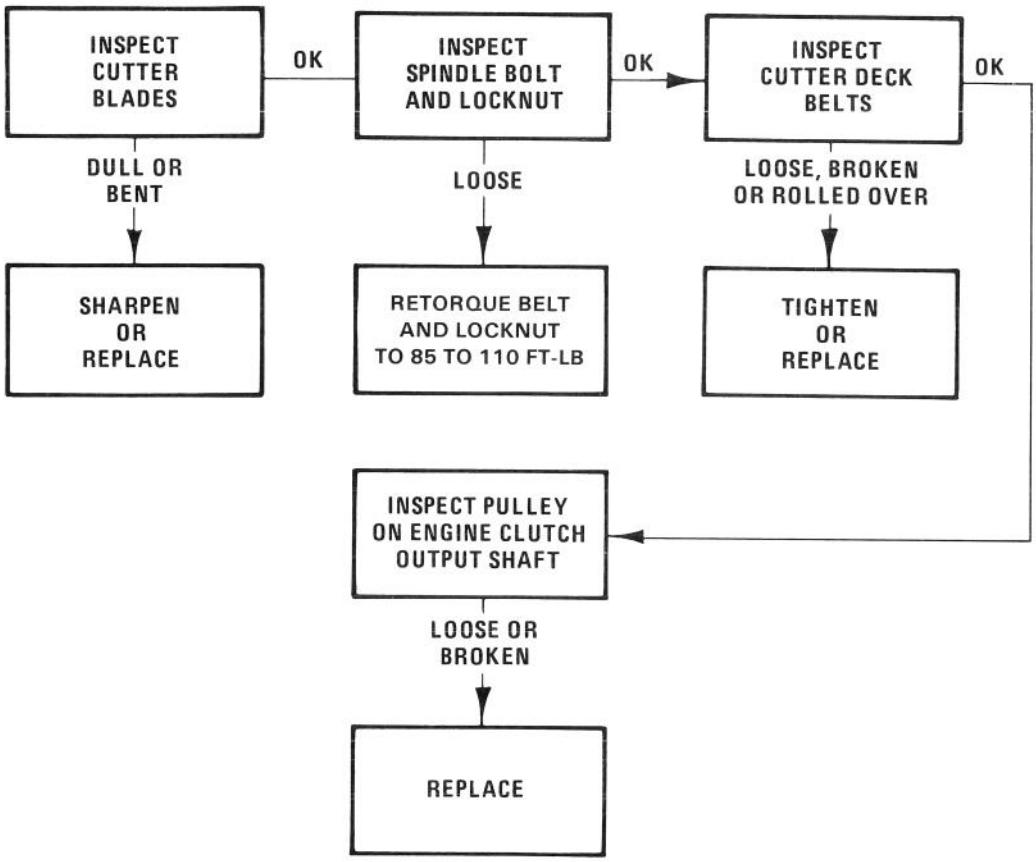
The cutting unit must be lubricated regularly. If machine is operated under normal conditions, lubricate castor bearings, bushings and blade spindle bearings with No. 2 general purpose lithium grease or molybdenum base grease after every 8 hours of operation or daily, whichever comes first (Fig. 6).



Figure 6

CUTTING UNIT MAINTENANCE TROUBLESHOOTING

UNIT WILL NOT CUT OR CUTS POORLY



CUTTING UNIT MAINTENANCE

SERVICING BUSHINGS IN CASTOR ARMS

The castor arms have bushings pressed into the top and bottom portion of the tube and after many hours of operation the bushings will wear. To check the bushings, move castor fork back and forth and from side-to-side. If castor spindle is loose inside the bushings, bushings are worn and must be replaced.

1. Raise cutting unit so wheels are off floor and block it so it cannot fall accidentally.

2. Remove lynch pin and thrust washer from top of castor spindle.

3. Pull castor spindle out of mounting tube. Allow thrust washers to remain on bottom of spindle.

4. Insert pin punch into top or bottom of mounting tube and drive bushing out of tube (Fig. 7). Also drive other bushing out of tube. Clean inside of tubes to remove dirt.

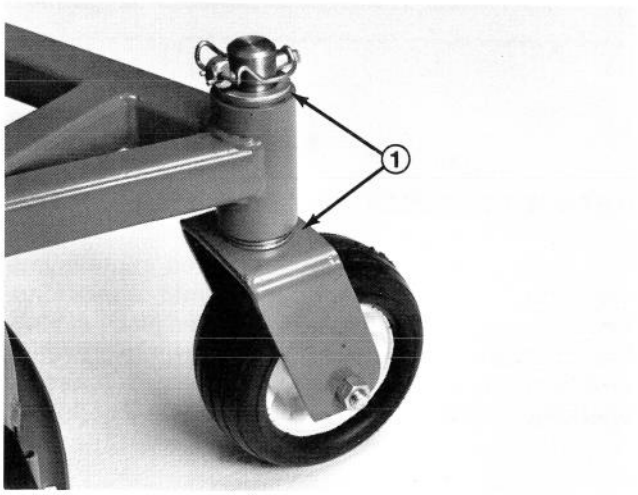


Figure 7
1. Bushings

CUTTING UNIT MAINTENANCE

5. Apply grease to inside and outside of new bushings. Using a hammer and flat plate, drive bushings into mounting tube.

6. Inspect castor spindle for wear and replace it if damaged.

7. Push castor spindle through bushings and mounting tube. Slide spacer onto spindle. Install lynch pin through castor spindle to retain all parts in place.

IMPORTANT: When bushings are installed, the inside diameter may collapse slightly, and this may not allow castor spindle to be installed. If castor spindle does not slide through new bushings and mounting tube, ream both bushings to inside diameter of 1.126 inches (28.6 mm).

SERVICING CASTOR WHEEL AND BEARING

The castor wheel rotates on a high-quality roller bearing and is supported by a spanner bushing. Even after many hours of use, provided that the bearing was kept well-lubricated, bearing wear will be minimal. However, failure to keep the bearing lubricated will cause rapid wear. A wobbly castor wheel usually indicates a worn bearing.

1. Remove locknut from capscrew holding castor wheel assembly between castor fork (Fig. 8). Grasp castor wheel and slide capscrew out of fork.

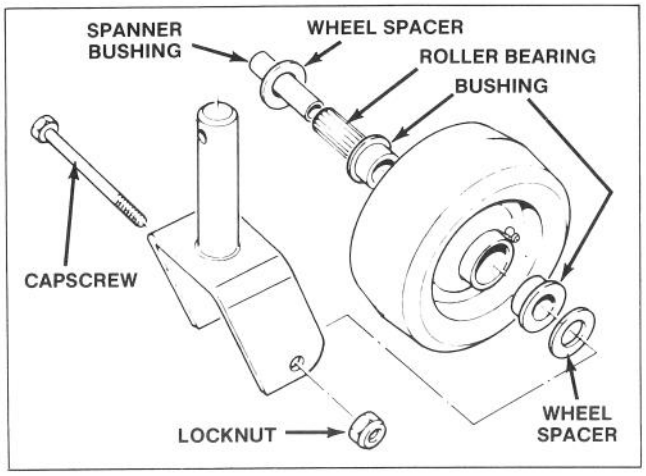


Figure 8

Note: Account for the two wheel spacers (Fig. 8).

2. Tip wheel to the side and allow roller bearing and spanner bushing to fall out (Fig. 8).

3. Remove bushings from wheel hub. Clean grease and dirt from wheel hub.

4. Press new bushings into wheel hub.

5. Inspect bearing and spanner bushing for wear. Replace worn, unusable parts.

6. To reassemble parts, slide spanner bushing through roller bearing. Pack bearing with no. 2 grease; then insert bearing w/spanner bushing into wheel bushings.

7. Slide wheel spacers onto spanner bushing, and mount castor wheel assembly between the fork and install the capscrew and locknut. Tighten capscrew and locknut until spanner bushing bottoms against inside of castor fork.

8. Pump more grease through grease fitting on wheel (Fig. 8) until bearing is greased thoroughly.

CHECKING FOR BENT BLADE

1. Rotate blade until the ends face forward and backward (Fig. 9). Measure from inside of cutting unit to cutting edge at front of blade (Fig. 9), and remember this dimension.

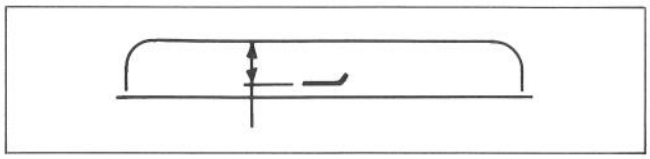


Figure 9

2. Rotate opposite end of blade forward. Measure between the cutting unit and cutting edge of blade at the same position as in step 1. The difference between dimensions obtained in steps 1 and 2 must not exceed 1/8 of an inch (3 mm). If dimension exceeds 1/8 of an inch (3 mm), replace the blade because it is bent: refer to Removing Cutter Blade, page 9.

REMOVING CUTTER BLADE

The blade must be replaced if a solid object is hit, the blade is out-of-balance or if the blade is bent. Always use genuine TORO replacement blades to be sure of safety and optimum performance. Never use replacement blades made by other manufacturers because they could be dangerous.

WARNING

Do not try to straighten a blade that is bent, and never weld a broken or cracked blade. Always use a new blade to assure safety.

1. Grasp end of blade using a rag or thickly padded glove. Remove bladebolt, lockwasher, anti-scalp cup and blade from spindle shaft.

2. Install blade — sail facing toward cutting unit with anti-scalp cup, lockwasher and bladebolt. Tighten to 85-110 ft-lb.

CUTTING UNIT MAINTENANCE

CHECKING SAIL AND SHARPENING CUTTER BLADE

Two areas must be considered when checking and servicing the cutter blade: one area is the sail, the other is the cutting edge. Both cutting edges and the sail, which is the turned up metal opposite the cutting edge, contribute to a good quality-of-cut. The sail is important because it pulls grass up straight, thereby producing an even cut. However, the sail will gradually wear down during operation, and this condition is normal. As the sail wears down, the quality-of-cut will degrade somewhat, although the cutting edges are sharp. The cutting edges of the blade must be sharp so the grass is cut rather than torn. A dull cutting edge is evident when tips of the grass appear brown and shredded. Sharpen the cutting edges to correct this condition.

1. Examine cutting ends of the blade carefully, especially where the flat and curved parts of the blade meet (Fig. 10-1). Since sand and abrasive material can wear away the metal that connects the flat and curved parts of the blade, check the blade before using the mower. If wear is noticed (Fig. 10-2), replace the blade.

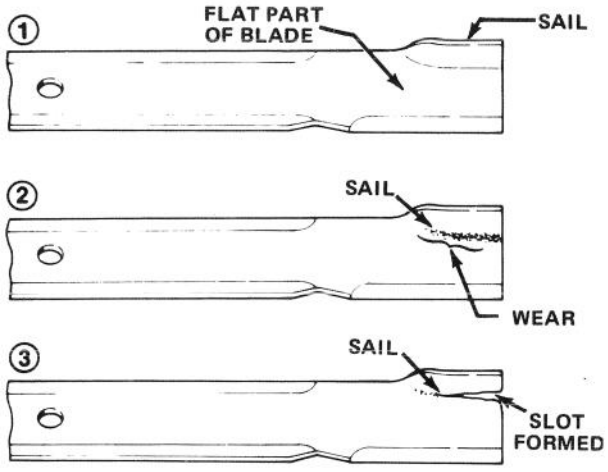


Figure 10

DANGER

If blade is allowed to wear, a slot will form between the sail and flat part of the blade (Fig. 10-3). Eventually a piece of the blade may break off and be thrown from under the housing, possibly resulting in serious injury to yourself or bystanders.

2. Inspect cutting edges of blade. Sharpen the cutting edges if they are dull or nicked. Sharpen only the top of the cutting edge and maintain the original cutting angle to make sure of sharpness (Fig. 11). The blade will remain balanced if same amount of metal is removed from both cutting edges.

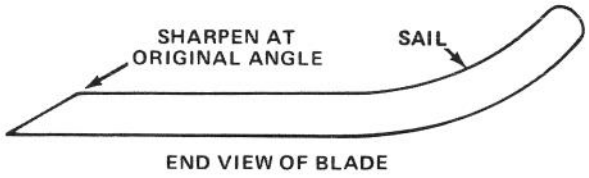


Figure 11

Note: Remove the blade and sharpen on a grinder: refer to Removing Cutter Blade, steps 1 and 2, page 9. After sharpening the cutting edges, reinstall blade with anti-scalp cup, lockwasher and bladebolt. Blade sails must be on top of blade. Tighten to 85-110 ft-lb.

CORRECTING UNEVEN CUTTING

If one end of blade cuts lower than the other, correct as follows:

1. Check to make sure front support rod is resting properly on frame cushions (Fig. 14). Make sure blade is not bent: refer to Checking for Bent Blade, page 9. Check air pressure in tires.

2. Raise height-of-cut to the 3-1/2" (89 mm) or 4 in. (102 mm) position (Fig. 14). refer to Adjusting Height-Of-Cut, page 7.

3. Position blade in the "A" position (Fig. 12) and measure from level surface to the bottom of the tip end of blade (Flg. 13).

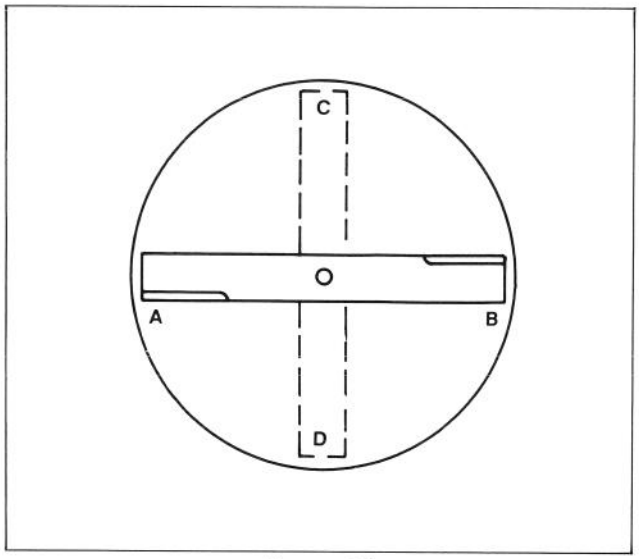


Figure 12

CUTTING UNIT MAINTENANCE

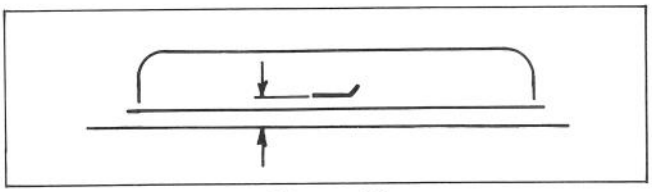


Figure 13

4. Note measurement attained at "A", rotate blade to "B" position (Fig. 12), measure distance of blade to level surface and note dimensions (Fig. 13). Difference between dimension "A" and "B" should not exceed 1/8". If dimension exceeds 1/8", proceed to Steps 6 and add shims between spindle housing and bottom of cutting unit.

5. Rotate the blade to the "C" position and measure from level surface to the bottom of the tip end of blade. Measure also in "D" position. The "C" dimension should be lower than "D" position but not to exceed 7/16". If dimension exceeds 7/16", proceed to Step 7.

6. Remove capscrews and nuts from spindle in the area where shims must be added. To raise or lower the blade, add a shim, Part No. 3256-24, between spindle housing and bottom of cutting unit. Continue checking alignment of blade and adding shims until tip of blade is within the required dimension.

7. Equalize side to side measurements as follows:

   A. Cutting units usually operated at 1 to 2 in. (25 to 51 mm) height-of-cut should have the low side of the cutting unit raised. Remove the lynch pin securing castor wheel on low end (Fig. 14) and remove castor assembly.

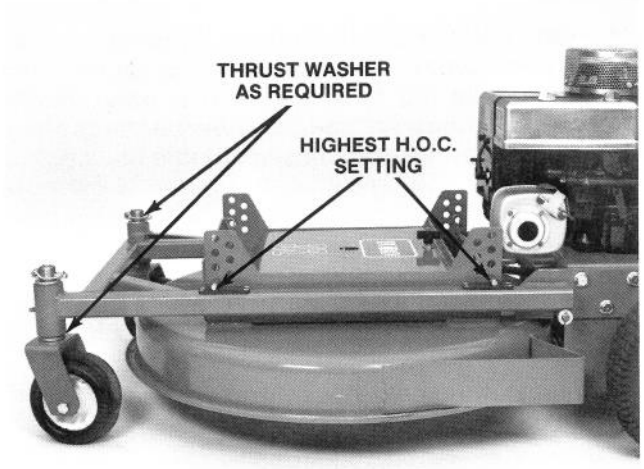


Figure 14

   B. Transfer one thrust washer from top side of castor shaft to lower side, install castor assembly and check blade height; refer to items 3 through 7. Continue adding thrust washers if height still does not meet requirements.

   C. If cutting unit is operated at 2 to 4 in. (51 to 102 mm) height-of-cut, lower the high side of cutting unit. Remove lynch pin of castor at high end of unit and remove castor assembly (Fig. 14).

   D. Transfer one thrust washer from lower side of castor shaft to top side, install assembly and check blade height: refer to items 3 through 7. Repeat procedure if height still does not meet requirements.

   E. If height is within specified dimension, install lynch pin, set height-of-cut to proper height and resume operation.

REPLACING DRIVE BELT

The blade drive belt is very durable. However, after many hours of use, the belt will show signs of wear. Signs of a worn belt are: squealing when belt is rotating, blade slipping when cutting grass, frayed edges, burn marks and cracks. Replace the belt if any of these conditions are evident.

1. Loosen knob securing cover to top of cutting unit. Remove cover.

2. Remove lock nuts securing pulley belt guide to mower housing and remove guide.

3. Loosen jam nuts on each adjusting shaft and remove blade drive belt (Fig. 15).

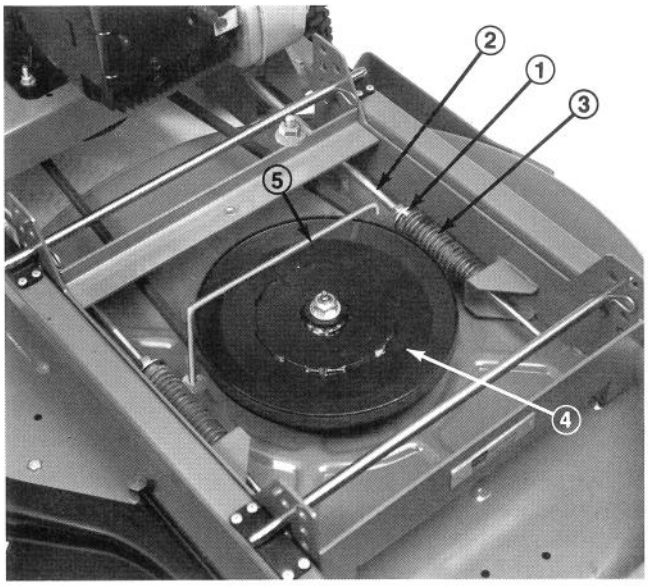


Figure 15

1. Jam nuts
2. Adjusting shaft
3. Spring and spacer
4. Spindle pulley
5. Pulley belt guide

CUTTING UNIT MAINTENANCE

4. Install new belt around spindle pulley and engine pulley (Fig. 15).

5. Tighten jam nuts on adjusting shafts until springs are compressed to a length 1/8" longer than spacers inside of springs.

6. Reinstall pulley belt guide and tighten lock nuts.

7. Reinstall cover.

8. Check adjustment of J-belt guide as shown in Fig. 4B, page 6.

REPLACING SPINDLE PULLEY

1. Loosen knob securing cover to cutting unit. Remove cover.

2. Remove drive belt, refer to Replacing Drive Belt, page 11.

3. Remove nut and flatwasher retaining pulley on spindle shaft (Fig. 15). Pull pulley off shaft.

4. Check splines on inside of pulley. If splines are damaged, replace the pulley. When installing a new pulley, check the splines on end of spindle shaft. Splines on the spindle shaft must not be damaged. If splines are damaged, the spindle shaft must be replaced before a new pulley is installed.

5. Install new pulley on spindle shaft with flatwasher and locknut. Tighten nut to 85-110 ft-lb. Periodically check to maintain proper torque.

6. Install belt, pulley belt guide, and cover.

REMOVING SPINDLE AND BEARINGS FROM SPINDLE HOUSING

1. Loosen knob securing cover to cutting unit.

2. Remove spindle pulley, refer to Replacing Spindle Pulley, page 12.

3. Remove eight bolts and nuts holding spindle housing assembly to cutting unit (Fig. 19). Slide spindle housing assembly out bottom of cutting unit.

4. If spindle shaft will be replaced, remove blade-bolt, lockwasher, anti-scalp cup, and blade from spindle shaft (Fig. 16). Otherwise, the blade and its other associated parts may be left on the spindle shaft.

5. Press bearing (Fig. 16) out of one end of spindle housing, remove spacer, then remove bearing from other end of spindle housing.

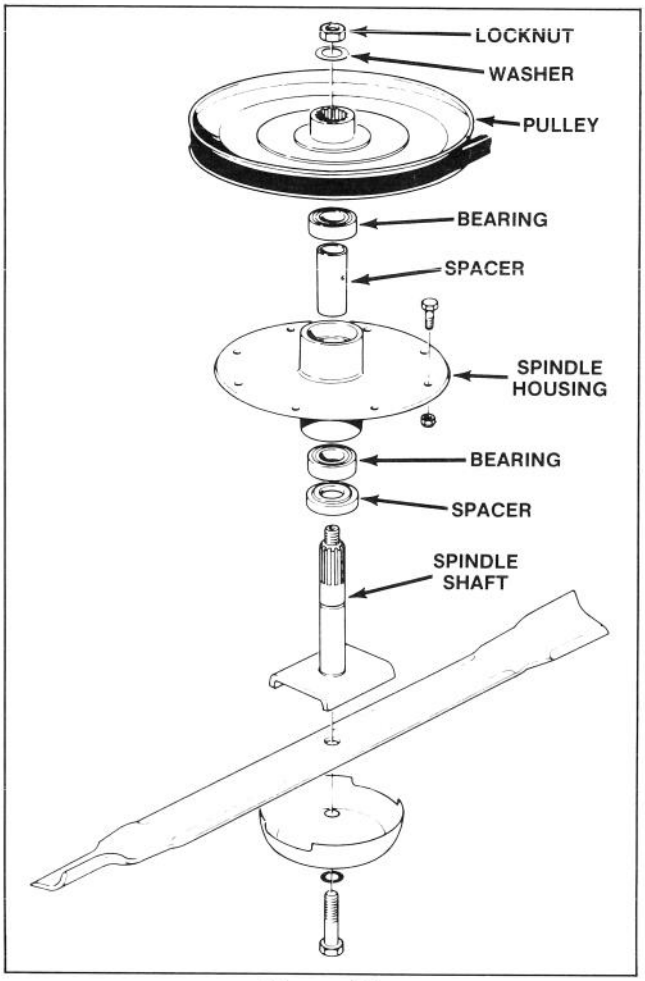


Figure 16

INSTALLING SPINDLE AND BEARINGS INTO SPINDLE HOUSING

IMPORTANT: If a new spindle housing is being used, new bearings must be installed: refer to step 1. Never use old bearings with a new spindle housing. By contrast, use only new bearings when installing bearings into a used spindle housing.

1. Press the top bearing into spindle housing first.

2. Insert the spacer into spindle housing.

3. Press the bottom bearing into spindle housing.

4. Reinstall spindle housing to cutting unit with eight bolts and nuts.

5. Check spindle shaft, make sure it is free of burrs and nicks and thoroughly lubricate shaft.

6. Slide bearing spacer onto spindle shaft. Carefully slide spindle shaft through spindle housing.

7. Push pulley onto splines of spindle shaft, and retain parts together with large flatwasher and nut.

CUTTING UNIT MAINTENANCE

Tighten nut to 85-110 ft-lb and rotate spindle shaft to be sure shaft rotates freely.

8. Reinstall belt and adjust.

9. Reinstall belt guide.

10. Reinstall cover.

IDENTIFICATION AND ORDERING

MODEL AND SERIAL NUMBERS

The cutting unit has two identification numbers: a model number and a serial number. These numbers are stamped into a plate. The cutting unit identification plate is located on front of carrier frame. In any correspondence concerning the cutting unit, supply the model and serial numbers to assure correct information and replacement parts are obtained.

To order replacement parts from an authorized TORO Distributor, supply the following information:

1. Model and serial numbers of the cutting unit.

2. Part number, description and quantity of parts desired.

Note: Do not order by reference number if a parts catalog is being used; use the part number.

MAINTENANCE RECORD

Date	Hours Used							

MAINTENANCE RECORD

Date	Hours Used							

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.

Compliance with Radio Interference Regulations Certified.
Certifie Conforme au Reglement sur le Brouillage Radioelectrique.

Litho in U.S.A.