

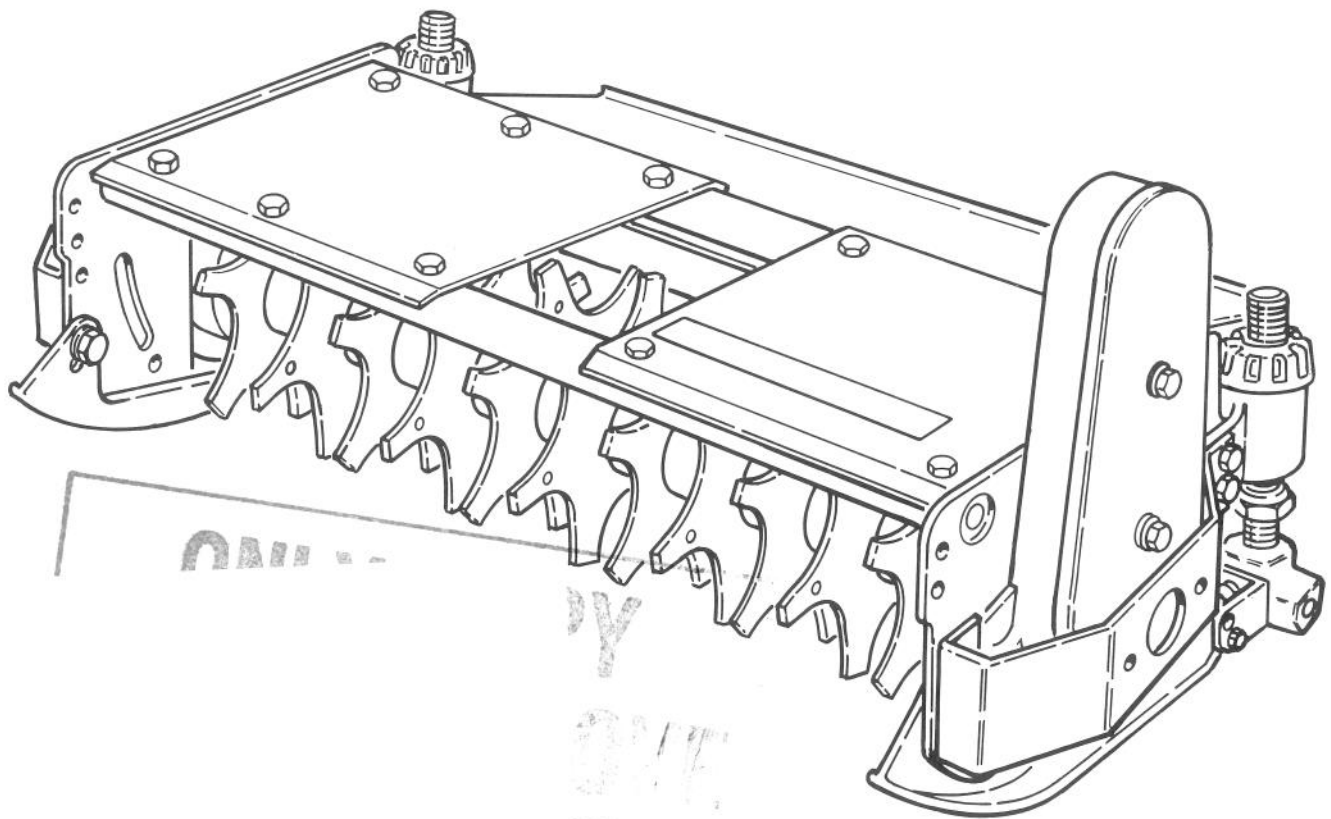


MODEL NO. 03732-70001 & UP
MODEL NO. 03730-70001 & UP

**OPERATOR'S
MANUAL**

REELMASTER® 450-D THATCHING REEL

Since this operator's manual covers only a minimal amount of information necessary to maintain and operate your machine, we suggest that you keep this material with your Traction Unit and Cutting Unit Operator's Manuals so that both may be referred to for instructions concerning safe operation and proper maintenance procedures.



LOOSE PARTS

DESCRIPTION	QTY	USE
Operator's Manual	1	
Shipment Trace Card	1	
Registration Card	1	

SPECIFICATIONS

Reel Diameter: 9 in. (23 cm)

Reel Width: 27 in. (68.5 cm) effective width of cut.

Depth of Penetration: Infinitely variable to a maximum depth of 1-1/8" (28 mm).

Construction: Welded steel frame with self aligning ball bearings. Heavy duty, steel rear roller with tapered roller bearings is mounted in rubber bushings for quiet, vibration free, operation. Adjustable deflector shield. Thick, hardened 3/16" thick steel blades are spaced 2-1/4" apart.

Reel Adjustment: Quick adjustment and positive locking is provided by knob and locking type cone nut on roller adjusters. Gauge marks in 1/4" increments are provided for easy adjustments.

Drive: The reel drive motor turns a cog belt which drives the reel. Drive pulleys and belt are encased in a drive housing for safety and protection from contamination.

SET-UP INSTRUCTIONS

Note: The thatching reels are mounted to the traction unit the same as the cutting units. Refer to Reel-master 450-D Cutting Unit Operators Manual for mounting instructions. Make sure floatation kit lock-out screw and nut are in the fixed position.

ADJUSTING THATCHING DEPTH

Method One — Fixed Skid

1. Remove bolt securing skid to roller bracket (Fig. 1).

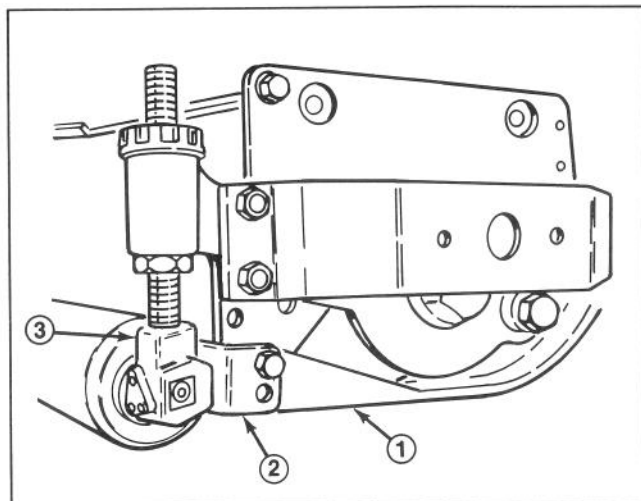


Figure 1

1. Skid
2. Roller bracket
3. Roller adjuster

2. Remove (3) bolts and locknuts securing roller bracket to roller adjuster (Fig. 1).

3. Using roller bracket as a spacer, position it between skid and sideplate, aligning mounting holes as shown in Fig. 2.

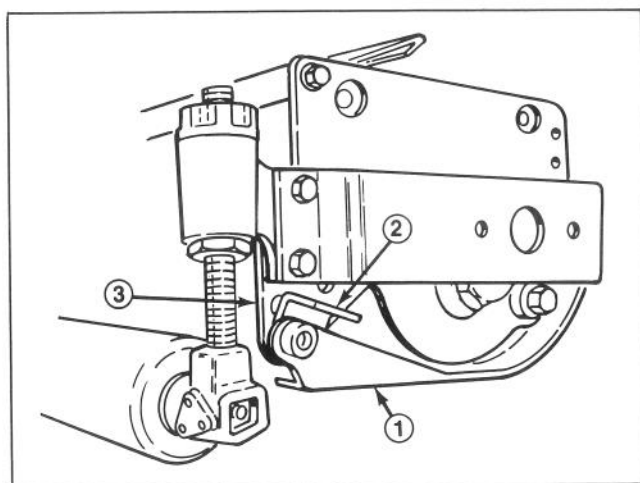


Figure 2

1. Skid
2. Roller bracket
3. Sideplate

4. Secure roller bracket (spacer) and skid to sideplate with bolt previously removed (Fig. 2). Bolt to be installed from reel side of sideplate (Fig. 3).

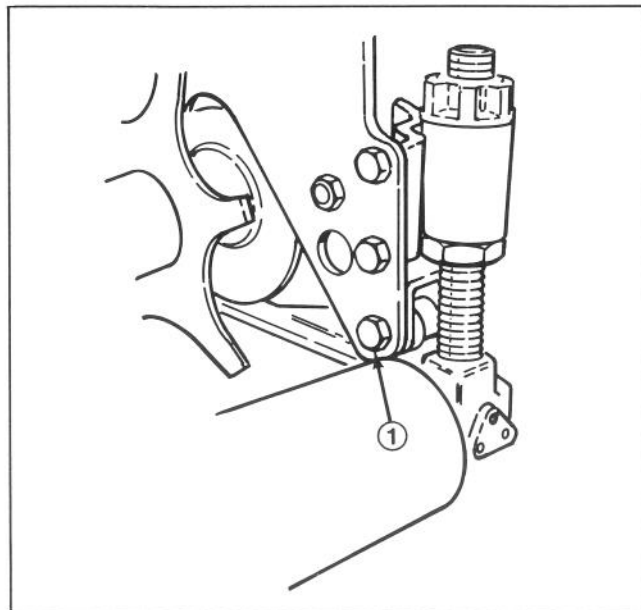


Figure 3

1. Skid mounting bolt

5. Make sure front of skid is in highest position and mounting bolt is secure.

6. Loosen the cone nut on each roller adjuster and rotate adjustment knobs until desired thatching depth is attained (Fig. 4).

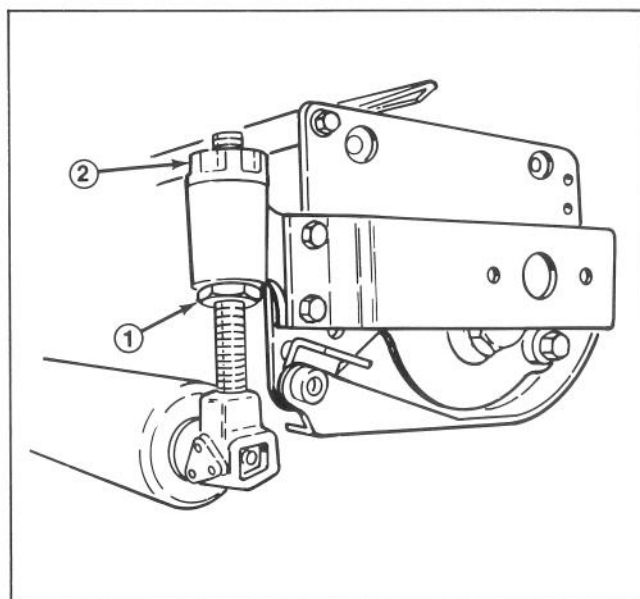


Figure 4

1. Cone nut
2. Adjusting knob

7. Tighten cone nuts and recheck adjustments. Use gauge marks on roller adjusters to assure depth is equal.

SET-UP INSTRUCTIONS

Method Two — Adjustable Skid

1. Remove bolt securing skid to roller bracket (Fig. 5).

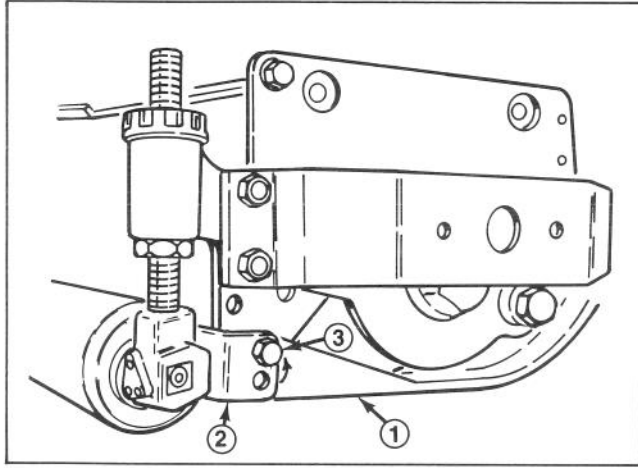


Figure 5

1. Skid
2. Roller bracket
3. Reposition in top hole

2. Pivot skid upward aligning it with top hole in roller bracket (Fig. 5).
3. Loosen bolt securing front of skid to sideplate.
4. Loosen the cone nut on each roller adjuster and rotate adjustment knobs until desired thatching depth is attained.

5. Tighten cone nuts and recheck adjustment. Use gauge marks on roller adjusters to assure depth is equal.

6. Level the skid to the sideplate and tighten fasteners at front and rear of skid.

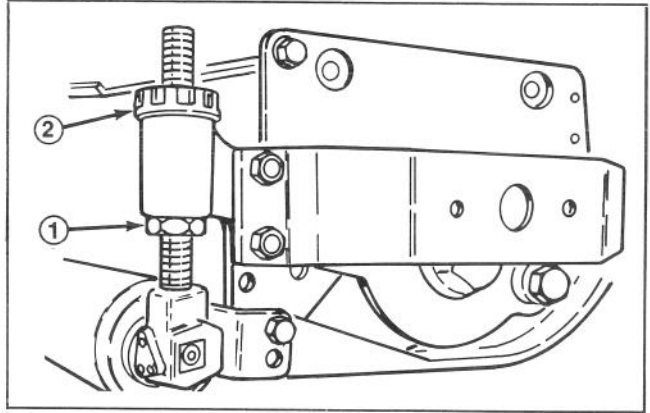


Figure 6

1. Cone nut
2. Adjusting knob

ADJUSTING GRASS SHIELD

1. Pivot grass shield up or down until desired throw is attained.

Note: When using thatching reels it is recommended that roller scrapers, Toro part no. 59-6090 be installed.

OPERATION

TRAINING PERIOD

Before thatching with the thatching reels The Toro Company suggests you find a clear area and practice starting, stopping, raising, lowering and thatching with the thatching reels. This training period will be beneficial to the operator in gaining confidence in the performance of the thatching reels.

Experiment with grass conditions to see that the grass shield is properly adjusted and is throwing grass and debris as desired. This training period will ensure that the proper adjustment of grass shields has been made.

Note: Care should be taken when making turns. At all times avoid sharp turns when using thatching reels. Lift inside wing cutting unit when making sharp turns.

BEFORE OPERATION OF THE THATCHING REELS

Survey turf to determine if there are any obstacles that will be damaged or will result in damage to the thatching reels such as sprinkler heads, and protruding objects.

Changes based on your local turf conditions may be required in order to gain the results you want to establish.

MAINTAIN A STRAIGHT LINE

Maintain a straight line by sighting off an object in the foreground. Try to minimize the amount of overlap to keep the thatching even.

OPERATING TIPS

1. Maintain maximum reel speed to achieve optimum thatching.
2. Vary ground speed depending on amount of thatch in turf.
3. Change blades when they are worn to guide holes (Fig. 10).
4. In extremely heavy thatch conditions, raise and latch one or both wing units and operate with center three units until thatch buildup has been reduced.

MAINTENANCE

LUBRICATION

There are (4) grease fittings on each thatching reel unit. One on the end of each roller and reel shaft. Each should be greased daily with #2 general purpose grease (Fig. 7).

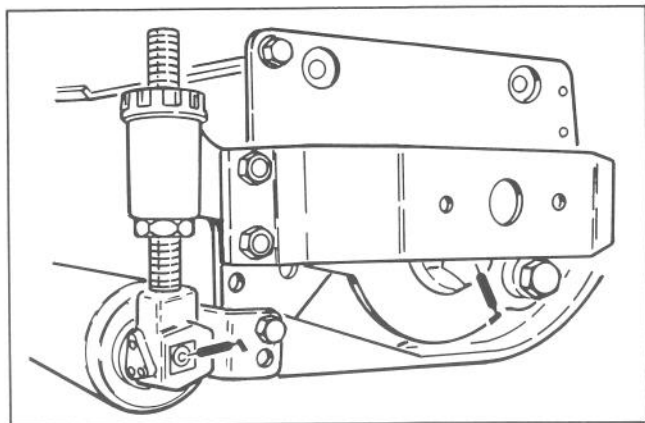


Figure 7

REMOVING THATCHING REEL

1. Remove the guards and skids from each end of unit, also remove roller.
2. Remove (2) shoulder bolts, locknuts, and (1) belleville washer securing bearing housing to right side of unit. Slide bearing housing of reel shaft (Fig. 8).

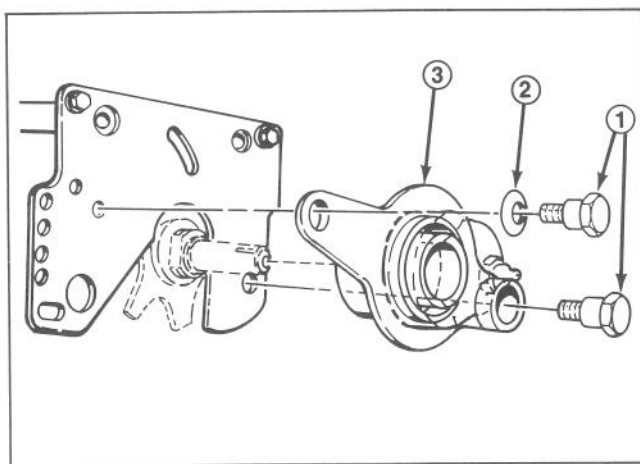


Figure 8

1. Shoulder bolts
2. Belleville washer
3. Bearing housing

Note: When reassembling bearing housing, make sure washer is positioned on rear shoulder bolt.

3. Remove (2) flange screws securing cover to drive housing and remove cover. Remove drive belt from housing (Fig. 9).

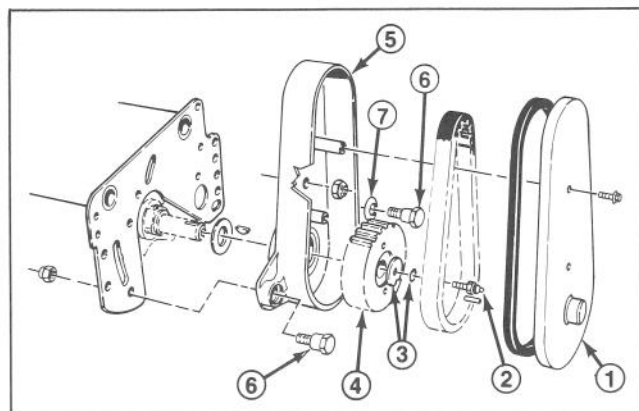


Figure 9

1. Drive housing cover
2. Reel cap screw
3. Washers
4. Pulley
5. Drive housing
6. Shoulder bolt
7. Belleville washer

4. Remove the reel cap screw, toothed washer, and pulley washer from reel shaft.

5. Using a puller, remove the pulley from the shaft. Remove the woodruff key from the shaft.

6. Remove the (2) shoulder bolts, locknuts, and (1) belleville washer securing the drive housing to the sideplate. Remove the drive housing.

Note: When reassembling bearing housing, make sure washer is positioned on rear shoulder bolt.

7. Slide the reel shaft out the slots in sideplates.

8. Loosen set screw securing nut to left side of reel shaft. Remove nut (Fig. 10).

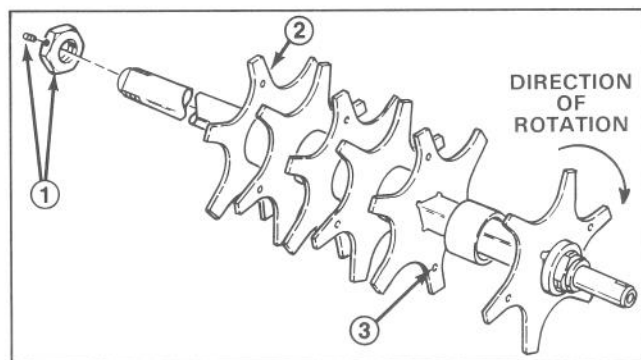


Figure 10

1. Setscrew and nut
2. Leading edge of blade
3. Wear guides

9. Remove spacers and worn blades from shaft.

10. Reinstall spacers and new blades as shown in Fig. 10. Make sure blades are alternated properly and leading edge of each blade is correct for the direction of rotation.

11. Apply never-seez to reel shaft ends before reinstalling.

MAINTENANCE

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MAINTENANCE

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The Toro Promise

A ONE YEAR LIMITED WARRANTY

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".

Commercial Products 1 Year

The costs of parts and labor are included, but the customer pays the transportation costs on walk rotary mowers, trimmers and blowers.

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.