FORM NO. 3315-400

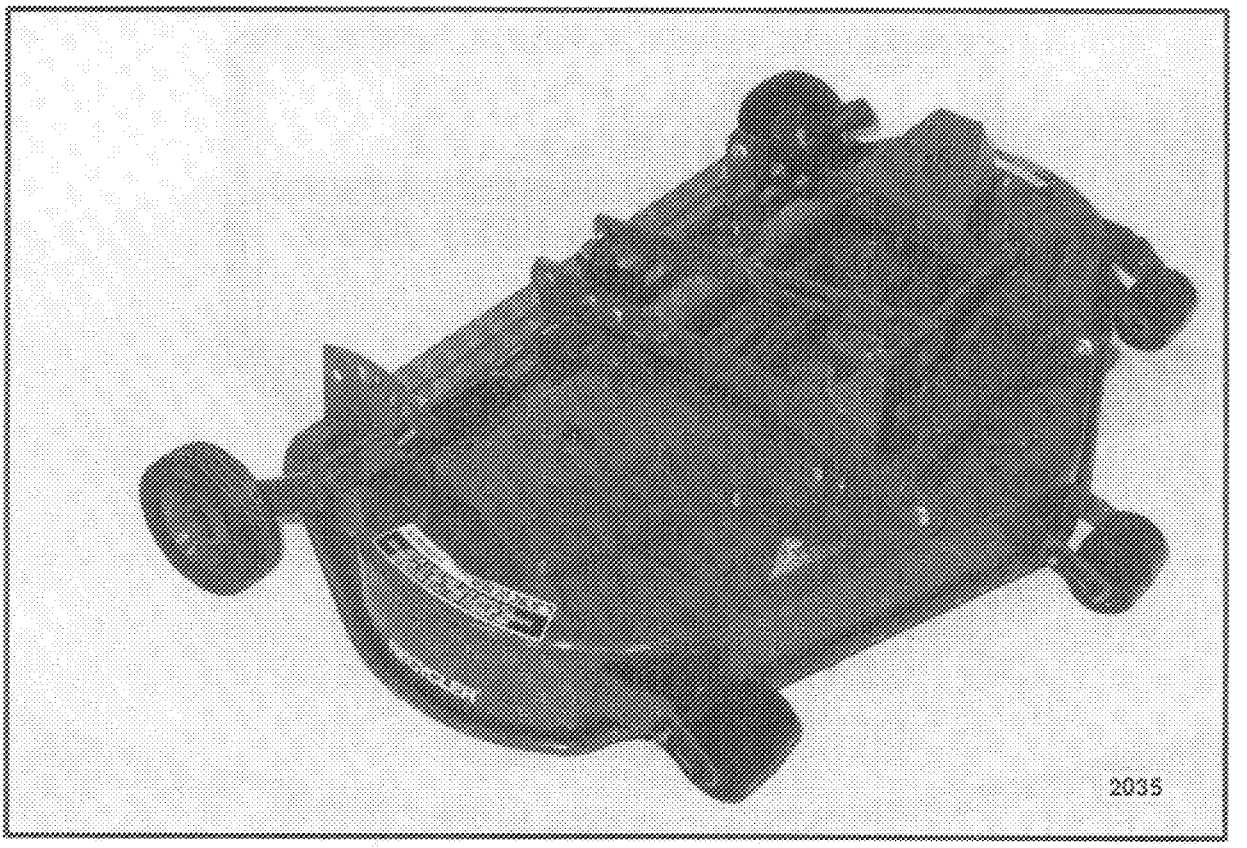
TORO®

MODEL NO. 78355-3900001 & UP

OPERATOR'S MANUAL

WHEEL HORSE®

42" (107 cm) Garden Tractor Recycler®Mower



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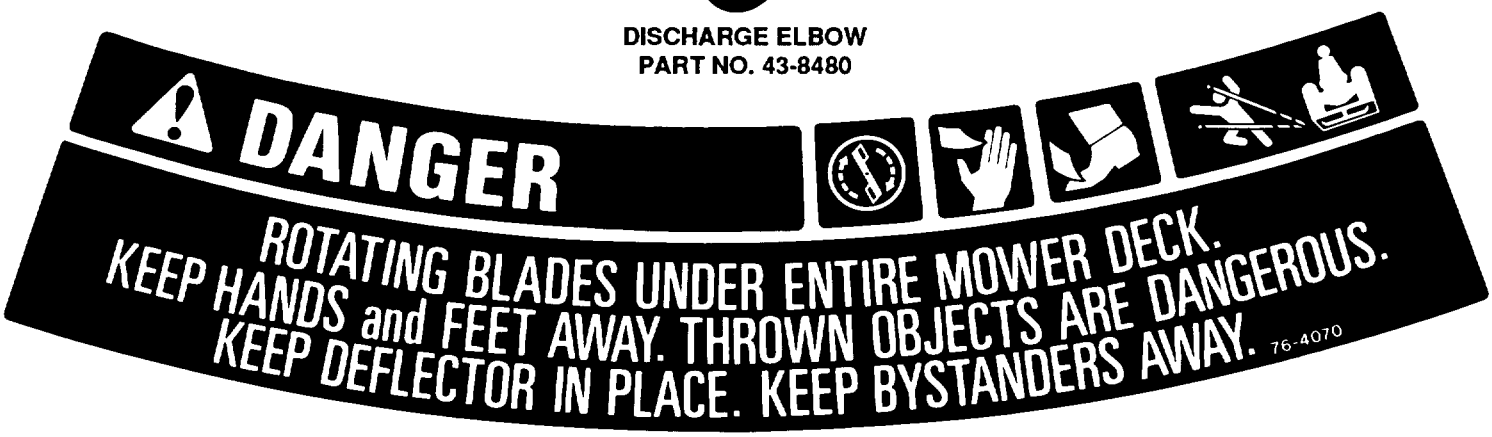
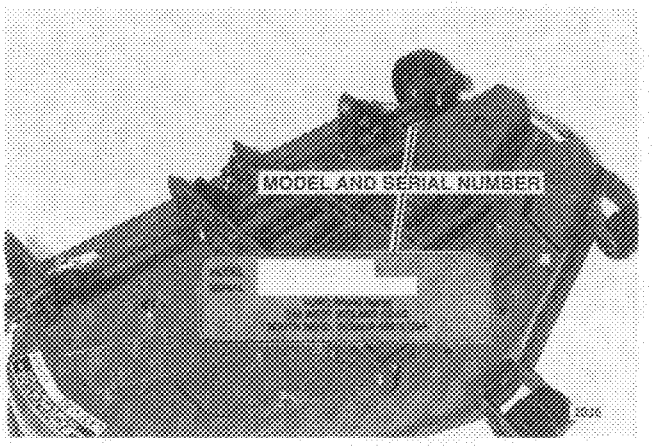
DISCHARGE ELBOW
PART NO. 43-8480



COVER
PART NO. 76-4070

MODEL AND SERIAL NUMBER

A Model and Serial Number identifies your Toro Wheel Horse attachment. These numbers should always be referred to when consulting with your dealer or factory concerning service, replacement parts, or questions you may have. For your reference, record numbers from Model and Serial Number plate on your attachment.



Model and Serial Number Plate

ASSEMBLY

ATTACH HEIGHT CONTROL LEVER

Height control lever must be attached to Mower, as described below.

Raise rear of mower and support deck on both sides, using a 4" x 4" wood block. Remove two bolts and nuts securing lift quadrant to right rear corner of mower deck (Fig. 1). Remove clamp holding gage wheel support rod. Install height control lever and spring as shown in Figure 1. Slip welded pin, on height control lever, into guide hole in gage wheel support. Position quadrant to hold height control lever in place and replace clamp, bolts and nuts, Tighten securely and remove 4" x 4" block.

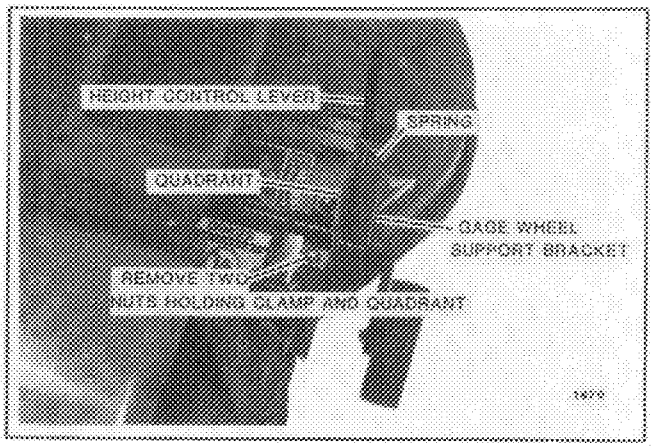


FIG. 1 Install Height Control Lever

INSTALLATION

IMPORTANT

Before installation, check that all mower blade nuts are tight:

Blade Nut Torque 80-100 ft. lbs. (112-140Nm)

Check that mower spindles have been lubricated. Use a pressure grease gun and #2 multipurpose lithium grease. Grease fittings are on top of spindles.

⚠ CAUTION ⚠

Sharp edges of mower blades can cut you during blade maintenance or adjustment. Use suitable covering over cutting edges of blade to prevent bodily harm.

Place mower along right side of tractor (Fig.2). Position height control lever in lowest position.

Turn front wheels of tractor fully left. Raise tractor attachment lift.

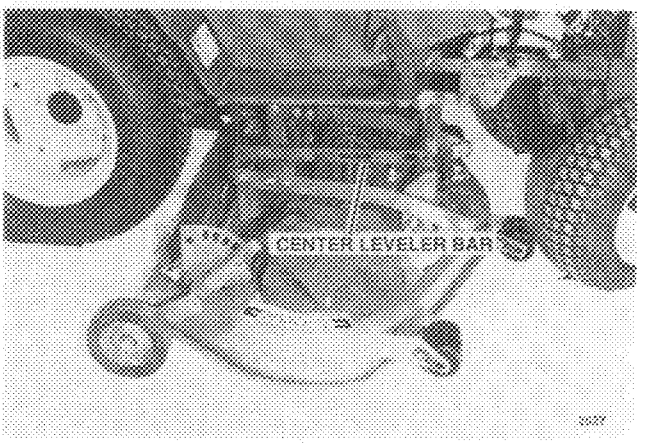


FIG. 2 Position Mower to Right of Tractor

Slide mower under tractor until mower center leveler bar is directly under right side of tractor frame.

ATTACH MOWER TO TRACTOR

Lower tractor attachment lift. Remove washer and hairpin cotter installed on tractor lift bar pin (Fig. 6). Align lift bar and pin (attached to tractor) with slot in mower leveler bar (Figs. 2 & 3).

Push mower in until it is centered under tractor.

Open mid Attach-A-Matic hitch by pushing release button in and pushing latch lever down (Fig. 4).

Secure mower to tractor with previously removed washer and hairpin cotter (Fig. 6).

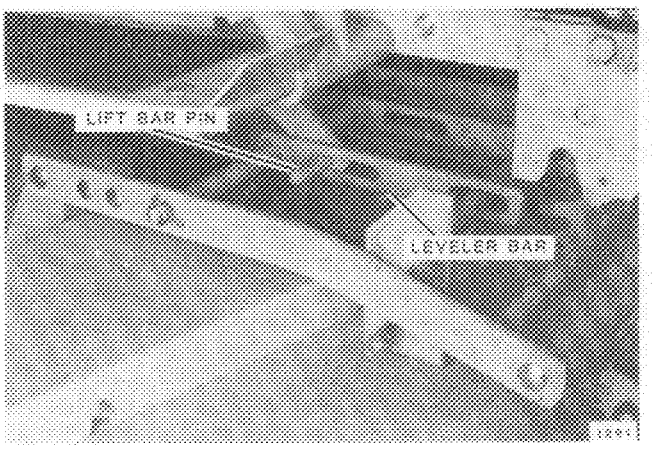


FIG. 3 Align Pin With Slot

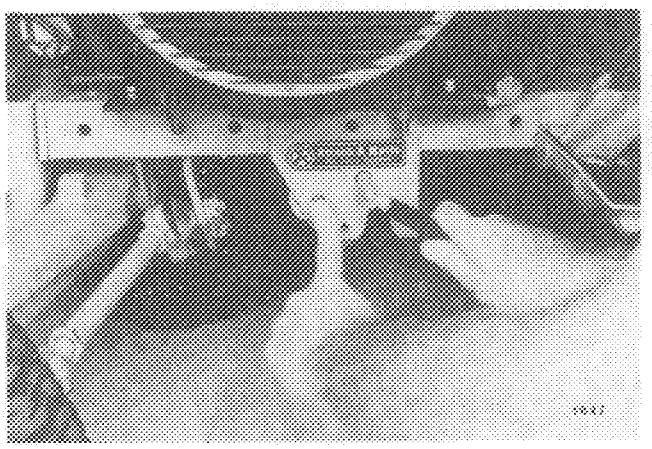


FIG. 4 Open Rear Attach-A-Matic Hitch

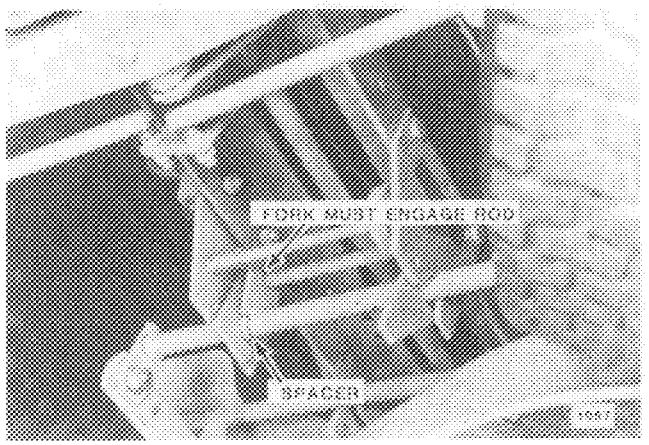


FIG. 5 Align Fork With Shaft

Adjust mower hitch so fork faces upward. Adjust mower so welded spacers are positioned between tractor hitch plates (Fig. 5).

Lift mower with attachment lift. NOTE: When using a manual attachment lift, be sure lift handle "locks" in raised position.

Close Attach-A-Matic hitch by moving latch lever up.

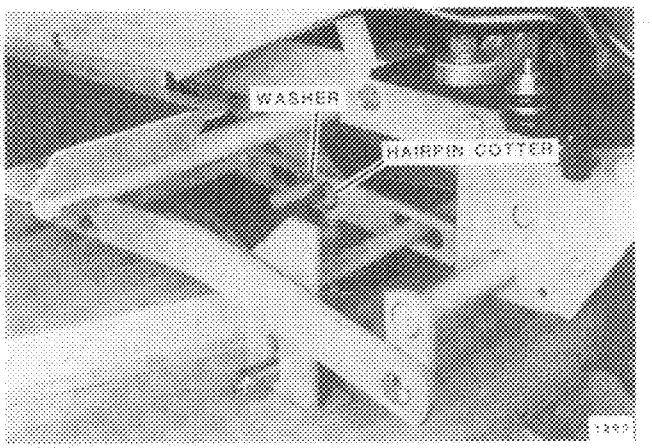


FIG. 6 Secure Mower to Tractor Lift Bar Pin

INSTALL FRONT PULLEY SUPPORT

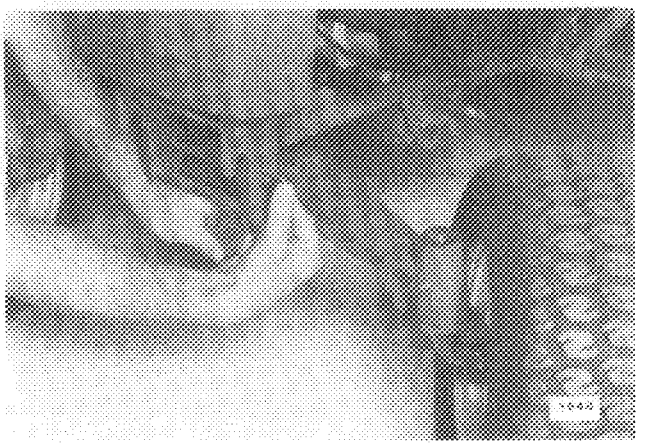


FIG. 7 Open Front Attach-A-Matic Hitch

Open front Attach-A-Matic hitch by pushing release button and pulling forward on latch handle (Fig. 7).

Insert shaft of pulley support assembly into hitch slots and push latch handle rearward to lock latch (Fig. 8).

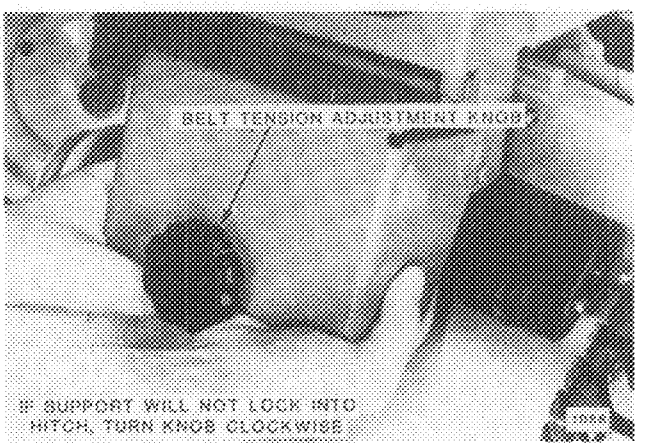


FIG. 8 Install Pulley Support

INSTALL DRIVE BELT AND COVER

Turn belt tension adjustment knob all the way clockwise (Fig. 9).

Install drive belt in groove of mower drive pulley and position belt strands around idler pulleys, with inside strand in "V" pulley and outside strand making a back bend around flat idler (Fig. 9). Place drive belt on inside groove of PTO pulley as described in tractor Operator's Manual (Fig. 10).

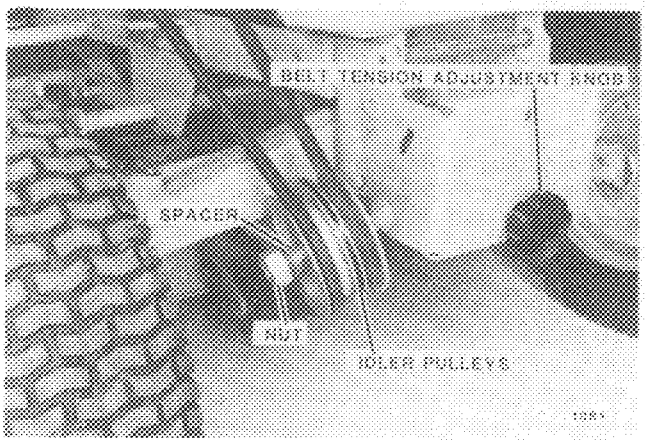


FIG. 9 Mower Front Idler Pulleys

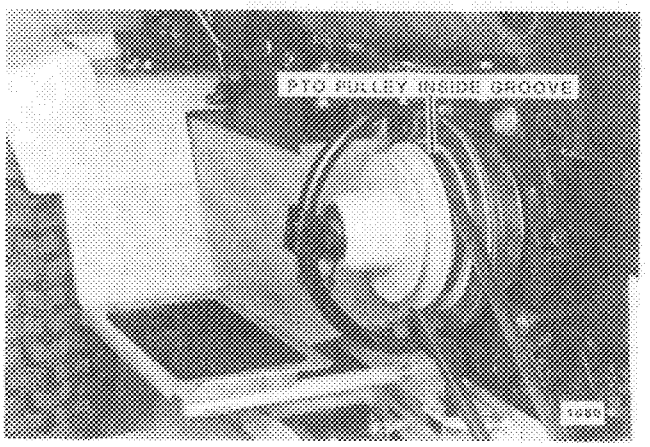


FIG. 10 Mower PTO Pulley

Hold pulleys in against thrust collar and adjust drive belt tension by turning adjusting knob counterclockwise until top strand of drive belt can be depressed approximately 1 inch (2.5 cm) under moderate finger pressure at mid-point between pulleys (Figs. 8, 9 & 10).

Remove cover nut making sure spacer remains on shaft (Fig. 9). Install cover with pilot pin in slot of support (Fig. 11). Reinstall cover nut and tighten.

CHECKING MOWER LEVEL

For optimum efficiency, level of mower should be checked at time of initial installation and periodically as a check, to see if alignment is maintained.

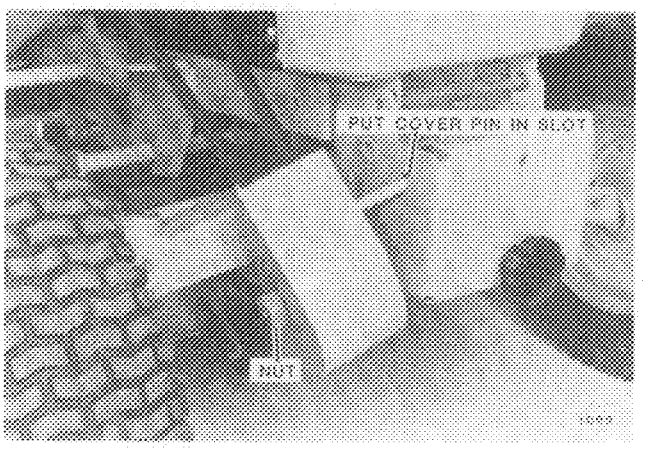


FIG. 11 Install Pulley Support Cover

MOWER LEVEL

Position tractor on a level surface. Adjust all four tires to 12 PSI pressure. Place mower height control lever in middle cutting position.

Turn mower blades front-to-rear (Fig. 12).

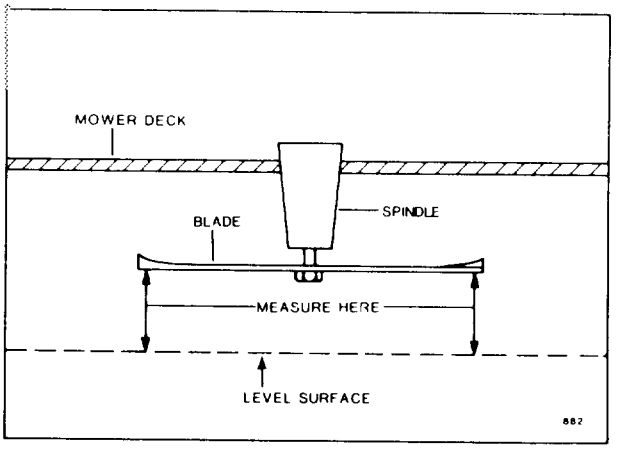


FIG. 12 Mower Level Measurement

Turn leveling adjustment nut (Fig. 13) clockwise to raise or counterclockwise to lower front of mower. Adjust so that distances from surface to front and rear of blade tips are equal (Figs. 12, 13 and 14).

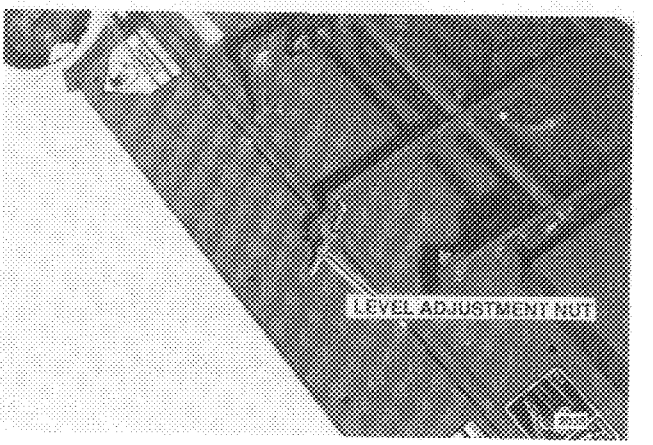


FIG. 13 Level Adjustment Nut

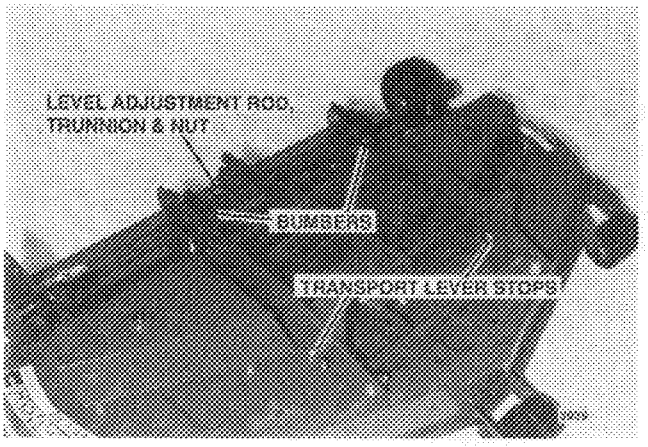


FIG. 14 42 in. (107 cm) Rear Discharge Mower Adjustments

TRACTOR LIFT BAR - TRUNNION AND LIFT ROD ADJUSTMENT

This adjustment involves parts located on tractor (Fig. 15). Trunnion on lift chain should be adjusted so that bumpers on draft bars of mower suspension come in contact with tractor footrests when mower is fully raised, with trunnion stud in rear hole of tractor lift lever.

TRANSPORT LEVEL STOP ADJUSTMENT

For normal operation mover level stops should be adjusted so that carriage bolt heads are set at bottom of bracket slots. If mower is not level, in fully raised position, level stops may be adjusted by moving them in bracket slots as required (Fig. 14).

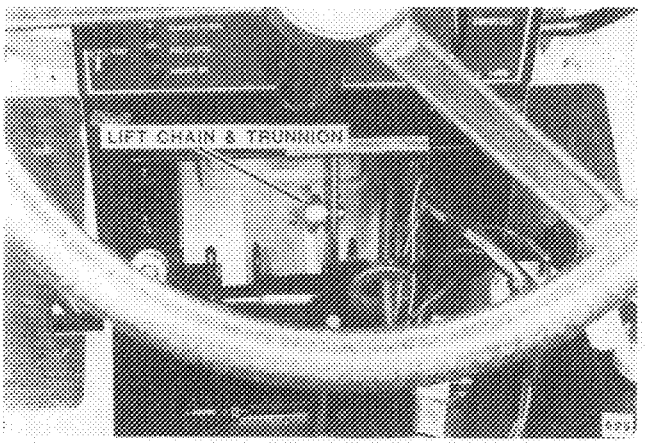


FIG. 15. Tractor Lift Bar Trunnion and Lift Rod Adjustment

REMOVAL

Set mower gage wheels in lowest cutting position and lower mower with tractor lift. Turn front wheels all the way left.

Turn drive belt tension adjustment knob clockwise all the way and remove belt from mower.

Push mid-hitch lock release button in and open latch, releasing mower hitch shaft.

Remove hairpin cotter and washer from lift bar pin. Slide mower right until lift bar pin comes out of slot in leveler bar. Raise tractor lift and slide mower out from under right side of tractor.

Remove drive belt from PTO clutch pulley. Remove pulley support assembly by pushing front hitch lock release button in and opening latch. Drive belt need not be removed from pulley support assembly.

OPERATION

IMPORTANT

Every time mower is installed, check for proper operation of PTO clutch and brake. Adjustment of PTO is covered in tractor Operator's Manual.

⚠ CAUTION ⚠

To avoid loss of control, slow down when turning, backing and changing direction. Look behind tractor to ensure area is clear before backing.

RECYCLER®MOWER TIPS

RECYCLER®MOWER FEATURES

Your Recycler®mower has a new and completely different cutting concept. It leaves your lawn with a bagged look without bagging clippings.

Mower is equipped with special parts which increase ability to cut and recut grass clippings, leaves, and other yard debris into tiny particles which are injected down into the grass.

TIPS FOR CUTTING GRASS

Follow these instructions for best cutting results and lawn appearance:

1. Always use FAST (full) throttle when mowing.

2. Maintain sharp blades throughout the cutting season. A sharp blade cuts cleanly and without tearing or shredding grass blades like a dull blade. Tearing and shredding causes grass to turn brown at edges which impairs growth and increases susceptibility to diseases. About every 30 days, remove wire from tractor engine spark plug and check cutter blade for sharpness. File down any nicks on blade to restore its sharp edge.

3. Clean any residue from under side of mower deck and kickers after each use. If residue is allowed to build up in mower deck and on kickers, cutting performance may be unsatisfactory.

⚠ DANGER ⚠

Before removing any obstruction from mower deck, move PTO control into DISENGAGED position, shift into neutral and turn ignition key to OFF position. Remove wire from tractor engine spark plug to prevent possibility of accidentally starting engine.

4. When Recycler® mower is used to cut a lawn for the first time, remove about one inch or not more than one third of the grass blades. When cutting grass over six inches tall, cut twice to hide clippings down in grass.

5. If grass is ever allowed to grow slightly longer than normal, or if it contains a high degree of moisture, raise cutting height higher than usual and cut grass at this setting. Next, cut grass again using a lower normal setting. This method of cutting long grass results in an even distribution of clippings and an acceptable quality-of-cut.

6. In heat of summer, it is best to cut only about one third of the grass blades. Cutting more than one third of grass off is not recommended unless grass is sparse or it is late fall when grass growth begins to slow down. Cutting grass down to thatch will reduce room to hide cut grass and will greatly increase amount of loose clippings.

7. If cutting width of mower is wider than a mower previously used, raise height-of-cut setting one notch to ensure undulations in turf are not cut too short.

8. Very long or extremely wet grass can be cut, using specific operating techniques. Start by setting height-of-cut in highest position. Using slow speed and maximum throttle speed, move mower into grass and cut a swath that is only half as wide as mower deck. Slow forward movement occasionally to allow mower deck to clear itself. Cutting too much grass may clog mower deck. If mower deck does clog, disengage PTO, move to cut grass, raise deck to transport position and engage PTO to clear mower. Lower deck and move slowly over clumps to disperse.

MOWING IN EXTREME CONDITIONS

Even with the Recycler® mower, you may encounter conditions where it is not possible to incorporate all grass clippings or leaves into grass.

Air is required to cut and recut grass clippings in mower deck. It also takes extra power to recut excess clippings trapped under deck. Do not set height-of-cut too low or totally surround mower deck by uncut grass after initial cut. Always try to have one side of mower deck free from uncut grass, allowing air to be drawn into mower deck. When making an initial cut thru center of uncut area, operate tractor at a slower speed and back up if mower starts to clog.

Under some unusual mowing conditions, mower may leave a "streak" of uncut grass, which can be caused by any of the following conditions:

1. Engine being operated at less than full throttle.

2. Dull blades or underside of mower deck clogged with matted grass.

3. Ground speed too high for conditions - adjust to 2 mph (3.2 kph), or less if necessary.

4. Streaking on turns indicates turns are being made too sharply.

5. If blades have been sharpened a number of times, they may now be too short to "overlap" each other, and must be replaced.

STOPPING TRACTOR WHEN MOWING

If Forward motion of tractor has to be stopped while cutting, a clump of grass clippings may be deposited on lawn. Follow this procedure for stopping tractor while cutting:

1. With blade engaged, move into a previously cut area.

2. Raise mower to transport position while moving forward and mower is in operation.

3. Move throttle control lever to SLOW position, stop motion of tractor, disengage PTO and rotate ignition key to OFF position.

MOW AT PROPER INTERVALS

Under most normal conditions you need to mow approximately every 4-5 days. However, grass grows at different rates at different times. This means that in order to maintain same height-of-cut, which is a good practice, your need to cut more frequently in early spring; as grass growth rate slows in mid summer, cut only every 8-10 days. If you are unable to mow for an extended period due to weather conditions or other reasons, mow first with height-of-cut at a higher level; then mow again 2-3 days later with a normal height setting.

Alternate mowing direction. This helps dispense clippings over lawn for even fertilization.

TIPS FOR CUTTING LEAVES

In the fall, you can cut your leaves up into finely cut particles and inject particles down into grass. When spring arrives, leaf particles will have decomposed and restored valuable nutrients into soil.

When cutting is complete, always be sure that 50% of lawn shows through finely cut leaf cover. This may require one or more passes over leaves.

If there are more than five inches of leaves on lawn, raise mower one or two settings higher. This makes it easier to feed leaves under mower deck.

If leaves are not cut up finely enough to be hidden down in grass, make a second pass 90° to first pass.

If you cut up a lot of oak leaves, you may want to add lime to your grass in the spring. Lime reduces acidity of oak leaves.

MAINTENANCE AND STORAGE

LUBRICATION

Mower spindle bearings should be lubricated at 50 operating hour intervals (Fig. 16). Use a pressure type grease gun and #2 multi-purpose lithium grease to lubricate spindle bearings. Four to six pumps of a hand type grease gun will usually fill each spindle after 50 hours use. Grease fittings are conveniently located at top of spindle shafts. Lubricate mower gage wheels every 25 hours.

Lubricate pivoting arms and levers at 25 hour intervals with light machine oil applied directly to wear surfaces. Antiscalp rollers should NOT be lubricated.

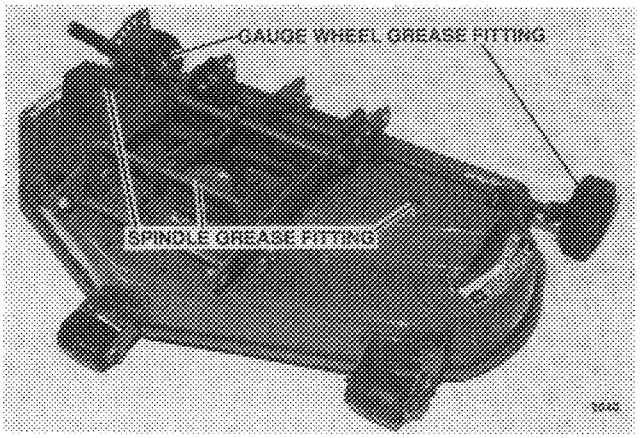


FIG. 16 Mower Lubrication Fittings

BLADE MAINTENANCE

Sharp edges of mower blades can cut you during blade maintenance or adjustment. Use suitable covering over cutting edges of blade to prevent bodily harm.

To obtain optimum mowing results, mower blades should be kept sharp and well balanced. To sharpen blades, remove mower from tractor and invert mower. Remove blades using optional Toro Wheel Horse spindle blade wrench.

Hold spindle hex with wrench while removing blade attaching nuts and washers from end of spindles. If Spindle blade wrench is not available when servicing, a short piece of 2" x 4" lumber may be placed between side of mower deck and blade to "lock" it in position while removing attaching hardware.

File or grind blades evenly. Take care to retain angle of original cutting edge. Blade balance can be checked on an inexpensive blade balancer, available at most hardware stores.

Reinstall blades with lift area (turned up section) facing mower deck. Tighten blade attaching nuts to a torque of 80-100 ft. lbs. (112-140 Nm).

UNDERSIDE CLEANING

It is of vital importance to clean underside of mower deck frequently. Accumulation of matted clippings seriously impairs mower's ability to "lift" grass blades into cutting position and discharge clippings evenly. Matted grass clogging underside of mower is often times a cause of uneven cutting.

REPLACEMENT BELTS

Be sure to purchase genuine Toro Wheel Horse belts for replacement purposes as these belts are designed specifically for each application.

MOWER DRIVE BELT REPLACEMENT (Refer to Figures 8 thru 11)

Turn belt adjustment knob all the way clockwise.

Remove belt cover retaining nut and remove cover being careful not to lose pulley cover spacer. Reinstall nut finger tight to avoid possibility of pulleys and spacers coming off.

Remove belt from PTO, mower and idler pulleys and examine condition of pulleys making sure pulley grooves and bearings are in good condition.

Install replacement belt and adjust tension as outlined under "Install Drive Belt and Cover" section in this manual.

SPINDLE BELT REPLACEMENT

Remove mower from tractor.
Remove two side belt covers and note routing of belt. Remove belt. Check to be sure all pulleys work freely. Install a new belt in accordance with belt diagram located on mower. Replace both belt covers.

GENERAL CARE AND STORAGE

Top of mower deck should be washed with a garden hose after each use. A mild automotive detergent may be used to remove stubborn dirt. After washing, allow mower to dry, Then start tractor and engage mower for approximately one minute to remove excess water from belts and pulleys.

Touch-up painted surfaces with a fresh coat of "Toro Wheel Horse Red", available from your authorized Toro Wheel Horse dealer in aerosol cans.

Store mower in a clean, dry place or protect it with a weatherproof cover when stored outdoors.

TORO Consumer Products

THE TORO TOTAL COVERAGE GUARANTEE

A Full Two–Year Warranty
(Limited Warranty for Commercial Use)

What Is Covered By This Express Warranty?

The Toro Company promises to repair any TORO Product used for residential purposes if defective in materials or workmanship for a period of two years from the date of purchase. The cost of parts and labor are included, but the customer pays the transportation costs.

Transportation within a 15 mile radius of the servicing dealer is covered under this warranty for two–stage snowthrowers, walk behind debris equipment and all TORO Wheel Horse riding products. Walk power mowers, single stage snowthrowers, and other products not specifically covered, are excluded from the transportation coverage provided by this warranty.

What Products Are Covered By This Warranty?

This warranty applies to all gasoline powered Consumer Products (including TORO Wheel Horse riding products). ProLine riding products, wide area walk behind mowers and 21" Commercial mowers without blade stop controls are covered by separate warranty statements.

How About Commercial Use?

TORO Consumer Products used for commercial, institutional or rental use are covered by a limited warranty for the following time periods from the date of purchase:

Products	Warranty Period
• Garden Tractors	
Chassis	1 year limited warranty
Engine	2 year limited warranty
• 21" Commercial Duty Walk Mower with blade stop controls	1 year limited warranty
• Lawn Tractors, Yard Tractors, Rear Engine Riders, 3.0 and 3.5 HP Edgers, Straight Shaft Trimmers, and Backpack Blowers	90 day limited warranty
• All Others	45 day limited warranty

How Do You Get Warranty Service?

Should you feel your TORO product contains a defect in material or workmanship, contact the dealer who sold you the product or any Authorized TORO Service Dealer or TORO Master Service Dealer. The Yellow Pages of your telephone directory is a good reference source. The 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 the Service Dealer's analysis of the defect in materials or workmanship or if you need a referral to a TORO 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 the TORO Starting Guarantee on GTS Engines. 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 an Authorized TORO Service Dealer (covered products only).

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

Repair by an Authorized 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.

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