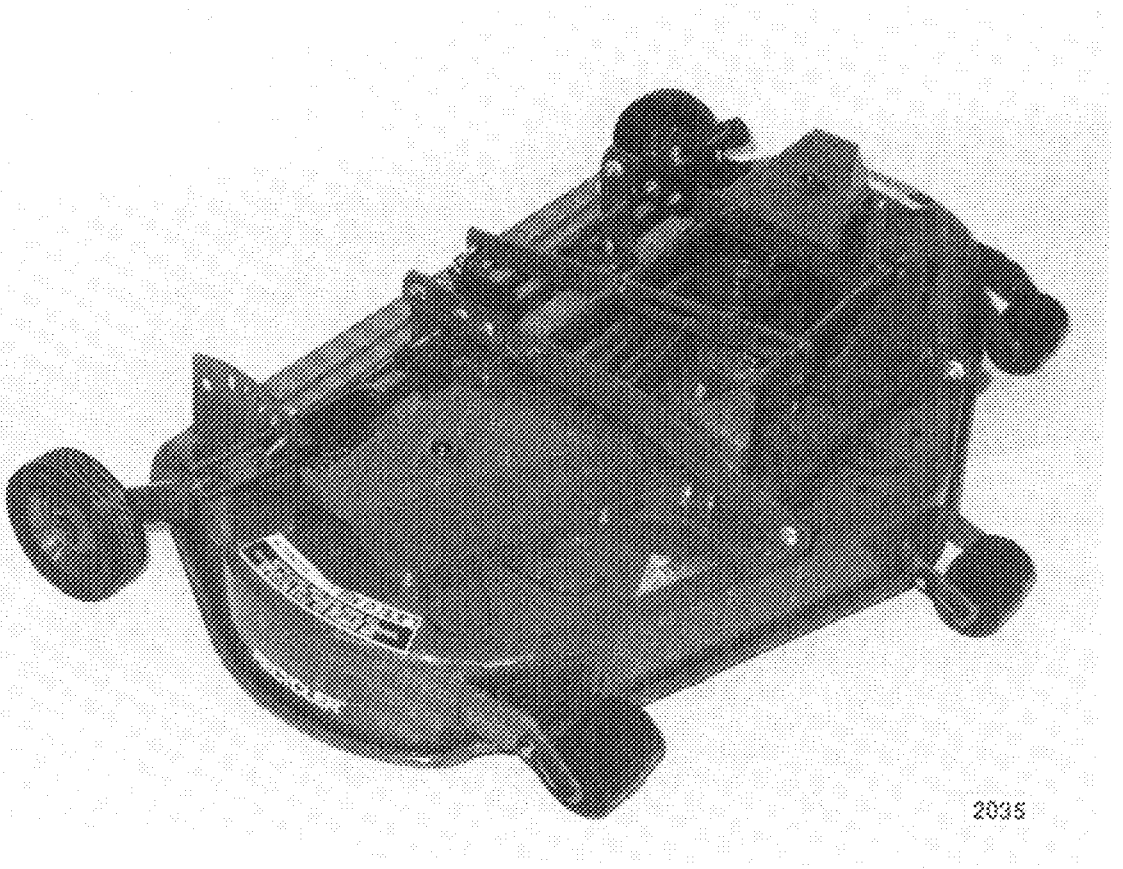
Operating & Maintenance Instructions



42 in. (107 cm) Recycler® Mower

300/400/500-Series
Garden Tractor
Recycler® Mower

TORO®

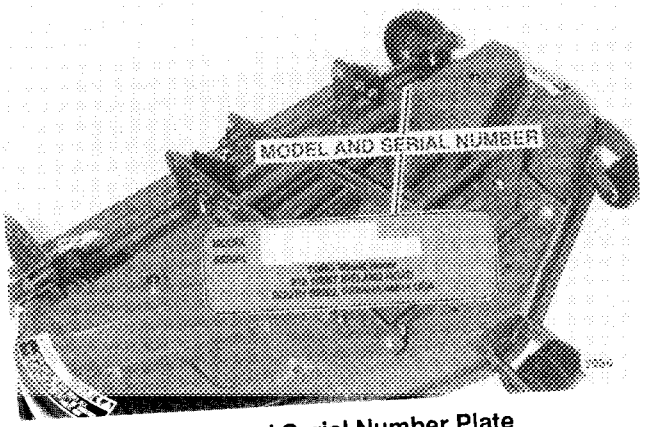
Wheel Horse
Tractors & Riding Mowers

PRINTED IN U.S.A. 0391

PART NUMBER 810819R1

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. If plate is removed during repair operations it should always be replaced. 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.

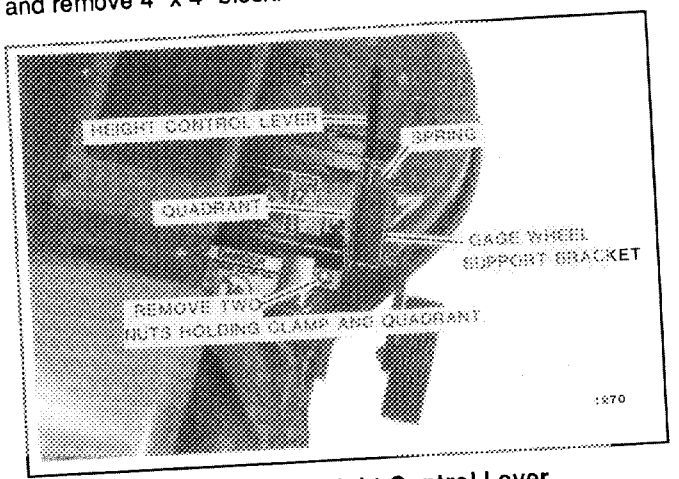


FIG. 1 Install Height Control Lever

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.

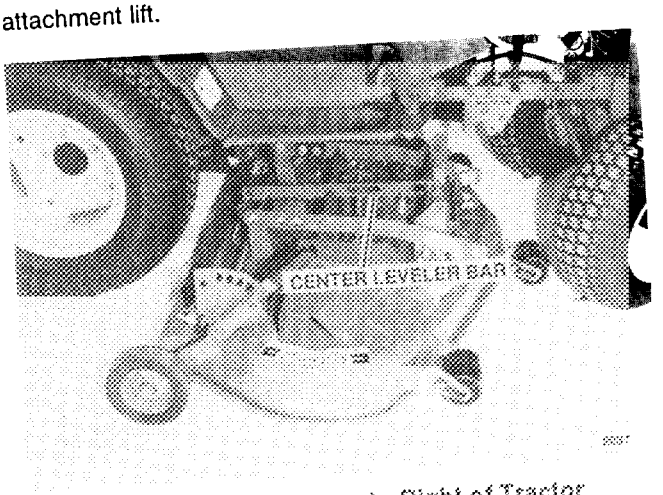


FIG. 2 Position Mower to Right of Tractor

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).

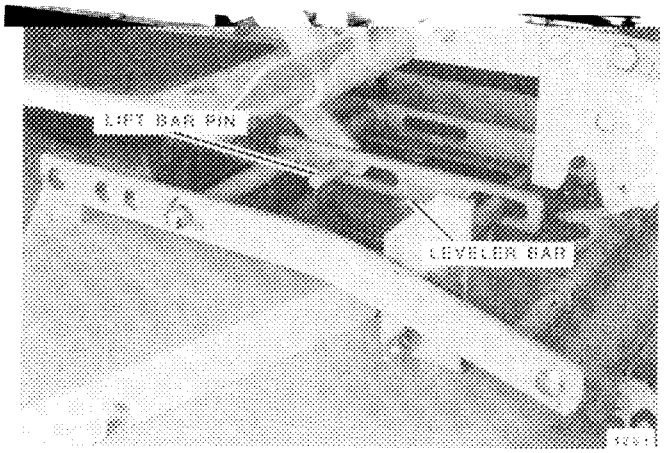


FIG. 3 Align Pin With Slot

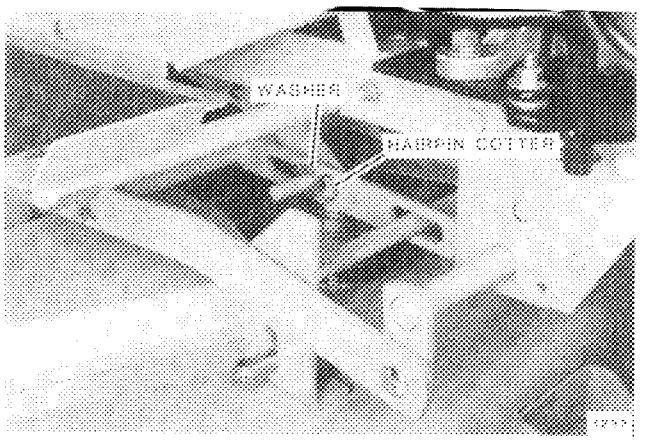


FIG. 6 Secure Mower to Tractor Lift Bar Pin

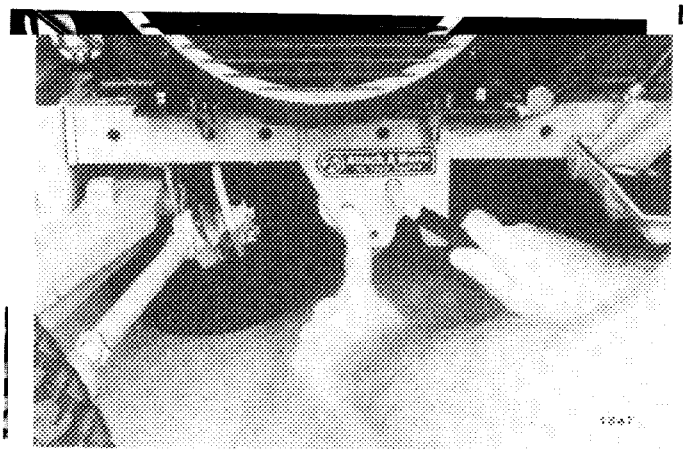


FIG. 4 Open Mid Attach-A-Matic Hitch

INSTALL FRONT PULLEY SUPPORT

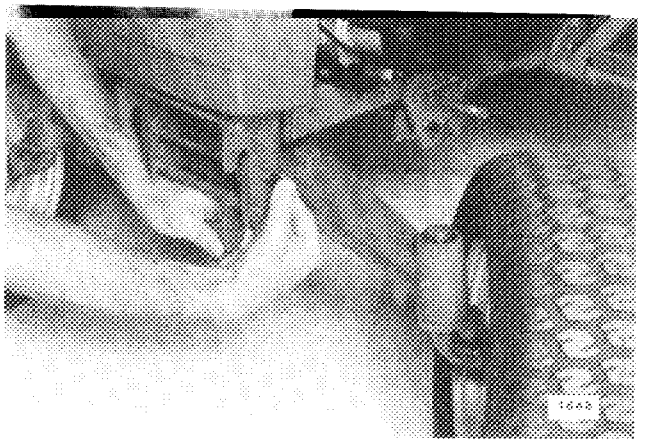


FIG. 7 Open Front Attach-A-Matic Hitch

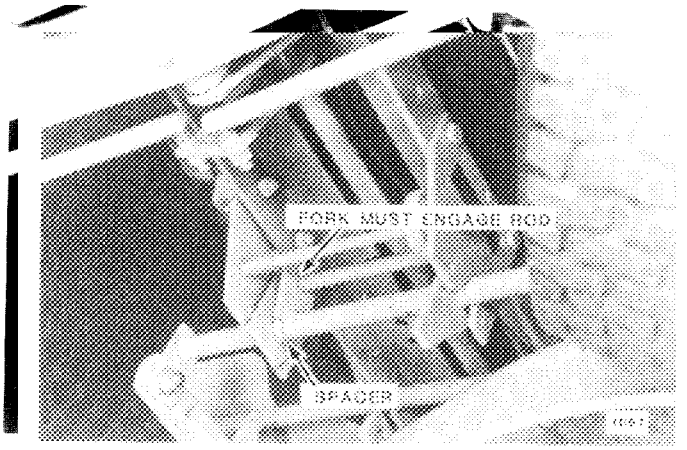


FIG. 5 Align Fork With Shaft

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.

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).

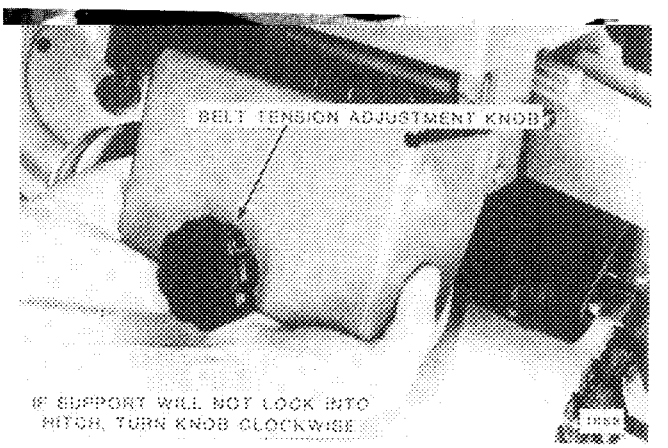


FIG. 8 Install Pulley Support

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).

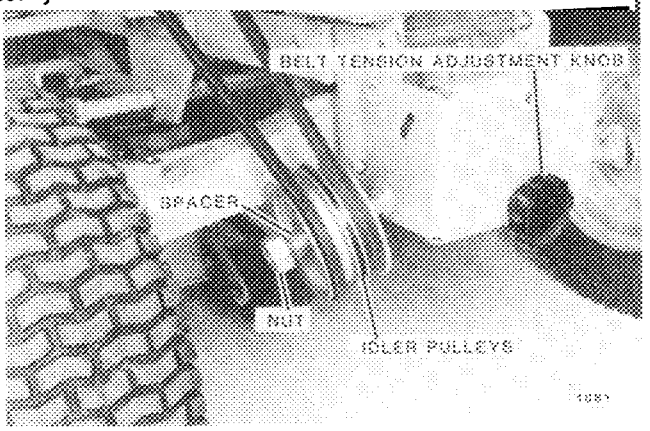


FIG. 9. Mower Front Idler Pulleys

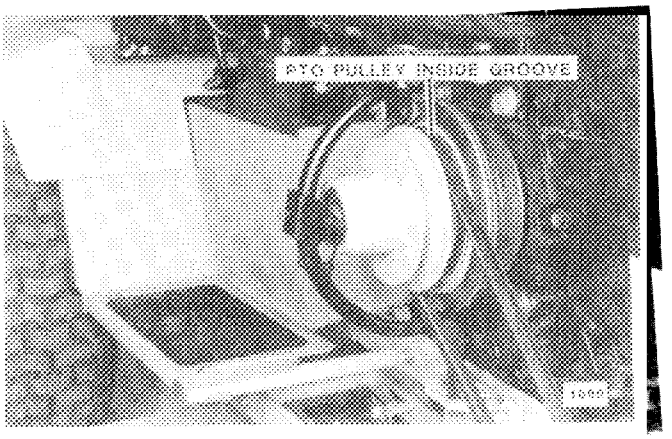


FIG. 10. Mower PTO Pulley

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 in (2.5 cm) under moderate finger pressure at mid-point between pulleys (Figs. 8, 9 & 10).

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

CHECKING MOWER LEVEL

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

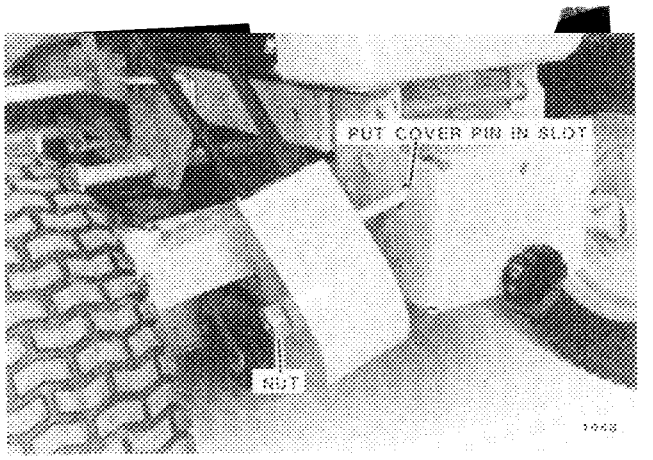


FIG. 11 Install Pulley Support Cover

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).

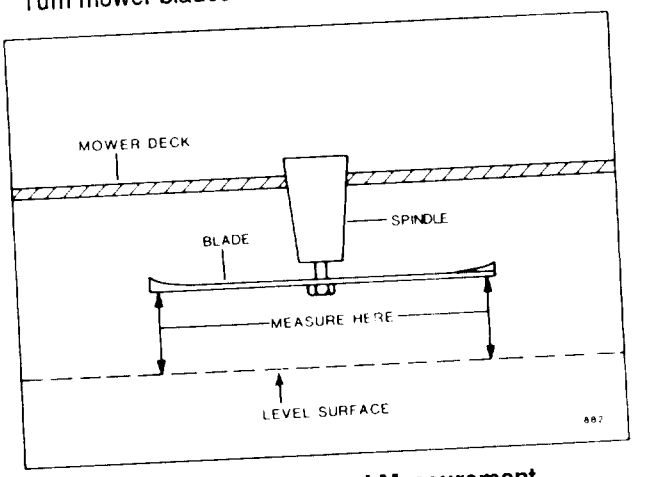


FIG. 12. Mower Level Measurement

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

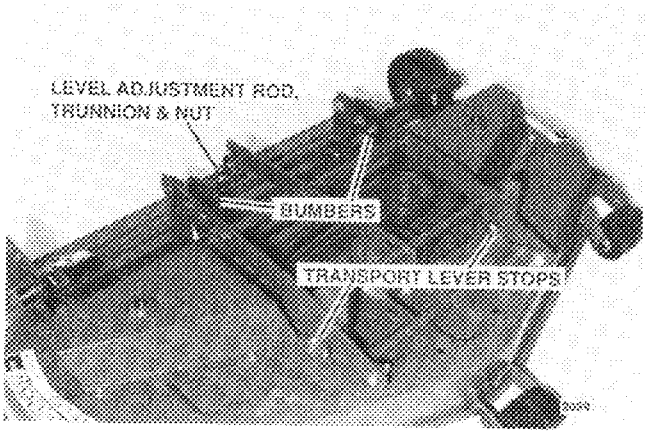


FIG. 14. 42 in. (107 cm) Rear Discharge Mower Adjustments

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).

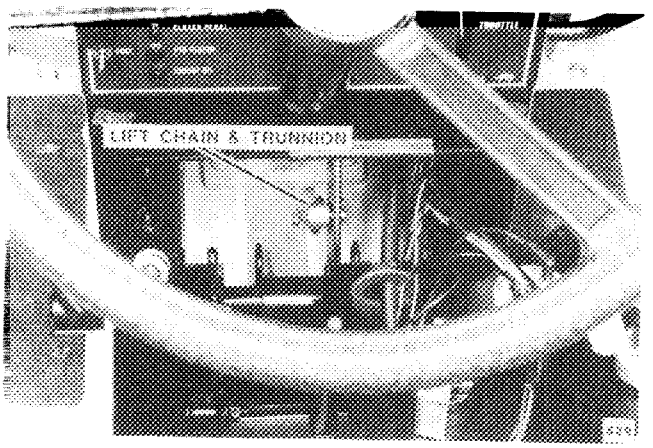


FIG. 15. Tractor Lift Bar Trunnion and Lift Rod Adjustment

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.

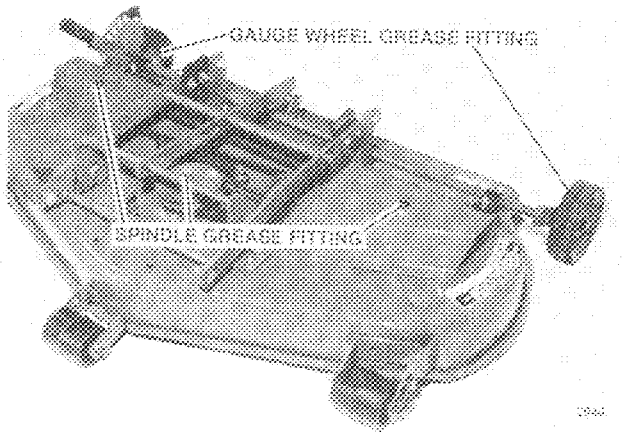


FIG. 16 Mower Lubrication Fittings

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 weather-proof cover when stored outdoors.

A separate parts manual for your Toro Wheel Horse product can be obtained by completing the attached form below. You will receive an invoice with manual.

PUBLICATIONS
TORO WHEEL HORSE
8111 Lyndale Ave. So.
Bloomington, Minnesota 55420

PARTS MANUAL ORDER FORM

Enter number shown on your attachment:

MODEL
SERIAL

TORO Wheel Horse
515 WEST IRELAND ROAD
SOUTH BEND, INDIANA 46614 USA

MAIL LABEL -- PLEASE PRINT CLEARLY

TO:

Name _____

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_____

City State Zip

Product information and specifications are shown herein as of the time of printing. Toro Wheel Horse reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligation.

Right at home.



Wheel Horse

Tractors & Riding Mowers