

*60" 4-Way
Quadcyler Deck
Owner's Manual*

HUSTLER®

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Hustler Turf Equipment

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P.O. Box 7000

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Hesston, Kansas

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67062-2097

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GENERAL INFORMATION

This manual applies to the following equipment:

- 60" 4-Way Quadcycler, 923144 (yellow deck)
(fits 275, 275LPG, 285, 295, 305D, and 4100 tractors)**
- 60" 4-Way Quadcycler, number 923268 (yellow deck)
(fits 320/340/400/440 and 4200/4300/4400/4420/4500/4600 tractors)**
- 60" 4-Way Quadcycler, 924605 (blue deck)
(fits 320/340/400/440 and 4200/4300/4400/4420/4500/4600 tractors)**
- 60" 4-Way Quadcycler, 924613 (blue deck)
(fits 275, 275LPG, 285, 295, 305D, and 4100 tractors)**
- 60" 4-Way Quadcycler, number 925115 (yellow deck)
(fits 320/340/400/440, 3000 series and 4200/4300/4400/4420/4500/4600 tractors)**

To the new owner

The purpose of this manual is to assist owners and operators in maintaining and operating the Hustler 60" 4-Way Quadcycler Deck. Please read it carefully; information and instructions furnished can help you achieve years of dependable performance.

This model meets ANSI B71.4 safety specifications for commercial turf care equipment.

The Quick Reference Decal supplied with this deck is designed to give the operator brief information needed in the daily operation of the machine. This decal is not intended to be used in place of this manual but instead is to be used as an extension of this manual. It is the owner's responsibility to make certain that the operator reads and understands this manual and the Quick Reference Decal before operating this machine.

Using this manual

General operation, adjustment and maintenance guidance is outlined for both the experienced and novice Hustler user. Operating conditions vary considerably and cannot all be addressed individually. Through experience, however, operators should find no difficulty in developing good operating skills suitable to most conditions.

Directions used in this manual, for example RIGHT or LEFT, refer to directions when seated on tractor facing forward, unless otherwise stated.

Photographs and illustrations used were current at the time of printing, but subsequent production changes may

cause your machine to vary slightly in detail. Hustler Turf Equipment reserves the right to redesign and change the machine as deemed necessary, without notification. If a change has been made to your machine which is not reflected in this owner's manual, or the parts manual, see your Hustler dealer for current information and parts.

Warranty registration

The delivery and warranty registration card must be completed and signed to validate your warranty protection. As the new equipment owner, you are expected to see that the card is completed and forwarded to Hustler Turf Equipment at time of delivery. Each tractor and attachment serial number must be registered with Hustler Turf Equipment.

IMPORTANT: Any unauthorized modification, alteration, or use of non-approved attachments void the warranty and releases Hustler Turf Equipment from and liability arising from subsequent use of this equipment.

Model and serial number

Model and serial numbers are found on the serial identification plate, located on the rear belt and pulley housing on the left side.

These numbers are required on the Warranty Registration card. They will also assure you of the correct service parts when replacement becomes necessary.

Parts and service

Use original Hustler equipment replacement parts only. These parts are available through your local Hustler equipment dealer. To obtain prompt, efficient service, always provide the following information when ordering parts:

1. Correct part description and number, as given in the parts manual supplied with your owner's packet.
2. Correct model number.
3. Correct serial number.

All warranty repair and service must be handled through an authorized Hustler dealer. Arrangements should be made through your local service center.

For location of nearest dealer, or should you need further assistance, contact:

Customer Service Department
Hustler Turf Equipment
P.O. Box 7000
Hesston, KS 67062
Telephone (316) 327-4911
FAX (316) 327-2117

**HUSTLER TURF EQUIPMENT ONE YEAR LIMITED WARRANTY
FOR DECK, ATTACHMENTS, AND ACCESSORIES
(THREE YEAR (1200 HOURS OF USE) LIMITED WARRANTY ON DECK
SPINDLE & DECK GAUGE FORK BEARING, PART NUMBER 077123)**

- (1) **WHAT IS COVERED BY THIS WARRANTY:** Hustler Turf Equipment, makes the following warranty to the original purchaser only:
- a. **FIRST YEAR.** Within one year of date of delivery or 1200 hours of use, whichever comes first, Hustler Turf Equipment., provides a limited warranty on all materials and workmanship. If the Purchaser discovers within this warranty period a defect in materials or workmanship, he must promptly notify Hustler Turf Equipment., or an authorized dealer, in writing of the defect. In no event shall such notification be received by Hustler Turf Equipment, or an authorized dealer later than thirteen (13) months from date of delivery. Within a reasonable time after such notification, Hustler Turf Equipment, will correct any defect in material or workmanship on the Hustler Turf Equipment, with either new or used replacement parts. Such repair, including parts and labor shall be at the expense of Hustler Turf Equipment, and,
 - b. **SECOND & THIRD YEAR.** At the conclusion of the one year limited warranty, if the 1200 hour of use limit has not been reached, described in paragraph (a) above, there shall be an additional two year limited warranty on deck gauge fork bearing and deck spindle bearing (part number 077123) only, **no labor.** The second and third year of the warranty will be in effect until the 1200 hour of use limit is attained or the third year from the date of delivery is reached, whichever comes first. If the Purchaser discovers within this warranty period a defect in bearing (part number 077123), he must promptly notify Hustler Turf Equipment, or an authorized dealer, in writing of the defect. In no event shall such notification be received by Hustler Turf Equipment, or an authorized dealer later than thirty-seven (37) months from date of delivery. Within a reasonable time after such notification, Hustler Turf Equipment, will provide new replacement bearing, part number 077123, to install on the Hustler Turf Equipment. The installation of the deck gauge fork bearing and deck spindle bearing (part number 077123) shall be at the expense of the owner, and,
 - c. **RENTAL UNITS (90 days)** Within 90 days of date of delivery Hustler Turf Equipment, provides a limited warranty on all materials and workmanship for units used for rental purposes. If the Purchaser discovers within this warranty period a defect in materials or workmanship, he must promptly notify Hustler Turf Equipment, or an authorized dealer, in writing of the defect. In no event shall such notification be received by Hustler Turf Equipment, or an authorized dealer later than 120 days from date of delivery. Within a reasonable time after such notification, Hustler Turf Equipment, will correct any defect in material or workmanship on the Hustler Turf Equipment, with either new or used replacement parts. Such repair, including parts and labor shall be at the expense of Hustler Turf Equipment, and,

All warranty service will be performed at dealers authorized by Hustler Turf Equipment, and purchaser must deliver, at his own expense, the Hustler Turf Equipment to the authorized dealer. For warranty service you can contact an authorized dealer or write Hustler Turf Equipment, 200 Ridge Road, Hesston, Kansas 67062, or call 1-316-327-4911.

- (2) **WHAT IS NOT COVERED BY THIS WARRANTY:** Hustler Turf Equipment, does not warranty: (a) some product, components or parts not manufactured by Hustler Turf Equipment; (b) repairs made by unauthorized persons; (c) damage caused by use of the Hustler Turf Equipment for purposes other than those for which it was designed; (d) damages caused by disasters such as fire, flood, wind, and lightning; (e) damages caused by neglect, abuse, abnormal use, improper or unreasonable use, accident, or misuse; (f) damages caused by unauthorized attachments, alterations or modifications; (g) Hustler Turf Equipment which has the serial number removed or made illegible; or (h) normal wear of the Hustler Turf Equipment.
- (3) **DISCLAIMER OF WARRANTY:** THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. HOWEVER, IF THE HUSTLER TURF EQUIPMENT IS PURCHASED AS A CONSUMER PRODUCT, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS LIMITED TO THE DURATION OF THIS LIMITED WARRANTY. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.
- (4) **LIMITATION OF REMEDIES:** In no case shall Hustler Turf Equipment., be liable for any special, incidental, or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability in tort, or any other legal theory. Such damages include, but are not limited to, loss of profits, loss of savings or revenue, loss of use of Hustler Turf Equipment or any associated equipment, cost of capital, cost of any substitute equipment, facilities, or services, downtime, the claims of third parties including customers, and injury to property. 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.
- (5) **TIME LIMIT:** Any action for breach of warranty must be commenced within thirty six (36) months following delivery of the goods.
- (6) **NO OTHER WARRANTIES:** Unless modified in writing, signed by both parties, and approved by the President of Hustler Turf Equipment, this agreement is understood to be the complete and exclusive agreement between the parties, superseding all prior agreements, oral or written, and all other communications between the parties relating to the subject matter of this agreement. No employee of Hustler Turf Equipment, or any other party is authorized to make any warranty in addition to those made in this agreement.
- (7) **ALLOCATION OF RISKS:** This agreement allocates the risks of product failure between Hustler Turf Equipment, and the purchaser. This allocation is recognized by both parties and is reflected in the price of the goods.

THIS MACHINE LIKE ANY OTHER POWERED EQUIPMENT IS POTENTIALLY DANGEROUS UNLESS PROPERLY OPERATED. Any operator MUST be cautious and keep safety in mind at all times. Any operator, prior to using the Hustler Turf Equipment, should thoroughly familiarize himself with the owner's manual regarding operation and safety of the machine, as well as all safety warnings on the machine itself.

WARRANTY REGISTRATION

1. The Warranty registration card MUST be completed and signed by the authorized dealer and original purchaser.
2. For validation, the completed Warranty registration card MUST be forwarded to Hustler Turf Equipment, within ten (10) days following date of purchase.
3. The date of purchase constitutes delivery.

SAFETY PRECAUTIONS



This safety alert symbol is used to call attention to a message intended to provide a reasonable degree of **PERSONAL SAFETY** for operators and other persons during the normal operation and servicing of this equipment.

DANGER – Denotes immediate hazards which **WILL** result in severe personal injury or death.

WARNING – denotes a potential hazard or unsafe practice which **COULD** result in severe personal injury or death.

All operators should read this manual, or be instructed about safe operating and maintenance procedures. This is the owner's responsibility.

Incorrect usage of this machine may result in severe injury. It is the owner's responsibility that all operators read this manual thoroughly and be properly trained in operation and maintenance before attempting to set-up, adjust, or service this machine. This owner's manual contains safety precautions that must be followed to avoid injury.

- ▲ Always keep safety shields and covers in place, except for servicing.
- ▲ Always maintain a safe distance from people and pets when mowing.

- ▲ Always operate machine in daylight or with adequate working lights.
- ▲ Always be alert for hazards such as rocks, metal objects and other debris which may be thrown or entangled by mower blades. Watch out for holes or deep depressions.
- ▲ Always wear adequate eye protection when grinding mower blades and removing accumulated debris.
- ▲ Never operate a poorly maintained machine.
- ▲ Never attempt high speed maneuvering in crowded or congested areas.
- ▲ Never attempt to make any adjustments or repairs to the mower deck while the tractor engine is running or the PTO clutch engaged. Mower blades cannot be seen and are located very close to deck housing. Fingers and toes can be cut off instantly.
- ▲ Never work under the mower deck unless it is safely supported with stands, blocks or hoist.
- ▲ Never attempt to back machine onto transport trailer with attachment in raised position.
- ▲ Never direct discharge of material from mower deck toward bystanders.
- ▲ Always inspect machine for damage after striking a foreign object. If damage is found, repair machine immediately. Be sure to stop engine before inspecting for damage.

Specific safety warning decals are located on the equipment near the immediate areas of potential hazards. These decals should not be removed or obliterated. Replace them before they become non-readable.

The following illustrations show the various **safety decals** that are located on the deck. A brief explanation is shown to help the operator understand the meanings of these decals.



Read Owner's Manual and Quick Reference Card before attempting to operate this machine.



Never operate the mower deck with the deflector removed or in a raised position, except when the grass catching attachment is being used.



Keep covers in place while machine is in operation.



Whirling blades! Keep hands and feet away. Beware of thrown objects.



Rotating driveshaft! Keep hands, feet and clothing clear of this area.

OPERATION

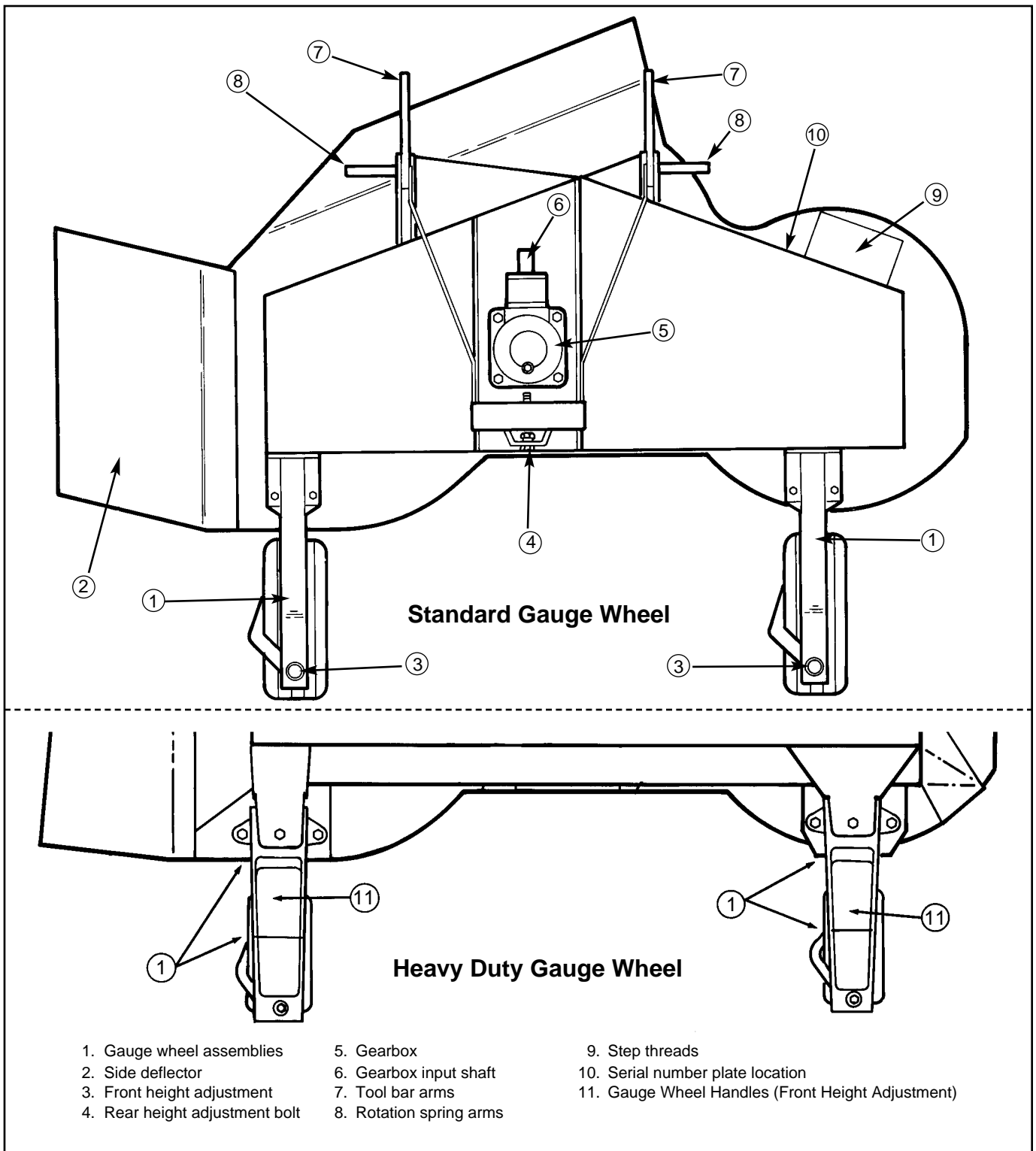


Figure 3-1

Attaching deck to tractor

To attach the 60" 4-Way Quadcycler mower to a tractor, follow these recommended steps (see tractor owner's manual for additional information).

1. Lower tractor tool bar. Hang tractor PTO shaft on PTO shaft hanger until after mower is attached to tractor.
2. Block rear of mower up so that the two tool bar arms are same height as openings in tractor tool bar (see Fig.

3-2).

3. Get onto tractor and drive it slowly toward mower tool bar arms. Insert tool bar arms into tractor tool bars. Align clevis pin holes in tool bar and mower tool bar arms so that the tractor's clevis pins can be placed in them. Stop tractor engine.

NOTE: Each mower deck tool bar arm has two clevis pin holes. The forward hole (B) is used when the

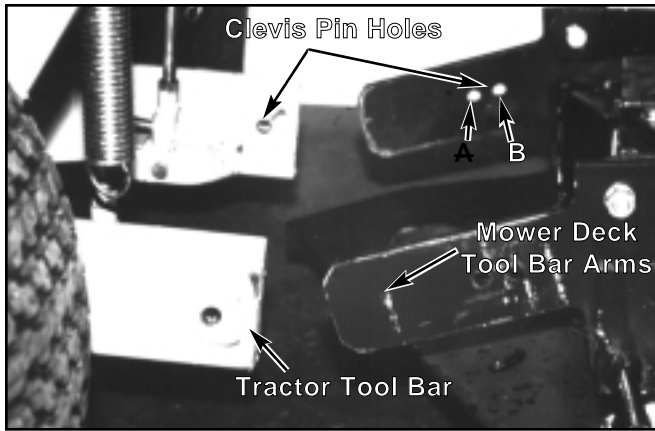


Figure 3-2

model 923144 or 924613 deck is mounted on a Hustler 275, 285, 295, 305D or 4100. The rear hole (A) is used when the model 923268, 924605, or 325115 deck is mounted on a Hustler 320/340/400/440, 3000 series or 4200/4300/4400/4420/4500/4600.



WARNING: Stop engine. Make sure PTO switch is **off**. Engage neutral lock lever and parking brake before getting off machine.

4. Align the woodruff key on gearbox input shaft with keyway on universal joint of PTO shaft. Slide universal joint onto gearbox input shaft. Secure universal joint to input shaft with 5/16" cap screw, lock washer and 5/16" nut provided with tractor (see Fig. 3-4)
5. Start engine and lift mower to its highest position using tractor attachment lift lever. Stop engine.



WARNING: Stop engine. Make sure PTO switch is **off**. Engage neutral lock lever and parking brake before getting off machine.

6. Attach the leveling (flotation) springs (two on each side) to flotation spring mounting pins located on outboard side of mower's tool bar arms (see Fig. 3-5). After adjusting height (next section) spring tension may need adjustment.

NOTE: Bevel one end of an 18" long piece of 1/2" conduit to form a tool useful for sliding tractor springs

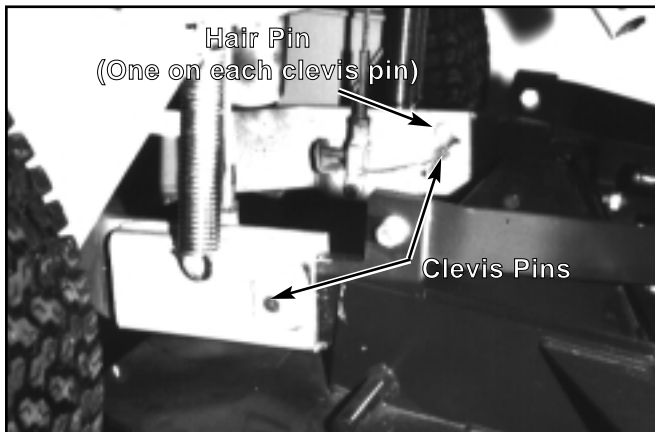


Figure 3-3



Figure 3-4

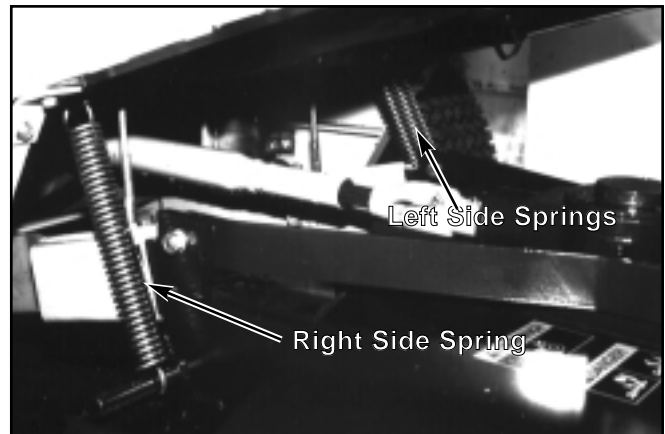


Figure 3-5

onto mower spring pins. Simply insert beveled end of conduit through spring, then place end of conduit on spring pin. Exerting downward pressure on conduit forces tractor spring onto spring pin.

The 60" 4-Way Quadcyclor mower is now ready for operation. To remove mower from tractor, reverse above procedure.

Cutting height adjustment



WARNING: Make sure PTO clutch switch is **off**, engage tractor parking brake and neutral lock levers, and stop engine before making any adjustments to mower.

There are two available options for the front caster wheels and forks: The first option is the heavy duty gauge wheel kit, p/n 315606K. The second option is the standard gauge wheel kit, p/n 320523. The height adjustment is different between the two kits. The height adjustment for both is outlined below. Use the procedure that corresponds to the kit mounted on your deck.

For best results, make cutting height adjustments on a hard flat surface. The 4-Way Quadcyclor mower can be height adjusted in back as well as in front. For normal cutting, mower should be level to slightly higher in back.

For a quick check of height adjustments: Measure from level surface to top of mower (as indicated in Fig. 3-6) and subtract 5-1/8 inches (130 mm). The balance will be blade

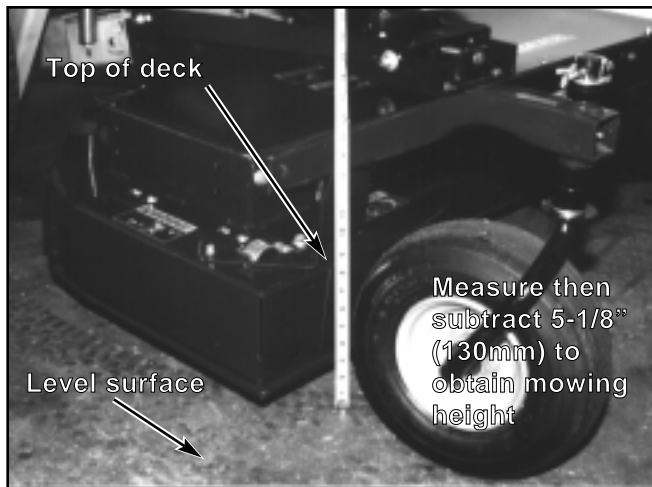


Figure 3-6

height. To be sure deck is level, measure at front and back on both left and right side of mower.

To adjust front cutting height (Heavy duty gauge wheel)

Front height adjustment is from 1" to 5" in 1/4" increments. Rear height adjustment is from 1 to 5" in infinitely variable increments (1/2" increments for models with shims only).

1. Use tractor hydraulic system to lift mower off the ground.
2. Turn engine **off**, following normal safety procedures, and block mower unit up for safety.
3. Pull up and forward on gauge wheel handle and lift or lower wheel to desired height (Fig. 3-7). Both gauge wheels should be adjusted to same height for uniform cutting.

NOTE: Recesses on side of gauge arm mounts visually indicate cutting height in 1/2" increments. Each notch between recesses represents a 1/4" adjustment. **When bottom (lowest) recess is just visible over top of gauge wheel assembly**, cutting height is set at 5" (Fig. 3-8). Next mark up indicated 4-1/2", then 4" and so forth. Top mark indicated 1-1/2". Move gauge wheel assemblies all the way to top of arms for 1" cutting height.

If gauge wheels do not remain securely in place when handles are in closed (down) position, follow procedure outlined in maintenance section of this manual.

To adjust front cutting height (Standard gauge wheel)

Front height adjustment is from 1" to 4" in 1/8" increments. Rear height adjustment is from 1" to 4" in infinitely variable increments.

1. Use tractor hydraulic system to lift mower off the ground.
2. Turn engine **off**, following normal safety procedures, and block mower unit up for safety.
3. Remove hairpin (Fig. 3-9), then remove gauge wheel assembly from gauge wheel arm.
4. Remove gauge wheel assembly from gauge wheel arm

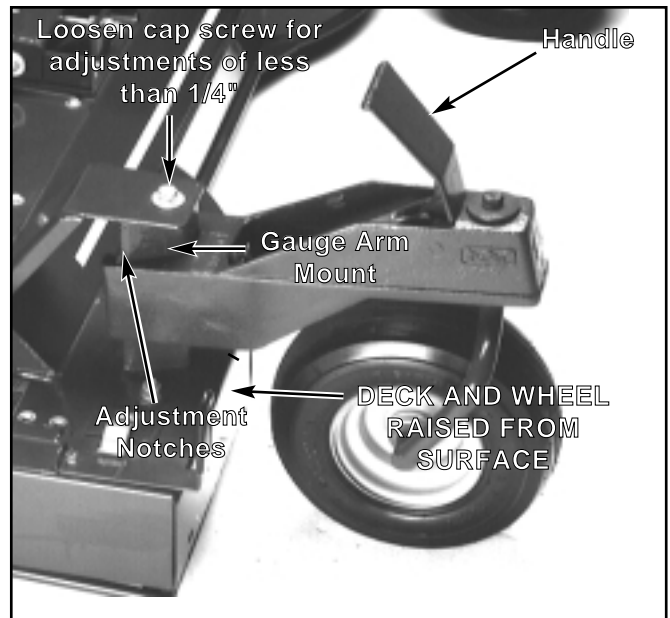


Figure 3-7

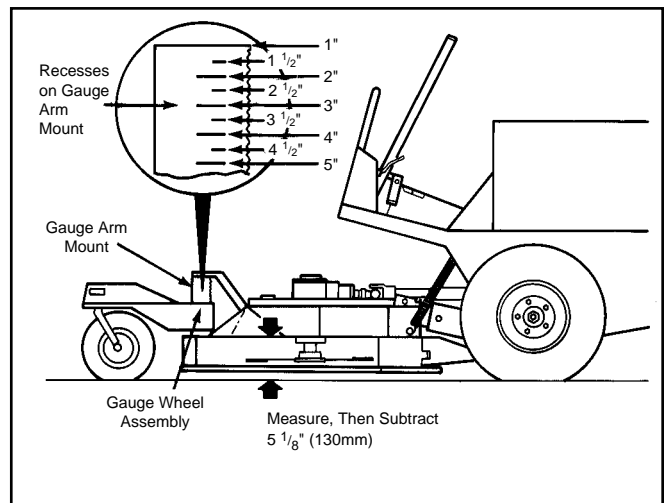


Figure 3-8

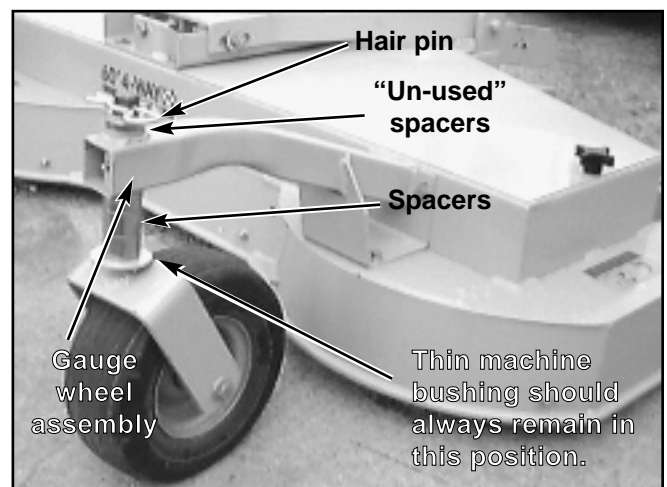


Figure 3-9

and adjust spacers to obtain desired mowing height. If no spacers, other than the thin machine bushings, are placed between lower part of arm and the gauge, wheel assembly height is set at 1". Placing a 1/2" spacer in between arm and wheel increases mowing height to 1-

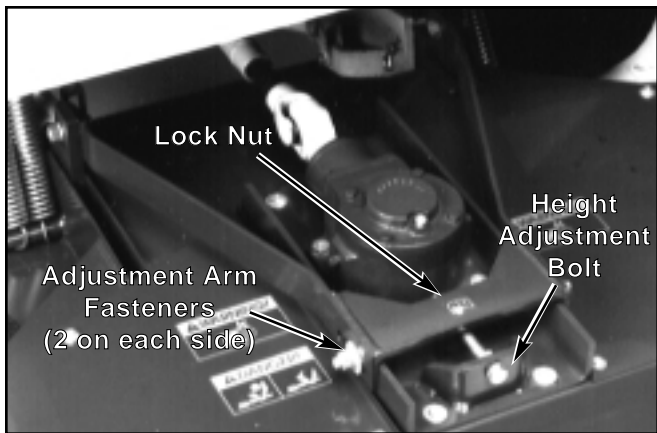


Figure 3-10

1/2", and so forth.

NOTE: Make certain the thin machine bushing always remains next to the gauge wheel fork.

NOTE: Mowing height can be adjusted from 1" to 4" in 1/8" increments.

5. Replace gauge wheel, placing "unused" spacers on **top** of gauge wheel arm (see Fig. 3-9).
6. Replace hair pin.
7. Set opposite gauge wheel height, using procedures in preceding steps.
8. Remove blocks and lower deck.

To adjust rear cutting height

1. Loosen and back-off lock nut on height adjustment bolt (Fig. 3-10), then loosen the nuts on the bolts at front and rear of adjustment arms.
2. Turn the height adjustment bolt **clockwise** to **lower** mower height or **counterclockwise** to **raise** mower height. Each complete revolution to the adjustment bolt changes mower height approximately 1/8".
3. After adjustment, check height as previously described, then tighten lock nut on adjustment bolt and on bolts at front and rear of adjustment arms.



WARNING: Do not have nut on adjustment bolt bearing weight. Always tighten nuts on bolts on adjustment arms.

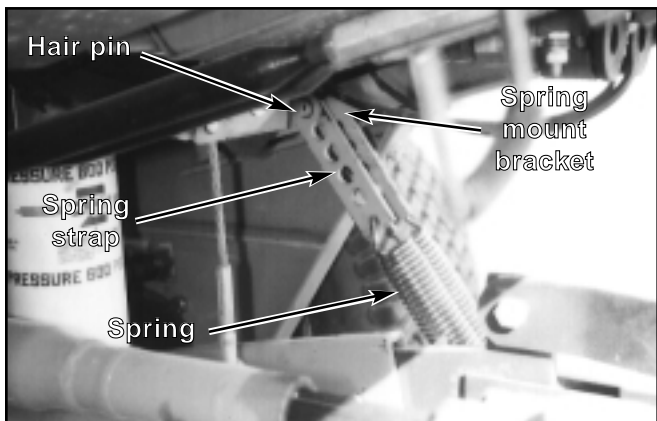


Figure 3-11

Spring tension adjustment

After adjusting front and rear height, adjust tension on the leveling springs. Tension is correct when deck will float freely over terrain but is not so light that it bounces excessively. The amount of tension is controlled by the position of the spring straps (see Fig. 3-11) on the tractor's spring mount brackets.

At lower cutting heights, the pins on the spring mount brackets should be placed in the upper holes on the spring mount straps. Use the center holes at medium cutting heights and the lower holes at higher cutting heights.

When deck is installed on a model 295 tractor, note that the lower linkage of the tractor's throttle is connected to the right side spring holder bracket pin and must be removed when adjusting the deck spring strap. Replace the throttle linkage after adjustment is complete.

To adjust tension:

1. Raise deck to highest position. Block deck up for safety.
2. Remove the hair pins which connect the deck spring strap to the spring holder pins.
3. Reposition the deck spring straps on the spring holder pins.
4. Replace hair pins.
5. Remove blocks and lower deck.

Selecting cutting mode

The 60" 4-Way Quadcycler is a specially designed, multi-purpose mower. Depending on how the mower is set up, it is capable of mulching, discharging cut grass to the side, discharging cut grass to rear, or discharging cut grass to side and rear.

NOTE: Installation and removal of doors and dividers can be made without getting under mower in most cases. If, however, there is a need to get under mower, it must be blocked for safety.



WARNING: After lifting mower, stop engine, lock steering control lever in neutral, engage park brake, remove ignition key and block mower securely. Never work under mower with engine running.

- **Mulching:** Install both dividers and rear doors. Remove side discharge chute. Lock down side door (Figs. 3-12, 3-13 and 3-14).
- **Side discharge:** Install rear doors and discharge chute. Remove dividers (Figs. 3-12, 3-15 and 3-16).

NOTES:

1. Discharge chute, when hit by an obstruction, will break away preventing permanent damage to chute. When break away occurs chute may drop into path of tractor wheels.
 2. Discharge chute has an extra hole for bolting it solidly to mower if so desired.
- **Rear discharge:** Install right hand mower divider and lock down side door. Remove both rear doors.
 - **Side and rear discharge:** Remove both rear doors and mower dividers. Install discharge chutes.

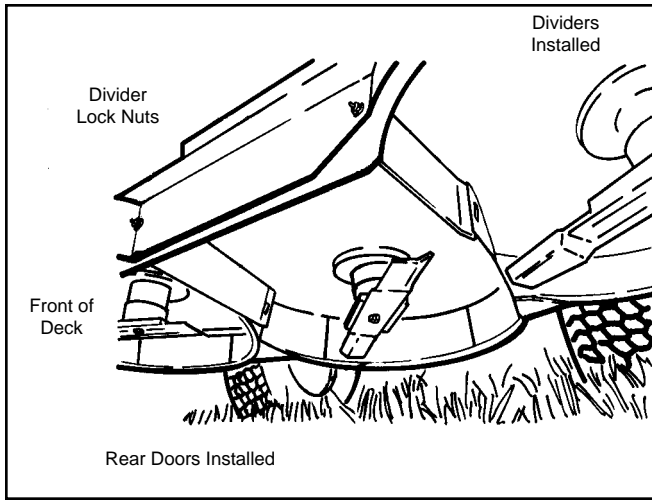


Figure 3-12

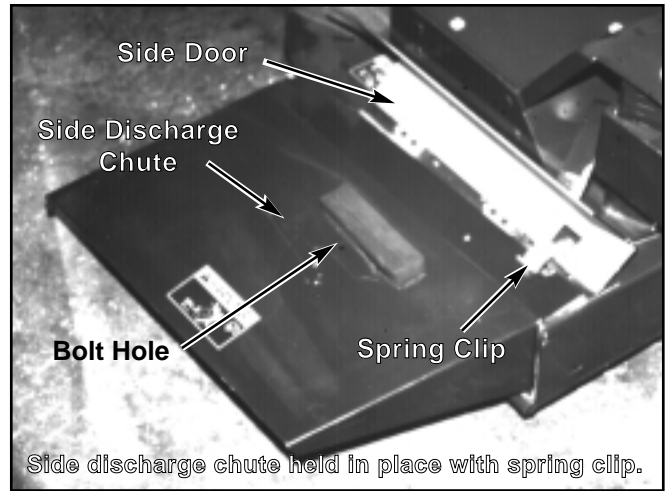


Figure 3-15

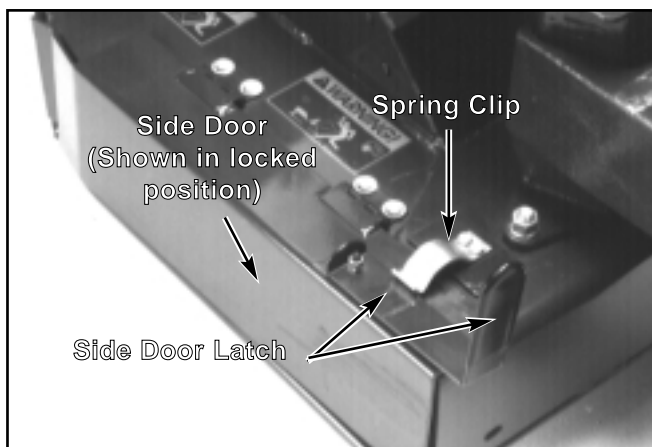


Figure 3-13

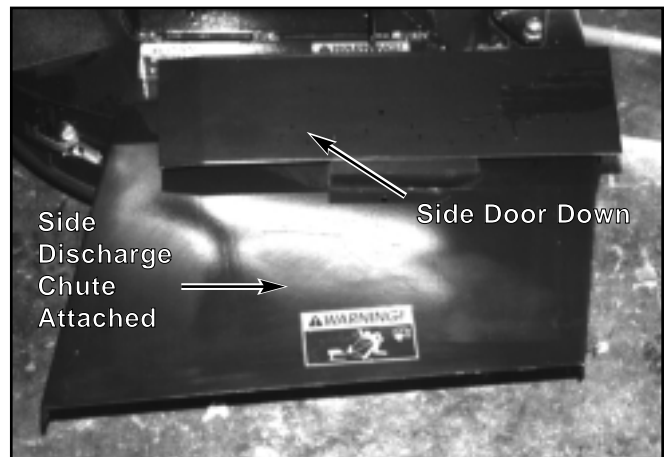


Figure 3-16

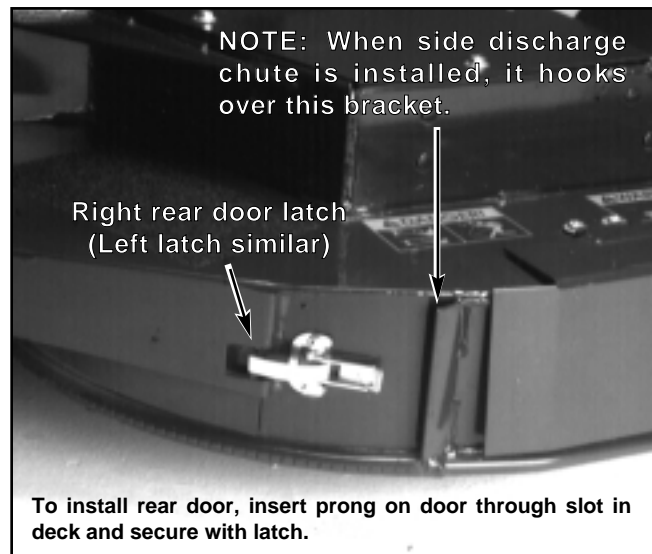


Figure 3-14

Leveling deck

If mower is not level when lifted, it can be leveled as explained in tractor owner's manual.

NOTE: Levelness of mower when lifted from surface does not affect levelness of cut in mowing position. Mower

will mow (cut) level if it is level when set on level surface.

NOTE: Tire pressure plays an important role in level mowing. The deck tire pressure should be 12-14 psi.

Refer to tractor owner's manual for correct tire pressure.

Mowing suggestions

The following list is not all inclusive. Additional suggestions can be found in operation section of tractor manual.

1. **Keep blades sharp.** Many professional mowing companies have additional sets of blades and change blades twice a day: once in the morning and again at noon. Many problems with incorrect cutting patterns are due to dull blades or blades which have been sharpened incorrectly. Information on sharpening blades is listed in this manual's maintenance section. In addition, most communities have individuals or companies which specialize in sharpening mower blades. Blade sharpness should be checked daily.
2. **Use high blade speed.** Your Hustler tractor and mower are designed to operate at full throttle. As explained in tractor manual, throttle setting directly controls blade speed. The highest blade speed generally gives best cut.
3. **Direct grass discharge to right, away from unmown area.** If using side discharge mode, select a mowing pattern that directs grass discharge toward the outside,

not toward center, of mowing area. Generally, this means using a pattern utilizing left turns because side discharge is to right. In any case, avoid throwing grass discharge onto unmowed area because grass is then mowed "twice". Mowing twice puts an unnecessary load on tractor and reduces mowing efficiency.

4. **When mulching leaves**, if possible mulch while leaves are damp, as from a rain or morning dew. It sometimes helps to mow over leaves once in a side or rear discharge mode then to mow a second time in mulching mode. (Because of their light weight, leaves are somewhat difficult to mulch with mowers that meet current government safety standards. The above suggestions can increase leaf mulching efficiency.)
5. **Avoid sudden turns on wet turf.** These can damage turf unnecessarily.
6. **The deck can be lifted** during mowing to avoid small obstacles, drive over curbs and so forth by manipulating the tractor's attachment lift lever. See tractor owner's manual for additional information.
7. **Always check area** to be mown for rocks and other debris before mowing

Tie-down brackets

When transporting unit, secure to tractor or trailer using tie-down brackets (Fig. 3-17). Fastening to any other parts of the mower deck when transporting may cause damage.

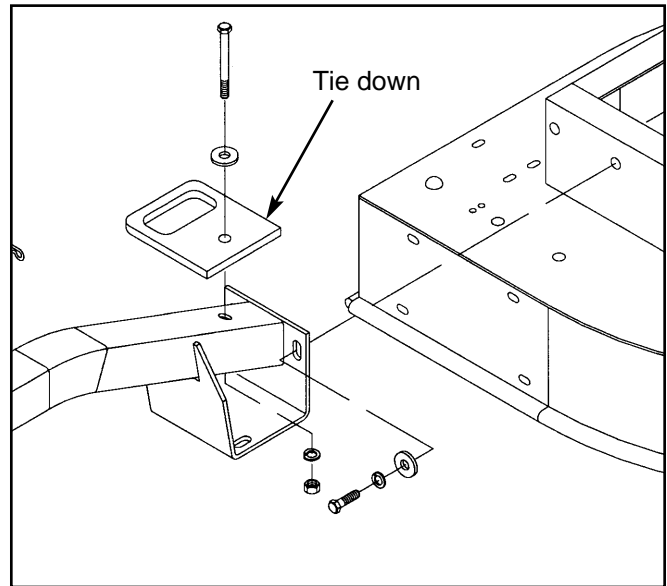


Figure 3-17

MAINTENANCE

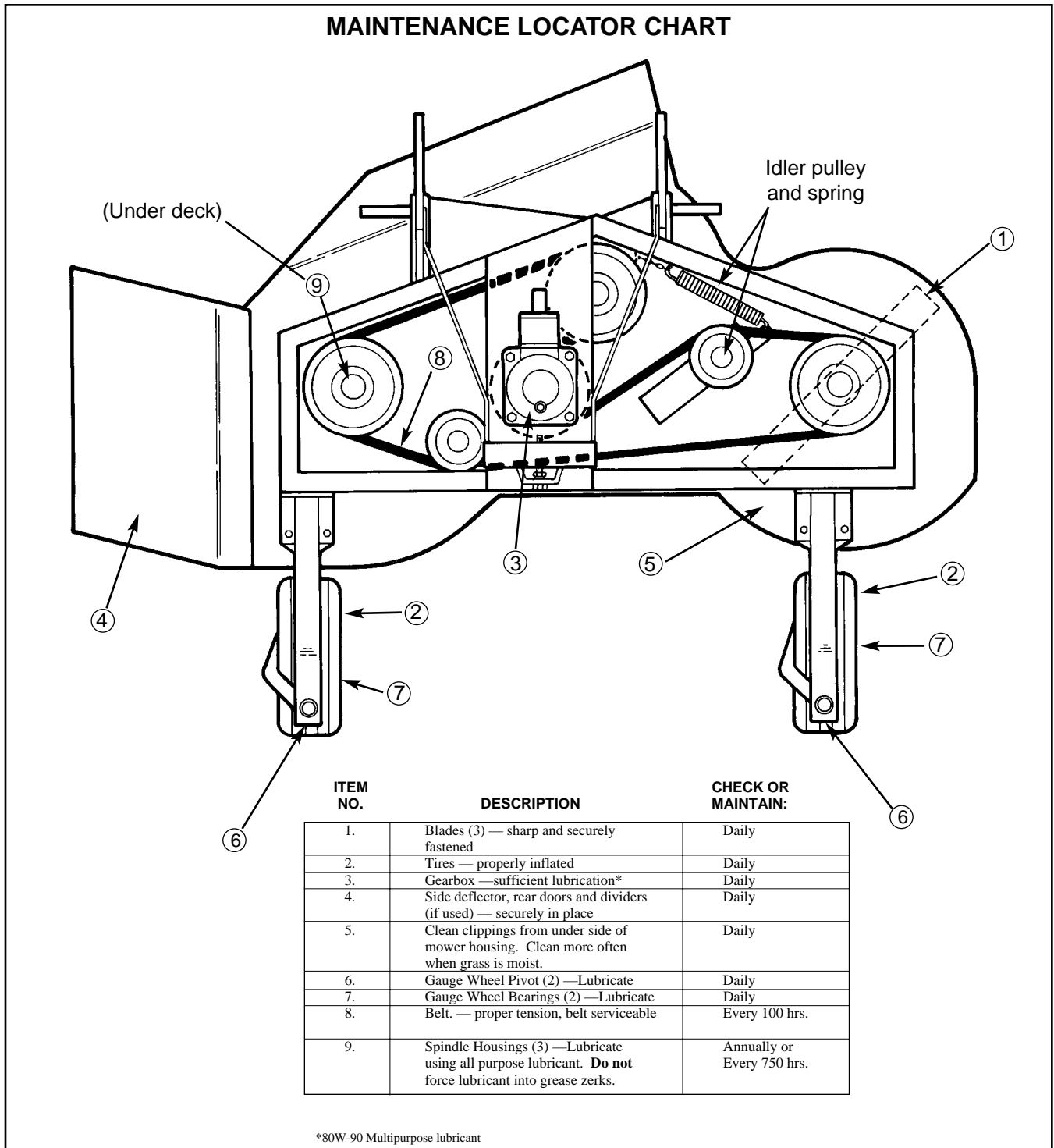


Figure 4-1

Introduction

This section gives information needed to adjust and service various components on your 60" 4-Way Quadcycler rotary mower. The key to long machine life and safe operation is a planned, consistently applied maintenance program. The following suggestions in this section will save many dollars in repair costs.



WARNING: DO NOT have tractor engine running when servicing or making adjustments to mower. If PTO clutch switch is inadvertently engaged with engine running, severe injury could result.



WARNING: Except when changing or checking belt, **always** keep belt covers on mower for safety as well as cleanliness.

Description of operation

The three 21" mower blades are indirectly driven by the tractor engine: Power flows through the electric clutch, PTO drive shaft, right angle gearbox, and finally through a V-belt drive system. The V-belt drives three pulleys; each pulley is on top of a spindle housing assembly. The pulleys drive 1" spindle shafts which in turn drive blade saddles. A 21" blade is affixed to each blade saddle by a 1/2" bolt.

Mower is connected to tractor by attaching mower tool bar arms to tractor tool bar with clevis pins and hairpins.

Torque values

Particular attention must be given to tightening the upper spindle bolts and the blade bolts.

Upper spindle bolt 55-60 ft.-lbs.

Blade spindle bolt 65-75 ft.-lbs.

Make certain all fasteners are tight and torqued properly.

Lubrication

Check gearbox lubricant daily by looking at the sight gauge located on side of gearbox. It should appear half full. Fill as necessary with 80W90 multi-purpose lubricant. Fill by removing **pressure relief valve** located on top front of gearbox. Add oil until it begins to flow from pipe plug hole. Relief valve operation is automatic. Check weekly to ensure it moves freely.

Spindle housing, under mower. Lubricate spindle housings annually or after every 750 hours of operation, whichever occurs first. Use no more than one or two ounces of multi-purpose lubricant. **Do not** force lubricant into grease zerks. Bearings are sealed and do not require much lubrication.

Cleaning mower



DANGER: Before cleaning under mower, switch electric clutch PTO switch to off position. Raise the mower to highest position and engage parking brake lever. Turn off engine. Block mower in its highest position with a short post, box, etc.



WARNING: When possible clean under mower, using a stick or similar instrument making sure that no part of the body, especially arms and hands are under mower.

Daily inspect mower for grass clipping build-ups, and wire and string tangles. Underside of mower housing will collect cut grass and dirt more rapidly on moist days. **Check it frequently** when grass is moist. Otherwise, **clean under housing once a day** for maximum efficiency. A small stick is ideal for cleaning out corners of mower.

Blade maintenance

There are three 21" blades on the mower. Blade maintenance is one of the most important items on the mower in terms of cutting efficiency and safety.

Check blades daily to be sure they are sharp, securely connected to spindle shaft and not cracked or damaged.



DANGER: Never work with blades while engine is running or PTO clutch is engaged. Always put PTO clutch in **off** position, engage parking brake and neutral lock levers and turn engine off. Block up mower when you **must** work under it. Wear gloves when handling blades. **Always check for blade damage** if mower strikes rock, branch or other foreign object during mowing!

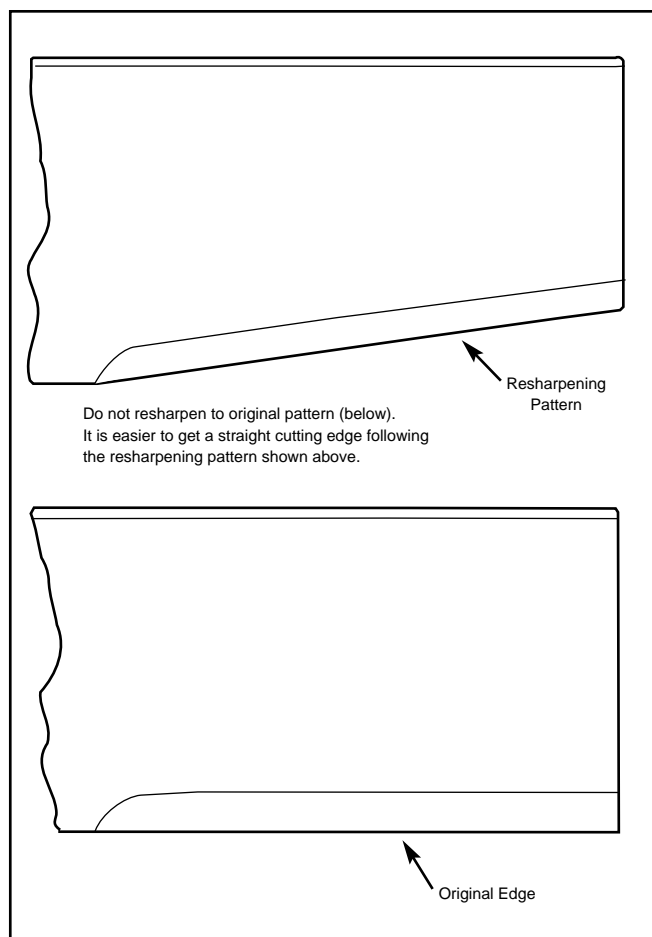


Figure 4-2

To sharpen blades

1. Raise mower and block it up, following normal safety precautions.
2. Remove the 1/2" bolts holding blades to blade saddles. A 3/4" wrench is required to remove blades.
3. Sharpen blades on a grinder. Touch up sharpening may be done with a file (Fig. 4-2).
4. Ensure that blades are balanced before reinstalling. This may be accomplished by putting blade on an inverted line punch (or bolt) and twirling blades.

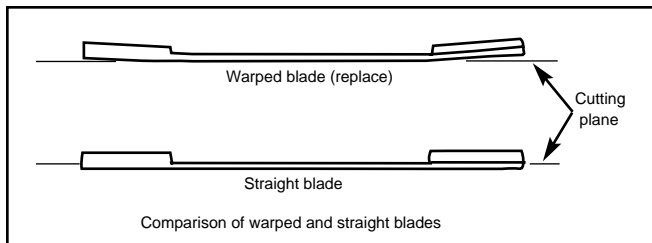


Figure 4-3

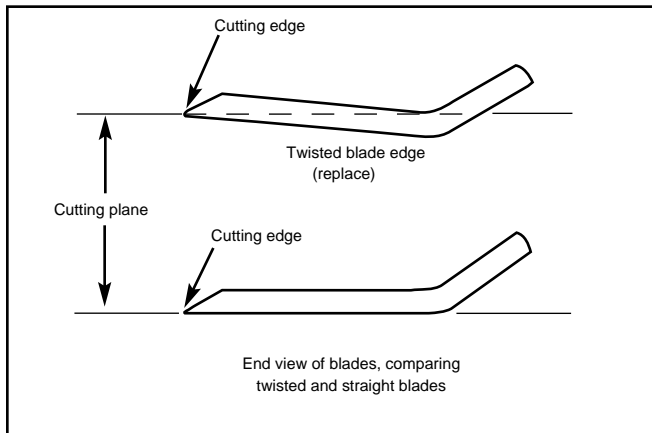


Figure 4-4

Balanced blade should spin evenly and not wobble, lean or tilt.

5. Replace ribbed blades (part number 054627 or 054635) using bolts removed in step 2. Torque 65-75 foot-pounds.



WARNING: When mounting blades, rotate them after installation to ensure blade tips do not touch each other or sides of mower.

Replace blades whenever they are cracked, chipped, warped or otherwise damaged (Figs. 4-3 and 4-4).



WARNING: Do not use any form of heat to straighten a bent blade. Do not weld a cracked or broken blade. **Replace it.**

Belt Maintenance

The blades in the mower are driven by a V-belt. Tension of this belt is maintained by use of a spring loaded idler pulley (Fig. 4-1). If belt becomes slack because of wear, increase belt tension by re-hooking spring to shorter chain length.

Belt should be visually inspected every 100 hours for wear and serviceability. To replace, relieve tension on idler pulley, remove old belt and insert new belt following pattern indicated on maintenance illustration (Fig. 4-1). Following are some maintenance suggestions:

1. Maintaining proper belt tension gives more economical performance and longer belt life. Replacement belts may be seriously damaged if machine is operated before belts are properly adjusted.
2. All V-belts stretch when new. Check belt tension after 1 to 3 hours of running when belts are new.

3. For better belt life and service, keep belts properly adjusted at all times:
 - A loose belt may not slip noticeably, but at the same time it may be wearing belt and pulley groove excessively. (Sluggish performance is typical symptom of this problem.)
 - If belt slips, excessive heat generated will shorten belt life.
 - More belts are ruined by lack of tension than by too much tension.
4. A slight raveling of belt covering does not mean failure. Raveling should be cut off.
5. Never use belt dressings on V-belts.
6. Keep oil and grease away from belts.
7. When replacing belts, check pulley groove condition. A worn groove (notch in shoulder) will cause rapid belt failure. Remove and replace pulley if groove is worn.
8. Never pry belt over edge of pulley, this may cause fibers of belt to break.
9. Sun and weather injure belts, unnecessary exposure to these elements should be avoided whenever possible.

Gauge wheel tension adjustment

Gauge wheel arms are held in place against the gauge wheel arm mount by lock linkage and lock pin (see gauge wheel assembly illustration in parts manual). Tension on arms is controlled by spring washers. There are 13 washers on each arm: 10 are between lock linkage and lock pin and 3 are spares, placed in front of lock linkage as shown on illustration in the parts manual.

If gauge wheels do not stay firmly in place when handle is in down (closed) position:

1. Relieve tension on lock pin and linkage by removing handle, lock linkage and lock pin from gauge wheel arm assembly (see parts manual).
2. Remove cotter pin from lock pin and insert one or two spare washers between lock linkage and lock pin.
3. Reassemble gauge wheel arm by reversing above directions.

NOTE: If more tension is needed, additional spring washers may be purchased from your local Hustler dealer.

Tire care

Visually inspect gauge wheel tires daily to ensure proper inflation. Gauge wheel tire inflation directly affects mower cutting height. Proper pressure is 10-12 psi.

To change a flat, raise mower and remove hair pin in top of gauge wheel assembly. Gauge wheel can then be removed for repair.

End of season storage

Read and follow suggestions in tractor's owner manual. As a minimum:

1. Clean off dirt and debris.
2. Check lubricant level in gearbox.

3. Check for broken, worn parts and replace or repair as necessary.
4. Touch up scrapes with spray paint and lubricate exposed metal to prevent rust and corrosion.
5. Make sure tires are elevated off ground or floor. Do not deflate tires.
6. Store mower in clean, dry area.

TROUBLESHOOTING

The majority of operating problems that occur with a system can be traced to improper adjustments or delayed service. A consistently applied preventive maintenance program, as outlined in the maintenance section of this manual, will prevent many problems. The following chart is designed to help you locate a problem by suggesting probable causes and recommended solution(s).

The suggested remedies should be applied with care. Make certain that the source of a problem is not located someplace other than where the problem exists. A thorough understanding of the system is a must if operating problems

are to be converted satisfactorily. A good rule to follow in locating trouble is to never make more than one adjustment at a time, then locate trouble by a process of elimination. Remember the cause is usually simple, rather than mysterious or complicated. Separate troubleshooting guides are included in **engine** and **tractor** owner's manuals.

Operators handling the same equipment every day soon develop a sense of impending trouble when abnormal operation occurs. Immediate attention to these danger signals can prevent major failures, ensure dependable operation and increase the life of equipment.

SYMPTOMS	PROBABLE CAUSES	SUGGESTED REMEDIES
Tractor is sluggish, veers in one direction, etc.	Numerous	Refer to tractor owner's manual
Uneven grass cut	Gauge wheels incorrectly adjusted	Check and correct gauge
	Blades vary in sharpness	Ensure all blades are properly sharpened
	Deck bent in spindle housing area (caused by striking rocks or other heavy foreign material).	Loosen 4 bolts that hold spindle housing. Place washers or shims between housing and deck to re-level blade.
	Tire inflation varies (tractor or deck)	Check and adjust tire pressure
	Blades improperly installed after sharpening	Ensure blades are properly installed
	Blades not same level (or bent)	Hold a straight edge against bottom of blades to make sure blades are parallel
Mower leaving skip between blades	Blades dull or too short	Check blades sharpness and length
Deck belt shows excessive wear	Deck belt too loose	Tighten belt
Smoke in mower deck (especially while cutting in heavy grass)	Deck belt too loose	Tighten belt
Blades not turning	Deck belt broke or too loose	Check belt
	PTO switch off or shaft improperly connected	Check switch, wiring and shaft connections
	Key sheared in blade saddle	Replace key (see IPL)
Excessive noise	Blades not tight	Tighten blades
	Blades touching sides or each other	Check blade clearance
	Spindle assemblies loose	Tighten bolts on assembly
	Beginning of spindle bearing failure	Replace spindle bearings
	Damaged deck housing	Remove dents, etc.
	Engine or tractor noise	See engine and tractor manual
Poor mowing pattern	Deck not in correct mode	Install or remove dividers and doors as necessary
Center blade cutting smoother than outboard blades	Belt loose	Tighten belt

TECHNICAL SPECIFICATIONS

60" 4-Way Quadcycler Deck

Cutting heights — 1" to 4" in 1/8" increments.

Mower construction — 1/8" welded steel with 3/16" steel spindle supports and 5/16" steel gear box supports.

Mower type — Front mounted floating, PTO drive to gearbox.

Discharge — Side, rear, side and rear, and mulch.

Blades — 3 Heavy-duty, 21" heat treated steel blades, 2 3/4" wide x 3/16" thick.

Gearbox — Spiral bevel, right angle.

Blade Speed — Max. blade tip speed no load — 14,400 ft./min. (at 3,000 rpm).

Mowing capacity — 8-hr. day at 5 mph — 24.4 acres.

Dimensions — Length with tractor — 138".

Width — 62 1/2" (in rear discharge and mulch positions).

With side deflector — 73" wide.

Width of cut — 60 1/2 "

Tire Size (rib tread) — 13.00 x 5.50 x 6.00.

Weight Net — 275 lbs.

Weight (shipping) — 375 lbs.

Trim capability — 9 1/2" offset trim edge on left side.

Spindle assembly — Machined ductile housing, 1" high steel (carbon) shaft, sealed ball bearings, trash guard on saddle.

Meets or Exceeds — ANSI B71.4 specifications where applicable.

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