

# *72" Heavy Duty Dual Trim Deck Owner's Manual*

**HUSTLER<sup>®</sup>**

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*Hustler Turf Equipment*

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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:**

- 72" HDDT, number 923011  
(fits 275 and 4100 tractor)**
- 72" HDDT, number 923078  
(fits 602D tractor)**
- 72" HDDT, number 923243  
(fits 320/340/400/440, 3200/3400  
and 4200/4300/4400/4420/4500/4600  
tractors)**
- 72" HDDT, number 924175  
(fits 640/6400 tractor)**
- 72" HDDT, number 924563  
(fits 320/340/400/440, 3200/3400  
and 4200/4300/4400/4420/4500/4600  
tractors)**
- 72" HDDT, number 924571  
(fits 275 and 4100 tractors)**

## To the new owner

The purpose of this manual is to assist owners and operators in maintaining and operating the Hustler 72" Heavy-Duty Dual Trim 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 are 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 any 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 front right side under pulley gauge arm.

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.**

The Quick Reference Decal, located on the right top of the 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. This decal should not be removed or obliterated. Replace it if it becomes unreadable.

It is the **owner's responsibility** to make certain that the operator reads and understands this manual and the Quick Reference Decals before operating this machine. It is also the **owner's responsibility** to make certain that the operator is a qualified and physically able individual, properly trained in the operation of this equipment.

- ▲ 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.
- ▲ Never attempt to make any adjustments or repairs to the tractor drive system or attachment while the tractor engine is running. Repairs or maintenance requiring engine power should only be performed by trained personnel only.
- ▲ 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. Be sure to disengage deck clutch, place H-bar lever in neutral, lock neutral lock lever, stop tractor engine, engage parking brakes, and remove ignition switch key before leaving operator's platform to inspect damage
- ▲ Never allow persons to operate this machine without proper instruction or allow children to operate machine.
- ▲ Always keep clear of the mower blades and attachments during their operation.
- ▲ Never attempt to make any adjustments or repairs to the mower deck while the tractor engine is running or the deck clutch is engaged. Mower blades cannot be seen and are located very close to the deck housing. Fingers and toes can be cut off instantly.
- ▲ 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.**



**Keep shields or covers in place while machine is in operation. Keep hands away from rotating pulleys and belts.**



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



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



# OPERATION

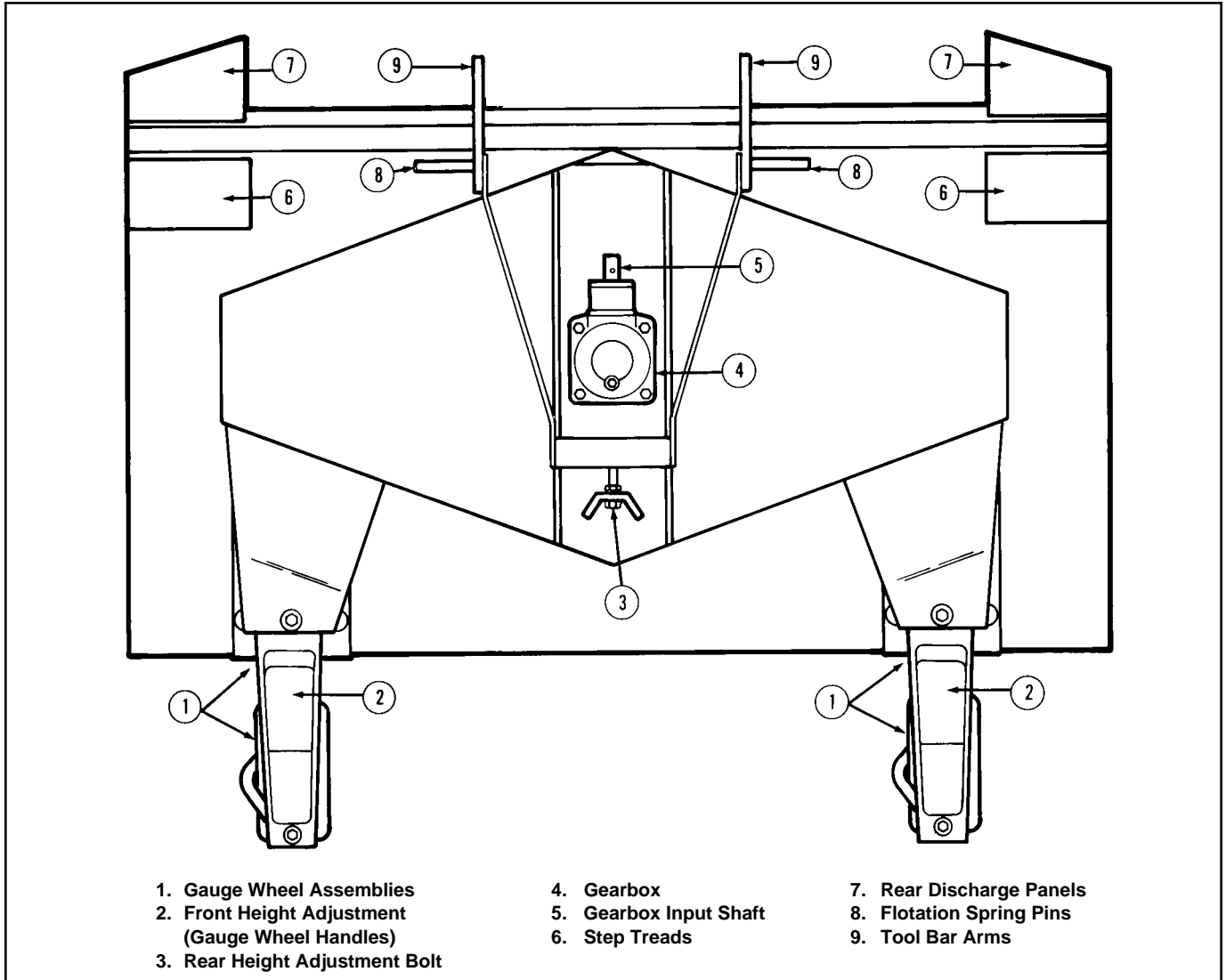


Figure 3-1

## Attaching deck to tractor

To attach the mower deck 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 (Fig. 3-2).
3. Get onto tractor and drive it slowly towards 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 is used on 640/6400 and 602D decks (Models 924175 and 923078). The rear hole is used when the deck is mounted to all other tractors (275,

320/340/400/440, 3200/3400 and 4100/4200/4300/4400/4420/4500/4600).



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

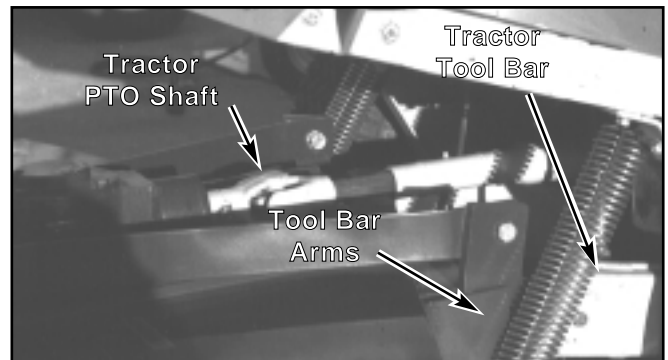
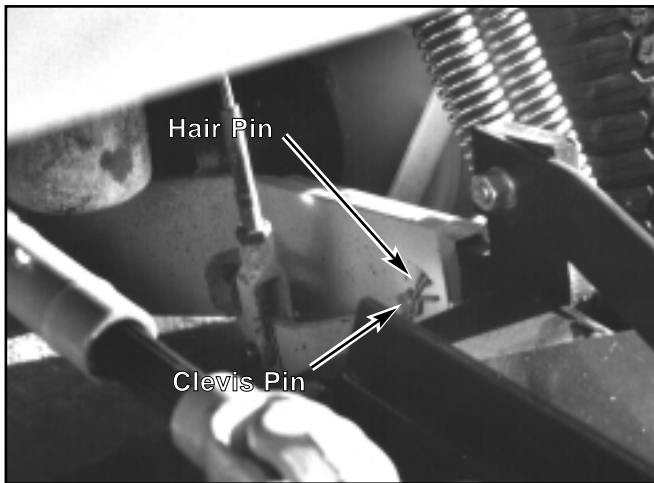
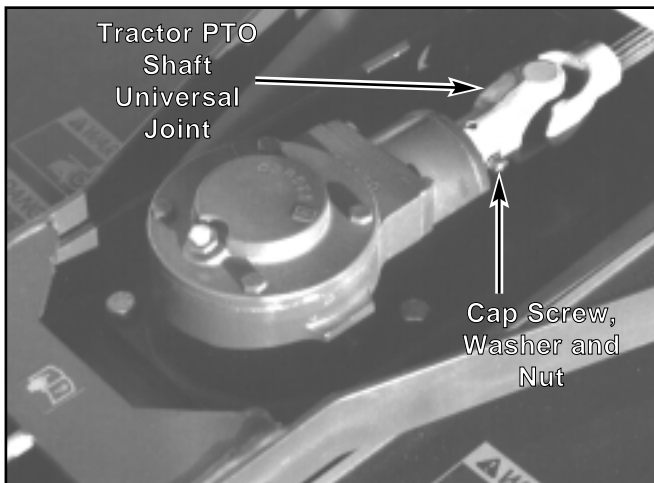


Figure 3-2



**Figure 3-3**



**Figure 3-4**

4. Insert tractor clevis pins through holes in tool bar and tool bar arms and lock clevis pins in place using hair pins provided (Fig. 3-3).
5. 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 (Fig. 3-4).

**NOTE:** The 640/6400 and 602D decks have a drive shaft cover which must be lifted out of the way when the tractor PTO shaft is attached. Be sure to lower and secure cover after attaching PTO shaft to deck.

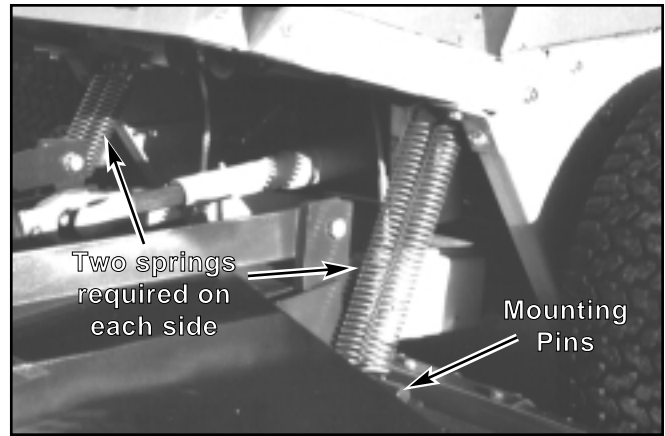
6. Start engine and lift mower to its highest position using tractor attachment lift lever. Stop engine.



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

7. Attach the leveling (flotation) springs (two on each side) to flotation spring mounting pins located on outboard side of mower's tool bar arms (Fig. 3-5).

**NOTE:** Bevel one end of an 18" long piece of 1/2"



**Figure 3-5**

conduit to form a tool useful for sliding tractor springs 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.

**NOTE:** On every model tractor but 402, 640/6400 and 602D, there are forward and rear pins **on the tractors** where the balance springs attach. Normally, the springs are attached to the rear pins. However, when cutting with deck set at a low cutting height, it may be necessary to move the springs to the **forward pins** on the tractor. This will reduce amount of lift from springs. This procedure should only be done if deck exhibits too much lift, that is, it is too bouncy.

**The mower deck is now ready for operation. To remove deck from tractor, reverse above procedure.**

## Cutting height adjustment



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

For best results, make cutting height adjustments on a hard flat surface. The deck can be height adjusted in back as well as in front. For normal cutting, deck should be level to slightly higher in back. Front height adjustment is from 1 to 5" in 1/4" increments. Rear height adjustment is from 1 to 5" in infinitely variable increments.

For a quick check of height adjustments: Measure from level surface to top of deck (as indicated in Fig. 3-7) and subtract 5-1/8 inches (130 mm). The balance will be blade height. To be sure deck is level, measure at front and back on both left and right side of deck.

### To adjust front cutting height

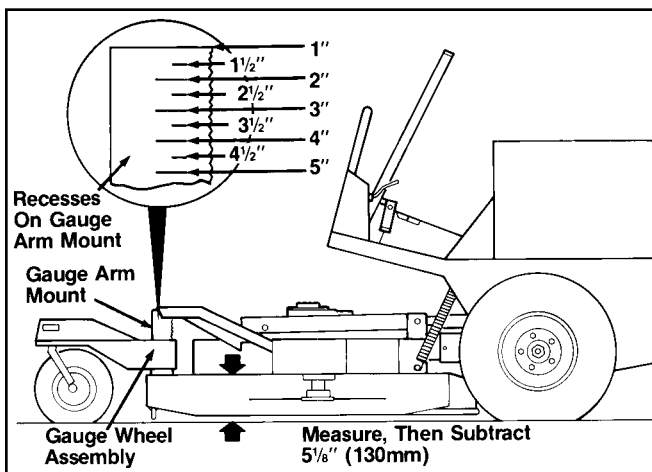
1. Use tractor hydraulic system to lift mower deck off the ground.
2. Turn engine **off**, following normal safety procedures, and block mower unit up for safety.
3. Pull up and forward on gauge wheel handle and lift or lower wheel to desired height (Fig. 3-6). Both gauge wheels should be adjusted to same height for uniform cutting.



**Figure 3-6**

**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" (see Fig. 3-7). Next mark up indicates 4-1/2", the 4" and so forth. Top mark indicates 1-1/2". Move gauge wheel assemblies all the way to top of arms for 1" cutting height.

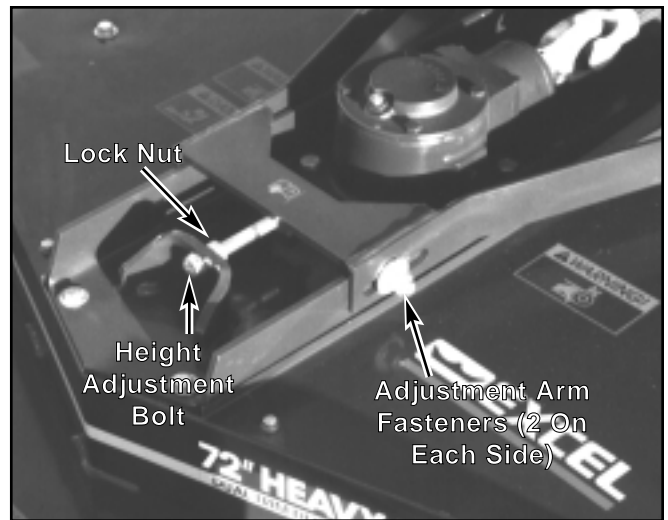
If gauge wheels do not remain securely in place when handles are in closed (down) position, follow procedures outlined in maintenance section of this manual.



**Figure 3-7**

### To adjust rear cutting height

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



**Figure 3-8**

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.

### Leveling deck

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

**NOTE:** Levelness of deck when lifted from surface does not affect levelness of cut in mowing position. Deck will mow (cut) level if it is level when set on level surface.

### 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. **Avoid sudden turns on wet turf.** These can damage turf unnecessarily.
4. **The deck can be lifted** to drive over curbs and so forth by manipulating the tractor's attachment lift lever. See tractor owner's manual for additional

information.

**NOTE:** On 640/6400 and 602D model tractors at higher mowing heights (4-5"), the deck may not have enough lift to satisfy some applications. Amount of lift may be increased by ensuring that bolts which attach leveling chains to **tractor** tool bar arms are in lowest possible adjustment holes (refer to "Leveling attachments" section of tractor manual). If additional lift is needed, move bolts up one link in the leveling chains.

5. Always check area to be mown for rocks and other debris before mowing and remove them from operator's path.

## Positioning gauge wheel

There are three sets of bolt holes at bottom of gauge wheel arm. Using these holes, gauge wheels may be turned towards center of mower - in one of two "trim" positions - to mow under fences or park benches or over curbs and ponds.

**Normal mowing position** is with gauge wheels in outer position. This gives greatest amount of support to sides of mowing deck and helps prevent scalping. In tall grass, this outer position will keep tire from "laying down" grass, causing skipping. **Center position** is 4" closer to center of mowing deck than normal; **inner position** is an additional 4" closer to center (Fig. 3-9). To adjust:

1. **Lift** mower four or five inches using tractor hydraulic system. engage parking brake and neutral lock levers, stop engine, and block deck up for safety purposes.

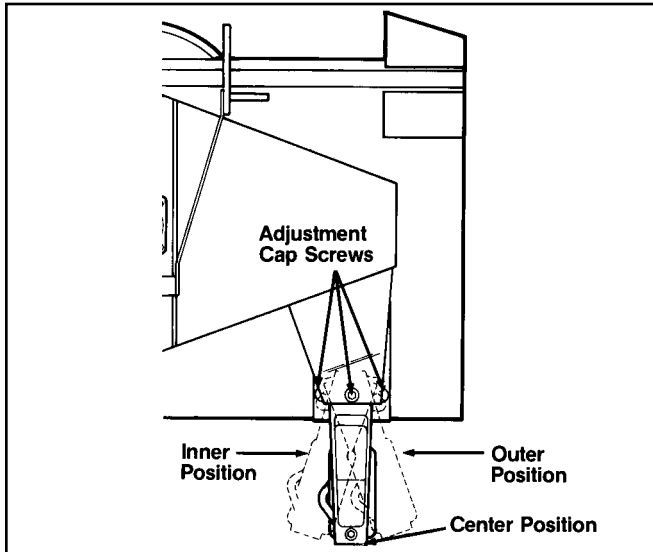


Figure 3-9

2. **Loosen** 1/2" cap screw on top of gauge arm mount and remove the two 1/2" cap screws at bottom of gauge arm mount.
3. **Reposition** gauge arm mount by turning it to left or right as desired, then reinsert and tighten all cap screws. This completes adjustment.

**NOTE:** There is a one-inch slot under the 1/2" cap screw on top of **each** gauge arm mount. This one-inch slot is used when matching height between left and right side gauge wheel arms. With both gauge wheels in identical notches (see section on front height adjustment), minor leveling can be accomplished by loosening and moving the 1/2" cap screw on either right or left gauge arm mount. Move cap screw forward to raise cutting height or backwards to lower cutting height. Measure deck height after adjustment to ensure deck is level.

## Transporting

To protect blades, a loading bar should be used when transporting the mower.

## Tie-down brackets

When transporting unit, secure to tractor or trailer using tie-down brackets (Fig. 3-10). Fastening to any other parts of the mower deck when transporting may cause damage.

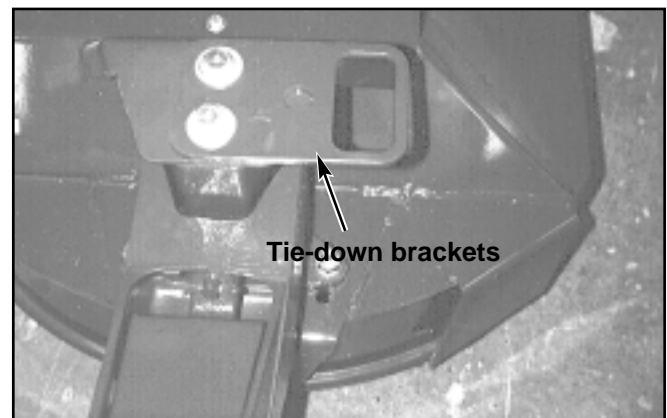
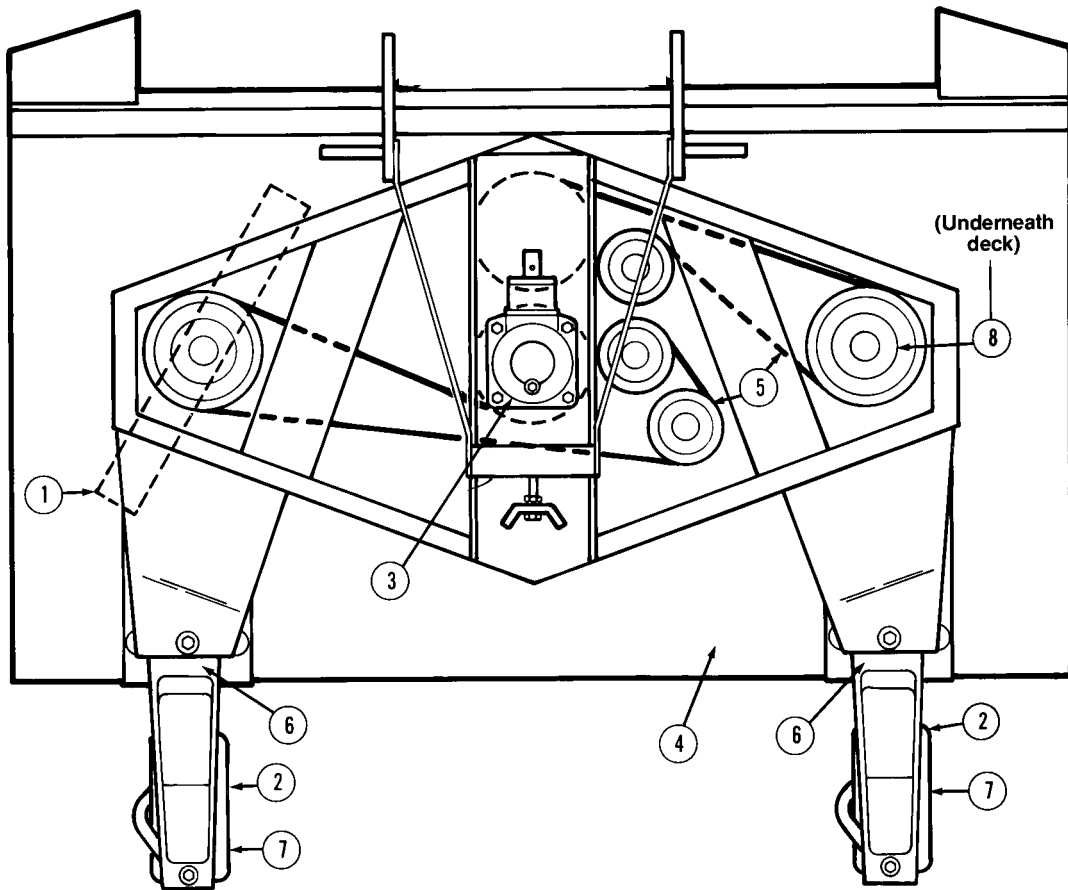


Figure 3-10

# MAINTENANCE



ITEM NO.	DESCRIPTION	CHECK OR MAINTAIN
1.	Blades (3) – sharp and securely fastened	Daily
2.	Tires – properly inflated	Daily
3.	Gearbox – sufficient lubrication*	Daily
4.	Clean clippings from under side of deck housing. Clean more often when grass is moist.	Daily
5.	Belts – proper tension, belts serviceable	Every 100 hrs.
6.	Proper tension on gauge wheel arms	Every 150 hrs.
7.	Gauge wheel bearings – repack	Annually or every 750 hrs.
8.	Spindle housing (3) – Lubricate using all purpose lubricant. <b>Do not</b> force lubricant into grease zerks.	Annually or every 750 hrs.

\*80W-90 Multipurpose lubricant

Figure 4-1

## Introduction

This section gives information needed to adjust and service various components on the 72" Heavy-Duty Dual Trim mower. The key to long machine life and safe operation is a planned, consistently applied maintenance program. Following suggestions in this section will save many dollars in repair costs.



**DANGER: DO NOT** have tractor engine running when servicing or making adjustment to mower deck. 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 24" mower blades are indirectly driven by the tractor engine: Power flows through the electric (or manual) clutch, PTO drive shaft, right angle gearbox, and finally through a V-belt drive system. The V-belts drive three pulleys; each pulley is on top of a spindle assembly. The pulleys drive 1" spindle shafts which in turn drive blade saddles. A 24" blade is affixed to each blade saddle by a 1/2" bolt. Height adjustment is accomplished by two adjustable gauge wheels on front of mower deck and by changing the angle of tool bar arms on rear of mower deck.

## Lubrication

**Check gearbox lubricant daily.** Check gearbox on deck models 923011, 923243, 924563, and 924571 by looking at the sight gauge located on side of gearbox. It should appear half full.

Check gearbox on deck models 923078 and 924175 by removing one of the 1/4" pipe plugs located on either side of gearbox when mounted to a 640/6400 tractor.

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.

There is a grease zerk located on front of each spindle housing, under mower deck. **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 deck



**DANGER:** Before cleaning under deck, switch electric clutch PTO switch to **off** position. Raise the deck to highest position and engage neutral lock levers and parking brake lever. Turn off engine and remove ignition key. Block deck in its highest position with a short post, jack stand, etc.



**DANGER:** Clean under deck, using a stick or similar instrument making sure that no part of the body, especially arms and hands are under mower deck.

**Daily inspect** deck for grass clipping buildups, and wire and string tangles. Underside of deck 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 of corners of deck.

## Blade maintenance

There are three 24" blades on the deck. Blade maintenance is one of the most important items on the deck in terms of cutting efficiency and safety.

Check the mower blades daily, they are the key to power efficiency and well groomed turf. Keep them sharp, a dull blade will tear the grass rather than cut, leaving a brown, ragged top on the grass within a few hours. A dull blade also requires more power from the engine.



**WARNING:** 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 deck 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!

The right blade on the deck rotates clockwise, the left and center blades rotate counterclockwise.

## Blade Installation

When replacing ribbed blades (part number 054627 or 054635), torque to 50-55 foot-pounds. Flat blades (part number 754853 or 754879) require use of a cupped washer (part number 752386) and a longer bolt (part number

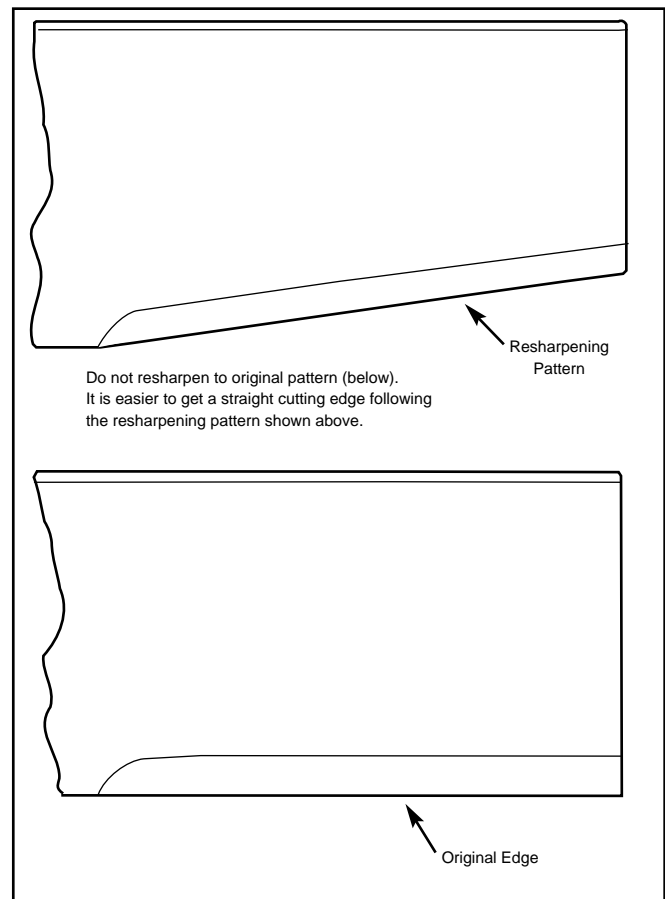


Figure 4-2

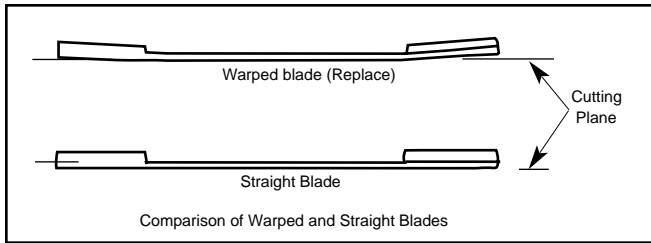


Figure 4-3

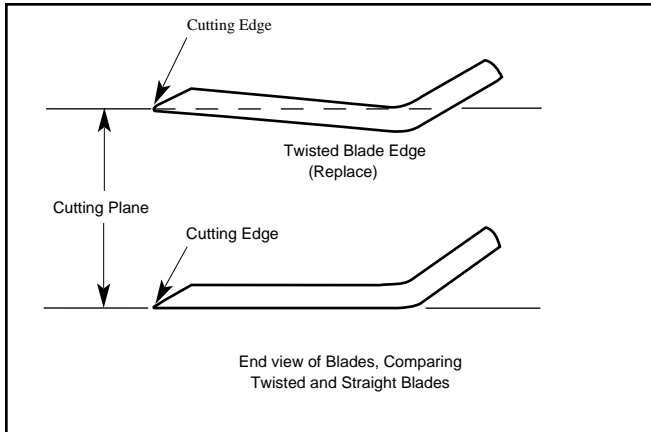


Figure 4-4

753798). Torque 65-75 foot-pounds.

## Blade removal and sharpening

Use a 3/4" wrench to remove the 1/2" stud bolt holding blade to spindle saddle from underneath.

Sharpen the blades on a grinder following pattern as shown (Fig. 4-2). Touch-up sharpening can be done with a file.

Check the blades for balance following grinding. A commercial balancing tool is available through most hardware supply stores, or balancing can be done by placing the blade on an inverted line punch or 1/2" bolt.

Blade should not lean or tilt. Spin the blade slowly, blade should not wobble. If blade is out of balance, true it up before reinstalling.

Lay the blade on a flat surface and check for distortion (Figs. 4-3 and 4-4). Replace any distorted blade.

Do not reuse spindle bolts which have stripped, worn or undercut threads. Torque bolts per the Blade Installation section of this manual.

Always check for clearance following blade replacement. Before starting mower, rotate blade assemblies manually to make sure tips do not come in contact with one another or metal deck panels.



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

**Replace blades** whenever they are cracked, chipped, warped or otherwise damaged.

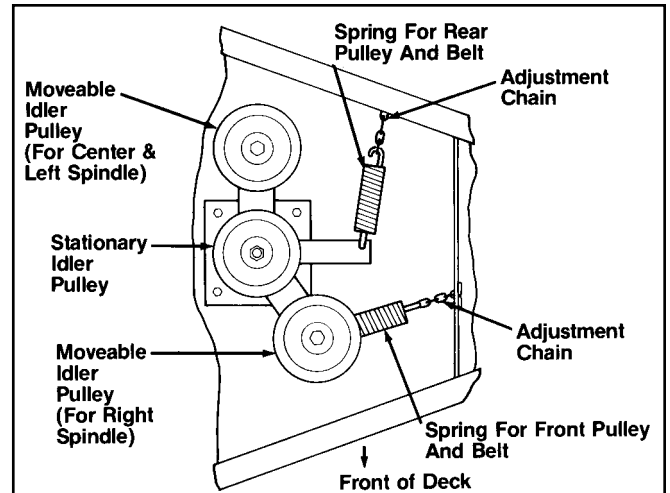


Figure 4-5

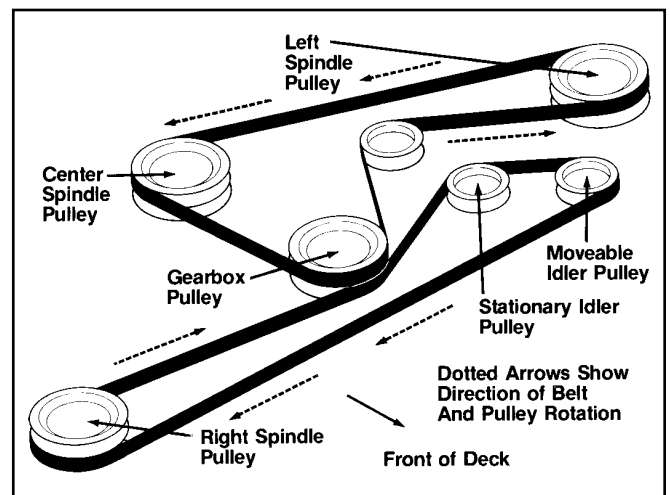


Figure 4-6



**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 deck are driven by V-belts. Tension of belts is maintained by use of spring loaded idler pulleys. Idler pulleys are located under deck cover on left side of deck (Fig. 4-5). If a belt becomes slack because of wear, increase belt tension by rehooking spring to shorter chain length. The rear idler pulley controls the tension on the belt for the left and center blades. The front idler pulley controls tension on the belt for the right blade.

Belt should be visually inspected every 100 hours or so for wear and serviceability. To replace a belt, relieve tension on appropriate idler pulley, remove old belt and insert new belt following pattern indicated (Fig. 4-6). The decks, models 923011, 924571, 923243 and 924563, have double pulleys over blade spindle shafts. The belt for the right blade goes on the lower pulley. The belt for the center and left blades goes on the upper pulleys. Belt routing on Models 924175 (640), 625040 (6400), and 923078 (602D) decks are same, except there are single, not double, pulleys

over blade spindles.

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 the belt and pulley groove excessively. (Sluggish performance is typical symptom of this problem.)
  - If a 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.

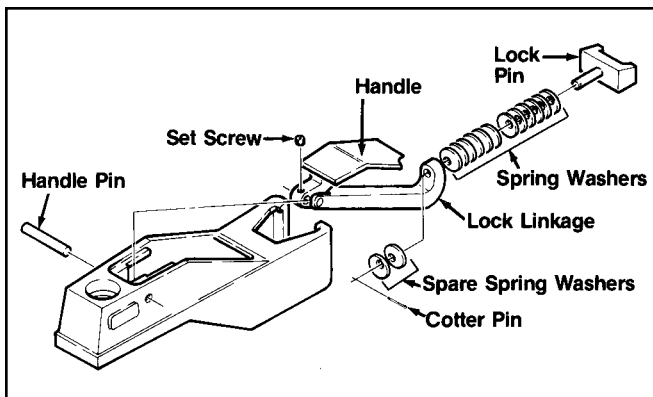


Figure 4-7

## Gauge wheel tension adjustment

Gauge wheel arms are held in place against the gauge wheel arm mount by lock linkage and lock pin. Tension on arms is controlled by spring washers. There are 14 washers on each arm: 12 are between lock linkage and lock pin and 2 are spares, placed in front of lock linkage as shown on illustration (Fig. 4-7).

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.
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 hardware dealer.

## Tire care

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

To change a flat, raise deck and remove 1/2" bolt on top of gauge wheel assembly. Gauge wheel can then be removed for repair.

## End of season storage

Read and follow suggestions in **tractor** owner's 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 deck 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
<b>Tractor is sluggish, veers in one direction, etc.</b>	Numerous	Refer to tractor owner's manual
<b>Uneven Grass Cut</b>	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)  Rear height adjustment shims improperly adjusted	Hold a straight edge against bottom of blades to make sure blades are parallel Check and correct adjustment of rear shims
<b>Mower leaving skip between blades</b>	Blades dull or too short	Check blades sharpness and length
	Foreign objects lodged under deck (twigs, branches, rags, excessive clippings, etc.)	Clean mower deck housing
<b>Deck belt shows excessive wear</b>	Deck belt too loose	Tighten belt
<b>Smoke in mower deck (especially while cutting in heavy grass)</b>	Deck belt too loose	Tighten belt
<b>Blades not turning</b>  <b>Excessive noise</b>	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 parts manual)
	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 Damaged deck housing Engine or tractor noise	Replace spindle bearings  Remove dents, etc. See engine and tractor manual
<b>Center blade cutting smoother than outboard blades</b>	Belt loose	Tighten belt



# TECHNICAL SPECIFICATIONS

## 72" Heavy Duty Dual Trim Deck

**Cutting heights** — 1" to 5" in 1/4" increments.

**Mower construction** — 1/8" (0.3 cm) (11 ga. steel) and 3/16" (0.5 cm) welded steel with 3/16" (0.5 cm) spindle supports and 5/16" (0.8 cm) gearbox mount.

**Mower type** — Front mounted, floating, PTO drive to gearbox, belt drive from gearbox to spindles.

**Discharge** — Rear.

**Blades** — 3 Heavy-duty, 24" (61 cm) heat treated steel blades, 2 3/4" (7 cm) wide x .205" (.81 cm) thick.

**Gearbox** — Spiral bevel, right angle.

**Blade Speed** — Max. blade tip speed no load — 15,280 ft./min (4,657 m/min.).

**Gauge wheels** — 2-ductile iron arm assemblies with two sealed ball bearings. Rib tread pneumatic tires (13.00 x 5.50 x 6.00). Over-center lock on height adjustments.

**Mowing capacity** — 8-hr. day at 5 mph (8 kph) — 28.0 acres.

**Dimensions** — Length with tractor — 139" (353 cm)

Width — 72" (183 cm)

**Width of cut** — 69 1/2" (177 cm)

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

**Weight** Net — 570 lbs. (259 kg) net — 923011,  
923078, 923243, 924563, 924571

700 lbs. (318 kg) shipping — 923011,

923078, 923243, 924563, 924571

720 lbs. (327 kg) net — 924175,

850 lbs. (386 kg) shipping — 924175,

**Trim capability** — 9.75" (25 cm) offset both sides

**Spindle assembly** — Machined ductile housing, 1" (2.5 cm) high steel (carbon) shaft, sealed ball bearings, trash guard on saddle.

**Drive** — 2BB section V-belts drive right blade clockwise and center and left blade counter-clockwise.

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



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